## VIRGINIA STATE UNIVERSITY



## UNDERGRADUATE CATALOG 2006-2008

This catalog describes academic courses, programs, and standards for student progress and retention at time of publication. However, the provisions of this publication are not to be regarded as an irrevocable contract between the student and Virginia State University. There are established procedures for making changes which protect the institution's right to make changes that are deemed appropriate. A change of curriculum or graduation requirement is not made retroactive unless the alteration is to the student's advantage and can be accommodated within the span of years normally required for graduation.

## VIRGINIA STATE UNIVERSITY



Virginia State University is committed to a policy of equal opportunity in education and employment without regard to race, creed, sex or national origin. There are affirmative programs at VSU that support the commitment to this democratic approach to public education.

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Virginia State University
Petersburg, Virginia 23806
FALL SEMESTER, 2006

## AUGUST

| Sunday | 13 | Residence Halls Open at 8:00 A.M. for New Students |
| :--- | :--- | :--- |
| Monday | $\mathbf{1 4}$ | University Conference and Faculty Planning Workshop |
| Tuesday | 15 | Residence Halls Open at 8:00 A.M. for Continuing Students |
| Tuesday | $\mathbf{1 5}$ | Faculty Planning Day |
| Wednesday-Friday | $6-18$ | Undergraduate School/Graduate School/Continuing Education |
| Monday | $\mathbf{2 1}$ | University Classes Begin |
| Monday | 21 | Late Validation Begins (Late fee is in effect) |
| Monday | 21 | Term I, Off-Campus Eight Week Classes Begin |
| Friday | $\mathbf{2 5}$ | Late Validation Ends |
| Monday | $\mathbf{2 8}$ | Last Day to Add Courses (All classes) |

## SEPTEMBER

Monday
Monday
Friday
Friday
4 LABOR DAY HOLIDAY (University Closed)
11 Formal Opening Convocation
22 Last Day to Withdraw from an Eight Week Class (Grade will be registered as "W")
29 Last Day to file December Baccalaureate Application
OCTOBER

| Monday-Saturday | $9-14$ | Advisory Examination Period |
| :--- | :--- | :--- |
| Saturday | 14 | Term I, Off-Campus Eight Week Classes End |
| Monday | 16 | Term II, Off-Campus Eight Week Classes Begin |
| Monday-Tuesday | $\mathbf{1 6 - 1 7}$ | FALL BREAK (No Fall Break Eight Week Classes) |
| Friday | 20 | Advisory Grades are due in System by Faculty - (5:00 P.M.) |
| Friday | $\mathbf{2 0}$ | Term II, Last Day to Add Courses - Eight Week Classes |
| Monday | 30 | Curriculum Sheet Update/Schedule Planning/Course |
| Monday | $\mathbf{3 0}$ | Registration Begins Spring Semester, 2007 |


| University Calendar |  |  |
| :---: | :---: | :---: |
| NOVEMBER |  |  |
| Friday | 3 | Last Day to Withdraw Term II, Eight Week Classes (Grade |
| Friday | 3 | Last Day to Withdraw from Class (Grade will be registered as "W") |
| Tuesday | 21 | Registration Ends Spring Semester, 2007 |
| Wednesday | 22 | No Classes |
| Thursday-Sunday | 23-26 | THANKSGIVING HOLIDAYS (University Closed) |
| DECEMBER |  |  |
| Monday | 4 | University Classes End |
| Tuesday | 5 | University Reading Day |
| Wednesday-Saturday | 6-10 | Final Examination Period |
| Saturday | 9 | Term II, Off-Campus Eight Week Classes End |
| Tuesday | 12 | Senior Grades are due in the System - (9:00 A.M.) |
| Wednesday | 13 | Semester Grades are due in System by Faculty - (5:00 P.M.) |
| Friday | 15 | Commencement Activities |
| Saturday | 16 | WINTER COMMENCEMENT - 10:00 A.M. |

SPRING SEMESTER, 2007

## JANUARY

| Sunday | 7 | Residence Halls Open at 8:00 A.M. for New Students |
| :--- | ---: | :--- |
| Monday | $\mathbf{8}$ | University Conference and Faculty Planning Workshop |
| Tuesday | 9 | Residence Halls Open at 8:00 A.M. for Continuing Students |
| Tuesday | $\mathbf{9}$ | Faculty Planning Day <br> Wednesday-Friday <br>  <br>  <br> Monday -12 |
| Undergraduate School/Graduate School/Continuing Education |  |  |
| Tuesday | $\mathbf{1 5}$ | Registration |
| MARTIN LUTHER KING, JR. HOLIDAY (University Closed) |  |  |
| Tuesday | $\mathbf{1 6}$ | University Classes Begin |
| Tuesday | 16 | Term I, Off-Campus Eight Week Classes Begin |
| Friday | 16 | Late Validation Begins (Late Fee in Effect) |
| Monday | $\mathbf{1 9}$ | Late Validation Ends |
|  | $\mathbf{2 2}$ | Last Day to Add a Course (All classes) |
| FEBRUARY |  |  |


| Friday | $\mathbf{1 6}$ | Term I, Last Day to Withdraw Eight Week Classes (Grade <br> will be registered as "W") |
| :--- | :--- | :--- |
| Wednesday | 28 | Last Day to File May Baccalaureate Application |

## MARCH

| Monday | 5 | Advisory Examination Period Begins |
| :--- | :--- | :--- |
| Tuesday | $\mathbf{6}$ | FOUNDER'S DAY |
| Saturday | 10 | Advisory Examination Period Ends |
| Saturday | 10 | Term I, Off-Campus Eight Week Classes End |
| Sunday-Sunday | $\mathbf{1 1 - 1 8}$ | SPRING BREAK (No Spring Break Eight Week Classes) |
| Monday | 12 | Term II, Off-Campus Eight Week Classes Begin |
| Friday | $\mathbf{1 6}$ | Term II, Last Day to Add Courses-Eight Week Classes |
| Wednesday | 21 | Advisory Grades are due in System by Faculty - (5:00 P.M.) |
| Monday | 26 | Curriculum Sheet Update/Schedule Planning/Course |
| Monday | $\mathbf{2 6}$ | Registration Begins Fall Semester, 2007 <br> Tuesday |
| 27 | Completed Advisory Grade Rosters are due in Registrar's |  |

APRIL
Monday
Monday-Friday
Friday

## Friday

Friday
Monday
Monday
2 Academic Honors Exercise
2-6 Honors Week Activities
6 Term II, Last Day to Withdraw from Class (Grade will be registered as "W")
6 Last Day to Withdraw from a Class (Grade will be registered as "W")

MAY
Tuesday
Wednesday
Saturday
Saturday
Tuesday
Wednesday
Friday-Sunday
Saturday
Sunday
1 University Reading Day
2 Final Examination Period Begins
$5 \quad$ Final Examination Period Ends
5 Term II, Off-Campus Eight Week Classes End
8 Senior Grades are due in System - (9:00 A.M.)
9 Semester Grades are due in System by Faculty - (5:00 P.M.)
11-13 Commencement Activities
12 ROTC Commissioning Exercises
13 COMMENCEMENT EXERCISES (9:00 A.M.)

SUMMER SESSIONS, 2007
MAY

| Friday | 18 | Registration for All Summer Session |
| :--- | :--- | :--- |
| Monday | $\mathbf{2 1}$ | Session I Begins (4 $1 / 2$ Weeks) |
| Monday | $\mathbf{2 1}$ | Off-Campus Eight-Week Classes Begin |
| Monday | $\mathbf{2 1}$ | Ed. D. Classes Begin (5 Weeks) |
| Tuesday | 22 | Last Day to Add/Drop Classes - Session I |
| Tuesday | 22 | Last Day to Add Off-Campus Classes |
| Monday | $\mathbf{2 8}$ | MEMORIAL DAY (No Classes) |

JUNE

| Tuesday | 12 | Last Day to Withdraw Session I (4 $1 / 2$ Weeks) (Grade "W"will be registered) |
| :---: | :---: | :---: |
| Tuesday | 19 | Last Day to Withdraw Session I-Ed. D. Classes (Grade "W" will be registered) |
| Thursday | 21 | Session I Ends (4 $1 / 2$ weeks) |
| Thursday | 21 | Final Examination Period Session I |
| Friday | 22 | Registration All Session II Sections |
| Saturday | 23 | Session I-Ed. D. Classes End (5 Weeks) |
| Monday | 25 | Session II Begins (4 ½ Weeks) |
| Tuesday | 26 | Last Day to Add/Drop Classes - Session II |
| Tuesday | 26 | Session I grades are due in system (5:00 P.M.) |
| Wednesday | 27 | Last Day to Withdraw Off-Campus Classes (Grade "W" will be registered) |
| JULY |  |  |
| Wednesday | 4 | INDEPENDENCE DAY (No Classes) |
| Thursday | 5 | Session II-Ed. D. Classes Begin (5 Weeks) |
| Tuesday | 10 | Last Day to Withdraw Session II (4 $1 / 2$ Weeks) Grade "W" will be recorded) |
| Tuesday | 17 | Last Day to Withdraw Ed. D. Classes (Grade of "W" will be registered) |
| Tuesday | 17 | Off-Campus Classes End |
| Thursday | 26 | Session II ( $41 / 2$ Weeks) Classes End |
| Thursday | 26 | Final Examination Session II (4 $1 / 2$ Weeks) |
| Tuesday | 31 | Session II grades are due in the system (12:00 Noon) |

FALL SEMESTER, 2007

## AUGUST

| Saturday | 4 | Session II-Ed. D. Classes End |
| :--- | :--- | :--- |
| Sunday | 12 | Residence Halls Open at 8:00 A.M. for New Students |
| Monday | $\mathbf{1 3}$ | University Conference and Faculty Planning Workshop |
| Tuesday | 14 | Residence Halls Open at 8:00 A.M. for Continuing Students |
| Tuesday | $\mathbf{1 4}$ | Faculty Planning Day |
| Wednesday-Friday | $15-17$ | Undergraduate Registration/Graduate School/Continuing <br>  <br> Monday |
| Education Registration |  |  |
| Monday | $\mathbf{2 0}$ | University Classes Begin |
| Monday | 20 | Late Validation Begins (Late fee is in effect) |
| Friday | 20 | Term I, Off-Campus Eight Week Classes Begin |
| Monday | $\mathbf{2 4}$ | Late Validation Ends |
|  | $\mathbf{2 7}$ | Last Day to Add Courses (All Classes) |

SEPTEMBER

| Monday | 3 | LABOR DAY HOLIDAY (University Closed) |
| :--- | :--- | :--- |
| Monday | 10 | Formal Opening Convocation |
| Friday | 21 | Term I, Last Day to Withdraw from Classes (Grade of <br> "W" will be registered) |
| Friday | 28 | Last Day to file December Baccalaureate Application |

## OCTOBER

| Monday-Saturday | $8-13$ | Advisory Examination Period |
| :--- | :--- | :--- |
| Saturday | 13 | Term I, Off-Campus Eight Week Classes End |
| Monday | 15 | Term II, Off-Campus Eight Week Classes Begin |
| Monday-Tuesday | $\mathbf{1 5 - 1 6}$ | FALL BREAK (No Fall Break Eight-Week Classes) |
| Friday | 19 | Advisory Grades are due in System by Faculty - (5:00 P.M.) |
| Friday | $\mathbf{1 9}$ | Term II, Last Day to Add Classes |
| Monday | 29 | Curriculum Sheet Update/Schedule Planning/Course Scheduling |
| Monday | $\mathbf{2 9}$ | Registration Begins for Spring Semester, 2008 |

## NOVEMBER

| Friday | 2 | Last Day to Withdraw from Class (Grade will be <br> registered as "W") <br> Term II, Last Day to Withdraw from Class (Grade will be <br> registered as "W") |
| :--- | :--- | :--- |
| Friday | 2 | Registration Ends for Spring Semester, 2008 |
| Tuesday | 20 | (G) |


|  | University Calendar |  |
| :--- | :--- | :--- |
| Wednesday | $\mathbf{2 1}$ | No Classes |
| Thursday-Sunday | $\mathbf{2 2 - 2 5}$ | THANKSGIVING HOLIDAYS (University Closed) |
|  |  |  |
| DECEMBER |  |  |
|  |  |  |
| Monday | $\mathbf{3}$ | University Classes End |
| Tuesday | $\mathbf{4}$ | University Reading Day |
| Wednesday-Saturday | $\mathbf{5 - 8}$ | Final Examination Period |
| Saturday | 8 | Term II, Off-Campus Eight Week Classes End |
| Tuesday | 11 | Senior Grades are due in the System - (9:00 A.M.) |
| Wednesday | 12 | Semester Grades are due in System by Faculty - (5:00 P.M.) |
| Friday | 14 | Commencement Activities |
| Saturday | $\mathbf{1 5}$ | WINTER COMMENCEMENT - 10:00 A.M. |

SPRING SEMESTER, 2008

## JANUARY

\(\left.$$
\begin{array}{lll}\text { Sunday } & 6 & \text { Residence Halls Open at 8:00 A.M. for New Students } \\
\text { Monday } & 7 & \begin{array}{l}\text { University Conference and Faculty Planning Workshop } \\
\text { Tuesday }\end{array} \\
\begin{array}{l}\text { Tuesday } \\
\text { Wednesday-Friday }\end{array}
$$ \& 8 \& \mathbf{8} <br>
Residence Halls Open at 8:00 A.M. for Continuing Students <br>

Faculty Planning Day\end{array}\right]\)| Undergraduate School/Graduate School/Continuing Education |
| :--- |
| Registration |
| MARTIN LUTHER KING, JR. HOLIDAY |
| Monday |


| Sunday-Sunday | $\mathbf{9 - 1 6}$ | SPRING BREAK (No Spring Break Eight Week Classes) <br> Monday |
| :--- | :--- | :--- |
| Friday | 10 | Term II, Off-Campus Eight Week Classes Begin |
| Wednesday | $\mathbf{1 4}$ | Term II, Last Day to Add/Drop a Course |
| Monday |  |  |$\quad 19$ Advisory Grades are due in System by Faculty - (5:00 P.M.)

SUMMER SESSIONS, 2008
MAY

| Friday | 16 | Registration for All Summer Sessions |
| :--- | :--- | :--- |
| Monday | $\mathbf{1 9}$ | Session I Begins (4 $1 / 2$ Weeks) |
| Monday | $\mathbf{1 9}$ | Off-Campus Eight Week Classes Begin |
| Monday | $\mathbf{1 9}$ | Ed. D. Classes Begin (5 Weeks) |
| Tuesday | 20 | Last Day to Add/Drop Classes for Session I |


| Tuesday | 20 | Last Day to Add Off-Campus Classes |
| :---: | :---: | :---: |
| Monday | 26 | MEMORIAL DAY (No Classes) |
| JUNE |  |  |
| Tuesday | 10 | Last Day to Withdraw Session I (4 ½ Weeks) (Grade "W" will be recorded) |
| Tuesday | 17 | Last Day to Withdraw Session I-Ed. D. Classes (5 Weeks) (Grade "W" will be recorded) |
| Thursday | 19 | Session I Ends (4 ½ Weeks) |
| Thursday | 19 | Final Examination for Session I |
| Friday | 20 | Registration for All Session II Sections |
| Monday | 23 | Session II Begins (4 ½ Weeks) |
| Tuesday | 24 | Last Day to Add/Drop Classes for Session II |
| Tuesday | 24 | Session I grades are due in system (5:00 P.M.) |
| Saturday | 28 | Session I-Ed. D. Classes End (5 Weeks) |
| JULY |  |  |
| Wednesday | 2 | Last Day to Withdraw Off-Campus Classes (Grade "W" will be recorded) |
| Friday | 4 | INDEPENDENCE DAY (No Classes) |
| Monday | 7 | Section II-Ed. D. Classes Begin (5 Weeks) |
| Tuesday | 8 | Last Day to Withdraw from Session II (4 ½ Weeks) (Grade "W" will be recorded) |
| Tuesday | 15 | Last Day to Withdraw from Session II-Ed. D Classes (Grade "W" will be recorded) |
| Tuesday | 15 | Off-Campus Eight-Week Classes End |
| Thursday | 24 | Session II ( $41 / 2$ Weeks) Classes End |
| Thursday | 24 | Final Examination for Session II (4 $1 \times 2$ Weeks) |
| Tuesday | 29 | Session II grades are due in the system (12:00 Noon) |
| AUGUST |  |  |
| Saturday | 2 | Session II-Ed. D. Classes End |

## PRESIDENTS

| John Mercer Langston, LL.D | Walker Henry Quarles, Jr., LL.D. |
| :--- | :--- |
| 1886-1887 | 1974-1975 |
| James Hugo Johnston, Ph.D | Walker Henry Quarles, Jr., LL.D. |
| 1887-1914 | 1974-1975 |
| John Manuel Gandy, LL.D | William Everett Terry, B.A. <br> 1914-1942 <br> (President Emeritus 1942-1947) |
| January-June 1976 (Interim Chief <br> Administration) |  |
| Luther Hilton Foster, LL.D <br> 1942-1949 | Thomas M. Law, E.D., L.H.D. |
| James Hugo Johnston, Ph.D | 1976-1982 |
| 1949-1950 (Acting) | Interis E. Bryan, Ph.D |
|  | $1982-1983$ |
| Robert Prentiss Daniel, PhD., LL.D | Wilbert Greenfield, Ph.D |
| 1950-1968 | 1983-1988 |
| Walker Henry Quarles, Jr., LL.D. | Wesley Cornelious McClure, Ed.D. |
| 1968 (Acting) | 1988-1992 |
| James Franklin Tucker, Ph.D | Nathaniel Pollard, Jr. Ph.D |
| 1968-1970 | 1992-1993 |
| Walker Henry Quarles, Jr., LL.D. | Eddie Nathaniel Moore, Jr. LL.D. |
| 1970 | 1993- |
| Wendell Phillips Russell, Ed.D. |  |
| 1970-1974 |  |

## BOARD OF VISITORS

Dr. Harold T. Green, Rector Midlothian, Virginia
Dr. George M. Hampton, Vice Rector* Dale City, Virginia
Ms. Katherine E. Busser Harrisonburg, Virginia
Dr. Daryl C. Dance* Richmond, Virginia
Mr. Earnest J. Edwards Keswick, Virginia
Mrs. Daun S. Hester* Norfolk, Virginia
Mr. Richard L. Legon ..... Washington, DC
Mr. James H. Starkey Richmond, Virginia
Dr. Albert W. Thweatt* Disputanta, Virginia
Mr. Spencer L. Timm
$\qquad$Dr. William E. Ward
$\qquad$ Chesapeake, VirginiaDr. Donna E. Crawford
$\qquad$Petersburg, VirginiaMr. Wesley Harris
$\qquad$ Petersburg, Virginia
*Alumnus of the Virginia State University

## ADMINISTRATION

Eddie N. Moore, Jr. President W. Eric Thomas Provost/Vice President for Academic Affairs

Clementine Cone

Vice President for Administration and Finance

Robert L. Turner
Vice President for Development

## DIRECTORY

| Name | Position | Address | Phone <br> Number |
| :---: | :---: | :---: | :---: |
| Eddie N. Moore, Jr. | President | P.O. Box 9001 | 524-5000 |
| W. Eric Thomas | Provost/Vice President for Academic and Student Affairs | P.O. Box 9404 | 524-5997 |
| Mrs. Clementine Cone | Vice President for Administration/Finance | P.O. Box 9213 | 524-5995 |
| Robert Turner | Vice President for Development | P.O. Box 9027 | 524-6751 |
| Alma C. Hobbs | Dean, School of Agriculture | P.O. Box 9081 | 524-5961 |
| David Bejou | Dean, School of Business | P.O. Box 9398 | 524-5166 |
| Larry C. Brown | Interim Dean, School of Engineering, Science and Technology | P.O. Box 9392 | 524-5285 |
| W. Weldon Hill | Dean, School of Liberal Arts and Education | P.O. Box 9401 | 524-5930 |
| Elsie Weatherington | Dean, University Library | P.O. Box 9406 | 524-5040 |
| Michael Shackleford | Associate Vice President for Student Affairs and Enrollment Management | P.O. Box 9054 | 524-5350 |
| Irene Logan | Director of Admissions | P.O. Box 9018 | 524-5055 |
| Henry Debose | Director, Financial Aid | P.O. Box 9031 | 524-5992 |
| Dennis Jones | Budget Director | P.O. Box 9052 | 524-5247 |
| Cortez Dial | Chief of Staff | P.O. Box 9073 | 524-5070 |
| Peggy Davis | Director, Athletics | P.O. Box 9058 | 524-5650 |
| Mark Phillips | Director, Band | P.O. Box 9007 | 524-5311 |
| Rebecca Branch-Griffin | Director, Student Health Services | P.O. Box 9082 | 524-5674 |
| Valery Bates-Brown | Assistant Vice President for Academic Support Services | P.O. Box 9034 | 524-6755 |
| Gladys Nunnally | Director, Honors Program | P.O. Box 9207 | 524-6709 |
| Johnnella Edmonds | Director, Chorus | P.O. Box 9007 | 524-5342 |

## THE UNIVERSITY

## HISTORY

Virginia State University was founded on March 6, 1882, when the legislature passed a bill to charter the Virginia Normal and Collegiate Institute. The bill was sponsored by Delegate Alfred W. Harris, a Black attorney whose offices were in Petersburg, but who lived in and represented Dinwiddie County in the General Assembly. A hostile lawsuit delayed opening day for nineteen months, until October 1,1883. In 1902, the legislature revised the charter act to curtail the collegiate program and to change the name to Virginia Normal and Industrial Institute. In 1920, the landgrant program for Blacks was moved from a private school, Hampton Institute, where it had been since 1872, to Virginia Normal and Industrial Institute. In 1923 the college program was restored, and the name was changed to Virginia State College for Negroes in 1930. The two-year branch in Norfolk was added to the college in 1944; the Norfolk division became a four-year branch in 1956 and gained independence as Norfolk State College in 1969. Meanwhile, the parent school was renamed Virginia State College in 1946. Finally, the legislature passed a law in 1979 to provide the present name, Virginia State University.

In the first academic year, 1883-84, the University had 126 students and seven faculty (all of them Black), one building, 33 acres, a 200-book library, and a $\$ 20,000$ budget. By the centennial year of 1982, the University was fully integrated, with a student body of nearly 5,000 , a full-time faculty of about 250 , a library containing 200,000 books and 360,000 microform and non-print items, a 236 -acre campus and 416 -acre farm, more than 50 buildings, including 15 dormitories and 16 classroom buildings, and a biennial budget of $\$ 31,000,000$, exclusive of capital outlay.

The University is situated in Chesterfield County at Ettrick, on a bluff across the Appomattox River from the city of Petersburg. It is accessible via Interstate Highways 95 and 85, which meet in Petersburg. The University is only two and a half hours away from Washington, D.C. to the north, the Raleigh-Durham-Chapel Hill area to the southwest, and Charlottesville to the northwest.

Virginia State University has a long history of outstanding faculty and administration. The first person to bear the title of President, John Mercer Langston, was one of the best-known blacks of his day. Until 1992, he was the only black ever elected to the United States Congress from Virginia (elected in 1888), and he was the great-uncle of the famed writer Langston Hughes. From 1888 to 1968, four presidents - James H. Johnston, John M. Gandy, Luther H. Foster, Robert P. Daniel-served an average of 20 years, helping the school to overcome adversity and move forward. The next twenty years, 1968-1992, saw six more presidents-James F. Tucker, Wendell P. Russell, Walker H. Quarles, Jr., Thomas M. Law, Wilbert Greenfield, and Wesley Cornelious McClure. On June 1, 1993, Eddie N. Moore, Jr., the former Treasurer of the Commonwealth of Virginia, became the twelfth President of Virginia State University.

## THE MISSION

## MISSION STATEMENT

Virginia State University, America's first fully state supported four-year institution of higher learning for Blacks, is a comprehensive university and one of two land-grant institutions in the Commonwealth of Virginia. Its mission is to promote and sustain academic programs that integrate instruction, research, and extension/public service in a design most responsive to the needs and endeavors of individuals and groups within its scope of influence. Ultimately, the University is dedicated to the promotion of knowledgeable, perceptive, and humane citizens-secure in their self-awareness, equipped for personal fulfillment, sensitive to the needs and aspirations of others, and committed to assuming productive roles in a challenging and ever-changing global society.

## PRINCIPLES

1. Regardful of its heritage and its tradition of eminent concern for the education, welfare and progress of all peoples, the University welcomes and extends its resources to all who strive for academic excellence, whatever their nationality, race, ethnicity or religious affiliation.
2. The University seeks to fulfill its mission by enrolling students with a diverse range of talents and abilities, including: (a) students whose pre-college records reveal high academic achievement and talent, (b) students who through a combination of factors have demonstrated the potential to be successful in college, and (c) students whose secondary school records reveal potential but who need special academic enhancement.
3. The University, using available resources, offers programs which are of interest to the students, meet current and changing needs of society, and fall within the scope of its mission.
4. The living/learning community of the University seeks to cultivate a sense of pride and dignity within each individual and promote an enduring search for knowledge among all students, staff, and faculty.
5. Those who matriculate are required to demonstrate a broad understanding of and competency in the arts and sciences and a commitment to intellectual development and scholarship in their fields of study.
6. Graduates of Virginia State University are prepared to enter the work force of the twenty-first century, pursue advanced study, assume leadership roles, and be competitive in a global society.
7. The University assures its constituencies of collegial participation in decision making.

## ACCREDITATIONS AND AFFILIATIONS

Virginia State University is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097; Telephone number 404-679-4501) to award bachelor's and master's degrees and a certificate of advanced graduate study, and a doctorate degree.

The Teacher Education Program is fully accredited by the National Council for Accreditation of Teacher education and the Virginia Board of Education. It is a member of the American Association of Colleges for Teacher Education as well as the American Council on Education. The Music Program is accredited by the National Association of Schools of Music, and the Visual Communication Art and Design Program is accredited by the National Association of School of Art and Design. The Dietetic Program is accredited by the Commission on Accreditation for Dietetics Education of the American Dietetic Association. The Engineering Technology Program (electronics, mechanical) are accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC of ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 telephone (410) 347-7700.

## Major affiliation and memberships of the University include:

American Association for Higher Education<br>American Association of Collegiate Registrars and Admissions Officers<br>American Association of State Colleges and Universities<br>American Association of University Women<br>American Home Economics Association<br>American Society for Engineering Education<br>American Society for Mechanical Engineering<br>American Society of Quality<br>Association for Computing Machinery<br>Association for Continuing Higher Education<br>Association of American Colleges<br>Association of Governing Boards of Universities and Colleges<br>Association of Institution Research<br>Association of International Education<br>Association of Physical Plant Administrators of Universities and Colleges<br>Association of Virginia Colleges<br>Conference of Southern Graduate Schools<br>Council for the Advancement and Support of Education<br>Council of 1890 Presidents/Chancellors<br>Council of Cooperative College Projects<br>Council on Hotel Restaurant and Institutional Education<br>HBCU Summit on Retention<br>International Technology Education Association<br>Nation Academic Advising Association<br>National Association for the Advancement of Colored People<br>National Association of African-American Honors Program<br>National Association of African American Studies and Affiliates<br>National Association of Business Teacher-Education<br>National Association of College Admissions Counseling<br>National Association of College Deans, Registrars and Admissions Officers<br>National Association of Mentors in Higher Education<br>National Association of Schools of Art and Design<br>National Association of Schools of Music<br>National Association of State Universities and Land-Grant Colleges<br>National Association of Student Affairs Professional<br>National Collegiate Athletic Association

National Commission for Cooperative Education<br>National Collegiate Honors Council<br>National Commission of Accrediting<br>National Citizens Commission on Alcoholism of the National Council on Alcoholism, Inc.<br>National Honor Society<br>National Orientation Directors Association<br>National Society of Black Engineers<br>Oak Ridge Associated Universities<br>Southern Regional Honors Council<br>Society of Manufacturing Engineers<br>Southern Education Foundation<br>Southeastern Universities Research Association, Inc.<br>Southern Universities Research Association<br>Southern Regional Educational Board<br>The Central Intercollegiate Athletic Association<br>The College Board<br>The Institute of Electrical and Electronics Engineers<br>Virginia Collegiate Honors Council<br>Technology Education Collegiate Association<br>Technology Student Association<br>The Society of Automotive Engineers<br>The University Center in Virginia<br>Virginia Association of College Registrars and Admissions Officers<br>Virginia Social Science Association<br>Virginia Technology Education Association<br>The Association for General and Liberal Studies<br>The Association to Advance Collegiate Schools of Business

## POLICY STATEMENTS

# ALCOHOL AND DRUG POLICY 

## THE UNIVERSITY

## Philosophy

Virginia State University, a community of students, faculty, and staff, is committed to preserving a living and learning environment where individuals can safely and successfully complete their college career free from the negative impact and disruptive influence of alcohol and other drugs. Aware of certain risks associated with alcohol and other drug-use, the University community views substance abuse as an obstacle to the attainment of a student's educational goals and to the University's mission. The responsibility to create and maintain a culture less vulnerable to alcohol and other drug use and one that promotes responsible attitudes and lifestyles will be shared by all members of the University community.

The University acknowledges that learning occurs both outside and inside the classroom, making the living and learning environment an integral part of the educational experience of students. While the University values the diversity of ideas, backgrounds, and life experiences that students bring, there also exists the expectation that students will learn to adapt and adopt the high standards of conduct expected at an institution of higher learning. Admission and membership to the University is understood to mean that each person is afforded certain rights and responsibilities. Every effort will be made to protect those rights that are within the University's policy and local, state, and federal laws. The University will not serve as a sanctuary for those who disregard the law.

Recognizing substance abuse as a prevalent social issue, Virginia State University accepts its role and responsibility in helping find solutions to this problem. The University will educate members of the University community about the serious consequences and health risks associated with alcohol and other drug use. The University will help dispel faculty beliefs that suggest alcohol abuse and drug use are acceptable on a college campus.

## Policy

The Virginia State University Alcohol and Drug Policy prohibit the possession, use, manufacture, distribution, selling or consumption of alcohol and illicit drugs anywhere on campus. The Policy pertains to the activities of all students on University property, and the activities of students at University sponsored events or at off-campus activities. While representing the University community students, faculty and staff are expected to comply with all local, state, and federal alcohol and drug related laws.

VSU complies with the Drug Free Schools and Communities Act of 1989 and is a member of the Network of Colleges and Universities Committed to the Elimination of Drug and Alcohol Abuse.

Virginia State University expects staff and academic members of the University community to respond to the use of alcohol and other drugs in a responsible manner that includes but is not limited to:

1. Knowing and abiding by University Alcohol and Drug Policy.
2. Becoming informed about the consequences and risks associated with the use of alcohol and other drugs.
3. Supporting norms that convey the non-use of alcohol and other drugs as a responsible choice.
4. Being alert and responsive to the needs of persons who experience problems due to the irresponsible use of alcohol and other drugs, by helping persons identify and seek appropriate sources for assistance.
5. Integrating alcohol and other drug related information into topics of discussion as deemed appropriate.
6. Following procedures and enforcing sanctions established to hold persons accountable for their actions and encouraging compliance with regulations.

Virginia Drinking Age Law: Virginia's Alcohol Beverage Control Act contains laws governing possession, use and consumption of alcoholic beverages. Pertinent laws are summarized below:

- It is illegal for anyone under age 21 to purchase, possess, or consume any alcoholic beverage.
- It is illegal for any person to sell alcoholic beverages to persons under the age of 21 years.
- It is illegal for any person to purchase or provide alcoholic beverages for another when, at the time of the purchase, he/she knows or has reason to know that the person for whom the alcohol is purchased is under 21 years of age.
- It is illegal for any underage person to use a forged or otherwise deceptive driver's license to obtain beer or alcoholic beverage.


## Controlled Substances and Illicit Drugs: The unlawful possession, distribution, and use of controlled substances and illicit drugs, as defined by the Virginia Drug Control Act, are prohibited in Virginia.

## Sanctions for Policy Violations

Any member of the campus community who violates the University Alcohol and Drug Policy will face appropriate disciplinary action. Students in violation are subject to disciplinary action by the University judicial system or criminal prosecution by federal, state or local authorities or both. Violation of the University Alcohol and Drug Policy by students addressed through the Judicial Affairs System may be subject to but not limited to referral for assessment and/or treatment, community service, probation, suspension or expulsion as well as loss of eligibility for federal financial aid. Complete information about the Judicial System is available in the student handbook.

## Health Risks

Virginia State University is dedicated to the education of students and employees about health risks associated with the abuse of alcohol and other drugs. Descriptions of some of these health risks are described below. In addition, behavioral difficulties at work, in school, or in relationships and with the law can be linked to the abuse of alcohol and other drugs.

Alcohol, a potentially addictive drug with significant physical and psychological consequence, is a central nervous system depressant that causes a number of marked changes in behavior. Even at relatively low levels, alcohol can impair judgment and decision making. Low doses can also impair judgment and coordination required to drive a car safely, placing the driver and others at risk of injury. At higher levels, alcohol impairs the functioning of one's vital organs and can result in coma or death. If combined with other depressants, much lower doses of alcohol can produce the effects just described.

Repeated use of alcohol can lead to dependence. Sudden interruption of alcohol intake can produce withdrawal symptoms, including severe anxiety, tremors, hallucinations, and convulsions. Alcohol withdrawal can be life threatening. Prolonged and excessive use of alcohol, especially when combined with poor nutrition, can cause progressive damage to vital organs. Mothers who drink during pregnancy may give birth to infants with fetal alcohol syndrome. In many cases FAS infants have physical abnormalities and mental retardation.

Marijuana is an illegal drug that impairs memory, perception, judgment and hand-eye coordination skills. The tar content in cannabis is at least $50 \%$ higher than that of tobacco and thus smokers run the added risk of lung cancer, chronic bronchitis, and other lung diseases. Recent findings in the medical community suggest that an "Amotivational syndrome" affects moderate to chronic users and produces symptoms of loss of energy, motivation, concentration, inability to carry out long-term plans, and decreased performance in school and work. This finding has significant implications for students and institutions of higher learning.

# AMERICANS WITH DISABILITIES ACCESSIBILITY POLICY 

## THE UNIVERSITY

## I. Purpose

The purpose of this policy is to address the commitment of the University to provide reasonable accommodations to applicants for employment, employees, and students under Section 504 of the Rehabilitation Act of 1973, as amended, and the Americans with Disabilities Act of 1990.

## II. Policy

The Virginia State University Board of Visitors, the administration and the faculty are committed to a policy of equal opportunity in education and employment prohibiting unlawful discrimination on the basis of race, color, creed, religion, marital status, sex, age, disability, political affiliation, or national origin.

The University will provide reasonable accommodations upon request to otherwise qualified disabled individuals who require such accommodations in technical standards of a University academic program or to have an equal opportunity to participate in University programs or activities. Accommodation request related to conditions of employment must be made directly to the Office of Human Resources. All accommodations requests must be written and consistent with the current documented needs of the individual requesting said accommodation(s).

Any student requiring an accommodation must request such services directly from the Office of Student Affairs or the Office of the Provost. In the event a program, class, or activity is located in an inaccessible facility, the University will take such action(s) as necessary to provide reasonable accommodations to ensure accessibility. All accommodation requests must be written and consistent with the current documented needs of the individual requesting said accommodation(s). A disability will be defined according to the parameters of Section 504 of the Rehabilitation Act of 1973, as amended, and the Americans with Disabilities Act of 1990.

Inquiries regarding interpretation or compliance with this policy should be directed to the Office of Human Resources, Virginia State University, P.O. Box 9412, Petersburg, Virginia 23806, (804) 524-5085.

# SEXUAL HARRASSMENT POLICY THE UNIVERSITY 

## I. Purpose

It is the goal of Virginia State University to provide a productive and challenging educational environment, free from sexual harassment. It is the responsibility of all members of the University community to ensure that individuals are provided equal access to education, employment and services without being subjected to sexual harassment. Sexual harassment is a type of sex discrimination and is prohibited misconduct which undermines the mission of the University.

## II. Definition of Sexual Harassment

Sexual harassment is defined as unwelcome sexual advances, requests for sexual favors or other conduct of a sexual nature, or action taken in retaliation for reporting such behavior, when:
A. submission to such conduct is made explicitly or implicitly a term or conditions of an individual employment or participation in a university-sponsored educational program or activity, or;
B. submission to, or rejection of, such conduct by an individual's employment, academic standing or other benefits, or;
C. such conduct has the purpose of effect of unreasonably interfering with a person's work or academic performance or creating a hostile and offensive work or learning environment.

Sexual harassment may include, but is not limited to: (1) Sexually suggestive conduct or remarks about clothing, body, or sexual activities directed personally at a member of the University community; (2) whistling in a suggestive manner directed personally at others in the University community; (3) sexually propositions, invitations, or other unwanted pressures for sexual contact; (4) obscene gestures directed personally at other members of the University community; (5) patting, pinching, or any other sexually suggestive touching or feeling; (6) attempted or actual kissing or fondling; (7) coerced sexual acts; (8) assault; and (9) expressed or implied requests for sexual favors as a condition of employment, promotion or favorable academic performance.

## III. Policy

Virginia State University will not tolerate any conduct by any member of the University community that constitutes sexual harassment as outlined in TITLE VII of Sect. 703 of the Civil Rights Act of 1964, as amended, Title IX of the Education Amendments of 1972, Virginia's Human Rights Act, or other applicable state or federal laws and regulations. Upon notification of a sexual harassment complaint, the University shall take prompt and appropriate action in response to the charge presented by the complainant. Any employee of the University being advised of a complaint of sexual harassment shall immediately refer the matter to the Human Resources Manager (EEO). All complaints under the policy should be filed within 30 days* from the date of the alleged harassment.

The University shall provide sexual harassment training each academic year for all faculty, administrators and staff. Each employee of the University is responsible for ensuring his/her attendance at such training by affixing his/her signature to the sign-in roster. The Office of Human Resources shall maintain an account of attendance at such training. Students shall be made aware of the University's prohibition on sexual harassment through the Office of the Vice President for Academic and Student Affairs. Informational sessions shall be conducted minimally once, at the beginning of each semester.

This policy shall be distributed throughout the campus community, or made available to all members of the campus community through the Office of Human Resources, the Office of Student Affairs and the Office of the Provost. Additionally, this policy shall be made available by posting on a bulletin board in all dormitories and University buildings.

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## THE UNIVERSITY

## PROCEDURES GOVERNING THE PROHIBITION OF SEXUAL HARASSMENT

## I. Purpose

The purpose is to establish procedures to implement the Board of Visitors’ Policy Number 101 entitled, "Prohibition of Sexual Harassment." It outlines options available to members of the University community who wish to file a complaint and describes the University's procedures upon the filing of a written sexual harassment complaint.

## II. Informal Procedures

The Office of Human Resources offers the option of a preliminary confidential investigation and an opportunity for an informal resolution to the complaint.
A. An individual wishing to file a complaint may do so in writing to the Human Resources Manager (Equal Employment Opportunity), whose office is located in the Office of Human Resources, Virginia Hall, Room 110. The mailing address is P.O. Box 9412, Petersburg, Virginia 23806. Individuals seeking additional information or who require special accommodations should call (804) 524-5085 or 524-5090; TDD (804) 524-5487. A sexual harassment complaint shall be filed within thirty (30) days of the date of alleged harassment unless extended by the President or designee for good cause, or if the President or designee determines that such extension of time serves the best interests of the University. The University shall conduct informal investigations of sexual harassment allegations in a manner which preserves to the greatest extent possible the confidentiality of the involved parties.
B. The investigator(s) shall consider the allegations in the complaint in relationship to the totality of circumstances. If the parties involved, through an informal process, can resolve the issue to their mutual satisfaction, the complaint may be considered concluded and no further steps will be taken. If either party is dissatisfied with the informal process, the dissatisfied party may withdraw from such process and pursue any formal procedures that are available to them.

## III. Formal Procedures

A. An individual wishing to file a formal complaint may do so in writing to the Human Resources Manager (Equal Employment Opportunity) whose office is located in the Office of Human Resources, Virginia Hall, Room 110. The mailing address is P.O. Box 9412, Petersburg, Virginia, 23806. Individuals seeking additional information or who require special accommodation should call (804) 524-5085 or 524-5090; TDD (804) 524-5487. Sexual harassment complaints shall be filed within thirty (30) days from the date of the alleged harassment or of the completion of any informal procedures, unless extended by the President or designee for good cause. The President or designee may grant an extension of time if just cause serves the best interests of the University. The University shall conduct formal investigations of sexual harassment all allegations in a manner which preserves to the greatest extent possible the confidentiality of the involved parties.
B. Within five (5) days of filing of a written complaint, the Human Resources Manager (EEO) shall evaluate the complaint to determine if further investigations are warranted. ${ }^{1}$ If so, the complaint may be referred to an investigate team who shall attempt to contact and if possible, meet with the complainant, the respondent, and other individuals possessing relevant information deemed appropriate to the investigation.
C. The results of the investigation shall be reported to the Human Resources Director and an initial determination shall be made regarding; 1) whether sexual harassment occurred; and 2) if such harassment occurred, what corrective action should be taken. The Human Resources Director's determination on these issues shall be promptly reported to the Provost, specific Vice President, or the Assistant to the President. The investigator(s) and the Human Resources Manager (EEO) shall have 120 days from receipt of the written complaint to complete the investigation and to make these determinations.
D. Upon acceptance, rejection or modification of the Human Resources Director's determination, the Provost, specific Vice President or Assistant to the President shall, within fifteen (15) days of receipt of findings in $\mathbb{T}$, , notify the complaint and respondent of his decision.
E. If either the complainant or respondent is dissatisfied with the Provost, specific Vice President or Assistant to the President's decision, either party shall have five (5) days from notification of the aforementioned individual's decision to appeal to the University President. Such appeal shall set forth, in writing, the grounds therefore. Upon receipt of an appeal, the President has the discretion to determine, within ten (10) days, whether his final decision on the matter would be aided by a hearing before him or his designee(s).
F. If such a hearing is deemed appropriate, it shall be scheduled within fifteen (15) days of the President's decision. Persons present at such hearing shall be the complainant, the respondent, witnesses for parties, and if any party desires a representative to assist in the presentation of the complaint or defense. When scheduling the hearing, the parties shall state whether they intend to be represented by counsel. If counsel represents any party, the University, likewise, has the option of representation through the Office of the Attorney General. It is the responsibility of the parties to arrange for the presence of witnesses and to furnish any documentary evidence deemed relevant to the complaint or the defense. The President or his designee shall preside over the hearing, which shall not be governed by the formalities of evidence or civil proceedings. Any finding that the University's Policy on the Prohibition of Sexual Harassment has been violated shall be based on the preponderance of the evidence presented in the record as a whole.
G. The President shall render, in writing, a decision on the appeal within fifteen (15) days following receipt of the appeal or if a hearing occurs, the President shall render a decision within fifteen (15) days of completion of such hearing, unless for good cause, additional time is necessary to render any such decision ${ }^{1}$.
H. In any case in which corrective action is determined to be appropriate, the Human Resources Director shall coordinate with the Provost, specific Vice President or Assistant to the President to ensure that corrective actions are promptly implemented.
I. The President (or his designee) shall be the final arbiter of what personnel and/or corrective action is appropriate in response to any violation of this policy.
J. The President, at the request of a faculty member alleged to have violated this policy, may refer the matter to the Academic Appeals Committee pursuant to provisions of the Faculty Handbook. Additional procedures available to eligible faculty members pursuant to the Faculty Handbook are subject to, and governed by the standards and timeframes described therein.
${ }^{1}$ There may be instances in which statements and conduct of university employees may be protected by the First Amendment as a matter of law. If the Human Resources Manager(EEO) determines that no further investigation of a complaint is warranted for any reason, the Human Resources Manager (EEO) shall notify the complainant and explain why no further investigation is warranted, after which, the complainant shall have five (5) days to respond to such a conclusion.

## THE UNIVERSITY

## FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT OF 1974

## I. POLICY STATEMENT CONCERNING THE CONFIDENTIALITY OF STUDENT RECORDS

Students attending, or who have attended, Virginia State University are afforded certain rights concerning their education records the Family Educational Rights and Privacy Act of 1974 (FERPA), as amended (20 U.S.C. 1232g), and regulations of the United States Department of Education (34 C.F.R. Part 99).

It is the policy of Virginia State University not to release education records or personally identifiable information contained therein, other than directory information, without the student's written consent. Such prohibition against release generally does not extend to record requests from other school officials at the University with a legitimate educational or administrative interest, other schools to which a student is transferring, State and Federal education authorities, accrediting organizations, appropriate officials in cases involving health and safety organizations conducting studies on behalf of the University, and education record requests pursuant to judicial orders or lawfully issued subpoenas. Questions concerning this Policy may be referred to the Office of the University Registrar.

## Directory information at Virginia State University includes:

- student's name
- address (es)
- telephone number (es)
- electronic e-mail address (es)
- photographs
- date and place of birth
- major field of study
- whether a student is currently enrolled
- enrollment status (full-time, half-time, etc.)
- class
- academic level
- anticipated date of graduation
- certification that the student has applied for a degree
- dates of attendance
- degree(s) earned, including date and level of distinction
- honors and awards received
- participation in officially recognized activities and sports
- weight and height of members of athletic teams

The University may disclose personally identifiable information designated as directory information from a student's records without a student's prior written consent unless the student informs University officials, including the University Registrar, that specified categories of directory information are not to be released. Requests to withhold directory information from campus directories and other University publications must be submitted to the Registrar's Office no later than 5 p.m. on Friday of the second week of classes for the fall semester.

## II. NOTIFICATION OF RIGHTS UNDER FERPA FOR POSTSECONDARY INSTITUTIONS

FERPA affords students certain rights with respect to their education records. These rights include:
The right to inspect and review the student's education records within 45 days of the day the University receives a request for access. Students must submit to the Office of the University Registrar written or electronic requests with their electronic signatures that identify the record (s) they wish to inspect. The University official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the University official to whom the request was submitted does not maintain the records, that official shall advise the student of the correct official to whom the request should be addressed.

The right to request the amendment of the student's education records that the student believes is inaccurate or misleading. Students may ask the University to amend a record that they believe is inaccurate or misleading. They should write or send an electronic message with their electronic signatures to the University official responsible for the record, clearly identify the part of the record they want changed, and specify what is inaccurate or misleading. If the University decides not to amend the record as requested by the student, the University will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent. One exception that permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by the University in an administrative, supervisor, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the University has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Visitors; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.

The right to file a complaint with the U.S. Department of Education concerning alleged failures by Virginia State to comply with the requirements of FERPA. The name and address of the office that administers FERPA is:

Family Policy Compliance Office<br>U.S. Department of Education<br>400 Maryland Avenue, SW<br>Washington, DC 20202-4605

## III. PARENTAL ACCESS TO STUDENT EDUCATION RECORDS

Under FERPA, the word "student" refers to an individual who has reached the age of eighteen or is attending an institution of post-secondary education. The word "parent" means a parent of a student and includes a natural parent, a guardian, or an individual acting as a parent in the absence of a parent or guardian. At the post-secondary or collegiate level, FERPA provides that parents have no inherent rights to inspect a student's education records. Normally the right to inspect education records at the University is limited solely to the student. FERPA does, however, authorize the University to release education records and personally identifiable information to parents, as defined above, where one of the following conditions have been met: (1) the student has given written consent to the release of records to the parents; or (2) the parents produce sufficient documentary evidence that they (or either of them) declared the student as a dependent on their most recent federal income tax return as authorized by the federal income tax laws. See Section 152, Title 26 of the United States Code, for definition of "dependent" for income tax purposes.

## THE UNIVERSITY TRANSFER POLICY

Transfer Students. Applicants who have attended an accredited college or university are considered for admission for all sessions. Applicants must have a cumulative average of "C" ( 2.0 on a 4.0 scale) or above and be in good standing at the previous institutions. Applicants must (1) complete and return the application for admission, (2) request the Registrar of all colleges attended to send official transcripts of college records, and (3) request the last college attended to complete and return the Confidential Report Form.

A transfer student with fewer than 24 semester hours is required to meet the entrance requirements for freshmen. An applicant transferring from a Virginia Community College or other two-year state institution, who has completed the requirements for the associate in arts or associate in science degree in the College Parallel/College Transfer Program, will be granted junior status at VSU. An applicant who has not completed the requirements for an associate degree will be designated class standing based on a course-by-course credit evaluation. For these students, the application fee is waived.

Any student who transfers to Virginia State University with an associate's degree (college prep track) from a community college in Virginia (students with associates' degrees from other states will be considered on an individual basis) is guaranteed a minimum of 60 credit hours of transfer credit. The student will be given complete credit for all General Education requirements, with the residual hours coming from major, minor or elective course requirements. Course equivalency will be determined by the University Registrar in consultation with the departments.

## THE STUDENT ACADEMIC CODE

A student's conduct at Virginia State University is expected to reflect that of a person engaged in a serious endeavor - the pursuit of an academic degree. The Student Academic Code includes aspects of both behavioral and ethical conduct within the academic setting. The Student Code of Conduct contains rules and regulations governing student behavioral conduct and represents a means by which the orderly development of appropriate student conduct is assured. The Student Code of Conduct as it applies to academics is reproduced herein. The Student Academic Code ensures that students maintain the highest ethical standards when in the academic setting, when performing work in the classroom and when completing work outside the classroom.

CODE OF CONDUCT
Students are expected to abide by all University rules and regulations, standards, and by the laws of Chesterfield County, the Commonwealth of Virginia and Federal government. It is not possible to list all acts of misconduct/disorderly conduct that can occur on campus, but students are required to exhibit the highest forms of good manners, behavior and respect for the University community and its inhabitants.

## CLASSROOM CONDUCT

Inappropriate classroom conduct is a violation of the Student Code of Conduct. Tardiness, talking during lecture, use of cell phones and similar distracting behavior all lead to an environment that is not conducive to learning. Each instructor is responsible for maintaining a classroom environment that facilitates effective teaching, learning and safety. The classroom environment should be such that it prepares students for behavior that is expected in the professional and corporate environments in which they are preparing to live and work.

Disruptive and disrespectful behavior on the part of any student will not be tolerated. The instructor has the right to determine appropriate standards of behavior in the class as long as the requirement does not infringe upon the individual's rights. Appropriate classroom decorum should be described in the course syllabus. Classroom decorum may also be defined and disseminated as a department policy for each discipline or school. Science laboratory classrooms that may introduce a safety hazard to the student under certain circumstances may inherently require strict regulation of safety protocol in addition to normal rules of behavior.

The instructor shall identify students who are in violation of the appropriate decorum or safety procedures and shall provide reasonable warning to the students of the consequences of such conduct. A reasonable warning would include a verbal reminder or a written note handed to the student regarding the expected decorum in the classroom or laboratory. The penalty for continued inappropriate conduct could include expulsion from the class or laboratory for the day in question and notice to the student's Department Chair. Return of the student to the classroom or laboratory will require a written pledge by the student to abide by the rules of expected classroom decorum or safety. Continued inappropriate conduct or safety violations will be grounds for expulsion from the course in question for the remainder of the semester. Further action could be taken through Channels for Charges Against Students and by enforcement listed in the Student Handbook. Students have the right to dispute any action in accordance with the Student Grievance Procedure.

## CODE OF ETHICS

Students are expected to exhibit exemplary ethical behavior as part of the University community and society as a whole. Acts of academic dishonesty including cheating, plagiarism, deliberate falsification and other unethical acts that may be specifically defined by a student's individual discipline are considered breaches of the Student Code of Ethics.

## ACADEMIC DISHONESTY

Academic dishonesty is a violation of the Student Academic Code. All students entering their freshman year, as part of their freshman studies course, will be provided the Academic Code. Each student is then required to sign The Student Pledge of Academic Integrity and return the signed pledge to their freshman studies instructor before instruction begins. Transfer students, graduate students and non-traditional students will sign the pledge as part of the advisement process. The pledge should also be disseminated as part of course syllabi. It is the student's
responsibility to seek guidance from the instructor when there are questions or doubt pertaining to their academic integrity responsibilities. By accepting admission to Virginia State University students are automatically subject to the provisions of the Student Academic Code, and are expected to uphold and support this Code without compromise or exception.

## The Student Pledge of Academic Integrity

"I, $\qquad$ , have read and understand the Student Code of Conduct and Student Code of Ethics, collectively titled the Student Academic Code, and agree to abide by all provisions described therein." Signature $\qquad$ .

Students are expected to comply with reporting procedures when they notice a violation, and all cases of academic dishonesty shall be reported by the instructor to the chairman of the department in which the incident occurred. The chairman of the department shall report the incident to the chairman of the department for the student in question, if different, and the Dean of the school or schools. Penalties for academic dishonesty may be loss of credit for the work in question, loss of credit for the course, suspension or expulsion from the University. Students have the right to dispute any action in accordance with the Student Grievance Procedure. Ignorance of any aspect of the Student Academic Code is not a defense to an alleged violation.

Cheating: Cheating is obtaining an unearned academic advantage either through deliberate deception or indifference to the student academic code. A student is considered to be cheating if, in the opinion of the person administering an examination or test, the student gives, seeks, or receives aid during the test, examination or other assigned class work.

Cheating also includes, but is not limited to: (1) deliberate alteration of graded material for a re-grade or grade correction; (2) submitting without authorization the same assignment for credit in more than one course; (3) collaborating on any work when not allowed, either in or outside the classroom setting; (4) forging the signature of another or allowing forgery by another for a any classroom related document such as class roll or an academic pledge; (5) use of unauthorized material stored or recorded on electronic devices during an exam or quiz; (6) use of crib notes or other unauthorized written material during an exam or quiz; (7) attempting to or allowing impersonation by another in order to take one's exam or quiz; (8) copying, alteration or fabrication of data such as that collected in a teaching laboratory or as part of a research project; and (9) intentionally or knowingly helping or attempting to help another commit an act of academic dishonesty.

Plagiarism: Part of the college experience is the discovery of one's own voice. The Virginia State University teaching community is committed to helping each student find their voice. Plagiarism contradicts this end. Plagiarism is the presentation of others' ideas or written works as one's own. Written works can take the form of electronic or print media and could include - among other items - opinions, facts and statistics.

1. Citing a source is necessary when an idea or written work can be attributed in any way to someone else.
2. Direct copying requires a very specific acknowledgment, either using quotation marks or a clear statement describing how that material was reproduced.
3. An indication of how a source is used is necessary if unique words or phrases from the source are part of one's work. Words or phrases are considered unique if they would not be spoken or expressed the same way coincidentally. The use of unique language requires incorporation of quotation marks or a direct statement indicating who is responsible for the word, phrase, sentence or group of sentences.
4. Finally, one should always acknowledge the contribution of any person who is a significant contributor to a work through discussion or any other such collaboration.

Although, common knowledge does not require a reference, one may not be aware of what constitutes common knowledge. The golden rule is, when in doubt, cite.

## THE UNIVERSITY

## ACADEMIC REGULATIONS AND PROCEDURES


#### Abstract

ADMISSIONS

Virginia State University is committed to admit students who possess a diverse range of talents and abilities. Students who are applying for admission as freshmen are expected to have completed a college-preparatory program in high school and have satisfactory scores on the Scholastic Assessment Test (SAT) or American College Test (ACT) examination. Two letters of recommendation attesting to the students' character and scholastic potential, one of which must be from a high school teacher or guidance counselor and a respectable GPA and/or class rank are required. Students who were not graduated from a secondary school may be admitted on the basis of their GED test scores.


## Admission Requirements

The admission requirements are as follows:

- Minimum 2.2 GPA on 4.00 scale
- Three (3) units of mathematics (Of these three, one must be Algebra I, and the second must be either Geometry or Algebra II)
- Four (4) units of English
- Two (2) units of Science (one of which must be a laboratory science)
- Two (2) units of Social Studies (History, Government, Civics, Geography)
- Two (2) units of Foreign Language are recommended.
- Two (2) letters of recommendation, one of which must be from a guidance counselor, or high school teacher
- SAT or ACT score
- Personal statement

Under exceptional circumstances, a student who does not meet a component of the entrance requirement (e.g., a student's GPA is between 2.0-2.19), may be admitted on a "conditional" basis.

## Special Admissions Requirements:

In addition to regular freshman and transfer admission requirements, students who desire to major in music must also complete an on-campus audition.

International Students. Prospective students from abroad should apply for admission at least twelve months prior to the term in which they wish to enroll. Applicants must submit certified copies of official academic records, showing subjects studied, grades received, examinations taken, and degrees earned from secondary schools, colleges, and universities attended. The documents must be submitted in original form as well as official translation. Applicants without previous college or university credit must submit SAT scores of the College Entrance Examination Board, Box 592, Princeton, NJ 08540, USA.

An applicant from a country where English is not the native language is required to demonstrate a proficiency in English by submitting scores on the Test of English as a Foreign Language (TOEFL). Official test scores must be sent directly from the Educational Testing Service. Registration forms and information concerning the time and place of the TOEFL may be obtained by writing to TOEFL, Educational Testing Service, CN 6151,

Princeton, NJ 08546151 , USA. An international student must provide documentation verifying resources to meet financial needs for the designated period of study at Virginia State University.

The Academic Support Center's Advisement services will assist students in making the transition from their native land. After students have met the requirements and have been admitted to VSU, the foreign student advisor will issue the 1-20 form and will provide information relative to housing and enrollment.

International Baccalaureate. Virginia State University recognizes the International Baccalaureate (IB) diploma or individual International Baccalaureate courses. Advanced standing and credit for corresponding courses may be granted if the student scores 3-7 on the Higher Level examination and 4-7 on the Standard Level examinations.

Non-Traditional Studies. Adult students may be admitted to non-traditional programs in the School of Graduate Studies, Research and Outreach which include the Bachelor of Individualized Studies (BIS) degree. Program requirements for earning college credit can be met by the following means: by examination, work and life experiences, a variety of courses through instructional television and other media, and international educational experiences.

Readmission. Students who interrupt their enrollment for two or more semesters (one or more years) must apply through the Office of Admissions for readmission to the University. Readmission is to the department in which the student was enrolled at the time of separation. A change of major request must be made after readmission.

Senior Citizens. There is no limit to the number of semesters in which senior citizens may enroll who are not enrolled for academic credit. However, individuals are limited to three non-credit courses each semester. Eligible senior citizens enrolled for credit may enroll as full-time students, limited only by their academic performance as to the number of credits pursued or enrolled semesters. Senior citizens are defined as persons who, before enrollment, (1) have reached sixty years of age and (2) have had their legal domicile in Virginia for one year. Further details of the program are available from the School of Graduate Studies, Research and Outreach, 20716 Fourth Avenue, Virginia State University.

Advisement. Upon admission to the University, students will be assigned an academic advisor from the Department in which the student is enrolled. Students who have not declared a major will be advised through the Academic Support Center. Non-traditional students will be advised through the office of Outreach.

## Academic Honors

Honors List. Undergraduate students earning twelve or more semester hours with a grade-point average of at least 3.0 shall be named to the Honors List.

Honors with Distinction List. Undergraduate students earning twelve or more semester hours with a grade-point average of 4.0 shall be named to the Honor's List with Distinction.

Graduating Honors. Candidates for a baccalaureate degree who have completed at least 51 percent of the credits required for their degree program at Virginia State University will qualify for honors at graduation based upon their final cumulative grade point average as listed below:

| Summa Cum Laude | $3.80-4.00$ |
| :--- | :--- |
| Magna Cum Laude | $3.50-3.79$ |
| Cum Laude | $3.00-3.49$ |

Candidates for baccalaureate degrees who have earned forty or more hours but less than 51 percent of the credits required for their degree program at Virginia State University are recognized for academic achievement against the following standard:

Top Ranking Graduates. Recognition will be given to the two students with the highest cumulative grade point average in each of the following categories:

1. the student who entered Virginia State University as a first-time freshman, and who has completed at least 95 percent of his/her overall credits at Virginia State University, or
2. the student who entered Virginia State University as a transfer student, and who has completed at least 51 percent of the credits required in his/her degree programs at Virginia State University.

## Academic Sanctions

1. A new student (freshmen or transfer student without an Associate Degree) must earn a minimum grade point average of 1.5 each semester during the first two regular semesters in residence. Thereafter, the student must earn at least 2.0 semester average each regular semester (to avoid Academic Warning) or have a cumulative average of 2.0 (to avoid Probation or Suspension).
Transfer students with the Associate Degree must maintain a 2.0 semester average each regular semester (to avoid Academic Warning) or have a cumulative average of 2.0 (to avoid Probation or Suspension) to remain in good academic standing.
2. Academic warning will occur when a student's semester average falls below the required minimum.
3. Probation occurs when a student's semester and cumulative average falls below the required minimum for two semesters.
4. Suspension for poor scholarship will occur when a student's semester and cumulative average falls below the required minimum for three semesters. Students will not be readmitted to the university except under the following circumstances:
A. Students who return to the university having earned an Associate Degree (college-prep track) will be readmitted under the same terms and conditions as a transfer student.
B. Under exceptional circumstances (such as serious and documented health or financial difficulties), a student may appeal his/her suspension to the department chair and school dean who may then, in turn, recommend readmission to the Academic Credits Committee. Such an appeal can only be made after the student has been out for the period of one year. The student must present a letter from at least one faculty member in support of his/her appeal. If the appeal is successful, the student will be readmitted on "warning."
5. If a student voluntarily withdraws from the university for a semester (for any reason), that student will return on the same status with which he/she left. (That is, if the student left on "warning," he/she will return on "warning;" if he/she left on "probation," he/she will return on "probation.")

## STUDENT MUST MAINTAIN EITHER THE SEMESTER OR CUMULATIVE GPA, AS SPECIFIED

| Completed Semesters | Semester GPA |  | Cumulative GPA |
| :---: | :---: | :---: | :---: |
| 1 | 1.5 |  | N/a |
| 2 | 1.5 |  | N/a |
| $3+$ | 2.0 | OR | 2.0 |

Advanced Placement. Virginia State University participates in the College Board Advanced Placement Program. Entering Freshmen will be awarded credit for Advanced Placement (AP) Examination scores of 3, 4, or 5. Accepted students should have AP score reports sent to the Office of Admission in the summer following the senior year of high school.

## Attendance. (See Classroom Attendance)

Academic Honesty. Intellectual and scholastic freedoms are safeguarded through application of principles of academic honesty. Violations of academic honesty represent a serious breach of the Virginia State University honor code and may be considered grounds for disciplinary action.

Academic dishonesty is defined to include (a) plagiarism-presentation of the written words of others as if they were one's own; (b) cheating-giving, aiding, or seeking assistance during the process of taking a test or examination.

Penalties for academic dishonesty may be loss of credit for the work in question, loss of credit for the course, suspension or expulsion from the University.

Advanced Scholars Program. This program is designed for academically qualified high school seniors, within the University service area who would like to earn college credits while still in high school. To be admitted into the program, a student must have completed the junior year of high school and have a cumulative average of at least a "B" (3.0) and have submitted an admissions application, high school transcript, and a letter of recommendation from a high school counselor. A student may enroll in courses at Virginia State during the summer between the junior and senior years and/or during the senior year. A maximum of six semester hours may be pursued each session.

Baccalaureate Degree. To receive a Bachelor's degree from Virginia State University, a student must do the following:

1. Have a minimum of 120 semester hours of credit.
2. Have a cumulative grade point average of 2.00 or better.
3. Complete the General Education (Core) requirements.
4. Meet all of the major requirements of the curriculum leading to the degree for which he/she is a candidate.
5. Have spent his/her last year (last 27 semester hours) in resident study for the degree at Virginia State University.

A student who already possesses a baccalaureate degree and seeks to earn a second baccalaureate degree must submit an application for admission to the desired program. The student's transcript will be evaluated by the chairperson to determine advanced standing. The student must complete all courses prescribed by the second degree program. General education courses already taken need not be repeated. All academic regulations shall be in full force including residency (see Last 27 Credits).

Cancellation of Enrollment. [See Withdrawal from the University]
Change of Major. Forms for change of major, available in the Registrar's Office and on the VSU website, must be completed and returned to the Registrar's Office after approval of the chairperson of the new major.

Classification of Students. Full-time and part-time students are classified by credit hours earned as follows:

| Freshman | $1-29$ | credit hours |
| :--- | :---: | :---: |
| Sophomore | $30-59$ | credit hours |
| Junior | $60-89$ | credit hours |
| Senior | 90 or more | credit hours |

A full-time student is one pursuing a minimum of 12 semester hours during a semester. A part-time student is one pursuing fewer than 12 hours during a semester.

## Classroom Attendance:

Classroom attendance is expected of all students. The instructor may reduce grades for students who exceed four hours of absences for a four-semester-hour course, three hours of absences for a three semesterhour course, two hours of absences for a two-hour course, and/or one hour for a one-hour course. Faculty members must include on the course syllabus any attendance policy that will affect grades, including tardiness and early departures.

Commencement. (See Graduation Procedures)

## Concentration. A sequential arrangement of courses with a specialized emphasis within a major.

Concurrent Enrollment. A matriculating student at Virginia State University who desires to take courses at another institution for transfer credit must obtain the prior approval of the department chairperson and school dean. Concurrent Registration forms may be obtained from the Registrar's Office or on the VSU website. Credits generated from courses in which the student earns a grade of C or better must be submitted, by official transcript only, to the University Registrar.

Continuing Education Student. A continuing education student is one allowed to enroll in classes under the auspices of Continuing Education and is not pursuing a degree. Upon earning thirty hours, the Continuing Education student must declare the intention to continue in that status indefinitely or make formal application to a degree program. Such a student is subject to lose some or all of his thirty or more hours as applicable units toward a degree at the discretion of the Department Chairperson if not admitted to a degree program at this point. [A Continuing Education student may not enroll for more than 11 semester hours per semester.]

## Course Load.

During a regular semester of the academic year, a full-time course load for undergraduates is generally 15 semester hours. However, the maximum course load is 18 semester hours which includes all academic credits. Exceptions (overloads) must be approved by the Department Chairperson, and the Dean.

During a summer session of four and a half weeks, the maximum course load is six semester hours.
Course Numbering System. All course numbers consist of three digits (XXX). The first digit relates to the course level as follows: (a) 1xx--freshman, (b) 2xx--sophomore, (c) 3xx--junior, (d) 4xx--senior.

Course Waivers and Substitutions. The decision to waive a course shall be made by the chairperson of the Department and approved by the Dean of the School in which the student is enrolled.

The decision to substitute a course shall be made by the chairperson of the department in which the student is enrolled, and approved by the dean of that school and the deans of the school(s) in which the courses in question are offered.

Waivers and substitutions policy will not be applicable to courses in which the student has received a failing grade. If the student is dissatisfied with a decision, he may appeal to the Academic Credits Committee.

Credit by Examination. (Also see Proficiency Examinations) Credit by CLEP (College Level Examination Program) must be submitted upon admission to Virginia State University. Letter grades will not be recorded for credit received by CLEP. The number of credit hours a student may receive by CLEP examination will not exceed twelve semester hours. The same requirements established by the American Council on Education (ACE) will be used for awarding credit.

Credit by examination may be available in areas not covered by CLEP and is coordinated by the individual department. In those instances, no more than twelve hours may be awarded. The request should be initiated within the department during the first eight weeks of the semester. The student may not petition credit by examination for courses in which he or she has been enrolled. Students will receive credit for grades of A, B, and C, earned on the examination. The grade will be recorded on the student's permanent record. The cost for the departmentallyadministered examination will be one-half of the regular fee per semester hour.

Degree. (Also see Associate and Baccalaureate Degrees) Symbols and classifications of undergraduate degrees conferred by VSU are:

| AS | Associate of Science Degree in Nursing |
| :--- | :--- |
| BA | Bachelor of Arts |
| BS | Bachelor of Science |
| BFA | Bachelor of Fine Arts |
| BM | Bachelor of Music |
| BIS | Bachelor of Individualized Studies |

## Enrollment/Withdrawal. (See Registration)

Examinations. Mid-term examinations are optional but recommended to ensure an informed midterm report on student progress. Final examinations are required and should be taken as scheduled. Students enrolled in teacher education programs are required to take Praxis I and II and other relevant professional exams at the appropriate time.

Financial Aid. Information about financial aid is available from the Office of Financial Aid (see Directory).
Foreign Language Requirement. In programs where a foreign language is required, modifications are made based on high school foreign language credits. For placement purposes, a year of high school credit is equivalent to one semester of university credit in the same language. For specific requirements see the curriculum sheet for the appropriate department.

Grades. The approved grade symbols and grade symbol definitions are as follows:

| Grade | Definition | Quality Points |
| :--- | :--- | :---: |
| A+ | Exceptional | 4 |
| A | Superior | 4 |
| A- | Excellent | 4 |
| B+ | Very good | 3 |
| B | Good | 3 |
| B- | Above Average | 3 |
| C+ | High Average | 2 |
| C | Average | 2 |
| C- | Low Average | 2 |
| D+ | Below Average | 1 |
| D | Poor | 1 |
| D- | Very Poor | 1 |
| F | Failure | 0 |

The following grades are also used and have no quality point value, thereby being neutral in grade point average determination.

I Incomplete grade-a student, otherwise passing, has for good reason failed to complete course requirements; must be removed within one year or be turned to an F (undergraduate only)

P Satisfactory completion-at graduate level, successful completion of Research and Thesis
S Satisfactory completion of certain experiences at the undergraduate level. At the graduate level, it indicates satisfactory progress in Research and Thesis.

U Unsatisfactory performance-student has not earned credit hours for which she/he has enrolled
W Withdrawn
R No credit given-administrative indication; awarded to Special Services students

AU/Z Course Audit

N Non-attendance
O Omitted Grade—administrative indication

Grade-point Average (GPA). The GPA is determined by dividing total quality points (QPTS) earned by total quality hours (QHRS) attempted for grades of $\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}$ and F . The highest grade in courses which have been repeated is used.

Grade Review Procedure. The appeal procedure for a student with a complaint about grading requires contact with the instructor involved, and further contact with the instructor's department chairperson if the matter is not resolved between the instructor and student. If the matter is not resolved at the departmental level, contact should be made with the dean of the school in which the instructor teaches.

If the situation is not resolved at the dean's level, the student should submit a written request, containing the signatures of the chairperson and dean, to the Academic Credits Committee.

Grade Reports. Midterm and final grade reports are viewed by the student via the Web for Student Module, which is accessed on the Virginia State University website.

Graduation Procedures. For graduation, a student should:

1. File an Application for Graduation by the deadline published in the official Academic Year Calendar.
2. Pay the appropriate Graduation Fee at the same time the application is filed.
3. Complete degree requirements, which include the removal of E or I grades; the earning of an overall grade point average of 2.0, and the appropriate grade point average in major course-work. Degree requirements must be completed by such time to be certified by the University before the anticipated degree is approved for conferral.
4. Satisfy all outstanding financial obligations to the University by the specified date.
5. Attend the ceremony. The Registrar should be notified if one is unable to attend, and the degree will be mailed to the recipient.

General Education Requirements. (See General Education Program)
Honors. (See Academic Honors)

## Honors Program. (See Special Academic Programs)

Immunizations. Virginia State University requires physical examinations for all first-time enrollees (freshmen, transfer and graduate students) to provide a health history and immunization record to the Student Health Service prior to registration for classes. Any student who cannot produce an up-to-date immunization record must be reimmunized at his/her expense. Registration cannot be completed until an up-to-date immunization record is provided.

Laboratory Enrollment. Concurrent enrollment in lecture and laboratory science courses is required for firsttime enrollees.

Last 27 Credits. A candidate for the bachelor's degree must spend the last year in resident study for the degree at Virginia State University. A year's residence is interpreted to mean the accumulation of a minimum of twentyseven hours of upper-level courses in (1) two regular semesters, or (2) three regular summer sessions, or (3) one academic semester and one summer of nine weeks. Subject to the discretion of the chairman of department, the
student may be required to take in residence a maximum of fifty percent of the credit hours required in his major sequence. This may in no case be less than twenty-five percent.

Transfer students must spend a year in residence before graduation. A transfer student from a junior or community college must complete a minimum of 60 semester hours at Virginia State University to qualify for candidacy for a degree.

Late Registration. (See Registration)
Major. (See Academic Programs)
Minor. With the approval of the departments involved, a student may pursue a planned program of study in a minor area. Minor request forms are available in the Registrar's Office. Approved minor areas and minimum hours of study required are: Accounting (18), Africana Studies (18), Art and Commercial Art and Design (18), Computer Information Systems (18), Computer Science (18), English (18), Finance (18), French (18), German (18), Hospitality Management (19), Mechanical Engineering Technology (18), Management (18), Marketing (18), Mass Communications (18), Mathematics (18), Military Science (15), Philosophy (18), Political Science (18), Spanish (18), and Writing (18).

Off-Campus Courses. (See Special Academic Programs)
Placement in Freshman Mathematics. The department of Mathematics and Computer Science administers a mathematics placement test to all incoming freshmen and transfer students. Placement in the appropriate beginning mathematics course is based upon the results of the mathematics placement test along with individual student data from the Office of Admissions and the student's intended major.

Probation. (See Academic Sanctions)

Proficiency Examinations. The purpose of proficiency examinations is to allow students to receive academic credit by examination in those subjects in which competence can be demonstrated by examination in lieu of formal course work.

1. Proficiency examinations are coordinated by the individual departments.
2. The student will inform the department chairperson that he intends to take a proficiency examination in a given course in order to satisfy the requirements of the course. Proficiency examination forms are secured in the Office of the student's major department. The student will then seek counsel of the chairperson of the department in which the examination will be administered. The student will then be assigned to a specific instructor who will schedule the examination. A student must register for a proficiency examination by the eighth week of the semester in which he/she plans to take the examination.
3. Students will receive credit for grades of $\mathrm{A}, \mathrm{B}$, and C earned on proficiency examinations. The grade will be recorded on the student's permanent record.
4. A maximum of twelve (12) semester hours may be earned through proficiency examinations.
5. The cost will be one-half of the regular fee per semester hour for proficiency examinations.
6. A committee in each department will be responsible for structuring and evaluating proficiency examinations. The examination should be so structured as to measure accurately the master of specific course content.
7. Instructors responsible for the administration of proficiency examinations should recommend or make available materials needed for preparation by the student.
8. No student may take a proficiency examination in the same course more than once.
9. Any student currently enrolled may request a proficiency examination.
10. Credit by proficiency examination shall not be granted for any course for which a student has been previously enrolled.

Registration. Registration and schedule adjustment are conducted in accordance with the schedule and procedure set forth in the Registration and Scheduling Bulletin issued each semester. Students are required to follow these procedures and guidelines to be assured of proper registration. Students are to register for sequence and number of credit hours required within the curriculum for each semester. The number of semester hours for students on academic sanction will be fifteen (15) hours and for students with honor roll status the number of semester hours may be increased by three (3) hours.
A. Early Registration. Currently enrolled students are required to register for the upcoming semester.
B. Registration and Validation Period. During this time, new students and those who completed early registration make course adjustments, if necessary, pay fees, and become validated. A student who is validated has made all payments owed to the university or has made arrangements for payment.

Suspension. (See Academic Sanctions)
Transcripts. Upon written request, a transcript of a student's record will be issued within five business days.

Transfer Credits. Credit hours accepted and displayed on the student's transcript will be for those courses in which the student has earned the grade $A, B, C, P$, or $S$; except for students with associate degrees (college prep track), where credit hours will be accepted and displayed for all grades (A, B, C, D, P, and S). However, certain courses in some major programs may require a grade of C or better. When a student who pursues one of these majors transfers D grade course credit that is equated to a Virginia State course requiring a grade of C or better, the student will have to repeat the course to satisfy the major program requirements. See University Transfer Guide for more information on transfer credit.

Tuition and Fees. (See Student Guide for tuition, fees, and other financial information.)

## In-State Tuition Eligibility. (See Financial)

Withdrawal from the University. Withdrawal from the University is initiated in the Academic Support Center. Students who withdraw officially will receive a grade of W in the courses in which they were enrolled.

Undergraduate Scholarships. The following scholarships are awarded to students on the basis of academic merit. These scholarships are based primarily on an applicant's academic performance, SAT/ACT scores, record of leadership and service, and supporting recommendations.

Presidential Scholarship - A \$7,000 award to entering freshmen who have completed a college preparatory course-of-study with a grade-point-average (GPA) of 3.2 or higher and composite SAT 1100/ACT 24 or higher. This award includes $\mathbf{\$ 5 , 0 0 0}$ applicable to the cost of tuition and fees and a waiver valued at $\mathbf{\$ 2 , 0 0 0}$ applicable to room and board costs. This scholarship is renewable up to three additional years if the recipient maintains a cumulative grade-point-average of 3.0, participates in the University's Honors Program, and maintains residence on campus.

Provost Scholarship - A \$3,500 award to entering freshman who have completed a college preparatory course-of-study with a grade-point-average (GPA) of 3.0 or higher and composite SAT 1000/ACT 21 or higher or transfer students who have completed a minimum of twenty-four college-level courses with a cumulative gradepoint average (GPA) of 3.0 or higher. This scholarship includes $\$ 1,500$ applicable to tuition costs and waiver valued at $\$ 2,000$ applicable to the costs of room and board. This scholarship is renewable up to three additional years if the recipient maintains a grade-point-average of 3.0 and maintain residence on the campus.
J. Binford Walford Scholarship - A \$2,000 award to entering freshmen in Drafting and Design Technology with a minimum cumulative high school grade point average (GPA) of 3.00 or higher and composite SAT/ACT scores of $900 / 19$ or higher. Transfer students with a cumulative GPA of 3.20 or higher are also eligible. This scholarship is renewable if the recipient maintains a GPA of 3.20 or higher. A limited number of scholarships are presented annually to sophomores, juniors, and seniors, based on availability of funds.

Math, Science, and Technology Scholarship - A \$1,500 award to entering freshmen or transfer students whose records reflect above-average ability in mathematics, science, or technology and a minimum cumulative grade-point-average of 3.0. A personal statement which describes goals, plans, and ambitions must be included with the application. This scholarship is renewable if the recipient maintains a grade-point-average of 3.0 in a mathematics, science, or technology major; satisfactory progress in other academic courses; and residence on the campus. Students must be recommended by a secondary teacher or counselor and the Virginia State University Department Chairperson to be considered for this scholarship.

University Scholarship - A scholarship ranging from \$500-\$2,000 which is awarded to a continuing student who has achieved a cumulative grade-point-average of $\mathbf{3 . 0}$ or higher during his or her university course of study. This is a highly competitive award. A limited number is presented annually based on available funds. If the recipient wishes to be considered for subsequent awards, a new application must be submitted each academic year.

A number of additional scholarships are available to Virginia State University scholars. These scholarships are funded through external sources, including USDA Scholarship Program, Thurgood Marshall Scholarship Program, Central Fidelity Bank Scholarship Program, ROTC Scholarship Program, and others. Applicants must meet criteria established by the specific funding source.

## GENERAL EDUCATION PROGRAM

## THE VIRGINIA STATE UNIVERSITY GENERAL EDUCATION PROGRAM

## INTRODUCTION

The Virginia State University (VSU) General Education Program is founded on the principles of academic excellence and personal growth and comprises the core curriculum for all baccalaureate degrees offered by the institution. Driven by the University's Mission and Principles, the program endeavors to develop engaged, enlightened, productive citizens in a changing world.

The liberal arts emphasis of VSU's General Education Program is designed to foster dispositions that value lifelong learning, personal responsibility, integrity, creative expression, and the ethic of service.

A key component of the General Education Program is the Freshman Studies course which is required of all firstyear students (including transfer students with fewer than 30 semester hours). The Freshman Studies course is designed not only to orient students to the University's history, legacy, and operational procedures but also to develop students' research and information literacy skills and critical thinking.

## LEARNING OUTCOMES

Based upon the University Mission and Principles, the following learning outcomes comprise the foundation for the General Education Program courses:

1. Students will demonstrate an understanding of, and appreciation for, the needs and aspirations of self and others in the contexts of citizenship and socio-psychological integrity.
2. Students will demonstrate an understanding and appreciation of global cultural literacy within a trans-cultural context and, preferably, a second language.
3. Student will demonstrate a commitment to high academic standards and scholarly dispositions:

- Demonstrate information literacy skills, utilizing current, effective strategies (including technology) for discovering knowledge in their respective disciplines;
- Demonstrate an understanding of the need for continuing intellectual and personal growth;
- Be cognizant of the importance of professional versatility;
- Demonstrate analytical skills and the ability to engage in collaborative and individual decision making;
- Demonstrate critical thinking, ethical reasoning, and analytical skills necessary to present and explain cogent, compelling, intellectually based theses/arguments;
- Demonstrate knowledge of the inter-relatedness of content across the general education curriculum and their chosen major.

4. Students will demonstrate reading, writing, listening, and speaking proficiency in English.
5. Students will gain an understanding of holistic wellness and its maintenance.
6. Students will demonstrate proficiency in applying mathematical concepts.
7. Students will demonstrate an understanding of theoretical perspectives and concepts in social science.
8. Students will demonstrate scientific literacy.
9. Students will demonstrate technological literacy.

## GENERAL EDUCATION PROGRAM PROVISIONS,

## REQUIREMENTS, AND COURSES

The General Education course framework represents a balanced menu of courses designed to enhance core skill sets, including synthesis and analysis of information; problem solving through structures, organizations and systems; understanding of global/cultural and historical contexts; research; and effective communication skills.

## Provisions and Requirements

1. The minimum requirement for successful completion of the General Education program is 45 semester hours. Departments (majors) may require additional credit hours.
2. Students may use one course simultaneously to satisfy a requirement for general education and their major discipline; however, students may not use one course to satisfy more than one general education course requirement.
3. The minimum grade required for successful completion of the Freshman Studies course is a "C-." Students must successfully complete this course prior to attaining junior status.
4. The minimum grade required for successful completion of English 110 and 111 (Composition I and II) is "C-."
5. Departments (majors) may choose courses from the limited menus or allow students to choose.

## General Education Courses

| Composition - $\mathbf{6}$ credit hours |  |  |  |
| :--- | :---: | :--- | :--- |
| ENGL | 110 | 3 credit hours | Composition I |
| ENGL | 111 | 3 credit hours | Composition II |

## Freshman Studies - $\mathbf{2}$ credit hours:

FRST $101 \quad 2$ credit hours Freshman Studies

Global Studies - 3 credit hours from the following menu (students should enroll in courses for which they have appropriate prerequisites and academic background)

| ARTS | 302 | 3 credit hours | Survey of Non-Western Art |
| :--- | :--- | :--- | :--- |
| ARTS | 405 | 3 credit hours | Survey of African Art |
| ECON | 451 | 3 credit hours | International Economics |
| ENGL | 314 | 3 credit hours | Readings in Multicultural Literature |
| ENGL | 315 | 3 credit hours | African Literature |
| ENGL | 322 | 3 credit hours | Post-Colonial Literature |
| ENGL | 411 | 3 credit hours | Readings in African Literature and Culture |
| ENGL | 412 | 3 credit hours | Caribbean Literature |
| ENGL | 326 | 3 credit hours | Mythology (cross-listed as PHIL 326) |
| FREN | 110 | 3 credit hours | Elementary French I |
| FREN | 111 | 3 credit hours | Elementary French II |
| FREN | 212 | 3 credit hours | Intermediate French I |
| FREN | 213 | 3 credit hours | Intermediate French II |
| GEHI | 114 | 3 credit hours | World History I |
| GEHI | 115 | 3 credit hours | World History II |
| GEOG | 210 | 3 credit hours | World Geography |
| GERM | 110 | 3 credit hours | Elementary German I |
| GERM | 111 | 3 credit hours | Elementary German II |
| GERM | 212 | 3 credit hours | Intermediate German I |
| GERM | 213 | 3 credit hours | Intermediate German II |
| IDUP | 270 | 3 credit hours | Introduction to Africana Studies |
| POLI | 207 | 3 credit hours | International Relations |
| POLI | 210 | 3 credit hours | Comparative Government |
| SPAN | 110 | 3 credit hours | Elementary Spanish I |
| SPAN | 111 | 3 credit hours | Elementary Spanish II |
| SPAN | 212 | 3 credit hours | Intermediate Spanish I |
| SPAN | 213 | 3 credit hours | Intermediate Spanish II |
|  |  |  |  |

History - $\mathbf{3}$ credit hours from the following menu:

| GEHI | 114 | 3 credit hours | World History I |
| :--- | :--- | :--- | :--- |
| GEHI | 115 | 3 credit hours | World History II |
| GEHI | 122 | 3 credit hours | US History I |
| GEHI | 123 | 3 credit hours | US History II |
| GEPO | 150 | 3 credit hours | United States Government |

## Humanities - $\mathbf{6}$ credit hours from the following menu (students should enroll in courses for which they have appropriate prerequisites and academic background)

| ARTS | 101 | 3 credit hours | Drawing (non-majors only) |
| :---: | :---: | :---: | :---: |
| ARTS | 199 | 3 credit hours | Art Appreciation |
| ARTS | 205 | 3 credit hours | Basic Art |
| ARTS | 301 | 3 credit hours | Survey of Western Art |
| ARTS | 307 | 3 credit hours | $20^{\text {th }}$ Century Art |
| ARTS | 311 | 3 credit hours | Arts and Crafts (non-majors only) |
| ARTS | 403 | 3 credit hours | Survey of African American Art |
| DANC | 378 | 3 credit hours | History of Dance and the Black Experience |
| ENGL | 311 | 3 credit hours | African-American Literature |
| ENGL | 312 | 3 credit hours | Women's Literature |
| ENGL | 313 | 3 credit hours | Classics of Western Literature |
| ENGL | 323 | 3 credit hours | Environmental Literature |
| ENGL | 325 | 3 credit hours | The Bible as Literature |
| ENGL | 331 | 3 credit hours | History of Drama |
| ENGL | 341 | 3 credit hours | Expository Writing |
| ENGL | 342 | 3 credit hours | Technical Communication |
| ENGL | 327 | 3 credit hours | Philosophy in Literature (cross-listed as PHIL 327) |
| FREN | 110 | 3 credit hours | Elementary French I |
| FREN | 111 | 3 credit hours | Elementary French II |
| FREN | 212 | 3 credit hours | Intermediate French I |
| FREN | 213 | 3 credit hours | Intermediate French II |
| GEEN | 310 | 3 credit hours | Advanced Communication Skills |
| GEHI | 122 | 3 credit hours | US History |
| GEHI | 123 | 3 credit hours | US History |
| GEMU | 380 | 3 credit hours | Music and Art (Number will change to 280) |
| GEMU | 480 | 3 credit hours | Blacks in American Music |
| GEPI | 140 | 3 credit hours | Introduction to Philosophy |
| GERM | 110 | 3 credit hours | Elementary German I |
| GERM | 111 | 3 credit hours | Elementary German II |
| GERM | 212 | 3 credit hours | Intermediate German I |
| GERM | 213 | 3 credit hours | Intermediate German II |
| MCOM | 239 | 3 credit hours | Motion Picture Appreciation |
| MUSI | 199 | 3 credit hours | Music Appreciation |
| PHIL | 180 | 3 credit hours | Critical Thinking |
| PHIL | 220 | 3 credit hours | Logic |
| PHIL | 275 | 3 credit hours | Ethics |
| PHIL | 290 | 3 credit hours | Business Ethics |
| PHIL | 450 | 3 credit hours | Applied Ethics |
| SPAN | 110 | 3 credit hours | Elementary Spanish I |
| SPAN | 111 | 3 credit hours | Elementary Spanish II |
| SPAN | 212 | 3 credit hours | Intermediate Spanish I |
| SPAN | 213 | 3 credit hours | Intermediate Spanish II |
| SPEE | 214 | 3 credit hours | Introduction to Public Speaking |

Literature - $\mathbf{3}$ credit hours from the following menu (ENGL 201 and ENGL 202 are designed for most students. ENGL 210, 211, 212, 213, 214, and 215 are intended for students with a strong background in literature)

| ENGL | 201 | 3 credit hours | Introduction to Literature |
| :--- | :--- | :--- | :--- |
| ENGL | 202 | 3 credit hours | Introduction to African American Literature |
| ENGL | 210 | 3 credit hours | English Literature I |
| ENGL | 211 | 3 credit hours | English Literature II |
| ENGL | 212 | 3 credit hours | American Literature I |
| ENGL | 213 | 3 credit hours | American Literature II |
| ENGL | 214 | 3 credit hours | World Literature I |

ENGL 2153 credit hours World Literature II
Mathematics - $\mathbf{6}$ credit hours from the following menu (it is recommended that a student successfully complete the appropriate two-course sequence [six semester hours] of mathematics from the limited menu below to satisfy the approved curriculum in the student's major and concentration)

| GEMA | 112 | 3 credit hours | Basic Mathematics I |
| :--- | :--- | :--- | :--- |
| GEMA | 113 | 3 credit hours | Basic Mathematics II |
| MATH | 120 | 3 credit hours | College Algebra \& Trigonometry I |
| MATH | 121 | 3 credit hours | College Algebra \& Trigonometry II |
| MATH | 122 | 3 credit hours | Finite Mathematics |
| MATH | 130 | 3 credit hours | Numbers and Operations |
| MATH | 131 | 3 credit hours | Algebra and Functions |
| MATH | 200 | 3 credit hours | Calculus I |
| MATH | 201 | 3 credit hours | Calculus II |
| PHIL | 220 | 3 credit hours | Introduction to Logic (Contingent upon mathematics placement test |
|  |  |  | score.) <br> STAT |
|  | 210 | 3 credit hours | Statistics |

Science - $\mathbf{8}$ credit hours from the following menu (to meet the general education requirement in science a student must successfully complete two courses with associated labs [eight semester hours] from survey science courses with prefix GE; or, if required by their major or deemed otherwise appropriate, students may substitute the science disciplines' entry level courses listed with the prefix CHEM, PHYS and BIOL with associated labs)

| BIOL | 100 | 4 credit hours | Principles of Biology I with Lab |
| :--- | :--- | :--- | :--- |
| BIOL | 101 | 4 credit hours | Principles of Biology II with Lab |
| BIOL | 315 | 4 credit hours | Human Anatomy with Lab |
| CHEM | 101 | 4 credit hours | General Chemistry I with Lab |
| CHEM | 102 | 4 credit hours | General Chemistry II with Lab |
| CHEM | 111 | 4 credit hours | Chemistry I with lab (Chemistry majors only) |
| CHEM | 112 | 4 credit hours | Chemistry II with lab (Chemistry majors only) |
| AGRI | 150 | 4 credit hours | Introduction to Environment Science with Lab |
| GEBI | 116 | 4 credit hours | Biological Science with Lab |
| GEBI | 117 | 4 credit hours | Biological Science with Lab |
| GECH | 119 | 4 credit hours | Chemistry and Society with Lab |
| DIET | 101 | 4 credit hours | Nutrition-Contemporary Health Issues with Lab |
| GEES | 181 | 4 credit hours | Earth Science with Lab |
| GEPH | 101 | 4 credit hours | Physical Science with Lab |
| PHYS | 112 | 4 credit hours | General Physics I with Lab |
| PHYS | 113 | 4 credit hours | General Physics II with Lab |
| PHYS | 116 | 4 credit hours | General College Physics with Lab |
| PHYS | 117 | 4 credit hours | General College Physics with Lab |

## Social Science $\mathbf{- 3}$ credit hours from the following menu

| CJUS | 116 | 3 credit hours | Introduction to Criminal Justice |
| :--- | :--- | :--- | :--- |
| ECON | 100 | 3 credit hours | Basic Economics |
| ECON | 210 | 3 credit hours | Principles of Microeconomics |
| ECON | 211 | 3 credit hours | Principles of Macroeconomics |
| FACS | 201 | 3 credit hours | Consumer Economics |
| GEPO | 150 | 3 credit hours | United States Government |
| GEPS | 124 | 3 credit hours | Introduction to Psychology |
| POLI | 202 | 3 credit hours | Contemporary Political Thought |
| PSYC | 212 | 3 credit hours | Human Growth and Development |
| GESO | 211 | 3 credit hours | Introduction to the Social Sciences |
| SOCI | 101 | 3 credit hours | Introduction to Sociology |
| SOCI | 102 | 3 credit hours | Introduction to Anthropology |

Technology - 3 credit hours from the following menu (students should enroll in a course deemed appropriate by their department/major)

| ASYM | 130 | 3 credit hours | Introduction to Microcomputers |
| :--- | :--- | :--- | :--- |
| CISY | 201 | 3 credit hours | Microcomputer Concepts I |
| CISY | 155 | 3 credit hours | Introduction to Information Systems |
| CSCI | 100 | 3 credit hours | Programming Logic and Introduction to Computers |
| CSCI | 120 | 3 credit hours | Introduction to Problem Solving Using Computers |
| ENGR | 203 | 3 credit hours | Introduction to Programming |
| AGRI | 280 | 3 credit hours | Principles of Geographic Information Systems |
| IDST | 200 | 3 credit hours | Digital Media in Teacher Education |

Wellness and Health - 2 credit hours from the following menu (this requirement can be satisfied by completing one two-semester-hour course or two one-semester-hour courses):

| HPER | 170 | 2 credit hours | Health and Wellness |
| :--- | :--- | :--- | :--- |
| HPER | 160 | 1 credit hour | Team Sports I/Wellness |
| HPER | 161 | 1 credit hour | Team Sports II/Wellness |
| HPER | 164 | 2 credit hours | Personal Health (Physical Education majors only) |
| HPER | 165 | 1 credit hour | Personal Fitness |
| HPER | 166 | 1 credit hour | Beginning Swimming/Wellness |
| HPER | 168 | 1 credit hour | Aerobics and Conditioning/Wellness |
| HPER | 169 | 1 credit hour | Gymnastics/Wellness |
| HPER | 170 | 1 credit hour | Lifetime Sports I/Wellness |
| HPER | 172 | 1 credit hour | Lifetime Sports II/Wellness |
| HPER | 175 | 1 credit hour | Dance as Art/Wellness |

## GENERAL EDUCATION COURSE DESCRIPTIONS

## Composition

## ENGL 110 COMPOSITION I - 3 semester hours

Introduces students to critical thinking and the fundamentals of academic writing. Frequent and intensive writing in varied expository modes, with emphasis on analysis and discussion of the composing process.

## ENGL 111 COMPOSITION II - 3 semester hours

Continues to develop students' critical thinking skills, documentation expertise, and academic writing proficiency. Greater focus on persuasive writing and the research process. Close examination and discussion of a range of texts about the human experience leading to frequent and intensive writing.
Prerequisites(s): ENGL 110 Composition I

## Freshman Studies

## FRST 101 FRESHMAN STUDIES - 2 semester hours

Freshman studies is a key foundational general education course that provides students with the knowledge and skills they will need throughout their college career with emphasis on use of the library (information literacy), research skills, writing skills, critical thinking, and synthesis and analysis of information. The course will help to develop students' intellectual curiosity, capacity for life-long learning, and personal responsibility. Student will also become familiar with VSU's mission, principles, history, traditions, policies, and procedures.

## Global Studies

ARTS 302 SURVEY OF NON-WESTERN ART - 3 semester hours
A survey of Non-Western art objects. Emphasis is placed on the art of Africa, Asia, Oceania, and the Americas from a historical perspective.

ARTS 405 SURVEY OF AFRICAN ART - 3 semester hours
A survey of the major forms of art and architecture produced by various cultures of Africa. The course will examine the art forms and their places within society for pre-historic and ancient civilization, medieval empires, and the peoples of the Colonial Period in northern, western, central, southern, and east Africa.
Prerequisites: Students must have junior status or special permission from the instructor.
ECON 451 INTERNATIONAL ECONOMICS - 3 semester hours
Sp
International economics deals with the study of the theories of causes of trade, directions of trade, and the gains from trade, balance of payments, foreign exchange, and current trade policies and problems including international financial reforms.
Prerequisite: ECON 310 Microeconomics, or the approval of the instructor.

## ENGL 314 READINGS IN MULTI-CULTURAL LITERATURE - 3 semester hours

Variable content. Study of selected works from the literature of Native American, Jewish, Asian, Chicano/Latino, or other traditions. May be repeated once for credit with different topic, with consent of department.
Prerequisites: ENGL 110 Composition I; ENGL 111 Composition II

## ENGL 315 AFRICAN LITERATURE - 3 semester hours

Study of the literature(s) of Africa from pre-colonial to contemporary times. Includes investigation of the relationship between oral and written forms, and how "Orature" has influenced and continues to influence written African literature. Will include representative works from such writers as Achebe, Soyinka, WaThiongo, Head, Emecheta, Ba, Osundare, U'Tamsi, and Aidoo.
Prerequisites: ENGL 110 Composition I; ENGL 111 Composition

## ENGL 322 POST-COLONIAL LITERATURE - 3 semester hours

Survey of the development of literatures in English in former European colonies. Topics include the spread of European literary forms in Asia, Africa, the Caribbean, and the far new world (Australia and New Zealand) and the ways writers from former colonies integrate influences from their cultures and influences from European literary traditions in their work.
Prerequisites: ENGL 110 Composition I; ENGL 111 Composition II

## ENGL 411 READINGS IN AFRICAN LITERATURE AND CULTURES - 3 semester hours

Variable content. Intensive study of a major issue, movement, form, theme, or writer in African literatures and cultures. May be repeated once for credit with different topic, with consent of department.
Prerequisites: ENGL 110 Composition I; ENGL 111 Composition II; 3 hours of literature or permission of instructor

## ENGL 412 CARIBBEAN LITERATURE - 3 semester hours

Survey of Caribbean literature, which explores fictional and non-fictional prose, poetry, and drama in order to gain an appreciation of the literature and the cultures from which it springs.
Prerequisites: ENGL 110 Composition I; ENGL 111 Composition II; 3 hours of literature or permission of instructor

## ENGL 326/PHIL 326 - MYTHOLOGY - 3 semester hours

An introductory survey of the traditional mythological narratives of ancient civilizations, considering the origins of myths, their nature, and their functions in shaping and expressing a culture's understanding of the divine, the natural world, human nature, and the institutions of human community.

## ENGL 110 Composition I; ENGL 111 Composition II

FREN 110 ELEMENTARY FRENCH I - 3 semester hours
Emphasis on the four skills of listening, speaking, reading, and writing in French: Pronunciation, understanding of grammatical construction, basic readings, dictations, and daily oral practice; open to students receiving no admission credit in French.

FREN 111 ELEMENTARY FRENCH II - 3 semester hours F, Sp
Continued emphasis on the four skills of listening, speaking, reading, and writing in French: Pronunciation, understanding of grammatical construction, readings, dictations, and daily oral practice.
Prerequisites: FREN 111 Elementary French I or its equivalent.
FREN 212 INTERMEDIATE FRENCH I - 3 semester hours F, Sp
Inductive review of grammar, reading of moderately difficult prose, and extensive oral drill in basic structures.
Prerequisites: FREN 111 Elementary French 11 or its equivalent
FREN 213 INTERMEDIATE FRENCH II - 3 semester hours F, Sp
Careful study and reading of representative modern prose with continued practice in pronunciation and conversation and some extensive reading.
Prerequisite: FREN 212 Intermediate French I or its equivalent.
GEHI 114 WORLD HISTORY TO 1500 - 3 semester hours
$\mathbf{F}, \mathbf{S p}$
A topical introduction to the development of civilization up to the eve of the Modern Period, covering the growth of independent cultural traditions and diffusion of ideas, institutions and people.

## GEHI 115 WORLD HISTORY SINCE 1500 - 3 semester hours F, Sp

A topical introduction to the evolution of civilizations through the scientific, industrial, political and economic revolutions of the Modern Period down to the present. Emphasis will be placed on the evolution of global interdependence through the interaction of western and non-western cultures.

GERM 110 ELEMENTARY GERMAN I - 3 semester hours
F
Emphasis on the four skills of listening, speaking, reading, and writing in German: Pronunciation, understanding of grammatical construction, basic reading. dictations, and daily oral practice; open to students receiving no admission credit in German.

GERM 111 ELEMENTARY GERMAN II - 3 semester hours
Continued emphasis on the four skills of listening, speaking, reading, and writing in German: Pronunciation, understanding of grammatical construction, readings, dictations, and daily oral practice.
Prerequisite: GERM 110 Elementary German I or its equivalent
GERM 212 INTERMEDIATE GERMAN I - 3 semester hours F
Review of grammar; reading of moderately difficult prose and poetry with provision for ample practice in oral and written composition.
Prerequisite: GERM 111 Elementary German II or its equivalent
GERM 213 INTERMEDIATE GERMAN II - 3 semester hours
Study of selected readings of more difficult nature from standard modern authors.
Prerequisite: GERM 212 Intermediate German I or its equivalent

## IDUP 270 INTRODUCTION TO AFRICANA STUDIES - 3 semester hours

This course examines the various disciplinary and theoretical approaches to Africana Studies and its development as a field of scholarly inquiry. Through fiction and nonfiction, students will explore topics that will include Africa and its place in the world community; the Atlantic slave trade, nationalism, Pan-Africanism, Afrocentricity, and the roles of race, gender, and class in shaping the experiences of people of African descent in African and the Diaspora.
Prerequisites: ENGL 110 Composition I; ENGL 111 Composition II
POLI 207 - INTERNATIONAL RELATIONS - 3 semester hours
F
A study of the political, social, and economic dynamics of the present international system.
POLI 210 - COMPARATIVE GOVERNMENT - 3 semester hours
A comparative analysis of nation-states within the contemporary international system.
SPAN 110 ELEMENTARY SPANISH I - 3 semester hours
Emphasis on the four skills of listening, speaking, reading, and writing in Spanish: Pronunciation, understanding of grammatical construction, basic readings, dictations, and daily oral practice; open to students receiving no admission credit in Spanish.

SPAN 111 ELEMENTARY SPANISH II - 3 semester hours
F, Sp
Continued emphasis on the four skills of listening, speaking, reading, and writing in Spanish: Pronunciation, understanding of grammatical construction, readings, dictations, and daily oral practice.
Prerequisite: SPAN 110 Elementary Spanish I or its equivalent
SPAN 212 INTERMEDIATE SPANISH I - 3 semester hours F, Sp
Review of grammar, reading of moderately difficult prose, practice in oral Spanish, and extensive work in written composition.
Prerequisite: SPAN 111 Elementary Spanish I or its equivalent
SPAN 213 INTERMEDIATE SPANISH II - 3 semester hours F, Sp
Careful study of representative modern prose; continued practice in pronunciation and conversation.
Prerequisite: SPAN 212 Intermediate Spanish or its equivalent

## History

GEHI 114 WORLD HISTORY TO 1500 - 3 semester hours
F, Sp
A topical introduction to the development of civilization up to the eve of the Modern Period, covering the growth of independent cultural traditions and diffusion of ideas, institutions and people.

GEHI 115 WORLD HISTORY SINCE 1500 - 3 semester hours
$\mathbf{F}, \mathbf{S p}$
A topical introduction to the evolution of civilizations through the scientific, industrial, political and economic revolutions of the Modern Period down to the present. Emphasis will be placed on the evolution of global interdependence through the interaction of western and non-western cultures.

GEHI 122 UNITED STATES HISTORY TO 1865 - 3 semester hours
F, Sp, Su
Introduces students to the social, political and economic history of the United States from Pre-Columbian America to the end of the Civil War.

GEHI 123 UNITED STATES HISTORY AFTER 1865-3 semester hours
F, Sp, Su
Introduces students to the social, political and economic history of the United States from Reconstruction to Contemporary America.

## GEPO 150 UNITED STATES GOVERNMENT - 3 semester hours F, Sp <br> An introductory course in the study of the American political system.

## Humanities

ARTS 101 DRAWING I - 3 semester hours

## F

Fundamentals of drawing expression introduced. Pencil, charcoal, conte, and wash media are explored. Course includes weekly critiques and discussions.

ARTS 102 DRAWING II - 3 semester hours
Fundamentals of drawing expression introduced. Pencil, charcoal, conte, and wash media are explored. Course includes weekly critiques and discussions.

ARTS 199 ART APPRECIATION - 3 semester hours F, Sp This course serves as a basic introduction to the study and understanding of the visual arts. The various methods through which humans are able to access, interpret, and interact with art will be discussed. Topics include various cultural definitions of art and its use, the elements of design, the characteristics of art media, and the interpretation of content. Emphasis is placed on the areas of painting, sculpture, and architecture, but other areas (drawing, graphics, crafts, etc.) are discussed as appropriate.

## ARTS 205 BASIC ART - 3 semester hours

Course designed for the non-art majors; students are introduced to fundamentals of art theory and practice. Experiences are provided in color, design, lettering and varied art activities which are related to modern trends in art.

ARTS 301 SURVEY OF WESTERN ART - 3 semester hours
F
A survey of social and political conditions as they influence the art objects of Western man. Art objects discussed span the period from prehistoric to contemporary expressions of today.

## ARTS $307 \mathbf{2 0}^{\text {TH }}$ CENTURY ART - 3 semester hours

An examination of the historical styles and artists beginning with the $20^{\text {th }}$ Century, how they compare and relate to previous periods, and how they have been influenced by social and political conditions.
Prerequisites: Students must have junior status or special permission from the instructor.

## ARTS 311 ARTS AND CRAFTS - 3 semester hours

Students introduced to functional and decorative handicrafts through a variety of media.

ARTS 403 SURVEY OF AFRICAN-AMERICAN ART - 3 semester hours
A survey of Art produced by African-Americans in the United States from the Colonial Period to present. This course will explore the social and political climates influencing the Art of African-Americans.

DANCE 378 HISTORY OF DANCE AND THE BLACK EXPERIENCE - 3 semester hours
A survey course of dance history in America and the contributions of African Americans to historical and current trends in dance.

## ENGL 311 AFRICAN-AMERICAN LITERATURE - 3 semester hours

Survey of the African-American literary tradition from its earliest expressions to the present.
Prerequisites: ENGL 110 Composition I; ENGL 111 Composition II

## ENGL 312 WOMEN'S LITERATURE - 3 semester hours

Study of selected literary works by or about women, within the context of women's literary traditions as they have developed in various cultures and historical periods.
Prerequisites: ENGL 110 Composition I; ENGL 111 Composition II

## ENGL 313 CLASSICS OF WESTERN LITERATURE - 3 semester hours

Study of Greek and Latin literature in translation, with consideration of major classical works and their influences on English and American literature. Will include works by such writers as Homer, Aeschylus, Sophocles, Euripides, Plato, Aristotle, Virgil, Horace, Catullus, Juvenal, and Ovid.
Prerequisites: ENGL 110 Composition I; ENGL 111 Composition II

## ENGL 323 ENVIRONMENTAL LITERATURE - 3 semester hours

Study of the relationship between literature and environmental values, and how literary interpretations of the land reflect and influence attitudes toward nonhuman nature and our orientations to our environment. Issues may include the environment as a hostile wilderness, divine nature, the frontier, as well as contemporary nature writers' concern with imperiled ecosystems. Some consideration of ecocriticism.

## Prerequisites: ENGL 110 Composition I; ENGL 111 Composition II

## ENGL 325 BIBLE AS LITERATURE - 3 semester hours

Study of selections from the Old and New Testaments as literary texts. May include consideration of the influence of Biblical texts on other literary works and traditions.
Prerequisites: ENGL 110 Composition I; ENGL 111 Composition II

## ENGL 331 HISTORY OF DRAMA - 3 semester hours

Study of major developments of drama up to the $20^{\text {th }}$ century. Close reading and discussion of representative plays from major playwrights and literary periods in terms of their historical and social contexts.

## Prerequisites: ENGL 110 Composition I; ENGL Composition II

## ENGL 341 EXPOSITORY WRITING - 3 semester hours

Focuses on oral and written discourse which is used to describe, explain, inform, and persuade. Emphasizes showing rather than telling to communicate to an audience or reader in clear and objective language. Required readings serve as prompts for the study of rhetorical patterns, style and organization. Involves research and appropriate technology.
Prerequisites: ENGL 110 Composition I; ENGL 111 Composition II

## ENGL 342 TECHNICAL COMMUNICATION - 3 semester hours

Emphasizes clear, effective communication skills essential to technical and professional writing for students from a variety of majors. Builds on a writing process, basic rhetorical principles, audience awareness, and the writer's role in legal, ethical, and electronic communications. Emphasizes reports, memos, resumes, problem-solving, research, and proposals.
Prerequisites: ENGL 110 Composition I; ENGL 111 Composition II

ENGL 327/PHIL 327 PHILOSOPHY IN LITERATURE - 3 semester hours
Study of basic philosophical problems in major works of literature.
Prerequisites: ENGL 110 Composition I; ENGL 111 Composition II; GEPI 140 or other philosophy course, or permission of instructor(s).

FREN 110 ELEMENTARY FRENCH I - 3 semester hours F, Sp
Emphasis on the four skills of listening, speaking, reading, and writing in French: Pronunciation, understanding of grammatical construction, basic readings, dictations, and daily oral practice; open to students receiving no admission credit in French.

FREN 111 ELEMENTARY FRENCH II - 3 semester hours F, Sp
Continued emphasis on the four skills of listening, speaking, reading, and writing in French: Pronunciation, understanding of grammatical construction, readings, dictations, and daily oral practice.
Prerequisites: FREN 111 Elementary French II or its equivalent
FREN 212 INTERMEDIATE FRENCH I - 3 semester hours F, Sp
Inductive review of grammar, reading of moderately difficult prose, and extensive oral drill in basic structures.
Prerequisites: FREN 111 Elementary French II or its equivalent
FREN 213 INTERMEDIATE FRENCH II - 3 semester hours F, Sp
Careful study and reading of representative modern prose with continued practice in pronunciation and conversation and some extensive reading.
Prerequisite: FREN 212 Intermediate French or its equivalent
GEEN 310 ADVANCED COMMUNICATION SKILLS - 3 semester hours F, Sp
Expository writing based upon thematically arranged reading selections. Rhetorical theory and practices.
Prerequisites: ENGL 110 Composition I; ENGL 111 Composition II
GEHI 122 UNITED STATES HISTORY TO 1865 - 3 semester hours F, Sp, Su
Introduces students to the social, political and economic history of the United States from Pre-Columbian America to the end of the Civil War.

GEHI 123 UNITED STATES HISTORY AFTER 1865-3 semester hours
F, Sp, Su
Introduces students to the social, political and economic history of the United States from Reconstruction to Contemporary America.

GEMU 380 MUSIC AND ART - 3 semester hours F, Sp, Su
A course concerned with man, the aesthetic creator. It is intended to provide a broad exposure to the Fine Arts, provoke curiosity and develop interest in the Arts and in the realm of the Aesthetic. A guide for the student in search of personal freedom through a constructive use of his leisure by association with Arts, Music, Literature, Drama, Architecture, and Photography.

## GEMU 480 BLACKS IN AMERICAN MUSIC - 3 semester hours

A humanities course concerned with the full range of Black contributions to music from African heritage to the present day. Course content will be presented through lectures, recordings, and class discussions.

GEPI 140 PHILOSOPHY - 3 semester hours $\quad$ F, Sp, Su
An introduction to methods of critical thinking, and to the major problem areas of philosophy such as epistemology, metaphysics and ethics.

## GERM 110 ELEMENTARY GERMAN I - 3 semester hours

F
Emphasis on the four skills of listening, speaking, reading, and writing in German: Pronunciation, understanding of grammatical construction, basic reading, dictations, and daily oral practice; open to students receiving no admission credit in German.

GERM 111 ELEMENTARY GERMAN II - 3 semester hours
Continued emphasis on the four skills of listening, speaking, reading, and writing in German: Pronunciation, understanding of grammatical construction, readings, dictations, and daily oral practice.
Prerequisite: GERM 110 Elementary German I or its equivalent
GERM 212 INTERMEDIATE GERMAN I - 3 semester hours F
Review of grammar; reading of moderately difficult prose and poetry with provision for ample practice in oral and written composition.
Prerequisite: GERM 111 Elementary German II or its equivalent

GERM 213 INTERMEDIATE GERMAN II - 3 semester hours
Study of selected readings of more difficult nature from standard modern authors.
Prerequisite: GERM 212 Intermediate German I or its equivalent

## MCOM 239 MOTION PICTURE APPRECIATION - 3 semester hours

Introduction to film history and criticism. Examination of motion picture genres as handled by major directors and analysis of cinema as a narrative art form from beginnings to present day. Weekly screening and discussion of important motion pictures not only as art but as they reflect and affect our times.

## Prerequisites: ENGL 110 Composition I; ENGL 111 Composition II

MUSI 199 MUSIC APPRECIATION - 3 semester hours
F, Sp
A study of music designed to provide the general student with knowledge and understanding of the history, structure and style of various types of music literature.

PHIL 180 CRITICAL THINKING - 3 semester hours F

An introductory course exploring the nature and structure of arguments and enhancing reasoning abilities. Students will learn to develop and analyze arguments, identify informal fallacies, differentiate among assumptions, opinions, and facts, and hone critical reading and writing skills.

PHIL 220 INTRODUCTION TO LOGIC - 3 semester hours F, Sp
An introduction to the methods of elementary formal logic, including traditional syllogistic, Venn diagrams, sentential logic, truth tables, methods of deduction, and inductive reasoning.

PHIL 275 ETHICS - 3 semester hours
F, Sp
An introductory study of the nature, analysis, and justification of moral judgments.

## PHIL 450 APPLIED ETHICS - 3 semester hours F, Sp

An in-depth exploration of moral theory and discussion of its application to broad areas such as business, the environment, or bio-medical issues.

SPAN 110 ELEMENTARY SPANISH I - 3 semester hours F, Sp
Emphasis on the four skills of listening, speaking, reading, and writing in Spanish: Pronunciation, understanding or grammatical construction, basic readings, dictations, and daily oral practice; open to students receiving no admission credit in Spanish.

SPAN 111 ELEMENTARY SPANISH II - 3 semester hours
F, Sp
Continued emphasis on the four skills of listening, speaking, reading, and writing in Spanish: Pronunciation, understanding of grammatical construction, readings, dictations, and daily oral practice.

## Prerequisite: SPAN 110 Elementary Spanish I or its equivalent

SPAN 212 INTERMEDIATE SPANISH I - 3 semester hours
F, Sp
Review of grammar, reading of moderately difficult prose, practice in oral Spanish, and extensive work in written composition.
Prerequisite: SPAN 111 Elementary Spanish I or its equivalent


## Literature

SPEE 214 INTRODUCTION TO PUBLIC SPEAKING - 3 semester hours_ F, Sp
Compositional and delivery techniques for speaking before various kinds of audiences; instruction and participation in argumentation, debate, discussions, and parliamentary procedure. Emphasis upon participation.
Prerequisites: ENGL 110 Composition I; ENGL 111 Composition II; Literature
ENGL 201 INTRODUCTION TO LITERATURE - 3 semester hours F, Sp
A course in reading, thinking critically about, and discussing literature from a variety of genres and cultures, through the study of significant texts and authors. Writing intensive.
Prerequisites: ENGL 110 Composition I; ENGL 111 Composition II
ENGL 202 INTRODUCTION TO AFRICAN AMERICAN LITERATURE - 3 semester hours F, Sp
A course in reading, thinking critically about, and discussing literature from a variety of genres, through the study of significant texts by African American authors. Writing intensive.
Prerequisites: ENGL 110 Composition I; ENGL 111 Composition II
ENGL 210 ENGLISH LITERATURE I - 3 semester hours
F
Study of English literature and its background from Anglo-Saxon times through the age of Samuel Johnson.
Prerequisites: ENGL 110 Composition I; ENGL 111 Composition II
ENGL 211 ENGLISH LITERATURE II - 3 semester hours
Sp
Study of English literature and its background from the Romantic age to the twentieth century.
Prerequisites: ENGL 110 Composition I; ENGL 111 Composition II
ENGL 212 AMERICAN LITERATURE I - 3 semester hours
F
Survey of various topics, literary forms, and writers representative of achievements and trends from Colonial times to the Civil War.

ENGL 213 AMERICAN LITERATURE II - 3 semester hours
Survey of various types of creative works and critical opinions, designed to show the variety and strengths of literary achievement from the Civil War to the present.
Prerequisites: ENGL 110 Composition I; ENGL 111 Composition II
ENGL 214 WORLD LITERATURE I - 3 semester hours
F, Sp
Survey in English of world literature from the Ancient World through the Renaissance, with attention to main ideas and genres.
Prerequisites: ENGL 110 Composition I; ENGL 111 Composition II
ENGL 215 WORLD LITERATURE II - 3 semester hours
Sp
Survey in English of world literature from the seventeenth century to the present, with attention to main ideas and genres.
Prerequisites: ENGL 110 Composition I; ENGL 111 Composition II

## Mathematics

GEMA 112 BASIC MATHEMATICS - 3 semester hours
F, Sp, Su
A course for students who plan to pursue a major in the humanities and social sciences. Problem solving, irrational numbers, real numbers, polynomials, equations, inequalities, ratios, proportions, geometry, graphs of linear and quadratic functions. This course cannot be used as an elective for mathematics majors.
Prerequisite: Two units of high school mathematics and placement criteria

GEMA 113 BASIC MATHEMATICS - 3 semester hours
$\mathbf{F}, \mathbf{S p}, \mathbf{S u}$
The second part of a basic mathematics sequence. Set, deductive reasoning, computer literacy, probability, statistics, mathematics of finance.

## Prerequisite: GEMA 112 Basic Mathematics

## MATH 120 COLLEGE ALGEBRA AND TRIGONOMETRY I - 3 semester hours

F, Sp, Su
A pre-calculus course in algebra. Graphs, functions and their graphs, equations and inequalities, polynomial and rational functions, systems of equations and inequalities, and matrices.

MATH 121 COLLEGE ALGEBRA AND TRIGONOMETRY II - 3 semester hours F, Sp, Su Exponential and logarithmic functions, trigonometric functions, analytic trigonometry, and applications of trigonometry.
Prerequisite: MATH 120 College Algebra and Trigonometry I
MATH 122 FINITE MATHEMATICS - 3 semester hours
$\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$
Solving systems of Linear Equations and Inequalities, Introduction to Matrices and Linear Programming, Mathematics of Finance, Sets, Counting and Probability.
Prerequisite: MATH 120 College Algebra and Trigonometry I
MATH 130 NUMBER AND OPERATIONS - 3 semester hours
ONLY for students seeking certification to teach $\operatorname{PreK}-3 / \mathrm{PreK}-6$
Examines number systems and operations, elementary number theory, concepts of integers and rational numbers, proportions, logic, computational algorithms, and counting techniques in a problem-solving environment. Will include student investigations and hands-on activities.
Prerequisites: Two units of high school mathematics and placement criteria
MATH 131 NUMBER AND OPERATIONS - 3 semester hours
ONLY for students seeking certification to teach PreK $-3 / \mathrm{PreK}-6$
Examines basic algebraic operations, linear and quadratic equations, linear systems of equations and inequalities, algebraic and trigonometric functions in the context of modeling and various representations of functions (graphical, tabular, symbolic). Will include student investigations and hands-on activities.
Prerequisites: MATH 130 Number and Operations
MATH 200 CALCULUS I - 3 semester hours
$\mathbf{F}, \mathbf{S p}, \mathbf{S u}$
Analytic Geometry (introduction to conic sections), review of functions and their graphs, limits and rate of change, continuity, derivative, derivative of trigonometric functions, chain rule, implicit differentiation, higher derivatives, related rates, applications of differentiation: maximum and minimum values, The Mean Value Theorem, the first and second derivative tests, optimization problems.
Prerequisites: MATH 121 College Algebra and Trigonometry II
MATH 201 CALCULUS II - 3 semester hours
$\mathbf{F}, \mathbf{S p}, \mathbf{S u}$
Antiderivatives, areas, definite integrals, Fundamental Theorem of Calculus, indefinite integrals, areas between curves (in the Cartesian Plane), volumes, integration technique: substitution rule, integration by parts, trigonometric substitutions, integration of rational functions, table of integration, transcendental functions and their inverses, applications of integration.
Prerequisites: MATH 200 Calculus I; MATH 120 College Algebra and Trigonometry I; MATH 121 College Algebra and Trigonometry II; MATH 122 Finite Mathematics

## PHIL 220 INTRODUCTION TO LOGIC - 3 semester hours F, Sp

An introduction to the methods of elementary formal logic, including traditional syllogistic, Venn diagrams, sentential logic, truth tables, methods of deduction, and inductive reasoning.

STAT 210 ELEMENTARY STATISTICS - 3 semester hours
F, Sp, Su
An introductory statistics course without a calculus prerequisite. Presentation of data, frequency distributions, descriptive statistics, elementary concepts of probability, random variables, binomial and normal distribution, sampling procedures, student's t-test, linear correlation. Interpretation of examples of data which occur in daily life. This course cannot be taken as a mathematics elective by mathematics majors.
Prerequisites: GEMA 112 Basic Mathematics I; GEMA 113 Basic Mathematics II or the equivalent

## Science

BIOL 315 HUMAN ANATOMY - 3 semester hours
F, Sp, Su
A lecture course for science and non-science majors of functional anatomy and organogenesis based on historical examinations, demonstrations, and dissections in man or selected anthropoids.
Prerequisites: GEBI 116 Biological Science for non-majors; BIOL 112
BIOL 315 HUMAN ANATOMY LABORATORY - 1 semester hour F, Sp, Su
A laboratory course for BIOL 315.
Corequisite: BIOL 315 Human Anatomy
CHEM 101 GENERAL CHEMISTRY I - 3 semester hours F, Sp, Su
A development of the fundamental principles of chemistry and their applications. Chemical nomenclature, stoichiometry, atomic structure, bonding theories, thermochemistry, periodic properties, solution calculations, gas laws and the properties of solids and liquids are among the topics discussed.

## Co-requisite: CHEM 103 General Chemistry I Laboratory

CHEM 102 GENERAL CHEMISTRY II - 3 semester hours
F, $\mathrm{Sp}, \mathrm{Su}$
A continuation of the study of the principles of chemistry and their applications. The topics include solution properties, acids and bases, ionic equations, oxidation-reduction, equilibrium, kinetics, descriptive chemistry of the elements, nuclear chemistry and an introduction to organic chemistry.
Prerequisite: CHEM 101 General Chemistry I; Corequisite CHEM 104
CHEM 111 CHEMISTRY I - 3 semester hours
F
A development of the fundamental principles of chemistry and their application. Chemical nomenclature, stoichiometry, atomic structure, bonding theories, thermochemistry, periodic properties, solution calculations, gas laws and the properties of solids and liquids are among the topics discussed in depth. Emphasis will be placed on problem solving skills to better prepare students for careers in chemistry and related life science fields.
Prerequisite: Chemistry Majors or Special Permission from the Department Chair
Corequisites: MATH 200 Calculus I and CHEM 113 Chemistry Laboratory I
CHEM 112 CHEMISTRY II - 3 semester hours
A continuation of development of the fundamental principles of chemistry and their application. The topics that will be covered in depth include solution properties, acids and bases, ionic equations, oxidation reduction, equilibrium, kinetics descriptive chemistry of the elements, nuclear chemistry and an introduction to organic chemistry. Emphasis will be placed on problem solving skills to better prepare students for careers in chemistry and related life science fields.
Prerequisite: CHEM 111 Chemistry with a "C" or better
Corequisite: CHEM 114 Chemistry Laboratory II
AGRI 150 INTRODUCTION TO ENVIRONMENTAL SCIENCE (and lab) - 4 semester hours F, Sp Introduces the principles and basic facts of the natural environment. The course will focus on land forms, vegetation and soils, air and water pollution, water quality monitoring, acid rain, the greenhouse effect, biodiversity, sustainability, and global change. Emphasis is placed on the application of basic science to the understanding and mitigation of current environmental problems. Course format demonstrates how the environment works and how the human use of resources perturbs the environment, citizen action for past, present, and future decisions.

GEBI 116 BIOLOGICAL SCIENCE - 3 semester hours
F, Sp, Su
Designed to familiarize the student with the basic biological concepts, and the knowledge aimed at an understanding of the life process held in common by organisms. Topics stressed will include: reproduction, development, genetics, evolution and adaption, taxonomy, ecology, the cell, and chemistry of living organisms. Non-majors only.

GEBI 116 BIOLOGICAL SCIENCE LABORATORY - 1 semester hour F, Sp, Su The laboratory complements the lecture portions of the course. It is strongly recommended that the laboratory be taken concurrently with the lecture. Non-majors only.

GEBI 117 BIOLOGICAL SCIENCE - 3 semester hours
F, Su
Principles and data needed to interpret ecological, taxonomical and genetical aspects of phenomena associated with life are studied.

GEBI 117 BIOLOGICAL SCIENCE - 1 semester hour
F, Su
A laboratory course for GEBI 117.
Corequisite: GEBI 117 Biological Science
GECH 119 CHEMISTRY AND SOCIETY - 3 semester hours F, Sp
Chemistry principles are introduced and applied to issues and problems facing society. The fundamental language and symbols of inorganic, organic and biochemistry are covered along with chemical pollution, narcotics, life processes and nutrition.

## GECH 119 CHEMISTRY AND SOCIETY LABORATORY - 1 semester hour Corequisite for GECH 119

DIET 101 NUTRITION: CONTEMPORARY HEALTH ISSUES - 3 semester hours
F, Sp
This course presents basic principles for chronic disease prevention, provides scientific answers to questions found daily in the media regarding nutrition. Topics emphasized are basic functions of nutrients, biological nutrient requirements, and impact of gender, culture, ethnicity, social environment, and lifestyle on nutrition status and health.

DIET 102 NUTRITION: CONTEMPORARY HEALTH ISSUES LAB - 1 semester hour
A laboratory course required to be taken in conjunction with DIET 101 Nutrition: Contemporary Health Issues. The laboratory course will provide hands on laboratory exercises related to selected lecture topics.

GEES 181 GENERAL EARTH SCIENCE - 3 semester hours F, Sp, Su
A survey course in earth science designed for non-science majors.
GEES 181 GENERAL EARTH SCIENCE LABORATORY - 1 semester hour $\quad$ F, Sp, Su
Corequisite for GEES 181
GEPH 101 PHYSICAL SCIENCE - 3 semester hours
F
A survey course with emphasis on understanding the fundamental laws of nature and the logical application of these laws to specific situations; particular areas covered include analysis of motion. Newton's Law, energy, momentum, the nature of heat and the nature of sound.

GEPH 101 PHYSICAL SCIENCE LABORATORY - 1 semester hour
A study of selected experiments in mechanics, heat, and sound, emphasizing practical applications of the underlying principles and the metric system of measurement.

## Corequisite for GEPH 101

PHYS 112 GENERAL PHYSICS I LABORATORY- 1 semester hour
Selected experiments in mechanics are performed by students and written up. A problem session is held on alternate weeks.

## Corequisite: PHYS 112 General Physics I

PHYS 113 GENERAL PHYSICS II - 3 semester hours Sp
A continuation of PHYS 112 treating hydrostatics and hydrodynamics, thermal properties of matter, thermodynamics, wave motion, and acoustics.
Prerequisite: PHYS 112 General Physics I
PHYS 113 GENERAL PHYSICS II LABORATORY - 1 semester hour Sp
A continuation of PHYS 112 treating hydrostatics and hydrodynamics, thermal properties of matter, thermodynamics, wave motion, and acoustics.
Prerequisite: PHYS 112 General Physics I Laboratory
Corequisite: PHYS 113 General Physics II
PHYS 116 GENERAL COLLEGE PHYSICS I-3 semester hours F, Sp
A study of the basic concepts of physics including vector algebra, motion, momentum, angular momentum, energy, gravity and thermodynamics. This course is designed for science students not majoring in physics.

PHYS 116 GENERAL COLLEGE PHYSICS I LABORATORY - 1 semester hour F, Sp
Laboratory experiments designed to complement Physics 116. Basic concepts of measurement, mechanics, heat and electrical circuits.

PHYS 117 GENERAL COLLEGE PHYSICS II - 3 semester hours F, Sp A continuation of PHYS 116 treating electrostatics, magnetism, circuits, optics, relativity, atomic structure, the nucleus and fundamental particles.
Prerequisite: PHYS 116 General College Physics I
PHYS 117 GENERAL COLLEGE PHYSICS LABORATORY II - 3 semester hours $\quad$ F, Sp
Laboratory experiments designed to complement Physics 117. Electromagnetism, wave motion, optics, atomic structure, and nuclear physics.
Prerequisite: PHYS 116 General College Physics I
Corequisite: PHYS 117 General College Physics II

## Social Science

CJUS 116 INTRODUCTION TO CRIMINAL JUSTICE - 3 semester hours
Provides an overview of the criminal justice system. This overview includes the history of the system and the major processes that are carried out by the different agencies of the criminal justice system. It describes the process of arrest, adjudication, corrections and release.

ECON 100 BASIC ECONOMICS - 3 semester hours
F, Sp, Su
A one semester survey course designed to cover basic microeconomics and macroeconomics for those not planning further course work in the field. Basic microeconomics and macroeconomics theories are used to explain the economic system, the institutions that make up the system and their functions.

ECON 210 PRINCIPLES OF MICROECONOMICS - 3 semester hours F, Sp, Su The course analyzes the price system and its functions in a market economy of distributing goods and services and allocating resources. Concepts include the examination of markets as they range from highly competitive to monopolistic.

## ECON 211 PRINCIPLES OF MACROECONOMICS - 3 semester hours

F, Sp, Su
The course analyzes national and international economic problems, such as inflation, unemployment, productivity, improve economic growth, and the balance of trade. Particular attention is given to the role of government policy as it seeks to improve economic performance in these areas.
Prerequisite: ECON 210 Principles of Microeconomics

## FACS 201 CONSUMER ECONOMICS - 3 semester hours

A study of personal and family money management problems, designed to help individuals acquire knowledge, understanding of basic principles of consumer economics and to aid them in developing abilities and skills necessary for intelligent management of personal and family income to function in a global society.
$\begin{array}{ll}\text { GEPO } 150 \text { UNITED STATES GOVERNMENT }-3 \text { semester hours } & \text { F, Sp } \\ \text { An introductory course in the study of the American political system. }\end{array}$
GEPS 124 INTRODUCTION TO PSYCHOLOGY - 3 semester hours F, Sp
A general education course designed to give students an understanding of the scientific approach to the study of human behavior and to develop an appreciation for the breadth and variety of psychological approaches.

POLI 202 CONTEMPORARY POLITICAL THOUGHT - 3 semester hours

Human Growth and Development is designed primarily for students preparing to teach in elementary and secondary schools. It aids students in developing fundamental understanding of the patterns and sequence of development from conception through the adolescent period. Skills in this area shall contribute to an understanding of the physical, social, emotional, and intellectual development of children and ability to use this understanding in guiding learning experiences. Students will observe children via videotape and apply some of the methods of child study.

## GESO 211 INTRODUCTION TO SOCIAL SCIENCES - 3 semester hours

F, Sp
An integrated picture of the social life of people, a systematic concept of society and its major problems, and the basic principles of social relations.

## SOCI 101 INTRODUCTION TO SOCIOLOGY - 3 semester hours

F, Sp
Students are taught the fundamental concepts and principles of sociology. Emphasis is on the empirical and theoretical bases of sociology, social structure, the variety of influences and pressures that help make individuals a part of society, the nature of social research, and the use of the sociological perspective in understanding social interaction. This course is required for all sociology majors.

SOCI 102 INTRODUCTION TO ANTHROPOLOGY - 3 semester hours
The study of evidence of human evolution, developing cultures, racial groupings and people in preliterate societies.

## Technology

ASYM 130 INTRODUCTION TO MICROCOMPUTERS - 3 semester hours
F, Sp, Su
A computer literacy course for those who desire to learn about the capabilities and applications of computers in today's society.

## CISY 201 MICROCOMPUTER CONCEPTS I - 3 semester hours

F, Sp, Su
This course provides a hands-on computer experience through the use of microcomputers with an emphasis on a microcomputer operating system and an in-depth coverage of various computer application packages, such as, but not limited to, word processing, data base, spreadsheet software, and presentation graphics.

## CISY 155 INTRODUCTION TO INFORMATION SYSTEMS - 3 semester hours

F, Sp, Su
This course is designed to introduce the student to the basic concepts and procedures required in the development and use of computer based management information systems. Topics include; overview of computer concepts and computer literacy, computer hardware, computer software, and data communications. It provides a hands-on experience on three specific computer application packages: word processing, spreadsheets, database, and presentation graphics.
Prerequisite: High school algebra or equivalent

CSCI 100 INTRODUCTION TO COMPUTERS - 3 semester hours
F, Sp
Brief history of computers. Computer architecture: Processing, Input/Output and Communication Devices. Software: operating systems and applications. The internet, networking and mobile computing. Introduction to basic application programs.

CSCI 120 INTRODUCTION TO PROBLEM SOLVING USING COMPUTERS - 3 semester hours F, Sp, Su Topics include: basic computer architecture, machine representation of data, algorithms and their application to solve problems, introduction to programming using a high-level language.

ENGR 203 INTRODUCTION TO PROGRAMMING - 3 semester hours F
An introduction to the computer, to the algorithmic process, and to programming in C using standard control structures. Windows and UNIX operating systems are used.
Prerequisite: ENGR 101 Introduction to Engineering I

## AGRI 280 PRINCIPLES OF GEOGRAPHICAL INFORMATION SYSTEMS - 3 semester hours

This course is designed to introduce students to the fundamental concepts and applications of Geographic Information Systems (GIS), specifically to natural resource management and environmental analyses. Basic GIS concepts such as map characteristics and projections, spatial data models, relational databases, and spatial analysis with emphasis on the nature and source of geographic data and the issues of data input, data quality and metadata, will be covered. The course will also deal with the supporting disciplines of remote sensing and Global Positioning System (GPS). To complement classroom instruction, there will be extensive hands-on exercises based on computer software dedicated to GIS and remote sensing. Field-trips will be organized to visit governmental agencies or institutions where GIS-related work is being done.

## IDST 200 DIGITAL MEDIA IN TEACHER EDUCATION - 3 semester hours <br> F, Sp

This course will focus on the integration of applications and the visual literacy required to select and prepare rich media presentations to fully utilize the impact that technology can have on the learning outcome of its intended audience. It will also focus on the role that technology and computers play in enhancing personal productivity and how adaptive technology can provide access to knowledge and information processing for all. Emphases will be placed on the competencies required by the Virginia Board of Education for all completers of undergraduate Professional Education Programs for initial licensure.

## Wellness and Health

## HPER 160 TEAM SPORTS/WELLNESS - 1 semester hour

The development of basic skills and the abilities to perform a variety of team sports (field hockey, soccer, and basketball), and their relationship to personal health and fitness.

HPER 162 TEAM SPORTS II/WELLNESS - 1 semester hour F, Sp, Su The development of basic skills and the abilities to perform a variety of team sports: softball, flag or touch football, and basketball, and their relationship to personal health and fitness.

## HPER 165 PERSONAL FITNESS - 1 semester hour

Introductory level course designed to assist students with the development of lifetime fitness programs. Emphasis is placed on the utilization of appropriate self-assessment techniques, and physical activities that gradually increase in level of difficulty. Content includes the integration of personal health-related (flexibility, strength, aerobic, endurance, body composition) and skill-related (coordination, agility, power, balance, speed) fitness components. Various conditioning principles (e.g., overload), precautionary measures, current trends, issues and practices, and specialized conditioning programs for assorted situations.

## HPER 166 BEGINNING SWIMMING/WELLNESS - 1 semester hour

A course designed for non-swimmers fundamental principles and practices of beginners' swimming techniques and safety skills leading to the American National Red Cross Beginner's Certificate, and their relationship to personal health and fitness.

## HPER 167 INTERMEDIATE SWIMMING/WELLNESS - 1 semester hour

Refine of five basic strokes; development of endurance; drown proofing and water safety techniques; standing and running dives, and the relationship of swimming skills to personal health and fitness. This course is designed for the student who has passed beginning swimming or who already possesses beginner skills.

## HPER 168 AEROBICS AND CONDITIONING WELLNESS - 1 semester hour

Introduction to and participating in aerobic exercises and their relationship to personal health and fitness.

## HPER 169 GYMNASTICS WELLNESS - 1 semester hour

A basic course in gymnastics designed to assist students in acquiring fundamental skills in stunts, tumbling and selected apparatus, and their relationship to personal health and fitness.

HPER 171 LIFETIME SPORTS WELLNESS - 1 semester hour F, Sp, Su Development of fundamental skills, knowledge of rules to perform in a variety of individual sports activities (Archery, Tennis and Badminton) and their relationship to personal health and fitness.

## HPER 172 LIFETIME SPORTS II WELLNESS - 1 semester hour

Development of fundamental skills, knowledge of rules to perform in a variety of individual sports (Golf, Wrestling and Track activities) and their relationship to personal health and fitness.

HPER 175 DANCE AS ART WELLNESS - 1 semester hours
F, Sp, Su
A course designed to provide students with opportunities to gain a basic understanding, appreciation and participation in dance as an art form in culture and individual life, and the relationship of dance to personal health and fitness. Concepts and exercises in dance will be cultivated through lectures, films, live performances and studio experiences.

## SPECIAL ACADEMIC PROGRAMS

## BACHELOR OF INDIVIDUALIZED STUDIES DEGREE

The Bachelor of Individualized Studies (BIS) degree at Virginia State University was designed specifically for adult students. The BIS degree provides working adults the opportunity to complete a college degree through a combination of traditional and non-traditional methods of earning academic credit. The traditional methods include taking courses at VSU and transferring credit from other accredited community colleges, colleges, and universities. The non-traditional methods include credit by examination, credit for educational experiences in the Armed Forces as evaluated by the American Council on Education, and credit for work/life learning as documented by a personal portfolio. Candidates must earn a minimum of 120 semester hours or the equivalent.

In completing the degree, the following minimum requirements must be met:

GENERAL EDUCATION: A minimum of 36 semester hours (s.h.) must be in General Education, consisting of a least 6 s.h. in English Composition, 6 s.h. in Humanities, 6 s.h. in Natural Sciences, 6 s.h. in Mathematics, 6 s.h. in Social Sciences, and 6 s.h. of General Education electives.

SPECIALIZATION: A minimum of 36 semester hours in a particular area selected by the student will be designated as the specialization. This specialization indicates the primary focus of the individualized degree program. This 'field of specialization' should not be confused with a major offered by one of the other departments. At least 15 s.h. in the specialization must be coursework taken at VSU at the upper level (junior/senior level courses).

ELECTIVES: The remaining 54 semester hours required to complete the degree are elective credits. These electives complement the area of specialization or reflect a secondary interest.

Additional requirements in completing the above 120 semester hours include:
RESIDENCY: At least 31 s.h. must be earned from Virginia State University.
COURSE LEVEL: At least 40 s.h. must be earned at the upper division (Junior/Senior level).
COURSE TYPE: At least 60 s.h. must be earned from traditional classroom study (transfer and/or resident courses). At least 30 of these 60 s.h. must have been earned within six years of graduation. A maximum of 30 s.h. may be awarded for work/life experience (portfolio petition). A maximum of 30 s.h. is allowed for military occupational specialty, and an additional 30 s.h. may be awarded for military education courses.

Methods of earning credit: In addition to taking resident coursework at Virginia State University, official award of credit may also be accomplished through the following processes:

Transfer credit approved through the Admissions Office as part of the application for admission process. When admitted, a matriculating student's accepted transfer credit will be posted by Admissions directly to the student's VSU academic record.

Credit for educational experiences in the Armed Forces may be awarded after matriculation at Virginia State University and may be awarded in areas which fall within the regular curricular offerings of the University. The admitted student must enroll in CNED 302, Orientation, and submit documentation of military education/ training (a military transcript). Academic credit is based on the recommendations of the American Council on Education (ACE), as found in the Guide to the Evaluation of Educational Experiences in the Armed Services. This evaluation is done by an advisor in the BIS degree program.

Credit for work/life experience may be awarded on the basis of portfolio assessment. Matriculating BIS students must enroll in CNED-301, Life/Work Seminar, in which they will assess their experiences and match them with courses in the current University Catalog. A portfolio documenting experiential learning will be developed for each course petitioned. The portfolio should follow the current syllabus for the course, addressing the knowledge, skills, and abilities outlined on the syllabus. Each portfolio will be evaluated by the faculty of the academic department from which credit is being petitioned. Credit awarded through portfolio petition may be used only in the BIS degree. An administrative fee is charged for each portfolio.

Non-traditional credit awarded by Virginia State University will be identified on the student's transcript as credit awarded for prior experiential learning.

Credit earned may be used to satisfy more than one of the requirements above. Persons are not eligible for admission to the Bachelor of Individualized Studies program until four (4) years after their graduation from high school. Persons enrolled as full-time students in traditional degree programs at Virginia State University may not be admitted to the Individualized Studies program until they have been out of college a minimum of one (1) full year. Any request for an exception to this policy must be submitted in writing to the BIS Advisory Committee. Persons with baccalaureate degrees from accredited institutions are not eligible for admission to this program nor may persons be enrolled simultaneously in the Individualized Studies program and another baccalaureate program.

Persons seeking admission to the Bachelor of Individualized Studies program must be graduates of an accredited secondary school or must possess a GED certificate. They must meet the general requirements of the University for admission and matriculate at the University prior to acceptance to the Individualized Studies program. Non-traditional credit may be awarded only after these requirements are met.

Persons admitted to the Bachelor of Individualized Studies program will be required to take CNED 302 - Orientation This course is designed to reorient students to college, complete the process of defining personal degree objectives, and finalize the requirements of the program to meet those objectives.

Persons graduating with the Bachelor of Individualized Studies degree must meet the standards mandated by the University for all graduates. They will participate in a comprehensive assessment program administered for all students.

Admission to the Bachelor of Individualized Studies program does not provide for automatic admission to other programs at Virginia State University.

## SUMMARY OF DEGREE REQUIREMENTS

Total semester hours required 120 semester hrs.

CNED 302 - Orientation 1 credit hr.
General Education Distribution ....................................................................................................... 36 credit hrs.

English Composition................................................. 6 credits
Humanities ............................................................. 6 credits
Social Sciences ........................................................ 6 credits
Mathematics ........................................................... 6 credits
Natural Sciences ..................................................... 6 credits
General Education Electives ..................................... 6 credits

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Specialization.......................................................................................................................... credits (min.)
    Restrictive Electives ........................................ }27\mathrm{ credits
    CNED 499 - Senior Project .................................. }3\mathrm{ credits
*Unrestrictive Electives ............................................................................................................ credits (max.)
    *CNED 301-Life/Work Seminar is required for students seeking
        credit for learning from life/work experience.
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## Course Descriptions

## CNED 301 LIFE/WORK

## SEMINAR

Required for students seeking credit for learning from life/work experience

## CNED 302

## ORIENTATION -1 semester hour

A course designed to reorient students to college, complete the process of defining personal degree objectives and finalize the requirements of the program to meet those objectives.

## CNED 499

## SENIOR RESEARCH PROJECT - 3 semester hours

An independent research project which builds upon the student's area of specialization and serves as a culminating experience.

## Evening Courses

The Division of Outreach encourages and publicizes the scheduling of course offerings to provide adults the opportunity to pursue a number of complete undergraduate degree programs at night. Individuals may take courses for self-enrichment or career development. Public school teachers have the opportunity to recertify in their respective fields or to certify in additional fields utilizing course work pursued at non-traditional hours. Non-matriculated students may register for courses through the Division of Continuing Education in the School of Graduate Studies, Research and Outreach.

## Off-Campus Programs

The Off-Campus Program provides students an opportunity to pursue individual courses at locations away from the main campus. These sites include public school systems, large businesses or industrial establishments, public services and government agencies and defense installations. These sites are located close to the University campus to maximize the use of campus facilities. Courses are sponsored by the various academic departments of the University and coordinated through the Division of Outreach.

## Conferences and Workshops

The School of Graduate Studies, Research and Outreach coordinates conferences, workshops and seminar activities at the University. The School also originates and offers workshops, seminars and conferences to meet the shortterm training needs of public schools, business, industry, public agencies and a variety of other groups. The University awards Continuing Education Units (CEU's) for these activities according to the nationally accepted standard of one CEU for each ten hours of instruction. Permanent records, transcripts, and certificates are available for all conference and workshop activity.

## Leisure/Recreational Short Courses

The Division of Outreach also offers a wide variety of personal interest, personal and professional development, and leisure and recreational short courses for the community. These courses range in length from a few hours to several weeks. They are developed in response to community interests and needs.

## SPECIAL PROGRAMS

A variety of special programs are available for groups within the community with special problems and/or interests, including senior citizens and children.

## Virginia State University at Fort Lee, VA

Through the Division of Outreach, Virginia State University offers a variety of courses at Fort Lee, Virginia. At Fort Lee, classes are offered in two 8-week sessions in each of the fall and spring semesters, and in one 8-week session in the summer, for a total of five sessions per calendar year. Students have the opportunity to attend classes on a full-time or a part-time basis in the evenings. At Fort Lee, six (6) semester hours taken during a single 8 -week session constitutes full-time study for purposes of computing veterans' benefits for that period.

Counseling is available during office hours and by appointment. Military and ex-military personnel may qualify for tuition-assistance or veterans' benefits.

The VSU Office at Fort Lee is located in Army Continuing Education Services Building, Building 8035, Fort Lee, VA. The telephone number is (804) 862-6269/FAX 862-6271.

## Honors Program

The Honors Program is designed to meet the unique educational needs of Virginia State University's academically talented and highly motivated undergraduate students. The primary goal of the Honors Program is to create and maintain a stimulating, supportive environment in which young scholars may engage in a wide range of challenging intellectual and creative pursuits. The program encourages the participation of all departments, fosters innovation and experimentation in undergraduate education, and supports University-wide cultural enrichment.

Major features of the Honors Program include the following:

- Honors Study
- Honors Lecture Series
- Leadership Forum
- Undergraduate Research
- Cultural Enrichment Activities
- Graduate School Partnerships
- Scholarly Presentations at Honors Conferences

The University provides Honors sections of regular university courses in the General Education Program; these courses encourage creativity, critical thinking, problem solving and deeper intellectual inquiry. The Honors curricula provide increased opportunities for Presidential and Provost Scholars to cultivate habits of critical thinking, communication, creative expression and independent thought through smaller classes taught by selected faculty. The honors courses reflect instructional strategies which include more use of primary sources, more fully developed theoretical background, and some integration of interdisciplinary perspectives. The Honors courses utilize more creative learning methodologies such as greater emphasis on discussion, writing, research and active extracurricular learning experiences.

Participants in the Honors Program have access to the Honors House, a meeting place for Honors students. The house is equipped with a multimedia center, a presentation room for exhibits and displays, and project rooms where small groups of students study and carry on discussions together. The house also has a lounge, an office for visiting scholars and artists invited to meet with Honors students for seminars, colloquia, and tutorials.

The Honors Program is open to high school graduates, transfer students, and continuing students. Each applicant must meet criteria established by the Honors Council, including an excellent combination of grade-pointaverage, SAT/ACT scores, and a record of service and leadership experiences.

## Institute for Leadership Development

The Virginia State University Institute for Leadership Development (VSU-ILD) is an emerging program designed to provide a cadre of distinguished leaders who will function in all levels of decision making roles. It is designed for students who seek a degree in any of the University's programs and who demonstrate potential in achieving a high academic standard ( 3.0 or above), conduct community service and charitable projects.

The VSU-ILD program will be offered to qualified freshmen and is renewable for the sophomore, junior and senior years. Participants will be selected based on academic standing, letters of recommendations, community services, an essay, and an interview. Each participant will receive a full four-year scholarship and a personal computer. Creative and innovative activities will be conducted monthly for the participants which will focus on assessment of leadership competencies, exploration of current social issues, an international trip, the planning and initiation of a leadership conference, and an assessment of diverse issues which impact on leaders.

Students who are selected to participate will have a broad base of resources as well as experiences which can be adapted to challenging leadership roles.

## UNDERGRADUATE ACADEMIC PROGRAMS

## SCHOOL OF AGRICULTURE

## Description of School

The School of Agriculture is comprised of the following units:

- The Department of Agriculture and Human Ecology
- Agricultural Research
- Cooperative Extension
- Randolph Farm


## Mission of School

The mission of the School is consistent with the University's land-grant mission to develop and implement quality programs in instruction, research, and extension/public service.

## Objectives of School

It is the primary objective of the School to prepare students to enter professional careers in both public and private sectors or to continue their education beyond the baccalaureate level in professional or graduate school. The specific objectives of various units of the School are:

- To prepare students for employment in a multitude of agriculture-related occupations, and for advanced studies in graduate schools.
- To prepare students in the areas of family and consumer sciences, dietetics, and hospitality management for employment in public and private agencies.
- To facilitate application of innovative technologies through Agricultural Research for solutions to diverse problems relative to sustainable production of economically competitive agricultural commodities.
- To provide individuals, groups and organizations access to information and programs about innovative human and technological systems through Cooperative Extension.
- To support activities of Agricultural Research, Cooperative Extension, and the Agriculture degree program through facilities at the Randolph Farm.


## Other Pertinent School Information

Together, the Agriculture and Human Ecology Department, Agricultural Research, Cooperative Extension, and Randolph Farm fulfill the land-grant mission of the University. Academic programs offered by the Agriculture and Human Ecology Department are described in the section that follows.

# DEPARTMENT OF AGRICULTURE AND HUMAN ECOLOGY 

| Chairperson: | Conrad Gilliam, P.O. Box 9416, 103 Owens Hall, Phone: 524-5672 |
| :--- | :--- |
| Professors: | Harbans Bhardwaj, Conrad Gilliam, Tadesse Mebrahtu, Gloria Young |
| Associate Professors: | Asmare Atalay, Gollahota Jagannadham, Isabell Jones, Shobha Sriharan, <br> Deanne Williams |
| Assistant Professors: | Paula Inserra, Alice Joyner, Brian Nerrie, Oluwarotimi Odeh, Pamela Thomas-Buchanan, <br> Joe Tritschler, Badiyyag Waajid |
| Instructor: | Carey Snow |

## Description of Department

The Department of Agriculture and Human Ecology offers programs in Agriculture and Human Ecology.
The Agriculture Program leads to the Bachelor of Science (B.S.) Degree in Agriculture with the following five concentrations: Agriculture Business and Economics, Teacher Education Endorsement, Animal Science and PreVeterinary Medicine, Aquatic Science, and Plant, Soil and Environmental Science with specialties in Horticulture and Soils.

The Human Ecology Program consists of two B.S. degrees, Hospitality Management (CHRIE accredited), and Family and Consumer Sciences (FACS) with the four concentrations: Dietetics (ADA accredited); Family, Child and Community Services, (FCCS); Teacher Education Endorsement; and Textile Apparel, Marketing and Management (TAMM). A post-baccalaureate non-degree, non-credit ADA accredited program, Dietetic Internship, provides eligibility to take the national Registered Dietitian (RD) Examination is also offered.

## Mission of Department

In accordance with the University's mission, The Department of Agriculture and Human Ecology is committed to assuring that each student reaches her/his full potential and excels in society.

## Objectives of Department

The objectives of the Department of Agriculture and Human Ecology are to:

- Facilitate growth and development of each student throughout his/her life span;
- Provide students with experiences to make them knowledgeable of the different and most recent developments in Agriculture and Human Ecology;
- Provide preparation for professional employment;

Prepare teachers in the field of Agriculture and Family and Consumer Sciences;
. Prepare students to enter advanced study in Agriculture and Human Ecology in graduate schools of their choice; and Prepare dietetic practitioners (RD).

## Academic Programs

## AGRICULTURE

Agriculture Business and Economics
Teacher Education Endorsement
Animal Science and Pre-Veterinary Medicine
Aquatic Science
Plant, Soil and Environmental Science

## The Program

The Agriculture curricula for prospective agricultural professionals are designed with differentiated sequences which permit the students to prepare for careers of their choice. Each sequence provides balance among general education, professional subject matter, concentration in specific areas, and restrictive electives.

The Teacher Education Endorsement Curriculum prepares individuals to serve effectively as secondary school teachers of agriculture, extension agents, and in positions with agriculturally related agencies and industries. Students preparing to teach will meet criteria established by the Center for the Undergraduate Professional Education Programs in the School of Liberal Arts and Education.

The Agriculture Business and Economics Curriculum focuses on the understanding and problem solving in the production, distribution, and consumption of agricultural goods as well as the management of services and natural resources. In addition, the curriculum emphasizes public policy, financial management, farm management, nonfarming agribusiness management and marketing. This program prepares students for advanced study in agribusiness, agricultural economics and/or employment in one of the many areas of agribusiness and/or agencies, such as the U. S. Department of Agriculture.

The Animal Science specialty is designed for the student who enjoys and is intrigued by science and welcomes the challenges of such a complex field of study. The program prepares students for admission to veterinary school and/or leads to suitable employment in many animal science and related specialties.

The Aquatic Science program is designed to prepare students for advanced study or professional and technical careers in hydrobiology, aquaculture and fisheries-oriented occupations. The focus of our Aquatic Science program is on aquaculture, the rearing of aquatic organisms under controlled or semi-controlled conditions.

The Plant, Soil and Environmental Science program is divided in three (3) program areas. Horticulture encompasses the production of fruits and vegetables for consumption, as well as the production of plants and flowers for decor and beautification. Soil Science furthers interest in soil productivity and land use. This diverse area examines soil use for plant and crop production, as well as other areas, such as soil used for foundations, construction of roads, waterways and numerous other areas. Environmental Science is the study and process of finding answers (or at least trying) to many of life's confusing questions. Examples: How can the watering of a lawn affect the water quality of a nearby stream? How can recycling an aluminum can help save fossil fuels and reduce both air and water pollution? How does the exhaust from cars in New York contribute to the decline of salmon in Canada?

## Course Descriptions

## AGRICULTURE

AGRI 340 INTRODUCTION TO AGRICULTURE - 2 semester hours F
A survey course designed to introduce students to the agricultural industry and to aid them in exploring the many different careers in agriculture.

## AGRI 295 CONTEMPORARY GLOBAL STUDIES (AND GLOBAL SEMINAR PROGRAM) 3 semester hours

This course is designed to introduce global issues on food security and its relationship to sustainable development. It is a multidisciplinary course to explore interrelationships between food, population, the environment, and socioeconomic development through a case study/discussion approach. It also examines the psychological implications of food security and sustainable development issues and their psychological impact.

AGRI 341 RESEARCH METHODS IN AGRICULTURE - 3 semester hours F

This course aims to train students in fundamental principles and practices related to research in agricultural sciences; literature search; preparation and review of scientific publications; preparation and presentations of scientific seminars; and preparation of resume/thesis/dissertation. Topics related to Ethics in Research and Reporting would also be discussed.
Prerequisite: Completion of core agriculture courses.
AGRI 400 INTERNSHIP - 3 semester hours
F, Sp
Assignment of students to an Agricultural Science or related agency in their junior year for practical on-the-job experience. This assignment involves career counseling, ethics in the work place, cooperating with others, and following the instructions of supervisors.

AGRI 401 INDEPENDENT STUDY - 3 semester hours
F, Sp
An opportunity for students to work independently on Agricultural Science related issues and problems under the guidance of a single professor.

## AGRICULTURAL ECONOMICS

## AGEC 140 INTRODUCTION TO AGRIBUSINESS ENTREPRENEURSHIP - 3 semester hours

An introductory course for all agricultural majors that will focus on the importance of business to the food and agricultural sector. The course will explore the mechanics of developing a business plan, applying the principles of marketing, management and finance.

AGEC 142 PRINCIPLES OF AGRICULTURAL ECONOMICS I - 3 semester hours F The fundamental principles of economics as applied to the agriculture economy. The syllabus will highlight the agricultural development of the U.S.A. The syllabus will also develop the concept of economics as a social science as well as the fundamental principles explaining the behavior of major economic units such as the consumer and farm-firm; price determination in general; the concept of elasticity; and the characteristics of various market structures such as perfect competition, monopoly, and oligopoly. Students will be introduced to the application economic principles to international trade, environmental management and agricultural policy.

AGRI 290 INTRODUCTION TO REMOTE SENSING - 3 semester hours
The course will introduce students to the fundamental concepts and applications of remote sensing in the areas of agriculture, biological, computer, political, and social sciences, and engineering. To complement classroom instruction, there will be extensive hands-on exercises based on computer software dedicated to remote sensing and integrating it in GIS. Field-trips will be organized to visit governmental agencies or institutions where remote sensing is being done.

AGEC 143 PRINCIPLES OF AGRICULTURAL ECONOMICS II - 3 semester hours
Fundamental principles of economics as applied to the agriculture economy. Particular attention is paid to factors determining the level of income and employment; the analysis of the impact of monetary and fiscal policy on the food and fibre sector.

## AGEC 344 FINANCIAL MANAGEMENT IN AGRICULTURE I-3 semester hours

F
An introduction to the principles of financial management with special application to the farm-firm decision making. Student will be grounded in the fundamentals of financial analysis, planning and control using three basic financial statements- balance sheet, income statement, and cash flow budget. Other major areas of concern will include capital structure, liquidity and risk management. The essentials for the assessment of Agricultural business performance will include profitability, risk and liquidity management.
Prerequisites: AGEC 142, 143 Principles of Agricultural Economics I \& II; ACCT 201, 202 Principles of Accounting; STAT 210 Elementary Statistics

AGEC 342 COOPERATIVE MARKETING - 3 semester hours
Survey of cooperative activities with emphasis on agricultural marketing cooperatives; types of cooperatives; methods of organization and operation; principles; legal and tax aspects; cooperative finance; economic possibilities and limitations of cooperation.

AGEC 346 FARM BUSINESS MANAGEMENT - 3 semester hours Sp
Business and economic principles applied to decision making in the management of the farm business. Emphasis will be placed on cash flow, partial, enterprise, and whole farm budgeting information systems for farm accounting, analysis, and control. Obtaining and managing land, capital and labor resources. Alternatives for farm business organization.
Prerequisites: ECON 310 Microeconomics; AGEC 344 Financial Management in Agriculture
AGEC 347 LAND ECONOMICS - 3 semester hours
Principles of land utilization emphasizing problems of land management, land tenure, factors, affecting the value of farm land, land classification and changes in land utilization. Investigation of the role of public policy in land ownership and use.

## Prerequisite: ECON 310 Microeconomics

AGEC 441 MANAGEMENT OF AGRI-BUSINESS FIRMS - 3 semester hours Sp
Principles of production, marketing, financial and human resource management and their application to the operation and management of firms serving agriculture. This course is intended to increase students' ability to apply basic economic concepts to decision making in the agri-business firm. Problem solving involving quantitative and conceptual analyses of production and investment decisions, pricing strategies, technological change, and the management of risk.
Prerequisites: AGEC 344 Financial Management in Agriculture I; ECON 310 Microeconomics; STAT 210 Elementary Statistics; AGEC 447 Agricultural Marketing

## AGEC 443 FINANCIAL MANAGEMENT IN AGRICULTURE II - 3 semester hours Sp

Financial analysis of the farm firm; factors affecting firm growth; capital budgeting techniques; investment analysis; financial aspects of leasing; legal aspects of lending; financial intermediation and major financial institutions for agriculture; credit scoring; loan pricing; and asset-liability management by agricultural lending institutions; public policies affecting agricultural credit markets; risk management strategies in agriculture; farm insurance; farm real estate appraisal, international dimensions of agricultural finance.
Prerequisites: ECON 310 Microeconomics; ECON 320 Macroeconomics; STAT 210 Elementary Statistics
AGEC 444 AGRICULTURE POLICY - 3 semester
Sp
An examination of the process of public policy making for the Food, Agriculture and Natural Resources sector of the economy. Particular attention is paid to the rationale for public policy intervention in agriculture as well as the mechanisms used to intervene; instability and stabilization of agriculture prices and income; government policy choices and implementation.
Prerequisites: ECON 310 Microeconomics; GEHI 122, 123 U.S. History;
GEPO 150 United States Government decision making in agriculture. Accounting control concepts and decision theory as used to manage agriculture enterprises.

## AGEC 447 AGRICULTURE MARKETING - 3 semester hours

F
The study of the structure and function of the food marketing system, demand, supply and market price determination; marketing margins; product quality and grading; markets over space. Markets over time; storage, price discovery and risk management. Market structure, performance and efficiency in agricultural markets. Marketing institutions; cooperatives and agricultural policy.
Prerequisites: ECON 310

## AGEC 448 INTRODUCTION TO COMMODITY MARKETING

Fundamental of managing agricultural risks through the futures and options markets. The mechanics of trading in the futures market. The principles of fundamental and technical analysis.

## ENDORSEMENT IN AGRICULTURAL EDUCATION

## AGRI 240 AGRICULTURE YOUTH AND ADULT ORGANIZATIONS - 3 semester hours

Introduce students to the organization and functions of 4-H, FFA, and other youth and adult groups. Students will observe, practice and develop leadership skills necessary to succeed as advisors of organizations. A practicum will be used in conjunction with this course for observation of groups and group leaders.

AGRI 342 METHODS OF TEACHING AGRICULTURE - 3 semester hours
S
Prepares students to organize and provide instruction to all types of agriculturally oriented groups. A practicum is used to provide an opportunity for the student to observe methods of teaching by experienced teachers.

AGRI 343 PRINCIPLES AND PRACTICES OF AGRICULTURAL EDUCATION - 3 semesters hours Sp Students will develop an insight into the history and philosophy of a program of agricultural education program in secondary schools. Special emphasis will be given to planning, conducting and managing a department. A practicum will be used to observe teachers in as they perform management tasks involved in operating a successful educational program for youth and adults.

AGRI 402 STUDENT TECHING IN AGRICULTURE - 3 semester hours
This course is designed to provide supervision on the content area for pre-service secondary agriculture candidates.
Prerequisite: Department approval
Corequisite: EDUC 402 Student Teaching Seminar; EDUC 402 Student Teaching
AGRI 446 PRINCIPLES OF COOPERATIVE EXTENSION - 3 semester hours Sp
A study of the philosophy, history and development of the Cooperative Extension Service. In addition, attention is given to leadership training, and instructional methods and techniques. Each student will be required to complete a practicum with a selected extension agent.

## AGRICULTURAL MECHANIZATION

AGME 140, 141 AGRICULTURAL MECHANICS - 2 semester hours
F, Sp
The selection, care and use of supplies, tools and equipment to plan and make practical application of mechanical skills in the area of welding, woodworking (hand and power) soldering, pipe fitting, painting, sketching, drawing and plan reading.

A study of the construction, operation, adjustment and management of agricultural implements and power machinery. Primary emphasis is on tractor and machinery management.

AGME 442 ADVANCED AGRICULTURAL MECHANICS - 3 semester hours F

Emphasis on organization and management of the agricultural mechanics laboratory, selection, care, and use of power equipment in construction and repair jobs. Special emphasis is placed on developing skills in areas where the student is deficient.

AGME 445 INTERNAL COMBUSTION ENGINES - 3 semesters hours
A study of internal combustion engines to include principles of designing, operating, rating, testing, overhauling, and the application for agricultural uses. Primary emphasis is on the basic operation of air cooled engines.

AGME 446 AGRICULTURAL POWER MACHINERY - 3 semester hours
A study of construction, operation, and adjustment of agricultural implements, and power machinery.
AGME 447 ADVANCED INTERNAL COMBUSTION ENGINES - 3 semester hours Sp
A study of multi-cylinder internal combustion engines, including designing, operating, testing, repairing, overhauling, and the application of agricultural uses.

## ANIMAL SCIENCE AND PRE-VETERINARY MEDICINE

ANSC 140 PRINCIPLES OF ANIMAL SCIENCE - 3 semester hours Sp
Gives an overview of the biological principles applicable to the animal sciences. Concentrates mainly on reproduction, genetics, nutrition, lactation, and other facets of the animal industries.

ANSC 241 LIVESTOCK FARM PRACTICES - 3 semester hours
F
Supervised farm practices in feeding, handling, and managing farm animals.
Prerequisite: ANSC 140 Principles of Animal Science
Sophomore or above standing
ANSC 242 PRINCIPLES OF POULTRY PRODUCTION - 3 semester hours
F
Principles and practices underlying the reproduction and growth of the domestic fowl. Includes the study of breeds, varieties and types of poultry.

## ANSC 246 INTRODUCTION TO EQUINE SCIENCE - 3 semester hours

A study of the fundamental principles of equine science to include: Horse terminology, impact of horses on society, history, breeds, management, genetics, reproduction, health, nutrition, behavior, riding, and the business aspects of horse industry.

ANSC 343 SWINE PRODUCTION- 3 semester hours
Feeding and management practices used in purebred and commercial swine production
Prerequisite: ANSC 342 Principles of Poultry Production
ANSC 344 BEEF CATTLE PRODUCTION - 3 semester hours
Methods of producing, managing, and marketing commercial and purebred cattle.
ANSC 345 VETERINARY ANATOMY AND PHYSIOLOGY - 3 semester hours
F
A consideration of gross anatomy and physiological functions of animals as a background for the studies in nutrition, reproduction and diseases.
Prerequisites: BIOL 112 Principles of Modern Biology; BIOL 113 General Zoology; ANSC 140 Principles of Animal Science

## ANSC 348 FARM DAIRYING - 3 semester hours

Teaches the basic principles of dairy management, current knowledge in the many areas of dairy science and present day practices of successful dairy persons.

## ANSC 349 VETERINARY HYGIENE - 3 semester hours

 FPredisposition, causes and symptoms of infections, parasitic and nutritional diseases with emphasis on prevention and control through management and sanitation.

## ANSC 350 SMALL RUMINANT MANAGEMENT - 3 semester hours

Principles and practices of production, management, and marketing of small ruminants (ex. sheep, goats). The role of genetics, nutrition, reproduction and animal health will also be emphasized.

ANSC 351 FEEDS AND FEEDING - 3 semester hours
F
Basic nutritional principles, composition and value of feeds and the formulation of rations for farm animals.
ANSC 441 ANIMAL NUTRITION - 3 semester hours F

Course matter focuses on nutrients and their digestion, metabolism, biological role and the principles of animal nutrition.

ANSC 446 SPECIAL TOPICS - 3 semester hours
F
Presentation and discussion of papers on animal industry subjects.
ANSC 447 SPECIAL PROBLEMS - 3 semester hours
Sp
Lectures and assignments relating to industry problems in breeding, nutrition, diseases, market products, and management of farm animals.
Prerequisites: ANSC $\mathbf{1 4 0}$ Principles of Animal Science
ANSC 448 ADVANCED LIVESTOCK PRODUCTION - 3 semester hours
A study of economic, nutritional and managerial factors affecting the operation of livestock enterprises. Field trips required.
Prerequisite: ANSC 140 Principles of Animal Science
ANSC 449 SEMINAR - 3 semester hour
Research and presentation of important literature related to the animal sciences. Areas of economic importance to the agricultural community will be emphasized.

## AQUATIC SCIENCE

AQSC 201 INTRODUCTION TO AQUACULTURE - 3 semester hours
Principles of sustainable aquatic production of plants and animals will be discussed. A survey of the history of aquaculture, including an overview of major aquaculture products in Virginia, the United States and abroad. Environmental considerations, alternative facilities, required inputs, marketing, and job opportunities will also be discussed. Field trips to aquaculture industry sites will be conducted. organisms, management requirements, and facilities will be discussed. Emphasis will be on system designs for open, semi-closed, and closed aquatic systems.

Techniques of pond management are explored with emphasis on aquatic production. Focus is on identification of standard and maintenance of environmental quality, the chemistry of water quality testing, and use of testing kits and devices. Pond safety and integration of aquatic environment with other uses are discussed. Hands-on field activities are incorporated into classroom discussions.

AQSC 402 FISH PATHOLOGY - 3 semester hours
F
Prevention of fish health concerns is emphasized. Primary bacterial, parasitic and other fish pathogen are identified. Procedures for sample collection, preparation and analysis are presented. Practical laboratory techniques are performed.

## AQSC 404 FISH BREEDING AND GENETICS - 3 semester hours

An overview of the history of genetics and fish breeding will be presented. Emphasis is placed on aquacultural fish cultured in Virginia. Basic genetic principles are discussed as they apply to selected fish breeding programs.

## AQSC 406 SALMONIDS - 3 semester hours

Focus is on an overview of salmonid fish and salmonid aquaculture in Virginia. Principles of salmonid aquaculture including spawning, incubation, feed formulation, disease control, genetics, systems management, harvesting, and marketing are presented. Class participates in practical rainbow trout culture exercises.

AQSC 407 FISH PROCESSING TECHNOLOGY - 3 semester hours
Chemical and biological aspects of fishery products as related to the use of these products for human foods; principles of preservation; unit operation in processing, packaging, storage and distributions.

AQSC 408 FISH NUTRITION- 3 semester hours
Occurrence, distribution, and role of carbohydrates, lipids, proteins, vitamins, nucleic acids, and other compounds in fish and other aquatic organisms. Topics include digestion, absorption, respiration, excretion, growth, reproduction, body fluids, general metabolism, intermediary metabolism, energy metabolism, and detoxification. Emphasis on biochemistry as it related to nutrition, fish and other aquatic organisms.
Prerequisites: CHEM 101 General Chemistry; CHEM 102 General Chemistry
AQSC 409 AQUACULTURAL ECONOMICS - 3 semester hours Sp
Operation of hatcheries for the production of cold water and warm water food fish, game fish, and bait minnows; care of brood fish; methods of stocking, fertilizing, supplementary feeding; and related hatchery problems. Emphasis on spawning, rearing, harvesting and distribution.

## HORTICULTURE

HORT 253 VEGETABLE PRODUCTION - 3 semester hours
A study of commercial vegetable production with special emphasis on large-scale production, harvesting, and marketing vegetables. Some home garden techniques will be studied.

HORT 340 LANDSCAPE DESIGN - 3 semester hours
A study of the principles of landscape as applied to schools, home grounds and public areas; the use of common plant material; practices in simple designs and drawings.

## HORT 350 ADVANCED LANDSCAPE DESIGN - 3 semester hours

A study of the designing of the home grounds, the country estate, special gardens and playgrounds. This course is for advanced horticultural students. Practices in designs and drawing will be emphasized.
Prerequisite: HORT 340
HORT 351 FRUIT PRODUCTION - 3 semester hours
F
A study of the principles and practices underlying deciduous large fruit production--apples, pears, plums, peaches, cherries, and nuts--with special reference to temperature, moisture, nutrition, fruit seeding and pruning.

HORT 352 PLANT MATERIALS I - 3 semester hours
F
A study and identification of perennials, biannuals and annuals for ornamental planting and planting plans. Special emphasis will be on the flower and leaf as a means of identification.

HORT 353 PLANT MATERIALS II - 3 semester hours F

A study and identification of tress, shrubs and vines for general ornamental planting. Planting plans, sketches and written reports required. Tree and shrub identification will be emphasized.

HORT 440 THEORY OF LANDSCAPE DESIGN - 3 semester hours
Economic and aesthetic theory of design, taste, character historic styles and composition; natural elements in design; planting design. Students will be required to use various theories in planting designs.

## HORT 444 COMMERCIAL FLORAL ARRANGEMENT - 3 semester hours

Essentials of flower arrangement, the commercial flower shop; sources of supplies and sales. Emphasis will be on techniques, fundamental skills and methods used when creating modern commercial designs.

## HORT 446 GREENHOUSE CROPS AND MANAGEMENT - 3 semester hours

Principles of greenhouse operation, propagation, ventilation, heating, watering, fumigation, soil sterilization and potting. Emphasis will be place on practical application of several management procedures.

## HORT 448 PROBLEMS IN LANDSCAPE - 3 semester hours

Investigations in landscape gardening by advanced students. Conferences and reports are required. Landscape designs and landscape plans will be a part of this course. Investigations must be modern problems of the landscape industry.

HORT 449 PLANT PROPAGATION AND NURSERY PRACTICE - 3 semester hours
Methods of propagating plants, nursery organization and techniques. Emphasis will be placed on a complete up-todate coverage of all phases of plant propagation from a theoretical and an applied aspect.

## HORT 450 PROBLEMS IN HORTICULTURE - 3 semester hours

Investigations in horticultural problems by advanced students. Conferences and reports are required. Investigations by students must be modern concerns of the horticultural industry.

## PLANT SCIENCE

PLSC 140 PRINCIPLES OF PLANT SCIENCE - 3 semester hours
F
An in-depth study of the fundamentals of plant science, including basic principles of plant growth, culture, development, propagation and the relationship of the broad industry of agriculture to plant development.

PLSC 341 FIELD CROPS PRODUCTION - 3 semester hours
A study of the distribution, adaptation, cultural practices, and selection of the principal field crops. Special attention will be given to the identification and habitats of cereal crops, legumes and grasses.

PLSC 352 FORAGE CROPS AND PASTURE MANAGEMENT - 3 semester hours
A study of the production and handling of leading forage crops, their relationship to the livestock industry and the maintenance of soil fertility. Special attention is given to hay and pasture management.

PLSC 440 PLANT RESISTANCE TO INSECTS - 2 semester hours
F
The study of mechanisms of plant resistance to insects' attack and the utilization of insect control by chemical and non-chemicals means. Special attention is given to factors related to the cause of resistance and methods of breeding insect restraint varieties of field and horticultural crops.

## PLSC 441 PLANT PATHOLOGY - 4 semester hours

A study of the nature, cause and control of plant diseases. This course will concentrate on disease of field, orchard and vegetable crops.

## PLSC 442 PROBLEMS IN PLANT SCIENCE - 3 semester hours

This course is designed for advanced students to work independently on problems relating to genetics and physiology of horticulture and field crops. The problem studied must be one of modern concern to the plant science industry.

## PLSC 444 GENETICS - 3 semester hours

An in-depth study of the fundamental principles, mechanisms, and heredity of plants and animals. Emphasis will be placed on genetic engineering and gene transfer of crops and animals.

## PLSC 445 ECONOMIC ENTOMOLOGY - 3 semester hours

A study of the classification, structure, description, habits of the principal insects and the methods of control. Student will also become familiar with the economic benefits and importance of insects to humans.
Prerequisites: BIOL 120 Principles of Modern Biology or BIOL 313 General Zoology or equivalent

## PLSC 446 PLANT PHYSIOLOGY - 4 semester hours

A study of the plant cell, solutions, and membranes in relation to the cell root systems. Emphasis will be placed on the plant cell response to the intake of water, intake of solutes, induced elements, and the loss of water.

## PLSC 448 PLANT BREEDING - 3 semester hours

A study of the application of genetics and simple biometric constants to the breeding of field and horticultural crops. The history and creation of plant transformation will be emphasized.

## Prerequisite: PLSC 444 Genetics

PLSC 450 INTRODUCTION TO FORESTRY - 3 semester hours
A study of the broad concept of forestry and forestry products with special interest on ecology, silviculture, reproduction, protection, measurement and other forest management practices.

PLSC 454 SPECIAL TOPICS IN CROP SCIENCE - 3 semester hours
Selected topics for advanced student dealing with current issues in crop science. Special emphasis is placed on modern crop production problems.

PLSC 455 TURF MANAGEMENT - 3 semester hours $\quad$ F, Sp
A study of turf grasses and their growth requirements, including the various turf operations, equipment needs, materials and work programs designed for the efficient maintenance of turf as related to specific uses.

## SOIL SCIENCE

## SOSC 242 SOIL SCIENCE - 4 semester hours

An introduction to principles of soil science. Introduces the fundamentals of the physical, chemical and biological properties of soil, the formation, classification, distribution, productivity, and conservation of soils.

SOSC 345 SOIL FERTILITY AND FERTILIZERS - 4 semester hours
An assessment of the fertility of soils and alteration of fertility by the use of fertilizers, lime, manure, and cropping systems. The role of colloids in ion fixation exchange. Soil and tissue tests. The history, technology and use of fertilizers and their importance to the abatement of world famine and malnutrition.
Prerequisites: SOSC 242 Soil Science: CHEM 101 General Chemistry
SOSC 347 SOIL CLASSIFICATION - 2 semester hours
F
An overview of soil taxonomy; how soils are grouped and organized based on their properties. Describing soil pedons in the field, how they are formed, and their classification.
Prerequisite: SOSC 242 Soil Science; CHEM 101 General Chemistry
SOSC 450 PROBLEMS IN SOIL SCIENCE - 1-4 semester hours
Sp
Individual study or research on soil or land-use problems. Study of local, regional, national, and world problems related to soils, remedies and reuse after reclamation.
Prerequisite: SOSC 242 Soil Science; CHEM 101 General Chemistry
SOSC 455 WORLD SOIL RESOURCES - 3 semester hours
A study of properties of soils, world soil geography, classification, present and potential productivity of soils in various continents, and factors influencing their utilization.
Prerequisites: SOSC 242 Soil Science; CHEM 101 General Chemistry

## SOSC 344 SOIL MANAGEMENT AND CONSERVATION - 3 semester hours

This course will emphasize soil resources of the United States and methods and plans for soil conservation, including control of erosion, the effects of climatic factors, vegetation, soil properties and other management practices on soil conservation and fertility maintenance.

## Prerequisites: SOSC 242 Soil Science; CHEM 101 General Chemistry

SOSC 345 SOIL FERTILITY AND FERTILIZERS - 4 semester hours
An assessment of the fertility of soils and alteration of fertility by the use of fertilizers, lime, manure, and cropping systems. The role of colloids in ion fixation exchange. Soil and tissue tests. The history, technology and use of fertilizers and their importance to the abatement of world famine and malnutrition.
Prerequisites: SOSC 242 Soil Science; CHEM 101 General Chemistry
SOSC 347 SOIL CLASSIFICATION - 2 semester hours
An overview of soil taxonomy; how soils are grouped and organized based on their properties. Describing soil pedons in the field, how they are form, and their classification.
Prerequisite: SOSC 242 Soil Science; CHEM 101 General Chemistry
SOSC 450 PROBLEMS IN SOIL SCIENCE - 1-4 semester hours
Individual study or research on soil or land-use problems. Study of local, regional, national, and world problems related to soils, remedies and reuse after reclamation.
Prerequisites: SOSC 242 Soil Science; CHEM 101 General Chemistry
SOSC 455 WORLD SOIL RESOURCES - 3 semester hours
A study of properties of soil, world soil geography, classification, present and potential productivity of soils in various continents, and factors influencing their utilization.
Prerequisites: SOSC 242 Soil Science; CHEM 101 General Chemistry

## ENVIRONMENTAL SCIENCE

AGRI 150 INTRODUCTION TO ENVIRONMENTAL SCIENCE - 4 semester hours F, Sp Introduces the principles and basic facts of the natural environment. The course will focus on land forms, vegetation and soils, air and water pollution, water quality monitoring, acid rain, the greenhouse effect, biodiversity, sustainability, and global change. Emphasis is placed on the application of basic science to the understanding and mitigation of current environmental problems. Course format demonstrates how the environment works and how the human use of resources perturbs the environment, citizen action for past, present, and future decisions. A laboratory is taken in conjunction and provides hands on laboratory exercises related to selected lecture topics.

## AGRI 280 PRINCIPLES OF GEOGRAPHIC INFORMATION SYSTEMS - 3 semester hours

The course is designed to introduce students to the fundamental Principles of Geographic Information Systems (GIS). The course provides students with a general view of the applications of GIS in a host of disciplines, an exposure to geographic data structures, and an understanding of computerized spatial display and analysis. Special emphasis will be placed on natural resource management, including agriculture and environment. The course is recommended for juniors and seniors from any discipline and will involve instruction, discussion on assigned topics, hands-on activities using GIS software programs, and field trips.

## AGRI 290 INRODUCTION TO REMOTE SENSING - 3 semester hours

The course will introduce students to the fundamental concepts and applications of remote sensing in the areas of agriculture, biological, computer, political, and social sciences, and engineering. To complement classroom instruction, there will be extensive hands-on exercises based on computer software dedicated to remote sensing and integrating it in GIS. Field-trips will be organized to visit governmental agencies or institutions where remote sensing is being done.

## DEPARTMENT OF AGRICULTURE AND HUMAN ECOLOGY AGRICULTURE MAJOR <br> Animal Science and Pre-Veterinary Medicine Concentration Bachelor of Science Degree

|  |  | Semester Hours |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $\mathbf{1}^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
|  | FRESHMAN YEAR |  |  |  |
| ENGL 110, 111 | Freshman Writing/Read and Writ Lit 1 | 3 | 3 | 6 |
| MATH 120, 121 | Mathematics | 3 | 3 | 6 |
| BIOL 120 | Principles of Mod \& Lab | 4 | - | 4 |
| BIOL 313 | Zoology \& Zoology Lab | - | 4 | 4 |
| ANSC 140 | Principles of Animal Science | - | 3 | 3 |
| HPER 170 | Wellness/Health | 2 | - | 2 |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| GEHI 122 | US History | - | 3 | 3 |
| AGRI 140 | Introduction to Agriculture | $\underline{2}$ |  | $\underline{5}$ |
|  |  | 16 | 16 | 32 |
| SOPHOMORE YEAR |  |  |  |  |
| ENGL 201 | Introduction to Literature | 3 | - | 3 |
| SPEE 212 | Introduction to Public Speaking | - | 3 | 3 |
| GEHI 123 | U.S. History | 3 | - | 3 |
| CHEM 101, 103 | General Chemistry I \& Lab | 4 | - | 4 |
| CHEM 102, 104 | General Chemistry II \& Lab | - | 4 | 4 |
| ASYM 130 | Introduction to Microcomputers | 3 | - | 3 |
| PLSC 140 | Principles of Plant Science | 3 | - | 3 |
| PHIL 180 | Critical Thinking | - | 3 | 3 |
| ANSC 242 | Principles of Poultry Production | - | 3 | $\underline{3}$ |
|  |  | 16 | 13 | 29 |
| JUNIOR YEAR |  |  |  |  |
| GEPS 124 | Introduction to Psychology | 3 | - | 3 |
| PHYS 110 | General Physics I \& Lab | 4 | - | 4 |
| PHYS 111 | General Physics II \& Lab | - | 4 | 4 |
| CHEM 305, 307 | Organic Chemistry I and Lab | 4 | - | 4 |
| CHEM 306, 308 | Organic Chemistry II \& Lab | - | 4 | 4 |
| ANSC 351 | Feeds and Feeding | - | 3 | 3 |
| ANSC 345 | Veterinary Anatomy \& Physiology | 3 | - | 3 |
| ANSC 346 | Physiology of Reproduction | - | 3 | 3 |
| ANSC 349 | Veterinary Hygiene | - | 3 | 3 |
|  |  | 14 | 17 | 31 |
| SENIOR YEAR |  |  |  |  |
| CHEM 422 | Bio Chemistry \& Lab | 4 | - | 4 |
| PLSC 444 | Genetics | - | 3 | 3 |
| GEOG 210 | World Geography | - | 3 | 3 |
| ANSC 344 | Beef Cattle Production | 3 | - | 3 |
| ANSC 441 | Animal Nutrition | 3 | - | 3 |
| BIOL 241 | Introduction to Microbiology \& Lab | 4 | - | 4 |
| ANSC 343 | Swine Production | - | 3 | 3 |
| ANSC 447 | Special Problems | 3 | - | 3 |
| ANSC 446 | Special Topics | $=$ | $\underline{3}$ | $\underline{3}$ |
|  |  | 17 | 12 | 29 |

## Elective:

| ANSC 448 | - | Advanced Livestock (3) |
| :--- | :--- | :--- |
| AGRI 341 | - Research Methods in Agriculture (3) |  |
| AGRI 400 | - Internship (3) |  |
| AGRI 401 | - Independent Study (3) |  |
| ANSC 348 | - Farm Dairy (3) |  |
| ANSC 246 | - Introduction to Equine Science (3) |  |
| ANSC 350 | - Small Ruminant Management (3) |  |
| ANSC 449 - | Seminar (3) |  |

## DEPARTMENT OF AGRICULTURE AND HUMAN ECOLOGY AGRICULTURE MAJOR Animal Science Concentration Bachelor of Science Degree

## FRESHMAN YEAR

| ENGL 110, 111 | Freshman Writing/Read and Writ Lit 1 | 3 | 3 | 6 |
| :--- | :--- | :--- | :--- | :--- |
| MATH 120, 121 | Mathematics | 3 | 3 | 6 |
| BIOL 120 | Principles of Mod Biology \& Lab | 4 | - | 4 |
| BIOL 313 | Zoology \& Zoology Lab | - | 4 | 4 |
| ANSC 140 | Principles of Animal Science | - | 3 | 3 |
| HPER 170 | Wellness/Health | 2 | - | 2 |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| GEHI 122 | US History | - | 3 | 3 |
| AGRI 140 | Introduction to Agriculture | $\underline{2}$ | - | $\underline{5}$ |
|  |  | 16 | 16 | 32 |

ENGL 201 Introduction to Literature 3 - 3
SPEE 212 Introduction to Public Speaking -3
GEHI 123 U.S. History 3
CHEM 101, 103 General Chemistry I \& Lab 4 - 4

| CHEM 102, 104 | General Chemistry II \& Lab | - | 4 | 4 |
| :--- | :--- | :--- | :--- | :--- |
| ASYM 130 | Introduction to Microcomputers | 3 | - | 3 |

PLSC $140 \quad$ Principles of Plant Science 3
GEOG 210 World Geography - 3
PHIL 180 Critical Thinking - 3

AGME 242

GEPS 12
PHYS 110
GEMA 380
ANSC 242
ANSC 344
ANSC 345
ANSC 346
SOSC 242
AGEC 140
ANSC 351
Introduction to Agricultural Engineering

JUNIOR YEAR
Introduction to Psychology 3 - 3

| General Physics I \& Lab | 4 | - | 4 |
| :--- | :--- | :--- | :--- |

Music and Art - 3
Poultry Production 3 - 3
Beef Cattle Production 3 - 3
Veterinary Anatomy \& Physiology 3 - 3
Physiology of Reproduction - 3
Principles of Soil Science $\quad-\quad 4$
Agri-business Entrepreneurship - 3
$\begin{array}{lllll}\text { Feeds and Feeding } & - & \underline{3} & \underline{3}\end{array}$
SENIOR YEAR

| CHEM 305, 307 | Organic Chemistry I \& Lab | 4 | - | 4 |
| :--- | :--- | :---: | :---: | :---: |
| PLSC 444 | Genetics | - | 3 | 3 |
| ANSC 441 | Animal Nutrition | 3 | - | 3 |
| BIOL 241 | Introduction to Microbiology \& Lab | 4 | - | 4 |
| ANSC 343 | Swine Production | - | 3 | 3 |
| ANSC 348 | Farm Dairy | - | 3 | 3 |
| ANSC 350 | Small Ruminant Management | 3 | - | 3 |
| ANSC 448 | Advanced Livestock | - | $\underline{3}$ | $\underline{3}$ |
|  |  | 14 | 12 | 26 |

Electives
AGRI 341 - Research Methods in Agriculture (3)
AGRI 400 - Internship (3)
AGRI 401 - Independent Study (3)
ANSC 246 - Introduction to Equine Science (3)
ANSC 449 - Seminar (3)
Total hours required for graduate - 122

## DEPARTMENT OF AGRICULTURE AND HUMAN ECOLOGY AGRICULTURE MAJOR <br> Aquatic Science Concentration Bachelor of Science Degree

| Semester |  |  |
| :---: | :---: | :---: |
| $1^{\text {st }}$ | $2^{\text {nd }}$ | Total |
| Sem | Sem | Hours |

## FRESHMAN YEAR

| GEEN 110, 111 | Freshman Writing/Read and Writ Lit 1 | 3 | 3 | 6 |
| :---: | :---: | :---: | :---: | :---: |
| MATH 120, 121 | Mathematics | 3 | 3 | 6 |
| BIOL 100 | Principles Biology I \& Lab | 4 | - | 4 |
| BIOL 101 | Principles Biology II \& Lab | - | 4 | 4 |
| AGRI 140 | Introduction to Agriculture | 2 |  | 2 |
| PLSC 140 | Principles of Plant Science | 3 | - | 3 |
| AGEC 142 | Introduction to Agribus Entr | - | 3 | 3 |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| GEHE 164 | Wellness/Health Elective | $\overline{17}$ | $\frac{2}{15}$ | $\underline{3}$ |
| SOPHOMORE YEAR |  |  |  |  |
| ENGL 201 | Introduction to Literature | 3 | - | 3 |
| GEEN 310 | Advanced Communication Skills | - | 3 | 3 |
| GEHI 122 | U.S. History | 3 | - | 3 |
| CHEM 101, 103 | General Chemistry I \& Lab | 4 | - | 4 |
| CHEM 102, 104 | General Chemistry II \& Lab | - | 4 | 4 |
| SOSC 242 | Principles of Soils | - | 4 | 4 |
| ECON 210 | Principles of Microeconomics | 3 | - | 3 |
| AGME 242 | Principles of Ag Mechanics | - | 3 | 3 |
| AGSC 201 | Introduction to Aquaculture | - | 3 | 3 |
| GE | Technology Elective | $\underline{3}$ | - | $\underline{3}$ |
|  |  | 16 | 17 | 33 |
| JUNIOR YEAR |  |  |  |  |
| ANSC 346 | Physiology of Reproduction | 3 | - | 3 |
| BIOL 241 | Introduction to Microbiology | 4 | - | 4 |
| GEMU 380 | Music and Art | - | 3 | 3 |
| CHEM 305, 307 | Organic Chemistry \& Lab | 4 | - | 4 |
| AQSC 301 | Aquatic Culture System Design | - | 3 | 3 |
| AQSC 302 | Management of Aquatic Weeds | - | 3 | 3 |
| ANSC 441 | Animal Nutrition | - | 3 | 3 |
|  | Language (200 level or above) | 3 | $\underline{3}$ | $\underline{6}$ |
|  |  | 14 | 15 | 29 |
| SENIOR YEAR |  |  |  |  |
| AQSC 401 | Fish Pond Management | 3 | - | 3 |
| AQSC 402 | Fish Pathology | 3 | - | 3 |
| AGRI 400 | Internship | 3 | - | 3 |
| AQSC 404 | Limnology | - | 3 | 3 |
| AQSC 405 | Fish Breeding and Genetics | - | 3 | 3 |
| AQSC 406 | Salmonids | - | 3 | 3 |
|  | Restrictive Elective | 5 | - | 5 |
|  | Unrestrictive Elective | = | $\underline{3}$ | $\underline{3}$ |
|  |  | 14 | 12 | $\frac{26}{}$ |

## Electives:

AGRI 150 - Introduction to Environment Science (3)
AGRI 341 - Research Methods in Agriculture (3)
AGRI 401 - Independent Study (3)
Total hours required for graduation - 120

## DEPARTMENT OF AGRICULTURE AND HUMAN ECOLOGY AGRICULTURE MAJOR Agriculture Business and Economics Concentration Bachelor of Science Degree

| Semester |  |  |
| :---: | :---: | :---: |
| $\mathbf{1}^{\text {st }}$ | $2^{\text {nd }}$ | Total |
| Sem | Sem | Hours |

## FRESHMAN YEAR

| ENGL 110, 111 | Composition I \& II |
| :--- | :--- |
| GEES 181 | Earth Science and Lab |
| AGRI 150 | Environmental Science Lab |
| MATH 120, 121 | College Algebra \& Trig |
| AGEC 142 | Intro to Agriculture Econ I |
| AGRIC 140 | Introduction to Agriculture |
| HPER | Wellness/Health |
| FRST 101 | Freshman Studies |
| ECON 210 | Principles of Microeconomics |

## SOPHOMORE YEAR

| ENGL 214 | World Literature | 3 | - | 3 |
| :---: | :---: | :---: | :---: | :---: |
| SPEE 214 | Introduction to Public Speaking | - | 3 | 3 |
| ACCT 201, 202 | Principles of Accounting | 3 | 3 | 6 |
| GEHI 122 | U.S. History | 3 | - | 3 |
| STAT 210 | Elementary Statistics | 3 | - | 3 |
| ASYM 130 | Introduction to Microcomputers | - | 3 | 3 |
| PLSC 140 | Principles of Plant Science | 3 | - | 3 |
| ANSC 140 | Principles of Animal Science | - | 3 | 3 |
| ECON 310 | Microeconomics | - | $\underline{3}$ | $\underline{3}$ |
|  |  | 15 | 15 | 30 |
|  | JUNIOR YEAR |  |  |  |
| AGEC 346 | Farm Management | 3 | - | 3 |
| AGEC 344 | Agriculture Financial Mgmt I | 3 | - | 3 |
| ECON 320 | Macroeconomics | - | 3 | 3 |
| AGME 242 | Principles of Mechanics | 3 | - | 3 |
| CISY 260 | Business Statistics | 3 | - | 3 |
| GEHI 119 | Chemistry \& Society \& Lab | 4 | - | 4 |
| GEPO 150 | United States Government | - | 3 | 3 |
| SOSC 242 | Principles of Soil Science | - | 4 | 4 |
|  | Global Studies Elective | - | 3 | 3 |
| AGRI 280 | Geographic Information Systems | - | $\underline{3}$ | $\underline{3}$ |
|  |  | 16 | 16 | 32 |
|  | SENIOR YEAR |  |  |  |
| AGEC 441 | Management of Agribus Firms | 3 | - | 3 |
| AGEC 447 | Agriculture Marketing | 3 | - | 3 |
| AGEC 443 | Agriculture Financial Mgmt II | - | 3 | 3 |
| MGMT 270 | Legal Environment of Bus | - | 3 | 3 |
| AGME 242 | Principles of Ag Mechanics | - | 3 | 3 |
| AGEC 444 | Agriculture Policy | 3 | - | 3 |
|  | Agriculture Elective | 3 | 2 | 5 |
| ECON 380 | Econometrics | - | $\underline{3}$ | $\underline{3}$ |
|  |  | 12 | 14 | 26 |

## Electives

AGRI 341 - Research Methods in Agriculture (3)
AGRI 400 - Internship (3)
AGRI 401 - Independent Study (3)
Total hours required for graduation - 120

## DEPARTMENT OF AGRICULTURE AND HUMAN ECOLOGY AGRICULTURE MAJOR <br> Environmental Science Concentration Bachelor of Science Degree

| Semester |  |  |
| :---: | :---: | :---: |
| $\mathbf{1}^{\text {st }}$ | $2^{\text {nd }}$ | Total |
| Sem | Sem | Hours |

## FRESHMAN YEAR

ENGL 110, 111
AGRI 150
MATH 120, 121
AGRI 140
PLSC 140
FRST 101
GEPE
BIOL 120
AGEC 141
HPER

ENGL 201
SOSC 242
CHEM 101, 103
ANSC 140
SPEE 214
GE
GEHI 122
AGME 242
CHEM 102, 104

AGRI 280
SOSC 345
STAT 210
BIOL 241
STAT 310
CHEM 113
BIOL 424
ECON 210

| Composition I \& II | 3 | 3 | 6 |
| :--- | :---: | :---: | :---: |
| Intro to Environment Science/Lab | 4 | - | 4 |
| Mathematics | 3 | 3 | 6 |
| Introduction to Agriculture | 2 | - | 2 |
| Principles of Plant Science | 3 | - | 3 |
| Freshman Studies | 2 | - | 2 |
| Physical Ed Elective | - | 1 | 1 |
| Principles of Biology I \& Lab | - | 4 | 4 |
| Introduction to Agribus Entre | - | 2 | 2 |
| Wellness/Health Elective | $\overline{2}$ | $\underline{2}$ | $\underline{2}$ |
|  | 17 | 15 | 32 |

SOPHOMORE YEAR
Introduction to Literature 3 - 3
Principles of Soils
$4 \quad-\quad 4$

General Chemistry I \& Lab
4 - 4

Principles of Animal Science
3
$\begin{array}{llll}\text { Intro to Public Speaking } & - & 3 & 3 \\ \text { Technology Elective } & - & 3 & 3\end{array}$
$\begin{array}{lll}\text { U.S. History } & -\quad 3 & 3\end{array}$
Principles of Ag Mechanics - 3
General Chem \& Lab
$=\quad \underline{4} \quad \underline{4}$

JUNIOR YEAR
Principles of Geo Info Sys
3 - 3

Soil Fertility \& Fertilizers 4
Elementary Stats I
3 - 3
$\begin{array}{llll}\text { Intro to Microbiology \& Lab } & 4 & - & 4\end{array}$
Elementary Stats II

- 3

Organic Chemistry \& Lab

- 4

Ecology \& Lab

- 4

Principles of Microeconomics

- 3

Global Studies Elective

| - | $\underline{3}$ | $\underline{3}$ |
| :--- | :--- | :--- |
| 14 | 17 | 31 |

SENIOR YEAR
PADM 401
GEMU 380
AQSC 404
PHYS 110

| Environmental Law | 3 | - | 3 |
| :--- | :---: | :---: | :---: |
| Music \& Art | 3 | - | 3 |
| Limnology | 3 | - | 3 |
| Intro to Physics \& Lab | 4 | - | 4 |
| Scientific Elective | - | 4 | 4 |
| Policy Elective | - | 3 | 3 |
| Soil Science Elective | - | 3 | 3 |
| Internship/Co-op Ed/Independent Study | $\overline{7}$ | $\underline{4}$ | $\underline{4}$ |
|  | 13 | 14 | 27 |

## Electives:

## Scientific Electives

BIOL 320 - Genetics
CHEM 424 - Environmental Chemistry
AGRI 290 - Introduction to Remote Sensing
PLSC 353 - Sprays, Dust, \& Fumigants
PLSC 446 - Plant Physiology
Totals hours required for graduation - 120

## Policy Electives

AGEC 444 - Agricultural Policy
AGEC 446 - Land Economics
PADM 403 - Land Use Law and Policy

## DEPARTMENT OF AGRICULTURE AND HUMAN ECOLOGY AGRICULTURE MAJOR <br> Plant and Soil Science (Horticulture) Concentration Bachelor of Science Degree

| Semester |  |  |
| :---: | :---: | :---: |
| $\mathbf{1}^{\text {st }}$ | $2^{\text {nd }}$ | Total |
| Sem | Sem | Hours |


| ENGL 110, 111 | Composition I \& II | 3 | 3 | 6 |
| :--- | :--- | :---: | :---: | :---: |
| AGRI 150 | Intro to Environment Science/Lab | 4 | - | 4 |
| MATH 120, 121 | Mathematics | 3 | 3 | 6 |
| AGRI 140 | Introduction to Agriculture | 2 | - | 2 |
| BIOL 100 | Principles of Biology I \& Lab | - | 4 | 4 |
| PLSC 140 | Principles of Plant Science | 3 | - | 3 |
| AGEC 140 | Introduction to Agribus Entre | - | 3 | 3 |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| HPER | Wellness/Health Elective | $\overline{2}$ | $\underline{2}$ | $\underline{2}$ |
|  |  | 17 | 15 | 32 |

SOPHOMORE YEAR
ENGL 201 Introduction to Literature
GEEN 310 Advanced Communication Skills - 3
ANSC 140 Principles of Animal Science $3-3$
GEHI 122 U.S. History - 3
CHEM 101, 103 General Chem I \& Lab 4 - 4

CHEM 102, 104 General Chem II \& Lab - 4
SOSC 242 Principles of Soils 4 - 4
AGME 242 Principles of Ag Mechanics $\quad-\quad 3 \quad 3$
$\qquad$

DRFT 160
GEPS 124
SOSC 345
BIOL 241
GEMU 380
PLSC 353
GE
ECON 210
HORT 353

PLSC 450
HORT 446
HORT 449
GEPI 140
HORT 352
HORT 450
HORT 340
PLSC 455
PLSC 444
HORT/PLSC

JUNIOR YEAR

| Mechanical Drawing | 3 | - | 3 |
| :--- | :---: | :---: | :---: |
| Intro to Psychology | 3 | - | 3 |
| Soil Fertility \& Fertilizer | 3 | - | 3 |
| Intro to Microbiology \& Lab | 4 | - | 4 |
| Music and Art | - | 3 | 3 |
| Sprays, Dust \& Fumigants | - | 3 | 3 |
| Global Studies Elective | - | 3 | 3 |
| Principles of Microeconomics | - | 3 | 3 |
| Vegetable Production | - | $\underline{3}$ | $\underline{3}$ |
|  | 13 | 15 | 28 |

SENIOR YEAR
Introduction to Forestry 3 - 3
Greenhouse \& Management 3 - 3
Plant Propa/Nur Pract 3 - 3
Unrestrictive Elective 2 - 2
Plant Materials 3 - 3
Problems in Horticulture - 3
Landscape Design - 3
Turf Management - 3
Genetics - 3 3
$\begin{array}{lccc}\text { Restrictive Elective } & - & \underline{3} & \underline{3} \\ & 14 & 15 & 29\end{array}$
Total hours required for graduation - 119

## DEPARTMENT OF AGRICULTURE AND HUMAN ECOLOGY <br> Agriculture with a minor in Secondary Education 6-12 (125 hrs)

| Semester |  |  |
| :---: | :---: | :---: |
| $1^{\text {st }}$ | $2^{\text {nd }}$ | Tours |
| Sem | Sem | Hours |

IDST 100
IDST 101
FRST 101
ENGL 110
ENGL 111
MATH 112
MATH 113
BIOL 120
ANSC 140
GEAG 150

HPER 170
AGRI 140

EDUC 201
EDUC 202
IDST 200
ENGL 201/202
SPEE 214
GEHI 119
AGEC 140
AGME 242
SOSC 242
PLSC 140
GEMU 380

EDUC 315
PSYC 212
SPED 403
AGRI 340
AGME 240
GEPH 101
AGRI 342
AGME 141
GEHI 122
GLOBAL STUDIES

FRESHMAN YEAR
Analytical Reading, Writing and Reasoning I
Analytical Reading, Writing and Reasoning II
Freshman Studies
Freshman Writing
Reading and Writing About Literature
Basic Math I
Basic Math II
Principles of Biology I \& Lab
Principles of Animal Science
Environmental Science and Lab
Humanities Elective
Health and Wellness Introduction to Agriculture

## SOPHOMORE YEAR

Introduction to Teaching I
Introduction to Teaching II
Digital Media in Teacher Education Literature Elective

Introduction to Public Speaking
Chemistry and Society
Introduction to Agri Bus Entre
Principles of Ag Mechanics
Principles of Soil Science
Principles of Plant Science
Music and Art

JUNIOR YEAR
Data Driven Instructional Design
Human Growth and Development
Classroom Management in Educational Settings (FB)
Agri Youth Organizations
Agri Mechanics
Physical Science
Prins \& Prac of Agri Ed
Agri Mechanics
U.S. History

Elective

EDUC 424
AGRI 441
AGME 444
AGME 445
EDUC 427
AGRI 402
EDUC 401
AGRI 401
EDUC 402

SENIOR YEAR
Critical Issues in Education
Organization \& Inst in Ag Ed
Electricity in Agri
Inter Combustion Engines
Reading in the Subject Area
Teaching of Agriculture
Student Teaching Seminar
Student Teaching Agriculture
Student Teaching

2
$2^{* *} \quad 2^{* *}$

- 2
- 3

33
3 - 3

3

- 4
- 3
$4 \quad-\quad 4$

33

- 2
$\begin{array}{ccc}\underline{2} & = & \underline{2} \\ 16 & 16 & 32\end{array}$
- 2
$2 \quad 2$
- 3
- 3

33
44

- 3
- 2
$4 \quad 4$
- 3
$\frac{3}{16} \quad \frac{3}{32}$
- 3
33
33
3 - 3
- 2
$4 \quad 4$
- 3
22
3 - 3

| - | $\underline{3}$ | $\underline{3}$ |
| :--- | :--- | :--- |
| 14 | 15 | 29 |


| 2 | - | 2 |
| :---: | :---: | :---: |
| 3 | - | 3 |
| 3 | - | 3 |
| 3 | - | 3 |
| 3 | - | 3 |
| 3 | - | 3 |
| - | 3 | 3 |
| - | 3 | 3 |
| - | $\underline{9}$ | $\underline{9}$ |
| 17 | 15 | 32 |

## ${ }^{* *}$ IDST 100/101 are not counted in semester hours or toward graduation requirements <br> Total hours required for graduation - 125

## DEPARTMENT OF AGRICULTURE AND HUMAN ECOLOGY AGRICULTURE MAJOR <br> Plant and (Soil Science) Concentration Bachelor of Science Degree

| Semester |  |  |
| :---: | :---: | :---: |
| $\mathbf{1}^{\text {st }}$ | $2^{\text {nd }}$ | Total |
| Sem | Sem | Hours |

FRESHMAN YEAR
ENGL 110, 111 Composition I \& II 3

AGRI 150
MATH 120, 121
AGRI 140
BIOL 100
AGEC 140
FRST 101
HPER

ENGL 201
GEEN 310
ANSC 140
GEHI 122
GEAG 280
CHEM 101, 103
CHEM 102, 104
SOSC 242
AGME 242

## GE

PHYS 110
SOSC 345
BIOL 241
SOSC 447
PLSC 341
GE
ECON 210
SOSC 455

PLSC 450
GEMU 380
HORT 449
PLSC/SOSC
PLSC 454
SOSC 450
PLSC 448
CHEM 305, 307
PLSC 44

## Intro to Environment Science/L <br> SOPHOMORE YEAR

|  | 3 | 3 | 6 |
| :--- | :--- | :--- | :--- |

Introduction to Agriculture 2 - 2
Principles of Biology I \& Lab $\quad$ - 4

Introduction to Agribus Entre - 3
Freshman Studies 2 - 2
Wellness/Health Elective $=\underline{2} \quad \underline{2}$

Introduction to Literature 3 - 3
Advanced Communication Skills - 3
Principles of Animal Science 3 - 3
U.S. History - 3

Principles of Geograph Info Sys - 3
General Chemistry I \& Lab 4
General Chem \& Lab - 4
Principles of Soils 4 - 4
$\begin{array}{lcll}\text { Principles of Ag Mechanics } & - & \underline{3} & \underline{3}\end{array}$
JUNIOR YEAR
Global Studies Elective 3 - 3
Intro to Phys \& Phys Lab 4 - 4
Soil Fertility \& Fertilizer 4 - 4
Introduction to Microbiology/Lab $4 \quad$ - 4
Soil Classification - 3
Field Crop Production - 3
Technology Elective - 3
Principles of Microeconomics - 3
$\begin{array}{lccc}\text { World Soil Resources } & = & \underline{3} & \underline{3} \\ & 15 & 15 & 30\end{array}$
SENIOR YEAR
Intro to Forestry 3 - 3
Music \& Art 3 - 3
Plant Propa/Nur Pract 3 - 3
Restricted Elective 3 - 3
Spec Topics in Crop Sci 3 - 3
Problems in Soil - 3
Plant Breeding - 3
$\begin{array}{lll}\text { Organic Chem \& Lab } & - & 4\end{array}$
$\begin{array}{lccc}\text { Genetics } & = & \underline{3} & \underline{3} \\ & 15 & 13 & 28\end{array}$

## Total hours required for graduation - 117

## HUMAN ECOLOGY

## Academic Programs

Family and Consumer Sciences<br>Dietetics<br>Family, Child and Community Services<br>Teacher Education Endorsement<br>Textiles, Apparel and Marketing Management<br>\section*{Hospitality Management}<br>Dietetics Internship Program

## The Program

The Family and Consumer Sciences curriculum is designed to provide students with a broad background in the Human Ecology subject areas. These areas include foods and nutrition, textiles and clothing, human development, housing, and management of resources. The Teacher Education Endorsement concentration meets the requirements of the Virginia Department of Education. It focuses on preparing students for careers as teachers and employment in business, industry, and governmental agencies.

The curriculum focuses on growth and development of the individual throughout the life span. It is designed to provide students with competencies necessary for improving the physical, emotional, physiological, and educational wellbeing of individuals and families. In addition, the program focuses on the study of interpersonal relationships within the family context. Social, physical, emotional, and cognitive changes during infancy, childhood, adolescence, and adulthood are emphasized. Career opportunities are offered in public and private human service agencies, and specialized facilities serving children, adolescents, adults, and families. An internship and other volunteer work experiences are required. The Center for Young Children is an important component of the Program. It offers developmental and educational services for two- to five-year-old children. Observational facilities promote a conducive research atmosphere.

The Hospitality Management Program is designed to prepare students for a wide variety of career opportunities in the hospitality industry. The curriculum is designed in recognition of the demands of the industry for well-trained and qualified leaders. The focus of the program is the development of managerial and leadership skills essential to all hospitality managers, with rigorous course work in management of hotels and restaurants, travel tourism, recreation, retail, convention and meeting planning; food service systems management; marketing; accounting; hospitality law; and general management. Students participate in laboratory experiences and are required to complete two supervised internships to ensure the application of classroom theory to the workplace and to prepare them for the operational challenges of the industry. Students gain added credentials and valuable learning experiences that will allow them to advance their career goals by taking nationally recognized certification courses and participate in professional conferences and study abroad programs.

Upon completion of the bachelor's degree in hospitality management, students should be academically wellrounded professionals, with specialized knowledge, skills and competencies needed to thrive in the continuously changing global hospitality environment. Graduates of the program enjoy management positions in all area of the industry. The Hospitality Management Program, is accredited by the Accreditation Commission for Programs in Hospitality Administration (ACPHA) since 1995. The mission of the program is "To prepare students to be effective and empowered hospitality leaders who can assume productive roles in an ever-changing global society."

The curriculum Textile, Apparel Merchandising (TAMM) is also designed to prepare students for careers in fashion related businesses. Opportunities are available in business, industry, governmental, and educational settings. Students will have a broad, understanding of textiles, clothing, fashion, merchandising and/or retailing of textiles, consumer foods, and of business associated with families and consumer issues.

The Dietics Program offers three options for students; 1. B.S. in Family and Consumer Science with a concentration in Dietetics, 2. Certification Program in Nutrition and Dietetics, 3. Dietetic Internship.

## Option 1

## B.S. Degree in Family and Consumer Science, Concentration in Dietetics

Concurrently fulfills the Virginia State University's American Dietetic
Association's (ADA) accredited Didactic Program in Dietetics (DPD). Graduates are eligible for ADA accredited Dietetic Internship (DI) Programs.

## Option 2

## Certificate Program in Nutrition and Dietetics

This option is for students who already have a baccalaureate degree. Concurrently fulfills the Virginia State University's ADA accredited DPD. Graduates are eligible to apply for ADA accredited DI Programs.

## Option 3

## Dietetic Internship

This option is open to students who have completed DPD requirements from an ADA accredited program and have been accepted into the VSU Dietetic Internship Program.

The B.S. Degree in Family and Consumer Science with a concentration in Dietetics and the Certificate Program in Nutrition and Dietetics both fulfill the Didactic Program in Dietetics (DPD) coursework. The DPD curriculum is designed to provide a body of foundation, knowledge, and skills in the area of nutrition and dietetics which is a requirement for entry-level dietitians. The knowledge and skills consist of basic and working knowledge and the ability to demonstrate the knowledge and skills in the content areas of communications, physical and biological sciences, social sciences, research, food, nutrition, management, and health care systems. Graduates of either program are eligible to apply for American Dietetic Association's (ADA) accredited Dietetic Internships (DI). Successful completion of a DI is an essential component for eligibility to take the national Registered Dietitian (RD) examination. To practice as an RD, one needs to pass the RD examination.

The DPD Program is currently accredited by the Commission on the Accreditation for Dietetics Education of the American Dietetic Association, 216 W. Jackson Blvd., Chicago, IL 60609-6995, and phone: (312) 8994876. The ADA's Commission on Accreditation for Dietetics Education is a specialized accrediting body recognized by the counsel on Higher Education Accreditation and the United States Department of Education.

The curriculum for B.S. Degree in Family and Consumer Science with a concentration in Dietetics and the Certificate Program in Nutrition and Dietetics is listed in the following pages. Students who successfully complete the B.S. Degree in Family and Consumer Science with a concentration in Dietetics with a C or better in all DPD coursework will receive a Verification Statement which is needed for the DI application. Students who enroll in the Certificate Program in Nutrition and Dietetics and complete at least 30 credit hours with a C or better will receive a Verification Statement for DI Application. Students who need less than 30 credit hours will also be required to pass a comprehensive assessment evaluation before receiving the Verification Statement.

## Course Descriptions FAMILY AND CONSUMER SCIENCES

HEBU 381 INTERNSHIP IN FAMILY AND CONSUMER SCIENCES - 3 semester hours
Students will participate in introductory work experiences relating to their area of emphasis. The areas include Child Development Centers, Marketing and Retailing of Apparel. Extension Services and Community Services. Threehundred hours are required. The internship will be supervised by an Human Ecology faculty member and a coordinator at the place of the internship. the internship in a Child Development Center, Apparel Industry/Business, Extension or Community Services organizations, or a related career. Three-hundred hours are required for the internship.

HEBU 495 SELF PRESENTATION IN THE MARKETPLACE - 2 semester hours
Students will be provided opportunities to become aware of and practice skills relative to self-presentation and survival in the world of work. Emphases are placed on etiquette in a variety of settings, character education, appropriate dress, personal development, interpersonal relationships, management of human and non-human resources, and oral and written communication skills. Learn
ing experiences in developing the total person are required.

## Prerequisite: FACS 141 Perspective on Professionalism or permission of instructor

FACS 141 PERSPECTIVES ON PROFESSIONALISM -1 semester hour F, Sp
Provide an overview of family and consumer sciences as a profession, introduces students to career expectations and opportunities in family and consumer sciences, hotel restaurant and institutional management and related subject areas.

FACS 262 TEXTILES AND CLOTHING - 3 semester hours
F
Students will be exposed to the analysis of textiles used for clothing related to care, structure, characteristics and construction. Special emphasis is placed on designing a wardrobe for specific purposes and high quality construction techniques.

FACS 263 HOUSEHOLD FURNISHINGS AND EQUIPMENT - 3 semester hours
Sp
Concepts of housing and equipment which include selection criteria, quality standards, operation and financial analysis for family decision making will be taught.

FACS 342 OCCUPATIONAL FAMILY AND CONSUMER SCIENCES - 3 semester hours
Sp
Focuses on planning, implementing and evaluating Family and Consumer Sciences occupational education programs. Practical experiences provided in chosen areas of occupational endorsement.
Prerequisites: DIET 221 Principles of Food Preparation; DIET 310 Human Nutrition; FCCS 301 Child Development; FACS 262 Textiles and Clothing

FACS 403 HOME AND FINANCIAL MANAGEMENT - 3 semester hours
F
Democratic principles in family living constitute the basis on which the home management experience is planned. Areas of responsibility rotates to give family members experience in all phases of home life with emphasis upon management of time, energy and other resources. A practicum experience is conducted in the home applying the aforementioned concept.
Prerequisite: DIET 322 Meal Management

## FACS 440 CONTEMPORARY APPROACHES TO CURRICULUM AND TECHNIQUES -

3 semester hours
Sp
An assessment of current trends in curriculum development related Family and Consumer Sciences is made; an analysis of components of curriculum related to management of resources and development and use of current teaching and motivating techniques designed to assure specific competency levels is done.

FACS 402 STUDENT TEACHING - 3 semester hours
F, Sp
Students will be provided opportunities to make practical application of knowledge and skills in a classroom setting. They teach under the supervision and direction of cooperating teachers and the University Family and Consumer Sciences educator. Students are expected to assume total responsibility for planning, developing, implementing, and evaluating all classes assigned during the student teaching period.
Prerequisites: All course work (Refer to criteria pertaining to student teaching as outlined under the Center for Undergraduate Professional Education Program

HIDG 161 PRINCIPLES OF ART AND DESIGN - 3 semester hours

## F

Students will be given an understanding of the basic principles of design as they relate to fashion and residential environments. Special considerations will be given to visual design in a sensory and behavioral context.

HIDG 316 ADVANCED INTERIOR DESIGN - 3 semester hours
Sp
Experimentation with advanced problems in designing residential interiors. Emphasis on the relationship of architectural design to exterior landscape will be conducted. The course also incorporates a study of prospective drawing to illustrate interiors.
Prerequisites: HIDG 161 Principles of Art and Design; IDG 263 Household Furnishings and Equipment

HIDG 362 ADVERTISING DESIGN AND DISPLAY - 3 semester hours
Sp
Study of developing presentation techniques on organizing subject matter for advertising and display suitable for reproduction. Exploration of the influence of advertising on the consumer and the importance of the use of promotional strategies of business. Projects emphasize areas of Textiles and Clothing, Interior Design and Foods.

HIDG 461 HOUSING AND SOCIETY - 3 semester hours

## F

Study of the relationship of people's basic needs and values in relation to their housing-modern, rural, and urban living patterns the housing as related to diversified societies and cultural backgrounds. Housing needs and resources for the aged are examined. Open to non-majors.

FCCS 101 FAMILY AND COMMUNITY HEALTH - 2 semester hours
Study of personal hygiene, sanitary care of the home, first aid, prevention of disease and home care of the sick. An introductory course that will examine current practice and trends in health related problems.

## FCCS 102 INDIVIDUAL FAMILY AND COMMUNITY LIFESTYLES - 3 semester hours

Designed to explore various contemporary issues related to family roles, responsibilities, interpersonal interaction, functions and developmental tasks of individuals and families. Special emphasis is placed upon cultural diversity among families.

FCCS 301 CHILD DEVELOPMENT/LABORATORY - 3 semester hours
F
General instruction to the professional field of child development, its history and scope are explored. Special attention is directed to the perceptual, cognitive, social, emotional and physical processes from infancy through adolescence. The Laboratory is to be taken simultaneously with the class. This experience allows for the student to work directly with the children and to receive "hands-on-experience" in the preschool environment (sophomores and juniors).

FCCS 302 FAMILY RELATIONS - 3 semester hours
F
Attention given to factors related to the development of functional lifestyles and families. Consideration given to current problems relating to marriage and family life and those changes in society which affect the institution of the family. Open to non-majors.

FCCS 401 FAMILY PLANNING AND SEXUAL EDUCATION - 3 semester hours F
Attention given to factors related to the development of functional lifestyles and families. Includes the consideration of current problems relating to marriage and family life and those changes in society which affect the institution of the family. Designed to explore concepts related to family planning and the relationship of sexual attitudes and behavior to human development and functioning. Special emphasis on economic, social, cultural, legal, and political factors which influence decisions related to family planning, sexual behavior, and attitudes. Open to non-majors.

FCCS 402 DECISION MAKING PROCESSES IN MODERN LIFESTYLES - 3 semesters hours Sp A study of management processes and how they can be effectively applied to specific resources. Emphasizes goals, values and standards which motivate forces behind decisions made by families and businesses. Open to non-majors.

FCCS 404 NURSERY SCHOOL PLANNING - 3 semester hours
Essential procedures in child care administration, curriculum development, equipment, floor plans, food service and guidance are addressed. Emphasis will be placed on the operation of a facility according to minimum standards.

FCCS 405 PARENT EDUCATION - 3 semester hours
Emphasis is placed on parenthood responsibilities and the task of parenting in today's culture. Theories and concepts relative to parent education are explored.

## GEDI 101 NUTRITION: CONTEMPORARY HEALTH ISSUES - 3 semester hours

Presents basic nutrition principles for chronic disease prevention, provides scientific answers to questions found daily in the media regarding nutrition. Topics emphasized are basic functions of nutrients, biological nutrient requirement, impact of gender, culture, ethnicity, social environment, and lifestyle on nutrition status and health.

GEDI 102 NUTRITION: CONTEMPORARY HEALTH ISSUES LABORATORY - 1 semester hour F, Sp Required to be taken in conjunction with GEDI 101 Nutrition: Contemporary Health Issues lecture course, hands on laboratory exercises related to selected lecture topics.

## GEHO CONSUMER ECONOMICS - 3 semester hours

A study of personal and family money management problems, designed to help individuals acquire knowledge, understanding of basic principles of consumer economics and to aid them to developing abilities and skills necessary for intelligent management of personal and family income to function in a global society.

## DIETETICS

DIET 221 PRINCIPLES OF ANALYSIS OF FOODS - 3 semester hours
Sp
Study of the fundamental processes underlying food selection, preparation, and preservation with practical selection application through laboratory experiences. Emphasis is on the composition and properties of food, food handling to retain nutrients, standards for acceptable products and food costs.

## DIET 275 SEMINAR IN PRACTICE -1 semester hour

A study of the history, structure, and function of the American Dietetic Association and current issues facing the profession. Students explore career options and laws, regulations and standards affecting dietetic practice.

## DIET 310 HUMAN NUTRITION - 3 semester hours

The examination of present knowledge in nutrition. Emphasis is on selection of foods as a source of nutrients which fulfill desirable nutritional standards. Computer experiences required. Prerequisite: one semester of college chemistry or biology

DIET 311 NUTRITION IN THE LIFE CYCLE - 3 semester hours
A study of the nutritional requirements at different stages of the life span and the factors which influence eating patterns. Emphasis on life cycle nutritional assessment and nutritional planning. Learning experiences in nutrition programs are required.

## Prerequisite: DIET 310 Human Nutrition

DIET 322 MEAL MANAGEMENT - 3 semester hours
Menu development, styles of meal service, table appointments, food presentation, and meal planning. Emphasis is given to the economics, efficiency, aesthetics, and nutrition of meal service. Computerized nutritional and cost analysis of menus required.
Prerequisites: DIET 221 Principles of Analysis of Food; DIET 310 Human Nutrition
DIET 385 NUTRITIONAL BIOCHEMISTRY - 3 semester hours
A study of energy metabolism and the role of nutritional factors. Discusses the composition of living matter and the chemical charges associated with nutritional status.
Prerequisites: CHEM 305 Organic Chemistry I; DIET 310 Human Nutrition
DIET 410 NUTRITION COUNSELING PRACTICUM - 2 semester hours
Sp
Counseling skills applied to dietetic practice. Emphasizes interviewing and listening skills, surfacing underlying issues, motivation, behavior modification, supporting group processes, and documentation. Student counseling experiences required.
Prerequisites: GEPS 124 Introduction to Psychology; GEPS 211 Introduction to Social Science; DIET 311 Nutrition in the Life Cycle

DIET 422 NUTRITION AND THE COMMUNITY - 3 semester hours
Explores resources existing in governmental and voluntary organizations for working with nutrition problems. Study of legislative process and historic and current nutrition legislation. Proposal writing and subsequent steps in establishing and managing community nutrition programs are discussed.
Prerequisites: DIET 311 Nutrition in the Life Cycle; DIET 322 Meal Management; STAT 210 Elementary Statistics

DIET 424 ADVANCED HUMAN NUTRITION - 3 semester hours
Recent research with its application to human nutrition. Discusses the metabolic consequences of nutritional manipulation.
Prerequisite: DIET 385 Nutritional Biochemistry

## DIET 431 MEDICAL NUTRITION THERAPY I-3 semester hours <br> F

The study of nutrition services in the health care system and the nutritional care of the individuals during illness. It includes understanding of medical terminology, physiological changes in the disease states, nutrition assessment, developing plan of care, documentation, application of nutrition therapy in medical conditions, and total quality management of clinical nutrition. Part 1 of a two-part course.
Prerequisite: DIET 311 Nutrition in the Life Cycle; DIET 385 Nutritional Biochemistry
DIET 433 QUANTITY FOODS - 3 semester hours
Study and practice in planning, purchasing, preparing, and serving food in quantities, and calculation the cost of portions and meals for large groups.
Prerequisites: DIET 221 Principles of Analysis of Food; DIET 310 Human Nutrition
DIET 435 ORGANIZATION AND MANAGEMENT OF FOOD SERVICE SYSTEMS - 3 semester hours F The application of management principles to food service systems. Emphasis is on policies and procedures, cost/benefit analysis, computer applications, human and financial resource management.
Prerequisites: DIET 322 Meal Management

## DIET 437 MEDICAL NUTRITION THERAPY II - 3 semester hours

The study of nutrition services in the health care system and the nutritional care of the individuals during illness. It includes understanding of medical terminology, physiological changes in the disease states, nutrition assessment, developing plan of care, documentation, application of nutrition therapy in medical conditions, and total quality management of clinical nutrition. Part 2 of a two-part course.
Prerequisite: DIET 431 Medical Nutrition Therapy I or prior approval by Program Director

## DIET 489 PRACTICUM IN DIETETICS - 3 semester hours

The practical application of previously learned theories in Medical Nutrition Therapy, Food Service Management Systems, and other dietetics practice areas.
Prerequisites: DIET 275 Seminar in Practice; DIET 310 Human Nutrition; DIET 311 Nutrition in the Life Cycle; DIET 322 Meal Management; DIET 385 Nutritional Biochemistry; DIET 431 Medical Nutrition Therapy I; DIET 435 Organization and Management of Food Service Systems; Concurrent:DIET 410 Nutrition Counseling; DIET 424 Advanced Human Nutrition; DIET 437 Medical Nutrition Therapy II

## TEXTILES, APPAREL AND MARKETING MANAGEMENT

TAMM 271 CLOTHING CONSTRUCTION - 3 semester hours
Designed to provide students with fundamentals of construction, production, personal choice merchandising, marketing and producing apparel goods.

TAMM 371 FAMILY PROBLEMS IN CLOTHING - 3 semester hours Sp
Emphasis is placed upon selection and management practices in relation to individual and family needs. This includes the handicaps, the elderly and special needs person.

TAMM 372 HISTORY OF COSTUMES - 3 semester hours
Study of historic costumes with emphasis on developing an appreciation and understanding of fundamentals of historic costumes in relation to fashion trends.

TAMM 471 FLAT PATTERN DESIGN - 3 semester hours
Major emphasis on techniques of designing patterns and altering flat patterns. Advanced construction techniques and original design in appropriate fabrics are studied.
Prerequisites: TAMM 373 Fashion Illustration
TAMM 473 TEXTILE DESIGN - 3 semester hours F

Understanding of textile design as an art, craft, and process in consumer business and industrial applications. Emphasis is placed on creation and execution of designs and their appropriateness to various fibers in the environment.
Prerequisite: TAMM 373 Fashion Illustration
TAMM 474 ADVANCED CLOTHING - 3 semester hours
Application of principles and techniques of tailoring in the construction of garments.
Prerequisite: FACS 272 Textiles and Clothing
TAMM 475 ADVANCED TEXTILES - 3 semester hours
F
Study of physical and chemical properties of fibers in relation to fabric characteristics. Technological developments in fabric formation, dyes, and finishes, testing techniques and recent development in related research are explored. Prerequisite: FACS 272 Textiles and Clothing

## HOSPITALITY MANAGEMENT

The Hospitality Industry is the largest private industry worldwide. The VSU Hospitality Management major, upon graduation receives multiple job offers. The Hospitality Management Program experiences placement rates of $100 \%$ each year for its graduates. There is a critical need for qualified talent in the hospitality industry and with the projected growth for the future; companies are in desperate need of entry- level managers with the potential for leadership. This also translates into a need for diversity within the ranks, from the entry level and more importantly through the executive levels, as the face of the nation changes. Minority representation is needed to create balance in higher echelons of the businesses that comprise the hospitality industry. The Hospitality Management core courses are listed below. Students will be advised on selection of classes based on their stated career interest. Internship placement will support the area of interest.

## Course Descriptions

## HOSPITALITY MANAGEMENT

## HMGT 101 INTRODUCTION TO HOSPITALITY MANAGEMENT -3 semester hour

A historical overview of the hospitality industry tourism industry and its economic significance. Forms of organization and development, theories; trends and issues will be explored. Students will be exposed to professional opportunities and leadership development through involvement of industry executives and field trips.

HMGT 107 FOOD SANITATION AND SAFETY - 3 semester hours
This course introduces the basic principles of food sanitation and safety and their relationship to the hospitality industry. Topics include personal hygiene, sanitation and safety regulations, use and care of equipment, the principles of food-borne illness, and other related topics. Upon completion, students should be able to demonstrate an understanding of food sanitation and safety in the hospitality industry.
Prerequisite: HMGT 101 Lectures in Hospitality Management
HMGT 111 PROFESSIONAL DEVELOPMENT - 1 semester hour
This is a series of courses designed to provide exposure to the competencies required for success in the hospitality industry. They will focus on improving the "soft skills" of the undergraduate in preparation for careers in the industry. Content includes, but is not limited to; Realities of the workplace, professional code of conduct, business and dining etiquette, dress code for success, field trips and HMP association membership mandatory. Sections offered in the second semester of the freshman year.
Prerequisite: HMGT 101 Lectures in Hospitality Management

## HMGT 200 TOURISM MANAGEMENT - 3 semester hours

A survey of travel and tourism concepts, and management tools in the United States and internationally. Emphasis will be placed on terminologies, demographics, economics, socio-cultural and environmental impacts of travel and tourism, and the industry's management issues in a global context.
Prerequisites: HMGT 101 Lectures in Hospitality Management; HMGT 107 Food Sanitation and Safety

## HMGT 201 HOSPITALITY TECHNOLOGY APPLICATIONS -1 semester hour

An exploration of hospitality management information systems, computer software applications and their impact on the hospitality industry. Provides familiarization with property management systems and software programs used in management of various hospitality entities.
Prerequisites: HMGT 101 Lectures in Hospitality Management; HMGT 203 Lodging Management
HMGT 203 LODGING MANAGEMENT - 3 semester hours

## F

A study of the fundamental processes underlying the operation of lodging facilities, an analysis of all lodging brands, ratings, and classifications. The operation of the front office is emphasized and its relationship to guest service, reservations, housekeeping, coordination, maintenance of the folio, computer applications, and procedures needed for night auditing. Particular emphases are on selling strategies of forecasting, rate efficiencies, and guest relations.
Prerequisites: HMGT 101 Lectures in Hospitality Management

This is second in the series of courses designed to provide exposure to the competencies required for success in the hospitality industry. They will focus on improvement of the "soft skills" of the undergraduate in preparation for careers in the industry. Includes, but is not limited to, professional conduct, guest lecture series, social etiquette, community service, dress code, student presentations. Resume writing and interviewing skills and industry lecture series and mentoring, field trips and professional association memberships required. Sections offered in the second semester of the sophomore year.
Prerequisite: HMGT 111 Professional Development
HMGT 221 PRINCIPLES OF FOOD PREPARATION- 3 semester hours
Study of the fundamental processes underlying food selection, preparation and preservation with practical selection application through laboratory experiences. Emphasis is on the composition and properties of food, food handling to retain nutrients, standards for acceptable products and food costs. Laboratory supplies are required.
Prerequisites: HMGT 101 Lectures in Hospitality Management; HMGT 107 Sanitation and Safety
HMGT 299 INTERNSHIP IN HOSPITALITY MANAGEMENT - 1 semester hours
Sp, Su
Designed to provide sophomore students with a developmental approach to on-the-job experiences in a hospitality facility/setting under a qualified supervisor. It may be done during the summer or during semesters following the sophomore year. 320 clock hours are required.
Prerequisite: Completion of all freshman and sophomore HMGT courses
HMGT 300 INTERNATIONAL STUDY TOUR - 3 semester hours
Su
The International Study Tour is designed to add another level of experiential learning to the hospitality management curriculum. This course will use the world as a classroom for the education of the HMP student through travel and explorations. Tours will be arranged to a variety of tourist destinations to allow for exposure to a wide range of experiences.
Prerequisites: HMGT 101 Lectures in Hospitality Management; or 200 Introduction to Tourism
HMGT 301 LODGING OPERATIONS MANAGEMENT - 3 semester hours
A course designed to show emphasis on the highly complex nature of the housekeeping department. It provides students with the managerial tools needed to handle this function with professionalism. It involves studies of the challenges associated with logistics and quality controls and purchasing to ensure efficiency in operation as well as a customer satisfaction. Requires heavy usage of property management systems, (PMS).
Prerequisites: HMGT 203 Lodging Management

## HMGT 302 CATERING AND EVENT MANAGEMENT - 3 semester hours

This course will focus on two major's areas: off-premise and on-premise catering for social and business functions, and the management of large scale, special events, such as sporting events and artistic performances. A significant portion of the class will be dedicated to catered function and special events planning, design, and execution. Other topics will include: organizational structure, legal aspects of catering and special events management product and service development, marketing and sales, staff development, post-event analysis, and evaluating the financial success of catering and special event business.
Prerequisites: HMGT 322 Meal Management; MKTG 300 Principles of Marketing, or Junior standing.
HMGT 303 HOSPITALITY LAW - 3 semester hours Sp
Examination of laws and regulations which exert control on food service, lodging, and tourism industries. Local, state, and federal laws applicable to the operation of the hospitality industries will be analyzed. The in-keeper guest relationship and liability issues impacting ownership, and management of employees will also be examined. Bailment, agency, and contracts are presented in the context of the hospitality and tourism enterprise.
Prerequisite: Junior standing

## HMGT 304 CLUB MANAGEMENT AND OPERATIONS - 3 semester hours

The study of private membership clubs and the leadership and management roles in club management and administration. The application of current management principles in a not-for-profit organization will be examined and club management will be compared to other areas of the hospitality industry and other not-for-profit organizations. Topical coverage includes: tournaments, facility, and recreation management, legal financial, and legislative issues; human relations and resource consideration; marketing, pricing policies, and quality standards.
Prerequisites: HMGT 203 Lodging Management; HMGT 322 Meal Management or Junior standing

## HMGT 305 HOSPITALITY MANAGEMENT CONTRACTS - 3 semester hours

A critical analysis of the negotiation and administration of hospitality management contracts. Topics include contracts, risk and their advantage and disadvantages; owner and ethical issues during negotiation and administration of the contract, and the future role of contract use.

## HMGT 306 FINANCIAL ANALYSIS AND PLANNING - 3 semester hours

An examination of the techniques of financial analysis and planning, with discussion of the tax environment profit planning and forecasting, budgeting, capital budgeting techniques, and cost-of-capital determinations.

## HMGT 311 PROFESSIONAL DEVELOPMENT - 3 semester hours

Sp
This is a series of courses designed to provide exposure to the competencies required for success in the hospitality industry. They will focus on improvement of the "soft skills" of the undergraduate in preparation for careers in the industry. Includes, but is not limited to, professional conduct, guest lecture series, social etiquette, community service, dress code, student presentations. Community service project, hospitality operations analysis, professional association membership required. This section is offered in the second semester of the junior year.

## Prerequisite: HMGT 211 Professional Development

## HMGT 320 TOURISM DEVELOPMENT - 3 semester hours

Relationship of economic theory and planning principles, processes, and policies of sustainable tourism development; application of pre-feasibility analysis to tourism development projects. Special emphasis placed on economic, sociocultural, and environmental trends in tourism development. This course requires extensive interaction with tourism organizations through field trips, guest lectures and cooperative projects.
Prerequisites: HMGT 200 Tourism Management; HMGT 301 Lodging Operations Management; and ECON 210 Principles of Microeconomics, or Junior standing

## HGMGT 321 SERVICE MANAGEMENT - 3 semester hours

An evaluation of the service industry, history, current status, trends and futurism. Students will develop a deep understanding of the management principles and challenges unique to service industries. Emphasis will be placed on the characteristics and operations of service delivery systems, management and organizations. The main course goal is to develop critical analytic skills and knowledge needed to implement service strategies for competitive advantage.
Prerequisites: HMGT 203 Lodging Management; HMGT 301 Lodging Operations Management; HMGT 322 Meal Management

HMGT 322 MEAL MANAGEMENT/LAB - 4 semester hours
Menu development, styles of meal service, table appointments, food presentation, meal planning and service. Emphasis is given to the economics, efficiency and aesthetics of meal service. Menu planning and cost analysis of menus required, marketing of goods and services are key components. The operation of M\&M Restaurant, the Trojan Room (faculty dining room) and/or childcare meal preparation are required. Laboratory supplies are required.
Prerequisite: HMGT 101 Lectures in Hospitality Management HMGT 107 Sanitation and Safety; HMGT 221 Principles of Food Preparation

## HMGT 330 INTERNATIONAL HOSPITALITY MANAGEMENT - 3 semester hours

This course is designed to provide students with basic understanding of international hospitality management and operations. It presents an overview of the historic perspective of globalization, tourism and the lodging sector. Students will investigate the emergence of international hotels and their classifications and standards. Cultural diversity, human resources, marketing and global competition, politics of travel, trends in investment and financing international hotel projects will be addressed. Students taking this class are required to participate in one International Study Tour.
Prerequisites: HMGT 200 Tourism Management; HMGT 201 Hospitality Technology Applications; HMGT 300 International Study Tour; HMGT 301 Lodging Operations Management; HMGT 303 Hospitality Law and Ethnics

HMGT 399 INTERNSHIP IN HOSPITALITY MANAGEMENT - 3 semester hours
$\mathrm{Sp}, \mathrm{Su}$
Internship for students in HMP to be taken during the summer or semester following the completion of the junior year. Designed to provide junior level students with decision making and experimental learning experiences in a hospitality industry. 360 clock hours are required.
Prerequisite: Completion HMGT 299 Internship in Hospitality Management and all junior HMGT courses

## HMGT 402 HOSPITALITY HUMAN RESOURCE MANAGEMENT - 3 semester hours <br> SP

Students obtain working knowledge of the terminology, concepts and procedures used by hospitality managers in developing information and making decisions relevant to forecasting and controlling human resource requirements. Major topics: staff planning, budgeting, scheduling and payroll control, collective bargaining consideration, productivity, human behavior, job design, recruitment, selection and retention system.
Prerequisite: MGMT 330 International Hospitality Management and Senior standing
HMGT 404 HOSPITALITY ACCOUNTING AND PURCHASING - 3 semester hours
F
Essentials of hospitality accounting, controls from both the operational and corporate perspectives. Practice with typical methods of costing, rational analysis found in the hospitality industry as well as computer applications are included. Specific topics include: uniform system accounts, revenue and expense tracking, cost controls, comparative analysis and management of the purchasing function.
Prerequisite: ACCT 201 Introductory Accounting
HMGT 407 CONFERENCE AND EXPOSITION MANAGEMENT - 3 semester hours
Sp
A course designed to provide students with a basic understanding of the scope and processes of meetings, conferences and exposition/exhibition management. Students will be required to research, design, plan, coordinate, and evaluate both professional domestic and international conferences and expositions. This will include roles in budgeting, operations, and evaluation of conference services. (Note: Industry professionals will be featured speakers).
Prerequisite: HMGT 203 Lodging Operations Management; HMGT 302 Catering and Event Management; HMGT 322 Meal Management or Junior standing

## HMGT 409 HOSPITALITY FACILITY PLANNING AND MANAGEMENT - 3 semester hours

The scientific principles and regulations guiding the layout and design for efficient management of hotels, restaurants and institutional facilities. Management and organization of facility operations and preventive maintenance as well as energy management programs will be emphasized.
Prerequisite: HMGT 203 Lodging Operations Management; HMGT 322 Meal Management; HMGT 322 Meal Management or Junior standing

HMGT 433 QUANTITY FOODS - 3 semester hours
Sp
Study and practice in planning, purchasing, preparing and serving food in quantities, calculating the cost of portions and meals for large groups, and calculating profit and loss statements given the operations of special enterprises. Laboratory supplies, project planning, organizing, implementation and evaluation are required.
Prerequisites: HMGT 322 Meal Management; or DIET 322 Meal Management

## HMGT 435 ORGANIZATIONAL LEADERSHIP, MANAGEMENT AND DECISION-MAKING

## - 3 semester hours

This course provides students with the tools necessary to succeed in the dynamic and ever changing global hospitality industry. Includes focus on the principles of management and leadership, Total Quality Management (TQM), empowerment and models in the hospitality industry. Quantitative aspects of management and internal controls will be addressed with an overview of managerial and financial concepts used in the decision-making process.
Prerequisites: HMGT 404 Hospitality Accounting and Purchasing; MGMT 330 Organizational Behavior
HMGT 449 HOSPITALITY MARKETING - 3 semester hours
An overview of the design and delivery of a marketing plan, concepts and techniques employed in marketing hospitality and tourism industry services to achieve guest satisfaction, and competitive distinctiveness. Probes will be made into the techniques of evaluation and the analysis of service marketing, and its application to the hospitality and tourism industries. Prerequisite: Junior standing

HMGT 450 SENIOR SEMINAR - 3 semester hours
A capstone course designed to apply technical human and conceptual knowledge to solve current problems related to the hospitality industry. The course includes activities that will allow students to study and analyze critical requirements of the hospitality industry. Current issues related to managing and measuring service quality, current concepts and leadership qualities are the major emphasis. There will be a strong research component where the student will be required to conduct research and produce findings in the form of a report and presentation in a formal setting, typical of the hospitality business profession. Prerequisites: All HMGT required courses

HMGT 499 HOSPITALITY MANAGEMENT SEMINAR - 3 semester hours
Exploration of three topics: Managing and Measuring Service Quality, Current Trends in Hospitality Administration, and Leadership in the Hospitality Industry. Case studies, decision-making simulations are used as critical tools to learning and application.

## DEPARTMENT OF AGRICULTURE AND HUMAN ECOLOGY FAMILY AND CONSUMER SCIENCES MAJOR DIETETICS CONCENTRATION

Bachelor of Science Degree


VIRGINIA STATE UNIVERSITY
DEPARTMENT OF AGRICULTURE AND HUMAN ECOLOGY
FAMILY AND CONSUMER SCIENCES
FAMILY, CHILD AND COMMUNITY SERVICE
(FCCS) Concentration

|  |  | Semester Hours |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1{ }^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
|  | FRESHMAN YEAR |  |  |  |
| ENGL 110, 111 | Freshman Reading \& Writing Literature | 3 | 3 | 6 |
| GEMA 112, 113 | Basic Mathematics | 3 | 3 | 6 |
| FACS 141 | Perspec on Prof | 1 | - | 1 |
| GEPE 165 | Personal Fitness | - | 1 | 1 |
| FCCS 102 | Ind. \& Family Living | - | 3 | 3 |
| GEES 181 | Earth Science | - | 4 | 4 |
| GEPS 124 | Introduction to Psychology | 3 | - | 3 |
| HPER | Wellness/Health | 2 | - | 2 |
| FRST 101 | Freshman Orientation | $\underline{2}$ | - | $\underline{2}$ |
|  |  | 14 | 14 | 28 |
| SOPHOMORE YEAR |  |  |  |  |
| GEBI 116 | Biological Science/Lab | 4 | - | 4 |
| GEHI 122 | United States History | 3 | - | 3 |
| ENGL 314 | Multiculture Literature | 3 | - | 3 |
| ECON 210 | Principles of Microeconomics | 3 | - | 3 |
| PSYC 212 | Human Growth \& Development | 3 | - | 3 |
| FACS 201 | Consumer Econ | - | 3 | 3 |
| DIET 221 | Principles of Analysis of Foods | - | 3 | 3 |
| GE | Global Studies Electives | - | 3 | 3 |
| FACS 262 | Textiles/Clothing | - | 3 | 3 |
| SPEE 214 | Introduction to Public Speaking | - | 3 | $\underline{3}$ |
|  |  | 16 | 15 | 31 |
| JUNIOR YEAR |  |  |  |  |
| DIET 310 | Human Nutrition | 3 | - | 3 |
| FCCS 301 | Child Development/Lab | 3 | - | 3 |
| GEEN 310 | Advanced Communication Skills | 3 | - | 3 |
| FACS | Elective | 3 | - | 3 |
| CISY 201 | Micro Computers Concept | - | 3 | 3 |
| DIET 433 | Quantity Foods or Diet 322 | - | 3 | 3 |
| HEBU 381 | Internship | - | 3 | 3 |
| FACS 263 | Housing and Equipment | - | 3 | 3 |
|  | Humanities Elective | 3 | 3 | $\underline{6}$ |
|  |  | 15 | 15 | 30 |
| SENIOR YEAR |  |  |  |  |
| FCCS 401 | Family Life | 3 | - | 3 |
| FACS 461 | Housing and Society | 3 | - | 3 |
|  | Elective | - | 3 | 3 |
| FACS 403 | Home and Financial Management | 3 | - | 3 |
| FACS | Elective (Diet or Busi) | 3 | - | 3 |
| FACS 440 | Contemp. Curriculum Techn. | - | 3 | 3 |
| HEBU 481 | Internship | - | 3 | 3 |
| DIET 435 | Organization and Management | 3 | 3 | 6 |
|  | Elective | $\underline{3}$ | 3 | $\underline{6}$ |
|  |  | 18 | 15 | 33 |

## DEPARTMENT OF AGRICULTURE AND HUMAN ECOLOGY FAMILY AND CONSUMER SCIENCE WITH A MINOR IN SECONDARY EDUCATION 6-12 (121 HRS)

|  |  | Semester Hours |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
|  | FRESHMAN YEAR |  |  |  |
| IDST 100 | Analytical Reading, Writing and Reasoning I | $2^{* *}$ | - | $2^{* *}$ |
| IDST 101 | Analytical Reading, Writing and Reasoning II | - | $2^{* *}$ | $2^{* *}$ |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| ENGL 110 | Composition I | 3 | - | 3 |
| ENGL 111 | Composition II | - | 3 | 3 |
| MATH 112 | Basic Math I | 3 | - | 3 |
| MATH 113 | Basic Math II | - | 3 | 3 |
| GEBI 116 | Principles of Biology \& Lab | - | 4 | 4 |
| FACS 141 | Perspective on Profession | 1 | - | 1 |
| GEHI 122 or 123 | United States History or Elective | - | 3 | 3 |
| FCCS 102 | Ind \& Family Living | - | 3 | 3 |
| HPER 170 | Health and Wellness | 2 | - | 2 |
| HIDG 161 | Principles of Art and Design | 3 | - | 3 |
| FRST 101 | Freshman Studies | $\underline{2}$ | - | $\underline{2}$ |
|  |  | 16 | 16 | 32 |
| SOPHOMORE YEAR |  |  |  |  |
| EDUC 201 | Introduction to Teaching I | 2 | - | 2 |
| EDUC 202 | Introduction to Teaching II | - | 2 | 2 |
| IDST 200 | Digital Media in Teach Education | 3 | - | 3 |
| ENGL 314 | Reading/Writing Literature | 3 | - | 3 |
| GEES 181 | Earth Science/Laboratory | 4 | - | 4 |
| GEHI 210 | Consumer Economics | 3 | - | 3 |
| DIET 221 | Prin. of Food Preparation | - | 3 | 3 |
| FACS 262 | Textile/Clothing | - | 3 | 3 |
| FACS 263 | Housing \& Equipment | - | 3 | 3 |
| PSYC 212 | Human Growth and Development | - | $\underline{3}$ | $\underline{3}$ |
|  |  | 15 | 14 | 29 |
| JUNIOR YEAR |  |  |  |  |
| EDUC 315 | Data Driven Instructional Design | 3 | - | 3 |
| SPED 403 | Classroom Management in Educational Settings (FE) | - | 3 | 3 |
| SPEE 214 | Introduction to Public Speaking | - | 3 | 3 |
| DIET 310 | Human Nutrition | 3 | - | 3 |
| FCCS 301 | Child Development/Lab | 3 | - | 3 |
| FACS 342 | Occupational Family/Consumer | - | 3 | 3 |
| HLTH 346 | School and Community Health | 2 | - | 2 |
| DIET 322 | Meal Management | - | 3 | 3 |
| HIDG 461 | Housing and Society | 3 | - | 3 |
|  |  | 14 | 12 | 26 |

[^1]
## SENIOR YEAR

EDUC 424 Critical Issues in Education $2-2$
FCCS 401 Family Planning/Sexual Education 3 - 3

FACS 403 Home and Financial Management 3 - 3
FACS 440 Contemporary Curr. Tech $3-3$
FCCS 402 Decision Making 3 - 3
EDUC 427 Readings in the Subject Area 3 - 3
EDUC 401 Student Teaching Seminar - 3
FACS 402 Student Teaching FACS - 3
EDUC 402 Student Teaching $\quad=\quad \underline{9} \quad \underline{9}$

# DEPARTMENT OF AGRICULTURE AND HUMAN ECOLOGY FAMILY AND CONSUMER SCIENCES MAJOR 

Textile, Apparel Merchandising Management (TAMM) Concentration
Bachelor of Science Degree

|  |  | Semester Hours |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
|  | FRESHMAN YEAR |  |  |  |
| HIDG 161 | Principles of Art and Design | 3 | - | 3 |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| ENGL 110, 111 | Composition II | 3 | 3 | 6 |
| GEMA 112, 113 | MATH | 3 | 3 | 6 |
| HPER | Wellness/Health | 2 | - | 2 |
| FACS 141 | Persp on Prof | 1 | - | 1 |
| TAMM 272 | Clothing Construction | - | 3 | 3 |
| GEHI 122 | US History | - | 3 | 3 |
| BIOL 100 | Biology I and Lab | $=$ | 4 | $\underline{4}$ |
|  |  | 14 | 16 | 30 |
| SOPHOMORE YEAR |  |  |  |  |
| CHEM 101 | General Chemistry I/Lab | 4 | - | 4 |
| GE | Humanities Elective | 3 | - | 3 |
| FACS 201 | Cons. Economics | 3 | - | 3 |
| ENGL 201 | Literature | 3 | - | 3 |
| GEPS 124 | Introduction to Psychology | 3 | - | 3 |
| SPEE 214 | Introduction to Public Speaking | - | 3 | 3 |
| PHIL 180 | Critical Thinking | - | 3 | 3 |
| ECON 210 | Principles of Economics | - | 3 | 3 |
| TAMM 371 | Family Clo Problems | - | 3 | 3 |
| PSYC 212 | Human Growth | - | 3 | 3 |
|  |  | 16 | 15 | 31 |
| JUNIOR YEAR |  |  |  |  |
| HIDG 362 | Adv Design \& Display | 3 | - | 3 |
| MKTG 300 | Principles of Marketing | 3 | - | 3 |
| HIDG 361 | Adv. Int. Design | 3 | - | 3 |
| TAMM 372 | History of Fashion | 3 | - | 3 |
| TAMM 473 | Textile Design | 3 | - | 3 |
| GE | Technology Elective | - | 3 | 3 |
| TAMM 373 | Fashion Illustration | - | 3 | 3 |
| HEBU 381 | Internship | - | 3 | 3 |
| TAMM 374 | Business World of Fashion | - | 3 | 3 |
| GE | Humanities Elective | - | $\underline{3}$ | $\underline{3}$ |
|  |  | 15 | 15 | 30 |
| SENIOR YEAR |  |  |  |  |
| HEBU 381 | Internship | 3 | - | 3 |
| FINC 350 | FIN MGMT | 3 | - | 3 |
| FCCS 402 | Decision Making | 3 | - | 3 |
| TAMM 471 | Flat Pattern | 3 | - | 3 |
| FACS | Elective | 3 | 2 | 5 |
| TAMM 474 | Advanced Clothing | - | 3 | 3 |
| TAMM 476 | Advanced Textiles | - | 3 | 3 |
| GE | Global Studies | $=$ | 3 | 3 |
|  |  | 15 | 11 | 26 |

## DEPARTMENT OF AGRICULTURE AND HUMAN ECOLOGY HOSPITALITY MANAGEMENT Bachelor of Science Degree

|  |  | Semester Hours |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1{ }^{\text {st }}$ | $2{ }^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
|  | FRESHMAN YEAR |  |  |  |
| HMGT 101 | Introduction to Hospitality | 3 | - | 3 |
| GEEN 110 | Freshman Writing | 3 | - | 3 |
| GEEN 111 | Reading Writing and Literature I | - | 3 | 3 |
| GEMA 112 | Basic Mathematics I | 3 | - | 3 |
| GEMA 113 | Basic Mathematics II | - | 3 | 3 |
| GEBI 116 | Biological Science/Lab | - | 4 | 4 |
| GEPS 124 | Introduction to Psychology | - | 3 | 3 |
| HMGT 107 | Food Sanitation and Safety | - | 3 | 3 |
| HMGT 111 | Professional Development | - | 1 | 1 |
| GEHI 122/123 | United States History | 3 | - | 3 |
| GE | Wellness/Health Elective | 2 | - | 2 |
| FRST 101 | Freshman Studies | $\underline{2}$ | - | $\underline{2}$ |
|  |  | 16 | 17 | 33 |
| SOPHOMORE YEAR |  |  |  |  |
| AGRI 150 | Environmental Science | 4 | - | 4 |
| ECON 210 | Principles of Microeconomics | 3 | - | 3 |
| ACCT 201 | Introduction to Accounting | 3 | - | 3 |
| HMGT 203 | Lodging Management | 3 | - | 3 |
| ENGL | Introduction to Literature | 3 | - | 3 |
| HMGT 211 | Professional Development | 1 | - | 1 |
| SPEE 214 | Introduction to Public Speaking | - | 3 | 3 |
| HMGT 200 | Tourism Management | - | 3 | 3 |
| HMGT 221 | Principles of Food Preparation | - | 3 | 3 |
| STAT 210 | Elementary Statistics | - | 3 | 3 |
| HMGT 299 | Internship I | - | 1 | 1 |
| GE | Technology Elective | - | $\underline{3}$ | $\underline{3}$ |
|  |  | 17 | 16 | 33 |
| JUNIOR YEAR |  |  |  |  |
| HMGT 201 | Hospitality Technology Applications | 3 | - | 3 |
| HMGT 301 | Lodging Operations Management | 3 | - | 3 |
| DIET 310 | Human Nutrition | 3 | - | 3 |
| GEEN 310 | Advanced Communication Skills | 3 | - | 3 |
| HMGT 322 | Meal Management | 3 | - | 3 |
| HMGT 303 | Hospitality Law and Ethics | - | 3 | 3 |
| HMGT 311 | Professional Development | - | 1 | 1 |
| HMGT 399 | Internship (360 Hours) | - | 2 | 2 |
| HMGT | Hospitality Restrictive Elective | - | 3 | 3 |
| MGMT | Organization Behavior | - | 3 | 3 |
|  |  | 15 | 12 | 27 |

## SENIOR YEAR

| HMGT | Restrictive Elective | 3 | - | 3 |
| :--- | :--- | :--- | :--- | :--- |
| GE | Spanish/French 110 | 3 | - | 3 |
| HMGT 404 | Hospitality Accounting \& Purchasing | 3 | - | 3 |
| HMGT 409 | Hospitality Facilities Management | 3 | - | 3 |
| HMGT 449 | Hospitality Marketing Management | 3 | - | 3 |
| HMGT 402 | Hospitality Human Resources Management | - | 3 | 3 |
| HMGT 407 | Conference \& Exposition Management | - | 3 | 3 |
| HMGT 435 | Leadership Management \& Decision Making | - | 3 | 3 |
| HMGT 450 | Senior Seminar | - | $\underline{3}$ | $\underline{3}$ |
|  |  | 15 | 12 | 27 |


| Electives: |  |  |
| :--- | :--- | :--- |
| HMGT 300 | International Study Tour | 3 |
| HMGT 302 | Catering and Event Management | 3 |
| HMGT 304 | Club Management | 3 |
| HMGT 305 | Hospitality Management and Operations | 3 |
| HMGT 306 | Financial Analysis and Planning | 3 |
| HMGT 320 | Tourism Development | 3 |
| HMGT 321 | Service Management | 3 |
| HMGT 330 | International Hospitality Management | 3 |
| HMGT 444 | Hospitality and Tourism Research | 3 |
| HMGT 499 | Hospitality Management Seminar | 3 |

Total hours required for graduation -120

## MINOR IN HOSPITALITY MANAGEMENT

A minor in this area will open up the possibilities and opportunities for employment in the field of Hospitality and Tourism Management; this could be seen as a career management strategy. The HMGT minor is designed to provide useful information and will enhance awareness regarding various fundamental aspects of the hospitality field. This is a very competitive field and the expectations are very high. Our students have an outstanding record of success upon graduation in the industry. The additional investment in time will be an asset to a student graduating with a liberal arts or business degree and can be tailored towards their area of specific interest within the field. Hotels, resorts, theme parks, restaurants, cruise ships, casinos, airlines, convention centers, travel agencies and country clubs need professionals with knowledge in a variety of fields and offer careers that provide competitive salaries and benefits.

A sampling of the Hospitality Management courses for the minor are listed below. Students will be advised for selection of classes based on their career interest. Internship placement will support the area of interest.

## Sample Program Requirements for MINOR IN HOSPITALITY MANAGEMENT

| Required courses: |  | 7 credits |
| :---: | :---: | :---: |
| HMGT 101 | Introduction to Hospitality Management | 3 crs |
| HMGT 402 | Hospitality Human Resources Management | 3 crs |
| HMGT 299 | Internship in Hospitality Management | 1 cr |
| Choose any two fro | m the following: | 6 credits |
| HMGT 449 | Hospitality Marketing | 3 crs |
| HMGT 407 | Conference and Exposition Management | 3 crs |
| HMGT 302 | Catering and Event Management | 3 crs |
| HMGT 322 | Meal Management | 3 crs |
| HMGT 107 | Food Sanitation and Safety | 3 crs |
| Choose any two from | m the following: | 6 credits |
| HMGT 200 | Tourism Management | 3 crs |
| HMGT 203 | Lodging Management | 3 crs |
| HMGT 201 | Hospitality Technology Applications | 3 crs |
| HMGT 303 | Hospitality Law and Ethics | 3 crs |
| HMGT 409 | Hospitality Facilities Management | 3 crs |

## OTHER REQUIREMENTS

- Minimum GPA of 2.0 to be accepted into program and maintained for all courses used to satisfy the minor.
- It is the responsibility of the student to meet with a Hospitality Management Program Advisor to determine their study plan and for orientation and program guidelines.


## THE SCHOOL OF BUSINESS

## Mission Statement

The mission of the VSU School of Business is to provide quality integrated undergraduate education in business that incorporates information technology and ethics in developing future leaders.

## General Objectives

Objective 1: Quality Education - Provide a comprehensive education in a supportive environment to impart up-todate knowledge, skills, and abilities to meet market demands and graduates' needs.

Objective 2: Curriculum Integration - Develop the knowledge, skills, and abilities in students that "cut across" different disciplines and business functional areas.

Objective 3: Leadership Development - Provide opportunities that enhance the students' abilities to inspire and motivate others toward group or organizational goal attainment.

Objective 4: Information Technology Proficiency - Develop the ability to apply information technology and use certifiable information technology skills to solve business problems and satisfy the work needs of a variety of employers.

## Organization of the School

The School of Business is an academic unit of Virginia State University administered by the Dean with the support of an Assistant Dean and three Chairpersons. It is organized into three departments: the Department of Accounting and Finance, the Department of Computer Information Systems, and the Department of Management and Marketing. Undergraduate programs of the School lead to the degree of Bachelor of Science in the following majors:

- Accounting
- Computer Information Systems
- Management
- Marketing

In addition to the three departments, other units in the School are the Office of the Dean, the Assessment Center, and the Student Advisement Center.

## Admission to the School of Business

All baccalaureate degree programs in the School of Business will be pursued in two phases. At the Pre-Business Phase, the freshman and sophomore level students are expected to complete most of the University General Education requirements and some additional School requirements. Admission requirements for the Pre-Business Phase are the same as the general admission requirements for the University.

After successful completion of three semesters of study ( 45 semester hours), the Pre-Business student is eligible to apply, through the Advisement Center of the School of Business, for admission to the Business Phase. At the Business Phase, junior and senior level students will complete the upper-level business requirements, including core business course requirements and major requirements. Unconditional admission to the Business Phase requires the successful completion of the following specific requirements:
(1) Completion of a minimum of 60 semester hours, including University General Education requirements and ACCT 201, 202; ECON 210, 211; MGMT 270; CISY 155; and CISY 260. (2) A minimum G.P.A. of 2.25 in all courses taken at V.S.U. and in all business courses.

## School of Business Policy on Student Conduct

All students currently enrolled in School of Business programs are required to sign an agreement to abide by the School of Business Policy on Student Conduct, which consists of a Code of Ethics and a Code of Conduct. The student's signature affirms the following: "I... hereby acknowledge that I have received, read, and understand the School of Business Policy on Student Conduct. I hereby accept this document's provisions as a condition of acceptance into and continuation in programs of the VSU School of Business."

Requirements of the Policy on Student Conduct supplement, but do not replace, any University requirements pertaining to student ethics and conduct. Provisions of the Policy on Student Conduct are intended to represent minimum standards of appropriate student behavior; all business students are expected to strive to the highest levels of behavior while on University property, attending any University event at any location, or otherwise representing the University or School of Business in any manner.

# DEPARTMENT OF ACCOUNTING AND FINANCE 

Chairperson: Carl Wright, Box 9047, Room 306 Singleton Hall, Phone: 524-5841<br>Professor:<br>Associate Professors:<br>Assistant Professors:<br>John Moore<br>Cheryl Mitchem, Hari Sharma, Carl Wright<br>Joyce Vander laan Smith

## Description of Department

The Department of Accounting and Finance offers programs of study to prepare students for professional accounting and finance careers in public, private, and non-profit organizations. The programs of study also prepare students for graduate study and for professional certifications.

## Mission of Department

The mission of the Department of Accounting and Finance is to prepare students for professional careers in the areas of accounting and finance through a rigorous program of study that incorporates information technology and ethics.

## Objectives of Department

- to develop and enhance students' capabilities in oral and written communication skills as well as in research skills,
- to ensure that students are competent information technology (IT) users and developers,
- to develop an understanding of the Conceptual Framework of Accounting, Generally Accepted Accounting Principles, Generally Accepted Auditing Standards, and Managerial/Cost and Tax concepts associated with business decision making,
- to provide students with a broad understanding of finance in the management of profit and non-profit institutions,
- to develop students' sensitivities to ethical and moral responsibilities in conduct of their professional and personal duties,
- to make students aware of differences in financial gathering and reporting needed in a global economy, and
- to prepare students for careers in public practice, industry, government or graduate study in accounting, finance, and related fields.


## Learning Goals

Understanding Accounting and Financial Theory - Students should understand the concepts, structure and meaning of accounting and financial data with the ability to produce clear and concise financial reports.

Understanding the Financial Reporting Cycle - Students should understand the process of identifying, gathering, measuring, summarizing and analyzing financial data in a business organization.

Internal Controls and Data Integrity - Students should understand the concepts, methods and process of control that provides for accuracy and integrity of financial data and safeguarding of business assets.

Understanding the Attest Function - Students should understand the nature of attest services and conceptual basis for performing audits.

Understanding Tax Issues - Students should understand taxation and its impact on financial and managerial decisions.

## Areas of Specialization

The Department of Accounting and Finance offers a Bachelor of Science degree (B.S.) in Accounting with the option of a concentration in Finance. The Finance Concentration is designed to augment students' accounting knowledge with the concepts and skills in the areas of corporate finance and investments that will enhance financial interpretations as part of a management team.

The Department of Accounting and Finance offers a minor in accounting and in finance comprising 18 semester hours for each minor.

## Other Departmental Information

- The majority of accounting and finance courses are taught in computer-based laboratory classrooms.
- The Virginia State University Chapter of the National Association of Black Accountants (NABA) provides students with opportunities for professional growth through its professional speaker series, student conferences, and public service projects.
- Internships and scholarships are available for qualified students.
- The Accounting and Finance Club and the CPA Club are designed to assist students in the achievement of their career goals.


## Course Descriptions

## ACCOUNTING

ACCT 201 INTRODUCTORY ACCOUNTING I - 3 semester hours
F, Sp, Su
This course is a study of fundamental principles of financial accounting as applied to the contemporary business environment. Problems of measuring and reporting income, assets, liabilities, and equity as shown on financial statements are discussed.
Prerequisite: Sophomore standing.
ACCT 202 INTRODUCTORY ACCOUNTING II - 3 semester hours
F, Sp, Su
This course is a study of introductory management accounting principles as applied to the competitive business environment. Emphasis is on using data from an organization's management information system to formulate and implement business strategy.
Prerequisite: ACCT 201 Introductory Accounting I
ACCT 301 INTERMEDIATE ACCOUNTING I - 3 semester hours F, Sp
The course provides an in-depth study of generally accepted accounting principles as they relate to financial statement presentation.
Prerequisite: ACCT 202 Introductory Accounting II
ACCT 302 INTERMEDIATE ACCOUNTING II - 3 semester hours F, Sp
This is course is a continuation of ACCT 301 that concentrates on the analysis of the financial statements, together with the theory of valuation underlying the accounts in the statements.

## Prerequisite: ACCT 301 Intermediate Accounting I

## ACCT 304 MANAGERIAL ACCOUNTING - 3 semester hours

This is a course for the non-accounting major, emphasizing the analysis, interpretation, and use of financial information related to cost determination.
Prerequisite: ACCT 202 Introductory Accounting II or permission of instructor

ACCT 306 COST ACCOUNTING - 3 semester hours
F
The issues of cost accumulation for inventory pricing and income determination are examined as well as the study of cost accounting systems: job order, process cost, and standard cost. Special topics in relevant costs for routine and nonroutine decisions are also discussed.

## Prerequisite: ACCT 202 Introductory Accounting II

ACCT 307 FEDERAL INCOME TAX I - 3 semester hours F
This course is a study of federal income tax law basic concepts as they apply to individuals, businesses, and not-forprofit taxable entities.
Prerequisite: ACCT 202 Introductory Accounting II
ACCT 308 FEDERAL INCOME TAX II - 3 semester hours Sp
The course studies federal income tax topics and integrates theory and practice concepts through the use of cases, tax research and tax planning strategies.
Prerequisite: ACCT 307 Federal Income Tax
ACCT 315 ACCOUNTING INFORMATION SYSTEMS - 3 semester hours Sp
This course provides a basis for understanding, using, and controlling accounting information systems as found in business organizations. Systems of various sizes, technology, and configuration are examined. Emphasis is on analysis and control of accounting information systems throughout their life cycle, from initial design and development through documentation, testing, implementation and review. There is an emphasis on building an accounting information system.

## Prerequisite: ACCT 202 Introductory Accounting II

ACCT 403 ADVANCED ACCOUNTING - 3 semester hours F
The problems related to consolidations, partnerships, foreign currency translations and hedging, and segment reporting are examined.

## Prerequisite: ACCT 302 Intermediate Accounting II or by special permission

## ACCT 406 ADVANCED COST ACCOUNTING - 3 semester hours

Sp
This course covers selected topics in management accounting, such as responsibility accounting, transfer pricing, JIT manufacturing, activity-based costing, and relevant costs for special decisions. Ethical and international aspects of management accounting are also discussed.
Prerequisite: ACCT 306 Cost Accounting

## ACCT 407 AUDITING - 3 semester hours

 SpThe analysis and application of the theory and techniques of auditing and assurance principles and procedures, with emphasis on the duties and responsibilities of the auditor.

## Prerequisite: ACCT 302 Intermediate Accounting II or by special permission

## ACCT 409 CPA REVIEW - 3 semester hours

This course provides an analysis and solutions of accounting and auditing problems presented in current CPA examinations, utilizing accounting concepts and procedures of prior accounting courses as well as recent pronouncements that impact upon accounting decisions.
Prerequisite: ACCT 403 Advanced Accounting, ACCT 407 Auditing ;
MGMT 270 Legal Environment for Business, or permission
ACCT 411 SEMINAR IN ACCOUNTING THEORY AND PRACTICE - 3 semester hours
This course is designed to investigate contemporary accounting theories and applications in the various areas of accounting to include financial, managerial, cost and auditing. Students will be exposed to pronouncements issued by the American Institute of Certified Public Accountants, the Security Exchange Commission and the Public Company Accounting Oversight Board.
Prerequisite: ACCT 302 Intermediate Accounting II or by special permission

ACCT 415 GOVERNMENTAL AND NOT-FOR-PROFIT ACCOUNTING - 3 semester hours Sp
The course is a study of accounting principles and their application for governmental and not-for-profit agencies/organizations and their related financial reporting and disclosure requirements. The objectives of financial reporting for these entities and the theoretical structure underlying these principles will be examined.
Prerequisite: ACCT 302 Intermediate Accounting II or by special permission.
ACCT 495 SPECIAL TOPICS IN ACCOUNTING -1 semester hour F
The course offers selected special topics in accounting, which may include: ethics and professionalism, EDP auditing, accounting history, international accounting, and other appropriate subjects. Students may enroll in this course up to six times, but each special topic may be taken only once.
Prerequisite: ACCT 302 Intermediate Accounting II or by special permission.

## Course Descriptions

## FINANCE

INC 350 PRINCIPLES OF FINANCE - 3 semester hours
F, Sp, Su
Students are exposed to the field of finance including financial concepts, financial analysis, planning and control, decisions involving long-term assets, sources and forms of long-term financing, international financial markets and issues, as well as selected ethical and social issues related to finance.
Prerequisite: ACCT 202 Introductory Accounting, ECON 211 Principles of Macroeconomics
FINC 360 PRINCIPLES OF INVESTMENTS - 3 semester hours
Sp
This course examines the various types of securities, valuation models for bonds and stocks, other security markets, and theories of portfolio management. Special emphasis is placed on common stock portfolios.
Prerequisite: FINC 350 Principles of Finance, or the approval of the instructor

## FINC 400 CORPORATE FINANCE - 3 semester hours

Students learn the concepts critical to the financial manager in a contemporary environment, including risk valuation, capital budgeting, cost of capital, capital structure, long-term finance, derivative securities, as well as topics of special interest like mergers and acquisitions, lease financing, and working capital management.

## Prerequisite: FINC 350 Principles of Finance

## FINC 401 PERSONAL MONEY MANAGEMENT - 3 semester hours

Principles and methods of managing personal income, wealth and credit are examined in this course. Included are source and uses of funds, budgeting, estate planning and retirement planning.

## FINC 446 ENTREPRENEURIAL FINANCE - 3 semester hours

The course examines small business start-up management with emphasis on financial decision-making for entrepreneurs, and the functions of investment banking institutions as they relate to small business capital acquisition and management. Also included are legal concerns and strategies for minority start-up ventures. The case study method will be used. Prerequisite: FINC 350 Principles of Finance or equivalent

FINC 452 PRINCIPLES OF REAL ESTATE - 3 semester hours
Emphasis in this course is on the economic and social aspects of real estate-markets, property rights, contracts, deeds, property ownership, insurance, management and planning for the future.
Prerequisite: FINC 350 Principles of Finance or equivalent

## FINC 460 ADVANCED INVESTMENT ANALYSIS - 3 semester hours

The course provides an in-depth analysis of fixed-income securities and markets. Financial theories are applied to the construction of fixed-income security portfolios. Topics include duration, convexity, realized compound yield, mortgage-backed securities, interest-rate swaps, bond immunization, and interest-rate futures and options. Prerequisites: FINC 350 Principles of Finance, FINC 360 Principles of Investments

FINC 465 MANAGEMENT OF FINANCIAL INSTITUTIONS - 3 semester hours
Students are exposed to the analysis of the management of financial institutions, including the management of asset and liability structures, control of financial operations, and the effect of regulations on financial management practices.
Prerequisite: FINC 350 Principles of Finance
FINC 472 RISK MANAGEMENT AND INSURANCE - 3 semester hours
This is a study of the insurance industry, the different forms of insurance coverage, and an analysis of the concept of risk.
The course examines risk management techniques to neutralize the effect of risk inherent in daily life.
Prerequisite: FINC 350 Principles of Finance

## DEPARTMENT OF ACCOUNTING AND FINANCE ACCOUNTING MAJOR Bachelor of Science Degree

|  |  | Semester Hours |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1{ }^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
| FRESHMAN YEAR |  |  |  |  |
| ENGL 110, 111 | Composition I, II | 3 | 3 | 6 |
| MATH 120 | College Algebra and Trigonometry | 3 | - | 3 |
| CISY 155 | Introduction to Information Systems | 3 | - | 3 |
|  | Science (GE Menu) | 4 | 4 | 8 |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| MATH 122 | Finite Mathematics | - | 3 | 3 |
|  | History (GE Menu) | - | 3 | 3 |
|  | Wellness Health (GE Menu | - | $\underline{2}$ | $\underline{2}$ |
|  |  | $15^{-}$ | 15 | 30 |
| SOPHOMORE YEAR |  |  |  |  |
| ACCT 201, 202 | Introduction to Accounting I \& II | 3 | 3 | 6 |
| ECON 210, 211 | Principles of Microeconomics/Macroeconomics | 3 | 3 | 6 |
| PHIL 180 | Critical Thinking | 3 | - | 3 |
| MATH 212 | Introduction to Calculus | 3 | - | 3 |
|  | Literature (GE Menu) | 3 | - | 3 |
| CISY 260 | Business Statistics | - | 3 | 3 |
| MGMT 270 | Legal Environment of Business | - | 3 | 3 |
| SPEE 214 | Introduction to Public Speaking | - | 3 | 3 |
|  |  | 15 | 15 | 30 |
| JUNIOR YEAR |  |  |  |  |
| ACCT 301, 302 | Intermediate Accounting I \& II | 3 | 3 | 6 |
| ACCT 306 | Cost Accounting | 3 | - | 3 |
| GEEN 310 | Advanced Communication Skills | 3 | - | 3 |
| MGMT 300 | Organization and Management | 3 | - | 3 |
|  | Global Studies (GE Menu) | 3 | - | 3 |
| ACCT 315 | Accounting Information Systems | - | 3 | 3 |
| FINC 350 | Principles of Finance | - | 3 | 3 |
| CISY 363 | Quantitative Methods and Analysis | - | 3 | 3 |
| MKTG 300 | Principles of Marketing | - | 3 | $\underline{3}$ |
|  |  | 15 | 15 | 30 |
| SENIOR YEAR |  |  |  |  |
| ACCT 307 | Federal Income Tax I | 3 | - | 3 |
| CISY 365 | Operations and Production Management | 3 | - | 3 |
| ACCT | Accounting Electives | 3 | 3 | 6 |
| FINC 400 | Corporate Finance | 3 | - | 3 |
|  | Restricted Business Elective* | 3 | - | 3 |
| ACCT 407 | Auditing | - | 3 | 3 |
| ACCT 411 | Seminar in Accounting Theory | - | 3 | 3 |
| MGMT 483 | Organization Policy \& Strategy | - | 3 | 3 |
| PHIL 290 | Business Ethics | - | 3 | $\underline{3}$ |
|  |  | 15 | 15 | 30 |

[^2]
## DEPARTMENT OF ACCOUNTING AND FINANCE ACCOUNTING MAJOR Finance Concentration Bachelor of Science Degree



## DEPARTMENT OF ACCOUNTING AND FINANCE FINANCE MINOR

This minor will require six courses ( 18 semester hours). One of the courses may satisfy your restrictive elective requirement. This minor is directed toward the student who is willing to stay in school of a minimum of $4 \frac{1}{2}$ years.

## A. *PREREQUISITES

ACCT 201 Introductory Accounting I
ACCT 202 Introductory Accounting II
B. REQUIRED COURSES

FINC 350 Principles of Finance
FINC 360 Principles of Investment
FINC 400 Corporate Finance
FINC 465 Management of Financial Institutions
Finance Elective
Finance Elective
C. FINANCE ELECTIVES

FINC 401 Personal Money Management
FINC 415 International Financial Management
FINC 446 Entrepreneurial Finance
FINC 452 Principles of Real Estate
FINC 460 Investment Analysis and Portfolio Management
FINC 472 Risk Management and Insurance

# DEPARTMENT OF COMPUTER INFORMATION SYSTEMS 

Chairperson: Seung Yang, Box 9038, Room 124, Singleton Hall, Phone: 524-5781<br>Professors:<br>Associate Professors:<br>Ephrem Eyob,<br>Adeyemi Adekoya, Xue Bai, Emmanuel Omojokun, Manying Qiu<br>Somasheker Akkaladevi, Xin Luo, Shuting Xu, Yaquan Xu,<br>Seung Yang, Dong Yoo, Jie Zhang

## Description of Department

The Computer Information Systems Department provides students with a solid understanding of the use, design, development and management of information systems and information technology. Students have a choice of concentration in either Information Systems or Decision Sciences. The Information Systems concentration provides for an emphasis on systems analysis, design and development. The Decision Sciences concentration emphasizes the use and development of quantitative tools and models to improve and facilitate organizational decision-making processes.

Most Information Systems and Decision Sciences courses are designed to give students the opportunity to develop and manage a variety of projects that can be applied to real business settings. The curriculum is structured to provide students with a strong foundation in quantitative and analytical skills. Ethical and global issues are integrated across the curriculum.

## Mission of Department

The Computer Information Systems Department provides quality instruction in information systems and decisions sciences, and supports the information technology component of the School's mission.

## Objectives of Department

To accomplish this mission, the Department identifies its objectives as follows:

- Provide students with effective and state-of-the-art instruction in information systems and decision sciences.
- Enhance the student's knowledge, skills, and abilities that are essential for succeeding in a rapidly changing and competitive workplace.
- Create programs to enhance student placement in career rewarding positions.
- Develop programs to enhance student placement in career rewarding positions.
- Continue to revise and improve the curricula to prepare students for entry into graduate and professional schools and give them the requisite knowledge needed to meet the demands of the market place.
- Increase the interaction between the department and the business and professional community by organizing forums, seminars, and workshops.
- Encourage faculty to share their research skills with colleagues.
- Encourage collaborative research and group effort among faculty.
- Improve and expand support services and facilities that enhance the scholarly performance of the faculty.
- Increase faculty involvement and participation in professional and service organizations.
- Offer Information Systems and Decision Sciences expertise to all constituents.


## Learning Goals

Quantitative, Modeling and Analytic Skills - VSU students will acquire quantitative and analytical problem solving knowledge and skills. VSU students will have the ability to use analytic skills in decision-making.

Systems Orientation - CIS students will learn to view problems and problem solving from system analytical approach.

Computer Programming Skills - CIS students will acquire essential programming skills.
IT Currency - Students will be exposed to current information technology issues and trends.

## Course Descriptions

## COMPUTER INFORMATION SYSTEMS

CISY 155 INTRODUCTION TO INFORMATION SYSTEMS - 3 semester hours F, Sp, Su
This course is designed to introduce the student to the basic concepts and procedures required in the development and use of computer based management information systems. Topics include: overview of computer concepts and computer literacy, computer hardware, computer software, and data communications. It provides a hands-on experience on three specific computer application packages: word processing, spreadsheets, database, and presentation graphics. Prerequisite: High school algebra or equivalent

## CISY 201 MICROCOMPUTER CONCEPTS I - 3 semester hours

This course provides a hands-on computer experience through the use of microcomputers with an emphasis on a microcomputer operating system and an in-depth coverage of various computer application packages, such as, but not limited to, word processing, data base, spreadsheet software, and presentation graphics.

CISY 260 BUSINESS STATISTICS - 3 semester hours
F, Sp, Su
Introduction to the use of statistical methods as a scientific tool in the analysis of problems in business and economics. Coverage will include probability, probability distributions, measures of central tendency and dispersions, sampling distributions, and estimation. Methods include hypothesis testing, regression and correlation, ANOVA and Chi square tests.
Prerequisite: MATH 122 or its equivalent

## CISY 300 COMPUTER INTERNSHIP - 3 semester hours <br> $\mathbf{F}, \mathrm{Sp}, \mathrm{Su}$

Off campus (approved by the Department). Broad spectrum of "hands-on" work experience as an apprentice programmer/analyst in a computer environment for not less than 120 clock hours.

## Prerequisites: CISY 155 Introduction to Information Systems, CISY 362 Systems Analysis and Design or permission of department chair.

## CISY 302 INTRODUCTION TO DECISION MAKING - 3 semester hours

F, Sp
A study of rational decision making in the face of risk and uncertainty for an organization. Quantitative methods and techniques from optimization, probability, statistics, and discrete mathematics are discussed. A variety of business applications are considered.
Prerequisites: MATH 122
CISY 305 PROGRAMMING/LOGIC AND DESIGN - 3 semester hours
F, Sp
This course teaches skills for development of algorithms for problem-solving. Students are taught how to use structured and other approaches to analyze problems and express their solutions. Through the introduction of programming concepts, this course enforces good style and outlines logical thinking.

## Prerequisite: CISY 155 Introduction to Information Systems

CISY 311 SYSTEMS ARCHITECTURE AND DESIGN - 3 semester hours
F
This course is designed to introduce the student to the hardware components and architecture of general purpose computers. Topics include: data representation, data manipulation and storage technologies, data communication technology, mass storage and input/output technology, machine-level programming, application development, operating systems, mass storage access \& management, application support and control, computer networks and distributed systems, advanced computer architecture, and evaluation and acquisition of computer systems.
Prerequisites: CISY 350 Programming/Logic and Design and a programming language

The course introduces the student to visual programming using Visual Basic. The course focuses on the principles of user interface design, general software engineering principles and application development using Visual Basic.
Prerequisites: CISY 305 Programming/Logic and Design and CISY 350 Management Information Systems May be taken concurrently with CISY 350

## CISY 350 MANAGEMENT INFORMATION SYSTEMS - 3 semester hours

F, Sp, Su
An informative course designed to provide students with an understanding of the importance and the role of Business Information Systems in making decisions affecting the success of an organization, and the types of information systems that support business functions. Emphasis will be placed on the planning, development, installation and maintenance of business computer applications that are utilized in the typical business environment.
Prerequisite: CISY 155 Introduction to Information Systems or equivalent.
CISY 358 STRUCTURED COBOL PROGRAMMING - 3 semester hours
F
A first course in business computer COBOL programming that emphasizes the structured methodology. Topics include arithmetic operations, conditional statements, editing printed output, headings, and debugging.
Prerequisite: MATH 122 CISY 305 Programming/Logic and Design, CISY 350 Management Information Systems. May be taken concurrently with CISY 350.

CISY 359 ADVANCED STRUCTURED COBOL - 3 semester hours
This course is the second part of a two-semester sequence. It introduces the student to the more advanced and sophisticated features of computer programming using ANSI COBOL.
Prerequisite: CISY 358 Structured COBOL Programming or equivalent
CISY 360 BUSINESS STATISTICS II - 3 semester hours
F, Sp, Su
This course is a continuation of CISY 260. The course will cover several of the more advanced statistical methodologies of importance in analyzing business problems. Coverage includes experimental design, multiple regression, and correlation and non-parametric tests. Real world examples and realistic problems related to business and economics will be used.
Prerequisite: CISY 260 Business Statistics or equivalent.
CISY 362 SYSTEMS ANALYSIS AND DESIGN - 3 semester hours
F, Sp
This course focuses on the application of information technologies (IT) to systems analysis, systems design, and systems implementation practices. Methodologies related to identification of information requirements function, feasibility (economic, legal and contractual, operational, political, technical and schedule) and related issues are covered. Development of data dictionary and the application of computer-aided system engineering (CASE) tools for diagramming information flow and procedures in system development process are covered.
Prerequisite: CISY $\mathbf{3 5 0}$ Management Information Systems, MGMT 300 Organization and Management and a programming language, or permission of department chair.

CISY 363 QUANTITATIVE METHODS AND ANALYSIS - 3 semester hours F, Sp, Su
The course covers basic quantitative methods in business and their applications to managerial decision making. Coverage includes such techniques as linear programming, duality and sensitivity analysis; transportation and assignment problems; basic inventory models, queuing theory and computer simulation. Students are exposed to the use of contemporary computer software for problem solving.
Prerequisites: CISY 260 Business Statistics or equivalent

## CISY 364 OBJECT ORIENTED PROGRAMMING USING C++ - 3 semester hours

F
This course introduces the student to Object-Oriented approach to program design and implementation using C++ programming language. The course exposes the student to objects, classes, data encapsulation, data abstraction, inheritance, structures and polymorphism. The course also covers C++ control constructs, functions, arrays, pointers and associated data structures, input/output streams and files.
Prerequisite: CISY 305 Programming Logic and Design and CISY 350 Management Information Systems. May be taken concurrently with CISY 350.

CISY 365 OPERATIONS/PRODUCTION MANAGEMENT - 3 semester hours F, Sp, Su Operational problems are identified in service and manufacturing industries; the associated costs and other relevant factors are discussed; and models that provide guidance to decision making are developed and described. Content includes planning the production and service facilities, planning and control of production volume, and product quality.
Prerequisite: CISY 260 Business Statistics or equivalent
CISY 370 EXPERT SYSTEMS - 3 semester hours $\quad$ F (odd years)
This course introduces the student to the components of decision support and expert systems. These include user interfaces, knowledge bases, and inference engines. Existing commercial packages are reviewed. The course will work both on design and management of these systems.
Prerequisite: CISY 350 Management Information Systems
CISY 430 ADVANCED JAVA PROGRAMMING - 3 semester hours
Sp
This course is the second part of a two semester Java programming course sequence. Students will learn how to write small to medium sized java applications and java applets. Special topics include key issues related to software engineering, object oriented design, Java Application Programming Interface (API), graphical user interface components, event handling, exceptions, input/output, and inheritance, data structures, and multithreading and animation. Prerequisite: CISY 330 Introduction to Java Programming

CISY 444 ADVANCED VISUAL BASIC (VB) PROGRAMMING - 3 semester hours
F
This course is a continuation of CISY 344 - Introduction to Visual Basic (VB) Programming. Topics include advanced event-driven programming techniques including database programming, creating Active- X and COM components, and optimizing and deploying applications.
Prerequisite: CISY 344 Introduction to Programming Using Visual Basic
CISY 460 MANAGING OPERATIONS - 3 semester hours
F
Analysis of cases on operational activities in business and industry using quantitative and qualitative techniques with recommendations to improve their productivity and profitability. A case study approach to expose students to real-world business operations is used throughout the course.
Prerequisites: ACCT 202 Introductory Accounting II, CISY 360 Business Statistics II, CISY 363 Quantitative Methods and Analysis; CISY 365 Operations Production Management

## CISY 463 OPERATIONS RESEARCH - 3 semester hours

F, Sp
A survey of operations research techniques for solving "real world" business decision problems. This course is a continuation of CISY 363. Topics covered include integer, nonlinear and dynamic programming, Markov decision processes, decision theory and games. Emphasis is on modeling and algorithm development.

## Prerequisites: MATH 122; CISY 365 Quantitative Methods and Analysis

CISY 464 ADVANCED C++ PROGRAMMING - 3 semester hours
Sp
An advanced C++ programming course which focuses on Object-Oriented approach to program design and implementation using $\mathrm{C}++$ programming language. Topics include objects, classes, data encapsulation, data abstraction, constructors and destructors, functions, arrays, pointers and associated structures, inheritance, virtual function and polymorphism, template, exception handling, input/output streams and file processing.
Prerequisite: CISY 364 Object Oriented Programming Using C++ or permission of instructor

CISY 465 SIMULATIONS - 3 semester hours
F, Sp (even years)
This course introduces the student to the basic concepts of simulating complex business systems using the computer. Topics covered include discrete-event modeling, a specialized computer simulation language, and statistical analysis of simulation input and output data.
Prerequisites: CISY 260 Business Statistics or equivalent and a programming language
CISY 466 WEB APPLICATION DESIGN AND IMPLEMENTATION - 3 semester hours F, Sp
This course involves a study and application of the principles of web applications design. The design, development and implementation of dynamic web pages using Java Server Pages (SP), JavaBeans and EJB are covered. Students also learn how to use Unified Modeling Language (UML) to build web applications with both server side and client side scripting.
Prerequisite: An introductory level programming language or permission of instructor
CISY 467 NETWORKING - 3 semester hours
An introduction to the transmission media used in digital communications. The course focuses on the study of concepts, components and issues involved in the design, implementation and management of computer communications networks. Local area networks, wide area networks and distributed networks are studied. Furthermore, most recent developments in the design of digital communications relating to the design of computer networks for voice, data and video transmission are also covered.

## Prerequisite: CISY 155 Introduction to Information Systems or equivalent

CISY 480 DATABASE AND SECURITY - 3 semester hours F, Sp
A study of the principles of database systems with emphasis on the relational model of data, and covering both the user and the system perspectives. User issues include data modeling, informal and commercial query languages and the theory of database design. System issues include file structures, query formulation, form design, and report generation using different database management systems (DBMSs).
Prerequisite: CISY 311 Systems Architecture and Design, CISY 350 Management Information Systems, CISY 362 Systems Analysis and Design, and a programming language

CISY 486 CURRENT ISSUES IN INFORMATION TECHNOLOGY - 3 semester hours F, Sp
The course provides an overview of current changes in information technology and their impact on organizations. This is a capstone course for information systems majors and will integrate material from all required courses and the respective changes that have taken place. This class uses many learning styles to achieve its purpose. The class is based on assigned readings, presentations by business leaders, classroom discussions, hands-on use of technology, research and presentation.
Prerequisite: To be taken during the last semester at Virginia State University.

## CISY 490 PRODUCTION AND RESOURCE PLANNING - 3 semester hours

Sp
An advanced operations/production course which includes topics on modern production and service facilities, planning and scheduling activities, material requirements planning, resource planning, and quality assurance.

## Prerequisite: CISY 460 Managing Operations

CISY 495 SPECIAL TOPICS - $\mathbf{1 - 3}$ semester hours $\quad$ F, Sp, Su
In-depth treatment within a seminar format of a timely topic in Information Systems and Decision Sciences.
Prerequisite: Permission of the instructor

## DEPARTMENT OF COMPUTER INFORMATION SYSTEMS INFORMATION SYSTEMS MAJOR Bachelor of Science Degree

|  |  | Semester Hours |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1{ }^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
| FRESHMAN YEAR |  |  |  |  |
| ENGL 110, 111 | Composition I, II | 3 | 3 | 6 |
| MATH 120 | College Algebra and Trigonometry | 3 | - | 3 |
| CISY 155 | Introduction to Information Systems | 3 | - | 3 |
|  | Science (GE Menu) | 4 | 4 | 8 |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| MATH 122 | Finite Mathematics | - | 3 | 3 |
|  | History (GE Menu) | - | 3 | 3 |
|  | Wellness Health (GE Menu | = | $\underline{2}$ | $\underline{2}$ |
|  |  | 15 | 15 | 30 |
| SOPHOMORE YEAR |  |  |  |  |
| ACCT 201, 202 | Introduction to Accounting I \& II | 3 | 3 | 6 |
| ECON 210, 211 | Principles of Microeconomics/Macroeconomics | 3 | 3 | 6 |
| PHIL 180 | Critical Thinking | 3 | - | 3 |
| MATH 212 | Introduction to Calculus | 3 | - | 3 |
|  | Literature (GE Menu) | 3 | - | 3 |
| CISY 260 | Business Statistics | - | 3 | 3 |
| MGMT 270 | Legal Environment of Business | - | 3 | 3 |
| SPEE 214 | Introduction to Public Speaking | - | 3 | 3 |
|  |  | 15 | 15 | 30 |
| JUNIOR YEAR |  |  |  |  |
| FINC 350 | Principles of Finance | 3 | - | 3 |
| GEEN 310 | Advanced Communication Skills | 3 | - | 3 |
| CISY 350 | Management Information Systems | 3 | - | 3 |
| CISY 305 | Programming Logic | 3 | - | 3 |
| MGMT 300 | Organization and Management | 3 | - | 3 |
| MKTG 300 | Principles of Marketing | - | 3 | 3 |
| CISY 311 | Systems Architecture and Design | - | 3 | 3 |
| CISY 362 | Systems Analysis \& Design | - | 3 | 3 |
| CISY 363 | Quantitative Methods and Analysis | - | 3 | 3 |
| CISY | Programming Language Elective | - | 3 | $\underline{3}$ |
|  |  | 15 | 15 | 30 |
| SENIOR YEAR |  |  |  |  |
| CISY 365 | Operations and Production Management | 3 | - | 3 |
| CISY | Information Systems Electives | 3 | 3 | 6 |
| CISY | Advanced Programming Language Elective | 3 | - | 3 |
| PHIL 290 | Business Ethics | 3 | - | 3 |
|  | Business Non-Major International Course | 3 | - | 3 |
| CISY 480 | Database and Security | - | 3 | 3 |
| MGMT 483 | Organization Policy and Strategy | - | 3 | 3 |
| CISY 486 | Current Issues in Information Technology | - | 3 | 3 |
|  | Global Studies Elective | - | 3 | $\underline{3}$ |
|  |  | 15 | 15 | 30 |

# DEPARTMENT OF MANAGEMENT AND MARKETING 

Chairperson: Venkatapparao Mummalaneni, Box 9209, Room 220, Singleton Hall, Phone: 524-5808<br>Professors:<br>Associate Professors:<br>Assistant Professors:<br>Donatus Amaram, David Bejou, Venkatapparao Mummalaneneni<br>Henry Brown<br>Omar Belkhodja, Edige Karuranga, Mark Kunze, Kiersten Maryott, Ruiliang Yan

The Department of Management and Marketing provides students with opportunities to develop competencies in the areas of Management and Marketing. Major degree programs are offered in Management and Marketing and a concentration is available in the area of Human Resources Management. The curricula in the Department of Management and Marketing are designed to produce students who will be able to succeed in a highly competitive, global society.

## Mission of Department

The Department of Management and Marketing provides a comprehensive, top quality undergraduate education in the management and marketing disciplines that incorporates information technology and ethics to prepare our students for leadership roles in business and society.

## Objectives of Department

To accomplish its mission, the Department has identified its objectives as follows:

- To develop in students an appreciation of the requirements involved in the management of complex organizations, and to engender excitement to pursue careers in management and marketing.
- To develop students' communication skills, both oral and written, for the efficient performance of management and marketing functions at all levels of an organization.
- To develop in students, an appreciation for career opportunities in management and marketing.
- To increase the use of instructional technology by faculty and students for application to the various fields of management and marketing.
- To prepare students to become effective managers and marketers in business firms, educational institutions, government, business industries, and other organizations.
- To teach students to have a global perspective of business and other organizations with particular emphasis on the requisite skills needed for effective management and marketing in different cultures.
- To develop students' sensitivities to ethical and moral responsibilities in the conduct of their organizational and personal functions.
- To encourage students to adopt a management style of lifelong learning.
- To prepare students to become cognizant of the interrelationships among the sub-fields of business, and of the interrelationship, between management and marketing and other disciplines.
- To encourage scholarly contributions to knowledge, sharing of scholarly information, and efforts to remain at the leading edge of management and marketing research so that faculty can provide the highest quality instructional services to students.
- To encourage scholarly contributions which facilitate faculty contact with professionals who can provide management and marketing opportunities to students so that students can succeed as managers in a changing global society.
- To assure faculty and student involvement and participation in professional, service, community and business organizations.
- To provide community service in the areas of management and marketing.
- To increase departmental visibility in the surrounding community in order to stimulate an awareness and appreciation for the services offered by the Department.
- To promote service which improves the Department's accomplishment of its goals, provides new opportunities for the Department, and helps ensure that the Department looks to the future and changes with the environment.
- To develop students' understanding of, proclivity for, and commitment to community service.
- To promote non-curricular activities which augment student development.


## Management Learning Goals

Understanding Organizations - Each student can diagnose and analyze organizational problems and choose and defend resolutions for practical situations by applying management theories and principles learned in their courses.

Problems Solving Using Theories and Knowledge - To develop students' skills and abilities to solve organizational problems by applying the theories and principles learned in their courses.

Group and Team Interaction - Provide opportunities in our program for students to develop team-work skills.
Employer/Employee Rights and Responsibilities - Expose and sensitize students to rights and responsibilities of employers and employees in the workplace.

## Marketing Learning Goals

Foster Customer Relationship Orientation - Students will be learning about the relational perspective and develop an understanding of relationship marketing and its perspectives.

Develop a Perspective on Global Markets - Students will gain global perspective of business and other organizations with particular emphasis on the requisite skills needed for effective marketing in different cultures.

Develop Marketing Research and Analysis Skills - Students will learn to design and apply appropriate research methods for the collection and analysis of data to aid in marketing decision making.
(1) A Bachelor of Science in Management with the option of specializing in either (a) Management or (b) Human Resources Management
(2) A Bachelor of Science in Marketing

## Management Degree Program

The program leading to a B.S. degree in Management is designed to provide a comprehensive mix of general and professional education suitable for preparing students for managerial leadership in both profit and non-profit organizations. Emphasis is placed on acquiring knowledge of the basic concepts and ideas essential to universal management functions.

The B.S. degree in Management consists of 120 semester hours of academic work. The Management Internship is encouraged for all Management majors. A brief description of each concentration follows:
A. The General Management Concentration aims to prepare students for positions in industry and government or for graduate study in management and/or other related fields of business.
B. The Human Resources Management Concentration is designed to provide students with the skills and knowledge needed to manage the workforce and make decisions relative to the sensitive and dynamic relationships between employees and the owners and managers of the organization. Students in this concentration are exposed to an overview of all the core areas of management and business functions.

## Marketing Degree Program

The program leading to a B.S. degree in Marketing is designed to provide a comprehensive mix of general and professional education suitable for preparing students for managerial leadership in both profit and non-profit organizations. Emphasis is placed on acquiring knowledge of basic concepts and ideas essential to universal management and marketing functions. The B.S. degree in Marketing consists of 120 semester hours of course work.

## Course Descriptions

## MANAGEMENT

## MGMT 150 PRINCIPLES OF BUSINESS - 3 semester hours

This course introduces the student to the fundamental principles of business, organizations, finance, banking, credit management, salesmanship, advertising, ecology and consumers. Through this introduction the student will be able to relate/work with real world examples in higher-level courses.

## MGMT 270 LEGAL ENVIRONMENT OF BUSINESS - 3 semester hours

F, Sp
The legal environment of business course is an introduction to the background, role, structure and importance of the legal system of the United States of America. Civil procedure, tort law, administrative law, bankruptcy and criminal law will be surveyed. Other areas of the law to be treated in more depth include contracts, personal property and bailments, real property, agency, ethics and forms of business organizations.

## Prerequisite: Sophomore Standing

## MGMT 271 BUSINESS LAW - 3 semester hours

This course deals with business law topics frequently addressed on the CPA examination as well as an in-depth coverage of selected articles of the Uniform Commercial Code.

## Prerequisite: Sophomore Standing

MGMT 300 ORGANIZATION AND MANAGEMENT - 3 semester hours
F, Sp
This course provides an overview of the many aspects of managing organizations. Emphasis will be placed on management processes, human behavior in organizations and applications of classroom knowledge to actual challenges facing managers. The application of management concepts will be practiced using such activities as case studies, team projects, decision making exercises, presentations, and active in-class discussion of current management issues.

## Prerequisite(s): Junior status, and MGMT 270 or PHED 202

## MGMT 320 INTERNATIONAL BUSINESS - 3 semester hours

## F

This course explores the critical importance of the environments that surround international business and how multinational and global enterprises are expected to adapt their operations and functional strategies to these constantly changing environments. Additional topics explored include theories of international trade, international development and investment, international organizations that impact international business, the international system, exporting and importing, etc.
Prerequisite: MGMT 300

## MGMT 330 ORGANIZATIONAL BEHAVIOR - 3 semester hours

An in-depth study of the behaviors of individuals and small groups in organizations. A problem solving approach is applied to such concepts as motivation, personalities, work attitudes, leadership, communication effectiveness, managerial decision making, conflict resolution, office politics, and change management.

## Prerequisite: MGMT 300

## MGMT 340 PERSONNEL/HUMAN RESOURCES MANAGEMENT - 3 semester hours

The basic principles of managing the workforce are covered in this course. Topics such as recruitment and selection, employee training, performance evaluation, compensation, occupational safety and health, equal employment opportunity and employment discrimination policies as well as retirement and pension issues will be discussed.

## Prerequisite: MGMT 300

MGMT 375 INTERNSHIP - 3 semester hours
F, Sp
The internship course allows students to obtain practical work experience in a management position under supervised conditions. The internship provides real-world application of management education under the critical supervision of an on-site administrator and a management faculty member.
Prerequisite: MGMT 300 Junior standing or special permission of the instructor
MGMT 418 ORGANIZATION AND ENVIRONMENT -3 semester hours

## F

The course deals generally with the mutual influences of public policies and business activities. Selected public policy issues and programs are examined in-depth from the perspectives of how they impact on business planning and operations, including anti-trust legislations and landmark court decisions arising from them.
Prerequisite: MGMT 300

## MGMT 420 MANAGING IN A GLOBAL ECONOMY - 3 semester hours

The student will examine the techniques of managing international businesses with emphasis on the problems of communications as well as cultural, political and social differences with reference to multi-national businesses operating in different parts of the world.
Prerequisite: MGMT 300

## MGMT 444 ENTREPRENEURSHIP AND SMALL BUSINESS MANAGEMENT - 3 semester hours

This course is an in-depth analysis of the entrepreneur's role in conceptualizing, developing and managing small business ventures. Key personality and leadership traits of the entrepreneur are examined within the framework of risk-taking and new venture start-ups. The course is also designed to expose students to the problems and opportunities inherent in establishing and managing a small business and the techniques employed in launching and sustaining a new venture.
Prerequisites: MGMT 300 and MKTG 300

## MGMT 445 SMALL BUSINESS CONSULTING - 3 semester hours

The small business consulting course is designed to develop practical consulting skills of students in the area of small business management and development. Students will apply conceptual and theoretical skills to identify opportunities, diagnose, analyze and resolve problems of small business owners.
Prerequisites: MGMT 444 Senior standing or permission of instructor
MGMT 450 ORGANIZATIONAL THEORY - 3 semester hours
An in-depth study of how to restructure any organization. Restructuring groups people and organizes activities to accomplish the organization's goals. Each student will develop the ability to analyze an organization's internal and external structural contingencies and design the correspondingly appropriate structures. Emphasis will be placed on applying this ability through case studies.

## Prerequisite: MGMT 300

## MGMT 452 ORGANIZATIONAL CULTURE AND DIVERSITY - 3 semester hours

This course is an examination of an organization's culture, how it is created, sustained and learned. The issue of changing organizational culture within the context of a global, multi-ethnic and pluralistic workplace will be addressed. Topics to be addressed include: culturally based patterns of difference, current research in multicultured management and action steps for managing a multicultural workforce.
Prerequisite: MGMT 300

## MGMT 454 WORKPLACE DEMOCRACY - 3 semester hours

The student will examine non-hierarchical organizational forms and structures that would facilitate democratic involvement and participation in workplace decision making and activities. The content will include: cooperatives, worker-owned firms, self-managed enterprises, ESOPS, Workers Council, and Quality Circles.

## Prerequisite: MGMT 300

## MGMT 464 EMPLOYMENT LAWS AND POLICIES - 3 semester hours

## Sp

This course is designed as a critical review of current or proposed laws and public policies dealing with the dynamics of employment including the important areas of human resources acquisition, development, maintenance, utilization and compensation.
Prerequisite: MGMT 300

## MGMT 466 COMPENSATION MANAGEMENT - 3 semester hours

tool.
Prerequisites: MGMT 300

## MGMT 468 COMPARATIVE UNION MOVEMENTS - 3 semester hours

This course is a comparison of labor union movements and industrial relations practices in different countries, particularly in Western Europe, North America, Japan and Africa with respect to their history, rationale, objectives and laws and their implications for multinational enterprises which must deal with the differences associated with these systems.
Prerequisite: MGMT 300

## MGMT 470 HUMAN RESOURCES PLANNING AND DEVELOPMENT - 3 semester hours

This course surveys the concepts and techniques of determining human resources requirements and methods of acquisition, training and development of the workforce.
Prerequisites: MGMT 300 and MGMT 340 or equivalent

## MGMT 480 ORGANIZATIONAL DEVELOPMENT - 3 semester hours

An integrated application of behavioral science to the improvement of overall organizational performance. Studied will be several techniques of large-scale planned change which redesign an organization's culture and processes. Emphasis will be placed on applying these techniques through case studies.
Prerequisites: MGMT 300, MGMT 330, MGMT 340, MGMT 450.
MGMT 483 ORGANIZATIONAL POLICY AND STRATEGY - 3 semester hours
F, Sp
Organization policy and strategy is a capstone course designed to probe the interrelationships of the functional areas within the organization. Students will apply management skills and processes to integrate these areas, make decisions and formulate policies and strategies to accomplish organizational goals.

## Prerequisites: MGMT 300, FINC 350 AND MKTG 300

## MGMT 484 INDUSTRIAL RELATIONS AND COLLECTIVE BARGAINING - 3 semester hours

This course is a survey of the labor union movement and collective bargaining in the United States. Includes the rationale, structure and government of labor union internal affairs and the laws and policies relating to unfair labor practices in plant unionization and collective bargaining between management and labor organizations. Prerequisites: MGMT 300 and MGMT 340

MGMT 490 SEMINAR: ISSUES IN MANAGEMENT - 3 semester hours
Sp
The seminar course is designed to provide students the opportunity to study in-depth topics pertaining to management. Students will take initiative in identifying current topics, issues and problems confronting managers.
Prerequisite: MGMT 300, Senior Standing

# DEPARTMENT OF MARKETING AND MANAGEMENT <br> MANAGEMENT MAJOR <br> General Management Concentration Bachelor of Science Degree 

|  |  | Semester Hours |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
| FRESHMAN YEAR |  |  |  |  |
| ENGL 110, 111 | Composition I, II | 3 | 3 | 6 |
| MATH 120 | College Algebra and Trigonometry | 3 | - | 3 |
| CISY 155 | Introduction to Information Systems | 3 | - | 3 |
|  | Science Electives | 4 | 4 | 8 |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| MATH 122 | Finite Mathematics | - | 3 | 3 |
|  | History Elective | - | 3 | 3 |
|  | Wellness Health | - | $\underline{2}$ | $\underline{2}$ |
|  |  | 15 | 15 | 30 |
| SOPHOMORE YEAR |  |  |  |  |
| ACCT 201, 202 | Introduction to Accounting I \& II | 3 | 3 | 6 |
| ECON 210, 211 | Principles of Microeconomics/Macroeconomics | 3 | 3 | 6 |
| PHIL 180 | Critical Thinking | 3 | - | 3 |
| MATH 212 | Introduction to Calculus | 3 | - | 3 |
|  | Literature Elective | 3 | - | 3 |
| CISY 260 | Business Statistics | - | 3 | 3 |
| MGMT 270 | Legal Environment of Business | - | 3 | 3 |
| SPEE 214 | Introduction to Public Speaking |  | 3 | $\underline{3}$ |
|  |  | 15 | 15 | 30 |
| JUNIOR YEAR |  |  |  |  |
| FINC 350 | Principles of Finance | 3 | - | 3 |
| GEEN 310 | Advanced Communication Skills | 3 | - | 3 |
| MKTG 300 | Principles of Marketing | 3 | - | 3 |
| MGMT 300 | Organization and Management | 3 | - | 3 |
| PHIL 290 | Business Ethics | 3 | - | 3 |
| MGMT 330 | Organizational Behavior | - | 3 | 3 |
| MGMT 340 | Personnel and Human Resources Management | - | 3 | 3 |
| CISY 350 | Management of Information Systems | - | 3 | 3 |
| CISY 363 | Quantitative Methods and Analysis | - | 3 | 3 |
|  | Global Studies Elective | - | $\underline{3}$ | $\underline{3}$ |
|  |  | 15 | 15 | 30 |
| SENIOR YEAR |  |  |  |  |
| CISY 365 | Operations and Production Management | 3 | - | 3 |
| MGMT 320 | International Business | 3 | - | 3 |
| MGMT 418 | Organization and Environment | 3 | - | 3 |
| MGMT 450 | Organizational Theory | 3 | - | 3 |
| MGMT | Management Electives | 3 | 3 | 6 |
| MGMT 483 | Organization Policy and Strategy | - | 3 | 3 |
| MGMT 490 | Seminar - Issues in Management | - | 3 | 3 |
|  | Restricted Elective | - | 3 | 3 |
|  |  | - | $\underline{3}$ | $\underline{3}$ |
|  |  | 15 | 15 | 30 |

## DEPARTMENT OF MARKETING AND MANAGEMENT MARKETING MAJOR <br> Human Resources Management Concentration Bachelor of Science Degree



## Course Descriptions

## MARKETING

## MKTG 300 PRINCIPLES OF MARKETING - 3 semester hours

This course is designed to cover the basic concepts of marketing management in consumer and industrial markets, and the formulation of marketing strategies relating to products, channels of distribution, promotion, and price. The course seeks to promote a managerial approach to solving marketing problems and reviews the fundamental marketing institutions, with an awareness of ethical considerations and the global environment.

## MKTG 303 PROMOTION MANAGEMENT - 3 semester hours

This course provides a broad overview of the promotional mix elements including advertising, public relations, personal selling, and sales promotion. Emphasis is placed on developing a strategic understanding of the marketing communication process and its integration into the mission and objectives of an organization. In addition, the course serves as a foundation for other promotion courses in the marketing curriculum.

## Prerequisite: MKTG 300

## MKTG 305 PRODUCT AND PRICE MANAGEMENT - 3 semester hours

The course examines policy and strategic issues in product management, focusing on such areas as new product development, managing existing products, product positioning and repositioning, product elimination decisions, etc. In addition, the alternative pricing strategies that accompany different product, distribution and promotion strategies of the firm are explored.
Prerequisite: MKTG 300

## MKTG 306 MARKETING CHANNELS AND PHYSICAL DISTRIBUTION MANAGEMENT

## - 3 semester hours

This course covers, in broad terms, all the managerial activities in the distribution of a firm's finished products from the factory to the ultimate customer. These managerial activities include model choice and carrier choice decisions, choices among storage alternatives and different channels of distribution. Functions of different channel members such as distribution centers, wholesalers, retailers and other distribution specialists and their impact on distribution system will be also be covered. In addition, this course serves as the foundation course for the distribution courses in the marketing curriculum.
Prerequisite: MKTG 300

## MKTG 372 INTERNSHIP - 3 semester hours

The marketing internship allows students to obtain practical work experiences in marketing-oriented positions of business firms under supervised conditions. The purpose is for the Internee to improve his/her experiences as a marketing manager in a real business world under the critical supervision of an on-site administrator and a faculty member.
Prerequisite: MKTG 300, MKTG 303, MKTG 305, MKTG 306 and/or permission of instructor

## MKTG 401 - MARKETING RESEARCH - 3 semester hours

The course covers the concepts and techniques of marketing research with special emphasis on sampling methods, interviews, statistical analysis of data and their implications. Methods of developing and evaluating research design for actual problems, collection of the information, and its analysis are stressed.
Prerequisite: MKTG 300, ISDS 260

## MKTG 402 ADVERTISING - 3 semester hours

This course places emphasis on planning, budgeting, research, media selection, and preparation of advertising messages. The evaluation of advertising from an economic and social viewpoint by clients and agencies is emphasized.
Prerequisite: MKTG 300

MKTG 404 CONSUMER BEHAVIOR - 3 semester hours
F
Consumer behavior is a comprehensive study of the relevant psychological, sociological, and anthropological variables that shape consumer attitude, behavior, motivation, and characteristics. Throughout the course, students should consider the issue of why consumers behave as they do in the market.
Prerequisite: MKTG 300

## MKTG 405 SEMINAR IN MARKETING - 3 semester hours

This course is designed to integrate the marketing concepts learned in marketing-related courses taught over the student's matriculation, and to encourage the pursuit of further research and in-depth study in the specialized field of his/her choice. Special emphasis is placed on strategic thinking through the use of lectures, classroom presentations, class discussions, projects, and "field" studies of managerial issues. The course will assist the student in comprehending and incorporating the basic tenets of the discipline as he/she makes the transition from academic life to the working world and faces new perspectives of a changing and challenging world.
Prerequisite: MKTG 300
MKTG 408 INTERNATIONAL MARKETING - 3 semester hours Sp
The student will focus on the principles, issues, and problems of international marketing among the nations of the world. Marketing systems in all stages of development and various approaches to marketing problems by other nations will be addressed.
Prerequisite: MKTG 300

## MKTG 411 PURCHASING AND MATERIALS MANAGEMENT - 3 semester hours

This course deals with management of inbound logistics activities including purchasing, transportation, storage and warehouse control, for either a manufacturing firm or any of the channel members in a distribution system. Procurement, pricing, sourcing, leasing versus purchasing and materials management tools will be emphasized.

## Prerequisite: MKTG 300 or MGMT 300

## MKTG 413 TRANSPORTATION SYSTEMS - 3 semester hours

This course provides a basic knowledge of the modes, characteristics, and roles of the transportation system in the United States. The course will highlight the system network and transportation service for performing the movement function of various firms. Emphasis is placed on how the role of transportation and its complexities are strategically integrated into the marketing program.
Prerequisite: MKTG 306

## MKTG 414 RETAIL MANAGEMENT - 3 semester hours

This course provides an in-depth coverage of the basic concepts of retailing, including retail institutions, the retail environment, consumer buying behavior, retail strategy, retail organization and information systems, store location, planning merchandise management, buying merchandise, pricing, promotion, store management, customer service, retail selling, fashion retailing, and the retailing of services. Special emphasis is given to the strategic and managerial functions involved with this area of marketing.
Prerequisite: MKTG 300

## MKTG 415 LOGISTICS MANAGEMENT - 3 semester hours

The course provides an in-depth overview of logistics management to include the study and analysis of integrated logistical systems, policy planning, and overall management relating to the complexities of distribution, transportation issues, consumption, redistribution and marketing.
Prerequisite: MKTG 306

## MKTG 460 DIRECT MARKETING - 3 semester hours

This course provides an examination of the concepts, strategies and applications involved in direct marketing, including mail order and direct response advertising. Measurability, accountability, lists, data and the integration of direct marketing programs into total marketing efforts and overall organizational goals and functions will be emphasized.
Prerequisite: MKTG 300

## MKTG 461 SALES MANAGEMENT - 3 semester hours

A study of scientific methods of salesmanship, analysis of prospects, knowledge of merchandise and its use, needs and benefits concepts, selling steps, selection and training of salespersons, theories and techniques of sales and recognition of individual value. Also covered will be the management of the selling functions, including staffing, planning, evaluation, and control.
Prerequisite: MKTG 300

## MKTG 462 INDUSTRIAL MARKETING - 3 semester hours

This course is designed to cover the basic concepts and management of industrial marketing such as the industrial marketing environment, industrial customer and market behavior, industrial marketing processes, segmentation, planning strategies, the industrial marketing mix, industrial marketing performance, and international implications.
Prerequisite: MKTG 300

## MKTG 470 SERVICES MARKETING - 3 semester hours

This course focuses on concepts, practices, and strategies of services marketing, as well as the complexities involved in the area. Development of specialized marketing strategies from a managerial perspective is discussed for typical service entities such as professional, financial, education, entertainment, hotel and restaurant, health care, governmental, religious, research, advertising, and media organizations.

## Prerequisite: MKTG 300

## MKTG 478 INDEPENDENT STUDY - 3 semester hours

The course provides an opportunity for the marketing student to do an independent study in an emerging and/or state-of-the-art marketing area by investigating a problem or topic of interest in his/her area of specialization under the supervision of two professors.
Prerequisite: Senior Standing; Completion of the first elective course in the student's area of specialization; development of a research/study proposal for independent study that is approved by two professors who will supervise the independent study

MKTG 489 STRATEGIC MARKETING - 3 semester hours
Sp
An integrative capstone course, the course explores how firms develop integrated marketing programs and policies to achieve sustainable competitive advantage in the market place. It will be taught through case analysis and computer simulation of competitive market interactions.
Prerequisite: MKTG 300; MKTG 401; MKTG 404 and Senior Standing

## DEPARTMENT OF MARKETING AND MANAGEMENT MARKETING MAJOR <br> Bachelor of Science Degree



## SCHOOL OF ENGINEERING, SCIENCE AND TECHNOLOGY

The School of Engineering, Science and Technology is committed to providing a dynamic and stimulating learning environment where a combination of classroom instruction and laboratory work prepares students for the global nature of the engineering, science and mathematics professions. The School houses undergraduate programs which educate students to become professionals who are able to adapt to societal change, to communicate effectively and to be highly trainable. Whether students major in Engineering, Engineering Technology, Industrial Technology, Mathematics, Science, Technology or Minor in Secondary Education, they benefit from a curriculum that features indepth major courses and substantial training in mathematics, physical sciences, social sciences and the humanities.

## Mission

The Mission of the School of Engineering, Science and Technology is to provide quality undergraduate and graduate education in engineering, engineering technology, mathematics, natural sciences, computer science, industrial technology and education; and to produce graduates who are well prepared to practice in their field of study and/or to pursue advanced education.

## General Objectives

The primary objectives of the school are:

- To maintain and continually strive to improve the quality of instruction in all academic areas.
- To prepare students to enter professional careers in the public and private sectors or to continue their education beyond the baccalaureate level in professional or graduate school.


## Organization of the School

The School of Engineering, Science and Technology is an academic unit of Virginia State University administered by the Dean with the support of five Chairpersons. It is organized into five departments:

- Department of Biology
- Department of Chemistry and Physics
- Department of Nursing
- Department of Engineering, and Technology
- Department of Mathematics and Computer Science
- Department of Psychology


## Other Pertinent School Information

The School also offers programs leading to the Master of Science. These programs are discussed in more detail in the Graduate School Catalog.

## DEPARTMENT OF BIOLOGY

Chairperson: Ali Mohamed, Box 9064, Room 102 Owens Hall, Phone: 524-5025<br>Professors: Larry Brown, Ali Mohamed, Dilip Sen, Shaukat Siddiqi, W. Eric Thomas<br>Associate Professors: Regina Knight-Mason, Stephen d'Orgeix, Brian Sayre, Hua Shen<br>Assistant Professors: Omar Faison, Ross Johnson, Paul Kaseloo, Alexander Olvido, Sherman Ward Sherman Ward

## Description of the Department

The Department of Biology seeks to provide the student with a common background for the diversity of specializations which satisfy the academic needs of undergraduate biology majors for career options in medicine, dentistry, nursing, pharmacy, podiatry, optometry, physical therapy, veterinarian science, research and teaching in secondary schools. Also, the department provides the professional assistance needed to develop insight into biological research and preparation for a vocation or graduate study.

The Department of Biology also offers graduate programs leading to the Master's degree in biology. For courses open to graduate students, see Virginia State University Graduate Catalog.

## Mission of Department

The mission of the Department of Biology is to provide the professional assistance needed to develop insight into biological research and preparation for medical or graduate study.

## General Statement of Objectives

The department offers, for the Bachelor of Science degree, a major curriculum in biology which is designed to do the following:

1. Prepare students for graduate studies and professional schools in the medical and para-medical sciences.
2. Prepare students for employment in the fields of biology.

The department offers the BS in Biology with a minor in Secondary Education designed to prepare the student to teach in secondary schools.

The department offers the BS in Biology with an Associate of Science degree in Nursing in cooperation with the Department of Nursing.

## Course Descriptions

## BIOLOGY

BIOL 110 INTRODUCTORY BIOLOGY (PRE-NURSING) - 3 semester hours
F, Sp
An introductory biology course which prepares students for the VSU Associate of Science Degree in Nursing Programs (RN). This course emphasizes the fundamental concepts of cell biology, histology, microbiology and genetics as it relates them to nursing practice. This course is available only to pre-nursing students.

BIOL 110 INTRODUCTORY BIOLOGY (PRE-NURSING) LABORATORY - 1 semester hours F, Sp
A laboratory course required to be taken in conjunction with BIOL 110 Introductory Biology (Pre-Nursing) lecture course. This course will involve hands on laboratory excercises related to selected lecture topics. This course is available only to pre-nursing students.
Corequisite: BIOL 110 Introductory Biology (Pre-Nursing)

BIOL 120 PRINCIPLES OF BIOLOGY I - 3 semester hours
Presents the latest developments and advances in the field of biology and prepares students for the major course sequence in the biology/pre-med and endorsement curriculums. Emphasis will be placed on chemistry, cell biology, cell division, genetics, and biotechnology. This course is required of all Biology majors and is open to other science majors.

BIOL 120 PRINCIPLES OF BIOLOGY I LABORATORY - 1 semester hour
A laboratory course required to be taken in conjunction with BIOL 120 Principles of Biology I lecture course. This course will involve hands on laboratory exercise related to selected lecture topics.
Corequisite: BIOL 120 Principles of Biology I
BIOL 121 PRINCIPLES OF BIOLOGY II - 3 semester hours F, Sp
Presents the latest developments and advances in the field of biology with emphasis on evolution, ecology, diversity of life, and classification of plants and animals. This course is required of all biology majors.
Prerequisite: BIOL 120 Principles of Biology I
BIOL 121 PRINCIPLES OF BIOLOGY II LABORATORY - 1 semester hour F, Sp
A laboratory course required to be taken in conjunction with BIOL 121 Principles of Biology II lecture course. This course will involve hands on laboratory exercise related to selected lecture topics.

## Corequisite: BIOL 121 Principles of Biology II

BIOL 200 TECHNICAL WRITING IN BIOLOGY - 3 semester hours F, Sp
A study of the content, structure and presentation of written communication in Biology (e.g. reports, abstracts, posters, journal articles etc.). The course includes study of previously and published materials, as well as original written work prepared by students.

## Prerequisite: BIOL 121 Principles of Biology II

BIOL 201 CELL AND MOLECULAR BIOLOGY - 3 semester hours
A study of the principles of eukaryotic cellular and molecular biology. This course is designed to provide students planning to attend a graduate or medical program with an understanding of the structure and function of eukaryotic cells, with emphasis on multicellular organisms.
Prerequisite: BIOL 121 Principles of Biology II
BIOL 201 CELL AND MOLECULAR BIOLOGY LABORATORY - 1 semester hour F, Sp
A laboratory course required to be taken in conjunction with BIOL 201 Cell and Molecular Biology. This course will give students a laboratory experience to compliment their lecture material. The laboratory will expose students to the eukaryotic cell structure and function, and molecular biology techniques.

## Corequisite: BIOL 201 Cell and Molecular Biology

## BIOL 220 PRINCIPLES OF GENETICS - 3 semester hours

An extensive study of the general fundamental principles of genetics, including special emphasis on the application of recombinant DNA technology in the study of DNA, RNA, and the mechanisms of gene expression. Laboratory will involve modern techniques of genetic experimentation.
Prerequisites: BIOL 121 Principles of Biology II; CHEM 101 General Chemistry I; CHEM 103 General Chemistry Laboratory

BIOL 220 PRINCIPLES OF GENETICS LABORATORY - 1 semester hour
F, Sp
The laboratory experience will confirm and expand on what is covered in the lecture and textbook. It will also provide the opportunity to function as a geneticist.
Corequisite: BIOL 220 Principles of Genetics

BIOL 240 MICROBIOLOGY (PRE-NURSING) - 3 semester hours
F, Sp
BIOL 240 presents fundamental principles of microbiology for students planning to enter the VSU Associate of Science Degree in Nursing (RN) Program. Emphasis is placed on nursing/medical environments and various healthcare settings. This course is a prerequisite for BIOL 318 Human Anatomy and Physiology for Nurses w/lab. This course is open only to pre-nursing students.
Prerequisite: BIOL 110 Introductory Biology (Pre-Nursing)
BIOL 240 MICROBIOLOGY (PRE-NURSING) LABORATORY - 1 semester hours F, Sp
BIOL 240 presents fundamental principles of microbiology for students planning to enter the VSU Associate of Science Degree in Nursing (RN) Program. Emphasis is placed on nursing/medical environments and various healthcare settings. This course is a prerequisite for BIOL 318 Human Anatomy and Physiology for Nurses w/lab. This course is open only to pre-nursing students.
Corequisite: BIOL 240 Microbiology (Pre-Nursing)
BIOL 241 INTRODUCTION TO MICROBIOLOGY - 3 semester hours
F, Sp, Su
The study of fundamental principles of microbiology. Emphasis will be placed on medical, environmental, agricultural, and industrial microbiology.
Prerequisite: BIOL 121 Principles of Biology I or consent of instructor
BIOL 241 INTRODUCTION TO MICROBIOLOGY LABORATORY - 1 semester hour F, Sp, Su A laboratory course to be taken in conjunction with BIOL 241 Introduction to Microbiology lecture course. The laboratory will consist of selected exercises that illustrate and clarify basic concepts in microbiology. Attention to basic microbiological laboratory techniques will be stressed.
Corequisite: BIOL 241 Introduction to Microbiology
BIOL 310 PLANT MORPHOLOGY - 3 semester hours
F, Sp
A study of the structure and life histories of plants and the development and evolution of plant structures and habitats which contribute to an understanding of the relationship among groups of plants.
Prerequisite: BIOL 121 Principles of Biology II or PLSC 140 Principles of Plant Science or consent of instructor

BIOL 310 PLANT MORPHOLOGY LABORATORY - 1 semester hour F, Sp A laboratory course required to be taken in conjunction with BIOL 310 Plant Morphology laboratory course. This laboratory experience will contribute to an understanding of the relationship among groups of plants.
Corequisite: BIOL 310 Plant Morphology
BIOL 311 COMPARATIVE VERTEBRATE ANATOMY - 3 semester hours
F even years
A course detailing the comparative morphology of vertebrate systems at both the gross and microscopic levels of organization. The application of comparative anatomy to the study of the development and ancestry of the classes of vertebrates is included.
Prerequisites: BIOL 201 Cell and Molecular Biology; BIOL 220 Principles of Genetics; BIOL 324 Ecology
BIOL 311 COMPARATIVE VERTEBRATE ANATOMY LABORATORY - 1 semester hour F even years
Dissection of vertebrate types found in the five basic classes of vertebrate for comparative purposes.
Corequisite: BIOL 311 Comparative Vertebrate Anatomy
BIOL 313 GENERAL ZOOLOGY - 3 semester hours
Sp odd years
An upper division course designed to provide the student with an in depth examination of the structures, functions, adaptations, and evolutionary relationships among animal phyla. The evolutionary development of major systems and characteristics of the major groups will also be covered. Attention is given to the evolutionary and ecological interaction of animals and their environment.
Prerequisite: BIOL 201 Cell and Molecular Biology; BIOL 220 Principles of Genetics; BIOL 324 Ecology or consent of instructor

A laboratory course required to be taken in conjunction with BIOL 313 General Zoology lecture course. The students will examine representative organisms, structures and organ systems to illustrate the evoluationary development of the animal kingdom.
Corequisite: BIOL 313 General Zoology
BIOL 315 HUMAN ANATOMY - 3 semester hours $\quad$ F, Sp, Su
A lecture course for science and non-science majors of functional anatomy and organogenesis based on historical examinations, demonstrations, and dissections in man or selected anthropoids.
Prerequisites: GEBI 116 Biological Science or BIOL 120 Principles of Biology I
BIOL 315 HUMAN ANATOMY LABORATORY - 1 semester hour F, Sp, Su
A laboratory course for BIOL 315.
Corequisite: BIOL 315 Human Anatomy
BIOL 316 HUMAN PHYSIOLOGY - 3 semester hours F, Sp, Su
A non-laboratory introductory study of the human system at work and the ways and means by which various functions are integrated into a living unit.
Prerequisite: GEBI 116 Biological Science or BIOL 120 Principles of Biology I
BIOL 318 HUMAN ANATOMY AND PHYSIOLOGY I (FOR NURSING PROGRAM) - 3 semester hours F BIOL 318 is the first half of a two-semester course (with lab) for nursing students describing the structures and function of the human body as it relates to nursing practice. Course content is geared to nursing applications and provides the knowledge, skills and abilities to complete the NCLEX-RN examination. This course is required for all nursing students.
Prerequisites: BIOL 110 Introductory Biology (Pre-Nursing) \& BIOL 240 Microbiology (Pre-Nursing) or CHEM 101, CHEM 102, CHEM 103 \& CHEM 104 General Chemistry I and II \& MATH 120 \& MATH 121
College Algebra and Trigonometry I and II, Admittance into Nursing program.
Corequisites: NURS 100 Introduction to Nursing w/lab; NURS 110 Pharmacology and First Aid
Certifications; PSYC 214 Social Psychology

## BIOL 318 HUMAN ANATOMY AND PHYSIOLOGY I (FOR NURSING PROGRAM) LABORATORY -

1 semester hour
A laboratory to accompany BIOL 318 lecture. This course is required for all nursing students.
Corequisite: BIOL 318 Human Anatomy and Physiology I (For Nursing Program)

## BIOL 319 HUMAN ANATOMY AND PHYSIOLOGY II (FOR NURSING PROGRAM) -

3 semester hours
BIOL 319 is the second half of a two-semester course (with lab) for nursing students describing the structure and function of the human body as it relates to nursing practice. Course content is geared to nursing applications and provides the knowledge, skills and abilities to complete the NCLEX-RN examination. This course is required for all nursing students.
Prerequisite: BIOL 318 Human Anatomy and Physiology I (For Nursing Program)
Corequisite: NURS 150 Principles of Nursing I; GEDI 101 Nutrition: Contemporary Health Issues; PSYC 216 Developmental Psychology

BIOL 324 ECOLOGY - 3 semester hours F, Sp, Su
This course will cover the basic principles of ecology. Ecology is a diverse subject in terms of topics and will be related to other disciplines of science. This course will provide the opportunities to understand the relationships among various areas of ecological sciences. The course will deal with the fundamental factual knowledge of natural ecosystems, distribution, abundance of organisms, and vegetation types, and the factors that influence the presence of flora and fauna at various locations. Emphasis is to be given on the understanding of the process of science that will augment the discovery and sharpen the abilities, skills, and knowledge through the study of ecology.
Prerequisites: BIOL 121 Principles of Biology II

BIOL 324 ECOLOGY LABORATORY - 1 semester hour
A field study of the relationships of organisms to their environment.
Corequisite: BIOL 324 Ecology
BIOL 352 INTRODUCTION TO MATHEMATICAL BIOLOGY - 3 semester hours F
This course is designed to develop mathematical models in biology and study the behavior of such models using numerical techniques and review the mathematical concepts behind many important biological principles. Topics will be drawn from conversation biology, genetics, and physiology. Mathematics and computational methods to be reviewed include functions in biology, difference and differential equations, integration as needed, probability, numerical matrix algebra and curve fitting software. Students can receive credit either for MATH 352 or BIOL 352 but not for both.
Prerequisites: MATH 200 Calculus I, BIOL 120 Principles of Biology I and BIOL 121 Principles of Biology II, or consent of instructor.

BIOL 405 ANIMAL BEHAVIOR - 3 semester hours
A course in the study of the mechanisms and evolution of animal behavior. Topics include: natural selection and evolution of behavior, behavioral genetics, neural and physiological mechanisms of behavior, communication, aggression, sexual reproduction, and mating systems. The course is an upper-level biology restrictive elective appropriate for junior and senior biology majors and others interested in zoology, animal science, entomology and experimental psychology. Prerequisite: BIOL 320 (Genetics) or consent of instructor. This course may be used as a Biology restrictive elective.

BIOL 405 ANIMAL BEHAVIOR LABORATORY -1 semester hours
Sp
The study of animal behavior and field to be taken as a corequisite with BIOL 405 Animal Behavior lecture course. This course will emphasize methodology for collecting and analyzing animal behavior data. We will cover collection, statistical analysis, interpretation and written and oral presentation of behavioral data.

## Corequisite: BIOL 405 Animal Behavior Lecture

BIOL 410 SYSTEMATIC BOTANY - 3 semester hours Sp even years
A laboratory field and lecture course devoted to classifying seed plants, ferns, and mosses found in Virginia. Numerous field trips.
Prerequisites: BIOL 310 Plant Morphology
BIOL 410 SYSTEMATIC BOTANY LABORATORY -1 semester hour
Sp even years
A laboratory field course devoted to classifying seed plants, ferns and mosses found in Virginia.
Corequisite: BIOL 410 Systematic Botany
BIOL 411 PROTOZOOLOGY - 3 semester hours $\quad$ F odd years
The biology of parasitic protozoa with emphasis on taxonomy, life histories, morphology and basic principles of physiology; general considerations given to epidemiology, prevention and control, as well as therapeutic measures against protozoan infections.
Prerequisites: BIOL 201 Cell and Molecular Biology; BIOL 220 Principles of Genetics
BIOL 411 PROTOZOOLOGY LABORATORY - $\mathbf{1}$ semester hours $\quad$ F odd years
A taxonomic study of the protozoa.
Corequisite: BIOL 411 Protozoology
BIOL 412 INVERTEBRATE ZOOLOGY - 3 semester hours $\quad$ F even years
A comprehensive consideration of the biology of the invertebrates inclusive of the more important parasites particular to man. A balanced presentation of taxonomical, morphological, physiological and ecological treatment of the invertebrates is presented.
Prerequisites: BIOL 201 Cell and Molecular Biology; BIOL 220 Principles of Genetics BIOL 324 Ecology

A study of various vertebrate groups emphasizing their origin, comparative morphology, taxonomy, life histories, habitats, distribution and economic importance.
Prerequisites: BIOL 201 Cell and Molecular Biology; BIOL 220 Principles of Genetics BIOL 324 Ecology
BIOL 413 VERTEBRATE BIOLOGY LABORATORY - $\mathbf{1}$ semester hour

A course designed to acquaint students with the latest techniques in molecular biology, including restriction enzyme analysis.
Prerequisites: BIOL 201 Cell and Molecular Biology, BIOL 220 Principles of Genetics;
BIOL 241 Introduction to Microbiology or consent of instructor
BIOL 414 TECHNIQUES OF MOLECULAR BIOLOGY LABORATORY -1 semester hour

## BIOL 415 VERTEBRATE HISTOLOGY - 3 semester hours

An intensive study of the cell and the cellular organization of the various tissues of the body, with an introduction to microslide preparation.
Prerequisites: BIOL 201 Cell and Molecular Biology, BIOL 220 Principles of Genetics or consent of instructor
BIOL 415 VERTEBRATE HISTOLOGY LABORATORY -1 semester hour Sp
A study of the identifying characteristics of animal tissues.
Corequisite: BIOL 415 Vertebrate Histology
BIOL 416 QUANTITATIVE BIOLOGY - 3 semester hours
F
In practice, the course will illustrate in a clear and useful way the application and adaptation of general quantitative methods in the approach to specific biological problems and in the treatment of biological data.
Prerequisties: BIOL 201 Cell and Molecular Biology; BIOL 220 Principles of Genetics; BIOL 324 Ecology
BIOL 416 QUANTITATIVE BIOLOGY LABORATORY - 1 semester hours F
A laboratory course required to be taken in conjunction with BIOL 416 Quantitative Biology lecture course. This course will involve exercises related to selected lecture topics.

## Corequisite: BIOL 416 Quantitative Biology

BIOL 417 GENERAL PHYSIOLOGY - 3 semester hours
Sp
A study of the integration of body function in higher animals with emphasis on the irritable tissues, nerves and muscles; attention is given to nerve excitability impulse conduction, information processing, chemical transmission and receptor mechanisms; muscle bio-chemistry, muscle irritability and contractibility are also considered, as well as humoral integration, nutrition, respiration and circulation.
Prerequisites: BIOL 201 Cell and Molecular Biology; BIOL 220 Principles of Genetics; CHEM 305 Organic Chemistry I

BIOL 417 GENERAL PHYSIOLOGY LABORATORY -1 semester hour
A demonstration of the various body functions.
Corequisite: BIOL 417 General Physiology
BIOL 418 PLANT PHYSIOLOGY - 3 semester hours $\quad$ F even years
A course involving studies of the internal and external factors affecting water relations, mineral nutrition, respiration, photosynthesis, growth and differentiation of plants, with emphasis on plant metabolism.
Prerequisites: BIOL 310 Plant Morphology

BIOL 418 PLANT PHYSIOLOGY LABORATORY -1 semester hour

Designed to give the student an overview of cellular structure and function. Special emphasis will be given to the biochemical processes and where they occur within the cell. Topics include: cellular respiration, glycogenolysis, lipogenesis, lipolysis, beta oxidation, photophosphorylation, carbon fixation, transcription, translation, and regulation of protein synthesis. Prerequisites: BIOL 201 Cell and Molecular Biology; BIOL 220 Principles of Genetics; BIOL241 Introduction to Microbiology; CHEM 305 Organic Chemistry I; or consent of instructor

BIOL 419 CELL PHYSIOLOGY LABORATORY -1 semester hour
A study of the structure and functions of cellular organelles.
Corequisite: BIOL 419 Cell Physiology
BIOL 423 CONSERVATION BIOLOGY - 3 semester hours F, Sp, Su
This course introduces the principles of conservation biology with an emphasis on ecological processes operating at population, community and ecosystem levels of organization. Threats to biological diversity, ranging from species introduction to habitat destruction an conservation solutions such as the design of protected areas and conservation legislation will be covered.
Prerequisite: BIOL 201 Cell and Molecular Biology; BIOL 220 Principles of Genetics; BIOL 324 Ecology.
Offered as a non-required biology restrictive elective.
BIOL 425 EMBRYOLOGY - 3 semester hours
A study of the fundamental developmental stages of echnoids, fish and selected vertebrates with some consideration being given to mammals. The developmental processes of these organisms will be described and analyzed through early stages. Prerequisite: BIOL 201 Cell and Molecular Biology; BIOL 220 Principles of Genetics

BIOL 425 EMBRYOLOGY LABORATORY -1 semester hour
A descriptive study of the early developmental sequences of the vertebrate animals.
Corequisite: BIOL 425 Embryology

## BIOL 427 SCIENCE PROCESS SKILLS - 3 semester hours

F, Sp
Designed to foster the development and understanding of principles and major concepts and processes of science as they relate to the elementary and or middle grades. The course will emphasize content and develop competency in the application and performance of specific basic and integrated skills in science.

BIOL 427 SCIENCE PROCESS SKILLS LABORATORY -1 semester hour F, Sp
Practical experiences in conducting elementary science investigations.
Corequisite: BIOL 427 Science Process Skills
BIOL 428 TEACHING SCIENCE IN SECONDARY SCHOOLS -3 semester hours F, Sp
The course is designed to foster the development and understanding of principles and major concepts of science as they relate to middle and secondary school teaching. It also incorporates current theories and practices in science teaching. Emphasis will be placed on teaching the concepts of science as inquiry, developing research skills, and applying research findings to the teaching and learning of science. Safety in the classroom and legal issues will be discussed. Students will discuss and analyze various classroom management techniques. Students will develop lesson and unit plans incorporating technological approaches to meet the diverse needs of learners, as well as, gifted and talented students. Students will be knowledgeable of Virginia's SOLs and design instruction reflective of the SOLs. Also, students will participate in a series of organized practicum experiences in a public school secondary science classroom.

## Prerequisite: BIOL 241 Introduction to Microbiology

BIOL 443 LABORATORY - $\mathbf{1}$ semester hours
Experiments conducted that illustrate both innate and acquired immunity. Included are the preparation of various vaccines, the immunization of laboratory animals, the demonstration of hypersensitivity, the performance of serological tests of diagnostic and medicolegal importance, the performance of immunochemical methods of antigenic analysis.

## Corequisite: BIOL 443 Immunology and Serology

BIOL 445 PATHOGENIC AND DIAGNOSTIC MICROBIOLOGY - 3 semester hours $\quad$ F odd years
The study of the morphological and cultural characteristics and the pathogenic properties of micro-organisms. Emphasis is placed on the biological properties, isolation, identification and the control of pathogenic bacteria.

## Prerequisite: BIOL 241 Introduction to Microbiology

## BIOL 445 PATHOGENIC AND DIAGNOSTIC MICROBIOLOGY LABORATORY

1 semester hour $\quad F$ odd years

Identification, isolation and control of pathogenic bacteria.
Corequisite: BIOL 445 Pathogenic and Diagnostic Microbiology
BIOL 446 INVESTIGATIONS AND RESEARCH - 2 semester hours
Independent research course designed for the application of biological and chemical techniques under the guidance of a member of the biology faculty.
Prerequisites: BIOL 201 Cell and Molecular Biology; BIOL 220 Principles of Genetics; BIOL 241 Introduction to Microbiology; BIOL 324 Ecology; CHEM 305 \& 307 Organic Chemistry

BIOL 447 SEMINAR IN BIOLOGY - 2 semester hours
Prerequisites: BIOL 201 Cell and Molecular Biology; BIOL 220 Principles of Genetics; BIOL 241 Introduction to Microbiology; BIOL 324 Ecology; CHEM 305 \& 307 Organic Chemistry

BIOL 450 Introduction to Bioinformatics - $\mathbf{3}$ semester hours
This course is designed to introduce students to the field of bioinformatics. It will be open to students from majors including Biology, Mathematics, Computer Science and Engineering. Lectures will emphasize the close association between bioinformatics and genomics and investigate the rapid development of both fields. Concepts and techniques of molecular biology and computer science will be substantially reviewed such that advanced knowledge in these areas is not required for this course. Lectures will cover basic molecular biology, online bioinformatic databases, biological sequence alignment, gene prediction, functional and comparative genomics, and proteomics. Special emphasis will be placed on current problems in genomics research and the common bioinformatic tools and resources used to resolve them.
Prerequisite: BIOL 320 Principles of Genetics or BIOL 220 or consent of instructor

## BIOL 478 STUDENT TEACHING - 8 semester hours

This capstone course is designed to offer a classroom teaching experience in a public school setting with opportunities for involvement with students on the secondary level. The course culminates in full responsibility for planning, implementing, and evaluating classroom activities. Also, the student teacher will develop the ability to apply skills in research and scholarship, the ability to work with diverse populations, the ability to use computer technology to enhance classroom instruction, and the ability to integrate high ethical standards.

SCED 401 SEMINAR IN SCIENCE EDUCATION - 2 semester hours
An interdisciplinary seminar course for chemistry, biology, and physics teacher education majors which fosters critical thinking on controversial topics in modern science. The students will cover topics that highlight the interrelationships among the natural sciences, modern teaching techniques and trends in the sciences, and career opportunities in the natural sciences.

# DEPARTMENT OF BIOLOGY BIOLOGY MAJOR <br> Biology/Pre-Med Concentration <br> Bachelor of Science Degree 

|  |  | Semester Hours |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1{ }^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
|  | FRESHMAN YEAR |  |  |  |
| BIOL 120, 121 | Principles of Biology I and II | 3 | 3 | 6 |
| BIOL 120, 121 | Principles of Biology I and II Lab | 1 | 1 | 2 |
| CHEM 101, 102 | General Chemistry I and II | 3 | 3 | 6 |
| CHEM 103, 104 | General Chemistry I and II Lab | 1 |  | 2 |
| MATH 120, 121 | College Algebra and Tri. I and II | 3 | 3 | 6 |
| ENGL 110, 111 | Composition I and II | 3 | 3 | 6 |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| GE MENU | Fitness Elective | $=$ | 1 | 1 |
|  |  | 16 | 15 | 31 |
| SOPHOMORE YEAR |  |  |  |  |
| BIOL 201, 220, $324^{1}$ | Core Courses (3) | 6 | 3 | 9 |
| BIOL 201, 220, $324^{1}$ | Core Courses Lab (3) | 2 | 1 | 3 |
| CHEM 305,306 | Organic Chemistry I and II | 3 | 3 | 6 |
| CHEM 307. 308 | Organic Chemistry Lab I and II | 1 | 1 | 2 |
| BIOL 200 | Technical Writing in Biology | 3 | - | 3 |
| GE MENU | Technology Elective | - | 3 | 3 |
| GE MENU | Humanities Elective | - | 3 | 3 |
| GE MENU | Fitness Elective | - | 1 | 1 |
|  |  | 15 | 15 | 30 |
| JUNIOR YEAR |  |  |  |  |
| BIOL $241^{2}$ | Microbiology | 3 | - | 3 |
| BIOL $241^{2}$ | Microbiology Lab | 1 | - | 1 |
| BIOL ${ }^{3}$ | Biology Restrictive Elective | 3 | - | 3 |
| $\mathrm{BIOL}^{3}$ | Biology Restrictive Elective Lab | 1 | - | 1 |
| BIOL $310^{2}$ | Plant Morphology | - | 3 | 3 |
| BIOL $310^{2}$ | Plant Morphology Lab | - | 1 | 1 |
| $\mathrm{BIOL}^{2}$ | Biology Group Course | - | 3 | 3 |
| BIOL ${ }^{2}$ | Biology Group Course Lab | - | 1 | 1 |
| PHYS 116, 117 | General Physics I and II | 3 | 3 | 6 |
| PHYS 116, 117 | General Physics I and II Lab | 1 | - | 1 |
| GE MENU | Global Studies Elective | 3 | - | 3 |
| GE MENU | Humanities Elective | $=$ | 3 | $\underline{3}$ |
|  |  | 15 | 15 | 30 |
| SENIOR YEAR |  |  |  |  |
| BIOL ${ }^{2}$ | Biology Group Course | 3 | - | 3 |
| BIOL ${ }^{2}$ | Biology Group Course Lab | 1 | - | 1 |
| $\mathrm{BIOL}^{3}$ | Biology Restrictive Elective (3) | 3 | 6 | 9 |
| $\mathrm{BIOL}^{3}$ | Biology Restrictive Elective Lab | 1 | 1 or 2 | 1 |
| BIOL 446 | Investigations and Research | 2 | - | 2 |
| BIOL 447 | Seminar in Biology | - | 2 | 2 |
|  | Restrictive Elective | 3 | - | 3 |
| GE MENU | Literature Elective | 3 | - | 3 |
| GE MENU | History Elective | - | 3 | 3 |
| GE MENU | Social Science Elective | - | $\underline{3}$ | $\underline{3}$ |
|  |  | 15 | 15 | 30 |
|  |  | (16) | (16) | (32) |

${ }^{1}$ Core Courses: Cell/Molecular Biology BIOL 201, Principles of Genetics BIOL 220, Ecology BIOL 324
(All core courses must be completed as prerequisites for upper-division electives and can be taken in any order).
${ }^{2}$ Biology Group Courses: (One course must chosen from each group):
Group 1) Cell/Molecular; Microbiology BIOL 241
Group 2) Organismal (Animal): General Zoology BIOL 313; Comparative Vertebrate Anatomy BIOL 311; Protozoology BIOL 411; Invertebrate Zoology BIOL 412; Vertebrate Biology BIOL 413; Vertebrate Histology BIOL 415; General Physiology BIOL 417; Embryology BIOL 425
Group 3) Organismal (Botany): BIOL 310 Plant Morphology
Group 4) Ecology/Evolution: Systematic Botany BIOL 410, Animal Behavior BIOL 405; Quantitative Biology BIOL 416; Conservation Biology BIOL 423
${ }^{3}$ Biology Restrictive Elective: May be any Biology (BIOL) course not already completed. See list of suggested courses for area interest.
At least one Biology Elective must have a lab. Other course may have labs indicated by the values in parentheses ( ).
Total Credit Hours will be between 120 and 123 hours depending upon whether Biology electives have a lab or not.
${ }^{4}$ Restrictive Elective Course: May be any course in the school of Engineering, Science and Technology above the 100 level. This may include additional Biology courses (see list of suggested courses for area of interest).

## DEPARTMENT OF BIOLOGY <br> Biology with a Minor in Secondary Education 6 - 12 (128 hrs)

|  |  | Semester Hours |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1{ }^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
|  | FRESHMAN YEAR |  |  |  |
| IDST 100 | Analytical Reading, Writing and Reasoning I | $2^{* *}$ | - | $2^{* *}$ |
| IDST 101 | Analytical Reading, Writing and Reasoning II | - | $2^{* *}$ | 2 |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| ENGL 110 | Composition I | 3 | - | 3 |
| ENGL 111 | Composition II | - | 3 | 3 |
| MATH 121 | College Algebra \& Tri II | 3 | - | 3 |
| STAT 210 | Statistics | - | 3 | 3 |
| CHEM 101 | General Chemistry I | 3 | - | 3 |
| CHEM 103 | General Chemistry II Laboratory | 1 | - | 1 |
| CHEM 102 | General Chemistry II | - | 3 | 3 |
| CHEM 104 | General Chemistry II Laboratory | - | 1 | 1 |
| BIOL 120 | Principles of Biology I | 3 | - | 3 |
| BIOL 120 | Biology Laboratory I | 1 | - | 1 |
| BIOL 121 | Principles of Biology II \& Laboratory | - | 4 | 4 |
| HISTORY | Elective | - | 3 | 3 |
|  |  | 16 | 17 | 33 |
| SOPHOMORE YEAR |  |  |  |  |
| EDUC 201 | Introduction to Teaching I | 2 | - | 2 |
| EDUC 202 | Introduction to Teaching II | - | 2 | 2 |
| IDST 200 | Digital Media in Teacher Education | - | 3 | 3 |
| ENGL 202 | Literature Elective | - | 3 | 3 |
| CHEM 305 | Organic Chemistry I | 3 | - | 3 |
| CHEM 307 | Organic Chemistry I Lab | 1 | - | 1 |
| BIOL 201 | Core Course* | 3 | - | 3 |
| BIOL 201 | Core Course Laboratory* | 1 | - | 1 |
| BIOL 220 | Core Course* | 3 | - | 3 |
| BIOL 220 | Core Course Laboratory* | 1 | - | 1 |
| BIOL 224 | Core Course* \& Laboratory* | - | 4 | 4 |
|  | Global Studies Elective | - | 3 | 3 |
|  | Humanities Elective | 3 | $=$ | 3 |
|  |  | 17 | 15 | 32 |
| JUNIOR YEAR |  |  |  |  |
| EDUC 315 | Data Driven Instructional Design | 3 | - | 3 |
| PSYC 212 | Human Growth and Development | - | 3 | 3 |
| SPED 403 | Classroom Management in Educational Settings (FE) | - | 3 | 3 |
| HPER 170 | Health and Wellness | - | 2 | 2 |
| BIOL 241 | Microbiology \& Laboratory | 4 | - | 4 |
| PHYS 116 | General Physics I | 3 | - | 3 |
| PHYS 116 | General Physics I Laboratory | 1 | - | 1 |
| BIOL 310 | Plant Morphology \& Laboratory | - | 4 | 4 |
|  | Biology Restrictive Elective | 3 | - | 3 |
| GEES 181 | Earth Science and Lab | - | 4 | 4 |
|  | Humanities Elective | 3 | - | $\underline{3}$ |
|  |  | 17 | 16 | 33 |

## SENIOR YEAR

| EDUC 424 | Critical Issues in Education | 2 | - | 2 |
| :--- | :--- | :---: | :---: | :---: |
|  | Biology Restrictive Elective and Lab | 4 | - | 4 |
| BIOL 447 | Seminar in Biology | 2 | - | 2 |
| BIOL 428 | Teaching Science | 3 | - | 3 |
| BIOL 402 | Teaching in Biology | - | 3 | 3 |
| EDUC 427 | Reading in the Subject Area | 3 | - | 3 |
| EDUC 401 | Student Teaching Seminar | - | 3 | 3 |
| EDUC 402 | Student Teaching | $\overline{-}$ | $\underline{9}$ | $\underline{9}$ |
|  |  | 14 | 15 | 29 |

## Additional Requirements for BS in Biology with a minor in Secondary Education

Freshman Year:

- IDST 100/101 are not needed if PRAXIS I scores or SAT scores requirement are met
- Take and pass PRAXIS I Assessment
${ }^{* *}$ IDST 100/101 are not counted in semester hours or toward graduation requirement
*Students not ready for MATH 121 in their Freshman Year may take MATH 120. However, the credits do not count toward the total number of semester hours needed to complete the degree requirements.

Sophomore Year:
*BIOL 201 Cell and Molecular Biology, BIOL 220 Genetics, and BIOL 224 Ecology may be taken in any sequence.
Students must complete admission to Teacher Education Professional Program.
Senior Year:
Students must take and pass PRAXIS II in Biology prior to student teaching.

## DEPARTMENT OF CHEMISTRY AND PHYSICS

Chairperson: Ralph Gatrone, Box 9078, 102Sa Hunter McDaniel, Phone: 524-5438<br>Professors:<br>Associate Professors:<br>Assistant Professors:<br>Godwin Mbagwu<br>Ralph Gatrone, Keshav Srivastava<br>Florence Etop, Abijit Sarker, Colleen Taylor, Victor Vilchiz

## Description of Department

The Department of Chemistry and Physics offers courses leading to the B.S. degree in Chemistry and to the B.S. degree in Physics. The chemistry program prepares students for employment as professional chemists; further study in graduate schools, professional training in medicine, dentistry, pharmacy, and secondary school science teaching. The physics program prepares students for employment as professional physicists, for engineering positions, for graduate study in physics and related areas. The department in conjunction with the Center for Undergraduate Professional Education Programs offers teaching endorsements in Chemistry Education (6-12) and Physics Education (6-12). The Department's faculty has a long and productive research history in biomedical, biophysical, matter and hall effect nuclear waste remediation, inorganic, organic and physical chemistry research. Students and faculty participate in local and national professional chemistry and physics organizations.

## Mission of the Department

The Department's mission is to provide quality and challenging academic programs in chemistry and physics. Additionally, the Department seeks to advance the knowledge of chemistry and physics through research and to promote the understanding of chemistry and physics through offering appropriate courses to meet a variety of student needs.

## General Objectives

The Department of Chemistry and Physics will do the following:

- Provide the basic training preparing students to become competent professional chemists and physicists.
- Help students gain knowledge and develop the necessary skills to study chemistry or physics at the doctorate level.
- Prepare students to become secondary school teachers of chemistry or physics.
- Promote research and engage in research activities to advance knowledge.
- Provide appropriate courses for all students seeking or requiring knowledge of chemistry and/or physics.


## The Chemistry Programs

The Chemistry Major and Biochemistry concentration prepares students for further training at the graduate level or to perform a variety of functions as scientists in industry or to enter professional or graduate schools in the medical, paramedical, dental and other health-related sciences. The Pre-Pharmacv option prepares students for further study in the School of Pharmacy at Howard University. The student will earn a B. S. degree in Chemistry from Virginia State University and a Doctor of Pharmacy degree from Howard University. The Endorsement of Education in Chemistry prepares students to become teachers in secondary schools.

## The Physics Programs

The Physics Major provides basic training for those who plan to enter employment as physicists immediately upon graduation or to pursue graduate study. The Physics and Arts option provides a flexible option that trains persons who want to obtain a broad physics-based liberal arts education. The Endorsement on Education in Physics prepares students to become teachers in secondary schools. The Engineering Physics option is designed to prepare students for careers in engineering and/or advanced study in engineering schools.

## Course Descriptions

"If a student withdraws from the lecture portion of a chemistry course they MUST withdraw from the laboratory course."

## CHEM 101 GENERAL CHEMISTRY I - 3 semester hours <br> F, Sp, Su

A development of the fundamental principles of chemistry and their applications. Chemical nomenclature, stoichiometry, atomic structure, bonding theories, thermochemistry, periodic properties, solution calculations, gas laws and the properties of solids and liquids are among the topics discussed.
Co-requisite: CHEM 103 General Chemistry I Laboratory

## CHEM 102 GENERAL CHEMISTRY II - 3 semester hours F, Sp, Su

A continuation of the study of the principles of chemistry and their applications. The topics include solution properties, acids and bases, ionic equations, oxidation-reduction, equilibrium, kinetics, descriptive chemistry of the elements, nuclear chemistry and an introduction to organic chemistry.

## Prerequisite: CHEM 101 General Chemistry I

Corequisite: CHEM 103 General Chemistry Laboratory I

## CHEM 103 GENERAL CHEMISTRY LABORATORY I -1 semester hour <br> F, Sp, Su

An introduction to the principles and techniques of experimental chemistry with emphasis upon formula investigations, equations, elementary laboratory statistics, and chemical reactivity.

## Corequisite: CHEM 101 General Chemistry I

## CHEM 104 GENERAL CHEMISTRY LABORATORY I -1 semester hour F, Sp, Su

A continuation of CHEM 103 with emphasis upon solution properties, kinetics, equilibrium, acids and bases, and qualitative analysis.

## Prerequisite: CHEM 103 General Chemistry Laboratory I <br> Corequisite: CHEM 102 General Chemistry II

CHEM 111 CHEMISTRY 1 - 3 semester hours
A development of the fundamental principles of chemistry and their application. Chemical nomenclature, stoichiometry, atomic structure, bonding theories, thermochemistry, periodic properties, solution calculations, gas laws and the properties of solids and liquids are among the topics discussed in depth. Emphasis will be placed on problem solving skills to better prepare students for careers in chemistry and related life science fields.

## Prerequisite: Chemistry Majors or Special Permission from the Department Chair

Corequisites: MATH 200 Calculus I and CHEM 113 Chemistry Laboratory I

## CHEM 112 CHEMISTRY II - 3 semester hours

A continuation of development of the fundamental principles of chemistry and their application. The topics that will be covered in depth include solution properties, acids and bases, ionic equations, oxidation reduction, equilibrium, kinetics descriptive chemistry of the elements, nuclear chemistry and an introduction to organic chemistry. Emphasis will be placed on problem solving skills to better prepare students for careers in chemistry and related life science fields.
Prerequisite: CHEM 111 Chemistry I with a C or better; Chemistry majors only
Corequisite: CHEM 114 Chemistry Laboratory II
CHEM 113 CHEMICAL LABORATORY I - 2 semester hours
F
An introduction to the principles and techniques of experimental chemistry with emphasis upon the application of course material to problem solving in the laboratory.

## Corequisite: CHEM 111 Chemistry I; Chemistry majors only

CHEM 114 CHEMISTRY LABORATORY II - 2 semester hours

CHEM 210 HISTORY OF CHEMISTRY -1 semester hour
A thorough assessment of the groundbreaking work of the pioneers responsible for the current practice of the science of chemistry and biochemistry.
Prerequisites: CHEM 101 or 111

## CHEM 301 ANALYTICAL CHEMISTRY I - 2 semester hours

A survey of the methods of inorganic quantitative analysis, including the methods of gravimetric and volumetric analysis with the use of simple instrumental methods included.
Prerequisites: CHEM 102 General Chemistry II with a C or better; CHEM 104 General Chemistry Laboratory II

CHEM 303 ANALYTICAL CHEMISTRY LABORATORY I -1 semester hour F
Laboratory experiences involving the qualitative and quantitative analysis of chemical compounds including gravimetric, volumetric and spectrophotometric methods.
Prerequisites: CHEM 102 General Chemistry II; CHEM 104 General Chemistry Laboratory II Co-requisite: CHEM 301 Analytical Chemistry I

## CHEM 305 ORGANIC CHEMISTRY I - 3 semester hours F, Sp, Su

A survey of the chemistry of carbon compounds, their nomenclature, physical properties, structure and reactions with an introduction to reaction mechanisms and instrumental analysis.
Prerequisite: CHEM 102 General Chemistry II or CHEM 112
Corequisite: CHEM 307

CHEM 306 ORGANIC CHEMISTRY II - 3 semester hours F, Sp, Su
A continuation of CHEM 305.
Prerequisite: CHEM 305 Organic Chemistry I
CHEM 307 ORGANIC CHEMISTRY LABORATORY I -1 semester hour F, Sp, Su
An examination of fundamentals of and practice in organic synthesis, separation, purification and the identification of organic compounds.
Corequisite: CHEM 305 Organic Chemistry I
CHEM 308 ORGANIC CHEMISTRY LABORATORY II -1 semester hour F, Sp, Su
A continuation of the fundamentals of and practice in organic synthesis, separation, purification and the identification of organic compounds.
Prerequisite: CHEM 307 Organic Chemistry Laboratory I
Corequisite: CHEM 306 Organic Chemistry II
CHEM 317 INDEPENDENT STUDY AND RESEARCH - 2-4 semester hours F, Sp
An introduction to research through library and laboratory investigation of suitable chemical problems.
Prerequisite: Consent of instructor and Department Chair

## CHEM 320 ORGANIC CHEMISTRY III - 3 semester hours

Principles of organic chemistry with emphasis on reaction mechanisms and the interpretation of instrumental data.
Prerequisite: CHEM 306 Organic Chemistry II
CHEM 330 INTRODUCTION TO THE CHEMICAL RESEARCH - 2 semester hours
S
An aid to the student in making efficient use of chemical literature both online and in the printed form, with an emphasis upon obtaining the appropriate sources for a research project in the field of chemistry or biochemistry.
Prerequisite: CHEM 306/308: Organic Chemistry II and CHEM 306/380 Lab
CHEM 332 SURVIVING PROFESSIONAL LIFE -1 semester hour

## CHEM 400 SPECIAL TOPICS IN CHEMISTRY - 3 semester hours

F, S
An advanced course for chemistry majors designed to promote interest and experience in specialized areas of chemistry. Topics in the area of organic, physical, analytical, inorganic and biochemistry are based on the expertise of the faculty and current trends within these disciplines in chemistry.

## CHEM 401 PHYSICAL CHEMISTRY I - 3 semester hours

A non-laboratory treatment of physical chemistry with emphasis on chemical thermodynamics, phase equilibria, kinetic theory and chemical kinetics.
Prerequisites: CHEM 102 General Chemistry II; MATH 201 Calculus II or consent of instructor

## CHEM 402 PHYSICAL CHEMISTRY II - 3 semester hours

Sp
A continuation of CHEM 401 with emphasis on the condensed states of matter, atomic and molecular structure, spectroscopy, statistical mechanics and electrochemistry.

## Prerequisite: CHEM 401 Physical Chemistry I

## CHEM 404 EXPERIMENTAL PHYSICAL CHEMISTRY -1 semester hour

Sp
An introduction to the advanced techniques of physiochemical measurements and their application to chemistry. Prerequisite: CHEM 401 Physical Chemistry I

## CHEM 411 ANALYTICAL CHEMISTRY II - 3 semester hours

An advanced course with emphasis on general principles and applications of analytical instrumental analysis. Prerequisites: CHEM 301 Analytical Chemistry I; CHEM 303 Analytical Chemistry Laboratory I

## CHEM 414 INORGANIC CHEMISTRY - 3 semester hours

Sp even years
A detailed study of the representative elements and their compounds, involving both theoretical and descriptive approaches.
Prerequisite: CHEM 102 General Chemistry II

## CHEM 415 INORGANIC CHEMISTRY LABORATORY -1 semester hour

Laboratory experiments in inorganic synthesis and spectroscopic methods in inorganic chemistry.
Corequisite: CHEM 414 Inorganic Chemistry

## CHEM 416 ADVANCED PHYSICAL CHEMISTRY - 3 semester hours

A detailed study of the principles of physical chemistry with emphasis upon thermodynamics, statistical mechanics, kinetics and quantum chemistry.
Prerequisite: CHEM 402 Physical Chemistry II
CHEM 417 BIOINORGANIC CHEMISTRY - 3 semester hours F, odd years Introduction to the structure, reactivity, and spectroscopic methods in the study of metalloproteins from an inorganic prospective. The importance of these enzymes is discussed in regard to drug design and understanding of diseases resulting from mutations. Enzymes covered include hemoglobin, myoglobin and hemerythrin, cytochrome P-450, zinc fingers, super oxide dismutase, hemocyanin, cis-platinum and nitrogenase.

## Prerequisite: CHEM 422 Introduction to Biochemistry and Lab

Corequisite: CHEM 414 Inorganic Chemistry
CHEM 420 SEMINAR IN CHEMISTRY - $\mathbf{1}$ semester hour
A presentation and discussion of topics of current interest and an introduction to the preparation of technical presentations and presentation methods.
Prerequisite: $\mathbf{1 5}$ semester hours of chemistry courses
CHEM 422 INTRODUCTION TO BIOCHEMISTRY - 3 semester hours
F
An introduction to the chemistry of life processes, the composition of living matter and the changes associated with biological processes
Prerequisites: CHEM 306 Organic Chemistry II; CHEM 308 Organic Chemistry Laboratory II

CHEM 422 INTRODUCTION TO BIOCHEMISTRY LABORATORY - 1 semester hour
A laboratory course in which the properties of biochemical molecules are explored and common biochemical reactions are examined.
Corequisite: CHEM 422 Introduction to Biochemistry

## CHEM 441 ADVANCED LABORATORY I - 2 semester hours F, Sp

Prerequisites: CHEM 320 Organic Chemistry III; CHEM 411 Analytical Chemistry II
CHEM 442 ADVANCED LABORATORY II - 2 semester hours F, Sp, S
A continuation of CHEM 441 with an emphasis upon the independent development of a research project. A written report of the research and an oral presentation of the results are required.
Prerequisite: CHEM 441 Advanced Laboratory I
CHED 402 STUDENT TEACHING IN CHEMISTRY - 3 semester hours F, Sp
This course is designed to provide supervision on the content area for pre-service secondary chemistry candidates.
Prerequisite: Department Approval
Corequisite: EDU 402 Student Teaching Seminar; EDUC 402 Student Teaching

## DEPARTMENT OF CHEMSITRY AND PHYSICS Chemistry Major

|  |  | Semester Hours |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1{ }^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
| FRESHMAN YEAR |  |  |  |  |
| CHEM 111, 112 | Chemistry I and II | 3 | 3 | 6 |
| CHEM 113, 114 | Chemistry Laboratory I and II | 2 | 2 | 4 |
| ENGL 110, 111 | Freshman Writing | 3 | 3 | 6 |
| GE | History Elective | - | 3 | 3 |
| MATH 200, 201 | Calculus I and II | 3 | 3 | 6 |
| TECH | Technology Elective | 3 | - | 3 |
| GE | Humanities Elective | - | 3 | 3 |
| FRST 101 | Freshman Studies | $\underline{2}$ | - | $\underline{2}$ |
|  |  | 16 | 17 | 33 |
| SOPHOMORE YEAR |  |  |  |  |
| CHEM 305, 306 | Organic Chemistry | 3 | 3 | 6 |
| CHEM 307, 308 | Organic Chemistry Laboratory | 1 | 1 | 2 |
| ENGL | Literature Elective | 3 | - | 3 |
| GEHE/HEPR | Wellness/Health Elective | - | 2 | 2 |
| Or 2 GEPE |  |  |  |  |
| GE | Humanities Elective | 3 | - | 3 |
| CHEM 301 | Analytical Chemistry I | 2 | - | 2 |
| CHEM 303 | Analytical Chemistry I Laboratory | 1 | - | 1 |
| MATH/STAT | Restricted Math Elective | - | 3 | 3 |
| $\text { PHYS 116, } 117$ | General Physics I and II | 4 | 4 | 8 |
| CHEM 210 | History of Chemistry | $=$ | $\underline{1}$ | $\underline{1}$ |
|  |  | 17 | 14 | 31 |
| JUNIOR YEAR |  |  |  |  |
| CHEM 411 | Analytical Chemistry | - | 3 | 3 |
| CHEM 404 | Exp Physical Chemistry | - | 1 | 1 |
| CHEM 401, 402 | Physical Chemistry I and II | 3 | 3 | 6 |
| CHEM 332 | Surviving Professional Life | 1 | - | 1 |
| GE | Global Studies Elective | 3 | - | 3 |
| BIOL 120 | Principles of Modern Biology I \& Lab | 4 | - | 4 |
|  | Restricted Elective | 3 | 3 | 6 |
|  | Unrestricted Elective | - | 3 | 3 |
| CHEM 320 | Organic Chemistry III | 2 | - | 2 |
| CHEM 330 | Introduction to Chemical Research | - | 2 | $\underline{2}$ |
|  |  | 16 | 15 | 31 |
| SENIOR YEAR |  |  |  |  |
| CHEM 422 | Biochemistry and Lab | 4 | - | 4 |
| CHEM 414 | Inorganic Chemistry | - | 3 | 3 |
| CHEM 415 | Inorganic Chemistry Laboratory | - | 1 | 1 |
| CHEM 441, 442 | Advanced Chemistry Laboratories | 2 | 2 | 4 |
| CHEM 420 | Seminar in Chemistry | 1 | - | 1 |
| GE | Social Science Elective | - | 3 | 3 |
|  | Restricted Elective | 3 | - | 3 |
|  | Unrestricted Electives | 3 | 3 | $\underline{6}$ |
|  |  | 13 | 12 | 25 |

## DEPARTMENT OF CHEMISTRY AND PHYSICS Chemistry Major (Biochemistry Concentration)

|  |  | Semester Hours |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1{ }^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
| FRESHMAN YEAR |  |  |  |  |
| CHEM 111, 112 | Chemistry I and II | 3 | 3 | 6 |
| CHEM 113, 114 | Chemistry Laboratory I and II | 2 | 2 | 4 |
| ENGL 110, 111 | Freshman Writing | 3 | 3 | 6 |
| GEPE | Wellness/Health Elective | - | 2 | 2 |
| MATH 200, 201 | Calculus I and II | 3 | 3 | 6 |
| TECH | Technology Elective | 3 | - | 3 |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| GE | History Elective | - | 3 | 3 |
|  |  | $16^{\prime}$ | 16 | 32 |
| SOPHOMORE YEAR |  |  |  |  |
| CHEM 305, 306 | Organic Chemistry | 3 | 3 | 6 |
| CHEM 307, 308 | Organic Chemistry Laboratory | 1 | 1 | 2 |
| CHEM 301 | Analytical Chemistry I | 2 | - | 2 |
| CHEM 303 | Analytical Chemistry I Laboratory | 1 | - | 1 |
| GE | Humanities Elective | 3 | - | 3 |
| BIOL 120 | Principles of Modern Biology I \& Lab | 4 | - | 4 |
| BIOL 121 | Principles of Modern Biology II \& Lab | - | 4 | 4 |
| GE | Social Science Elective | 3 | - | 3 |
| BIOL 241 | Introduction to Microbiology/Lab | - | 4 | 4 |
|  |  | 17 | 12 | 29 |
| JUNIOR YEAR |  |  |  |  |
| CHEM 411 | Analytical Chemistry | - | 3 | 3 |
| BIOL 201 | Cell and Molecular Biology | 3 | - | 3 |
| BIOL 220 | Genetics | 4 | - | 4 |
| CHEM 330 | Introduction to Chemical Research | - | 2 | 2 |
| CHEM 401, 402 | Physical Chemistry I and II | 3 | 3 | 6 |
| CHEM 404 | Exp Physical Chemistry | - | 1 | 1 |
| CHEM 332 | Surviving Professional Life | 1 | - | 1 |
| CHEM 320 | Organic Chemistry III | 2 | - | 2 |
| CHEM 210 | History of Chemistry | - | 1 | 1 |
| PHYS 116, 117 | General Physics | 4 | 4 | 8 |
| Or 112, 113 |  | 17 | 14 | 31 |
| SENIOR YEAR |  |  |  |  |
| CHEM 414 | Inorganic Chemistry | 3 | - | 3 |
| BIOL 414 | Molecular Biology | - | 4 | 4 |
| BIOL 419 | Cell Physiology \& Lab | 4 | - | 4 |
| CHEM 441, 442 | Advanced Chemistry Lab I and II | 2 | 2 | 4 |
| CHEM 422 | Introduction to Biochemistry \& Lab | 4 | - | 4 |
| GE | Global Studies Elective | - | 3 | 3 |
| GE | Literature Elective | - | $\underline{3}$ | $\underline{3}$ |
|  |  | 13 | 12 | 25 |

Students not ready for Calculus I and II in their freshman year may take MATH 120 and 121, however, the credits do not count toward the total number of semester hours needed to meet the degree requirements. Restricted electives can be selected from upper level math or statistics courses such as MATH 300, MATH 325, MATH 350, or STAT 330. Upper level chemistry or biology courses may also be used to satisfy restricted electives including CHEM 417, CHEM 400, BIOL 425, BIOL 440, or BIOL 443.

## DEPARTMENT OF CHEMISTRY AND PHYSICS <br> Prepharmacy 3 + 3 Concentration

|  |  | Semester Hours |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1{ }^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
| FRESHMAN YEAR |  |  |  |  |
| CHEM 111, 112 | Chemistry I and II | 3 | 3 | 6 |
| CHEM 113, 114 | Chemistry Laboratory I and II | 2 | 2 | 4 |
| ENGL 110, 111 | Freshman Writing | 3 | 3 | 6 |
| GEHE/HEPR or 2 GEPE | Health/Wellness Elective | - | 2 | 2 |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| MATH 200, 201 | Calculus I and II | 3 | 3 | 6 |
| GE | Humanities Elective | - | 3 | 3 |
| GE | History Elective | 3 | $=$ | $\underline{3}$ |
|  |  | 16 | 16 | 32 |
| SOPHOMORE YEAR |  |  |  |  |
| CHEM 305, 306 | Organic Chemistry | 3 | 3 | 6 |
| CHEM 307, 308 | Organic Chemistry Laboratory | 1 | 1 | 2 |
| BIOL 120 | Principles of Modern Biology I \& Lab | 4 | - | 4 |
| GE | Social Science Elective | 3 | - | 3 |
| $\begin{aligned} & \text { PHYS } 116,117 \\ & \text { or } 112,113 \end{aligned}$ | General Physics | 4 | 4 | 8 |
| GE | Tech Elective | - | 3 | 3 |
| GE | Global Studies | - | 3 | 3 |
| ENGL | Literature Elective | - | 3 | 3 |
| GE | Humanities Elective | $\underline{3}$ | - | $\underline{3}$ |
|  |  | 18 | 17 | 35 |
| JUNIOR YEAR |  |  |  |  |
| CHEM 332 | Surviving Professional Life | 1 | - | 1 |
| CHEM 301, 411 | Analytical Chemistry I and II | 2 | 3 | 5 |
| CHEM 303 | Analytical Chemistry Lab | 1 | - | 1 |
| CHEM 404 | Exp Physical Chemistry | - | 1 | 1 |
| CHEM 401, 402 | Physical Chemistry I and II | 3 | 3 | 6 |
| CHEM 441, 442 | Advanced Chemistry Lab I and II | 2 | 2 | 4 |
| CHEM 414 | Inorganic Chemistry | - | 3 | 3 |
| CHEM 414 | Inorganic Chemistry Lab | - | 1 | 1 |
| CHEM 320 | Organic Chemistry III | 2 | - | 2 |
|  | Restricted Elective | $\underline{3}$ | 4 | $\underline{3}$ |
|  |  | 14 | 17 | 27 |

$\begin{array}{ll}\text { Total Virginia State University campus credits required } & 98 \\ \text { Total credits to be transferred from Howard University } & 22\end{array}$
Students not ready for Calculus I and II in their freshman year may take MATH 120 and 121, however, the credits do not count toward the total number of semester hours needed to meet the degree requirements. Restricted electives may be selected from upper level chemistry, math, physics, biology, or computer science courses.

## DEPARTMENT OF CHEMISTRY AND PHYSICS Chemistry with a Minor in Secondary Education 6-12 (123 hrs)

|  |  | Semester Hours |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1{ }^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
|  | FRESHMAN YEAR |  |  |  |
| IDST 100 | Analytical Reading, Writing and Reasoning I | $2^{* *}$ | - | $2^{* *}$ |
| IDST 101 | Analytical Reading, Writing and Reasoning II | - | $2^{* *}$ | 2 |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| ENGL 110 | Composition I | 3 | - | 3 |
| ENGL 111 | Composition II | - | 3 | 3 |
| MATH 200 | Calculus I | 3 | - | 3 |
| MATH 201 | Calculus II | - | 3 | 3 |
| CHEM 111 | Chemistry I | 3 | - | 3 |
| CHEM 113 | Chemistry I Laboratory | 2 | - | 2 |
| CHEM 112 | Chemistry II | - | 3 | 3 |
| CHEM 114 | Chemistry II Laboratory | - | 2 | 2 |
| HISTORY | Elective | - | 3 | 3 |
| HPER 170 | Health and Wellness | - | $\underline{2}$ | $\underline{2}$ |
|  |  | 13 | 16 | 29 |
| SOPHOMORE YEAR |  |  |  |  |
| EDUC 201 | Introduction to Teaching I | 2 | - | 2 |
| EDUC 202 | Introduction to Teaching II | - | 2 | 2 |
| IDST 200 | Digital Media in Teacher Education | 3 | - | 3 |
| ENGL 202 | African American Lit | - | 3 | 3 |
| CHEM 305 | Organic Chemistry I | 3 | - | 3 |
| CHEM 307 | Organic Chemistry I Lab | 1 | - | 1 |
| CHEM 301 | Analytical Chemistry I | 2 | - | 2 |
| CHEM 303 | Analytical Chemistry I Lab | 1 | - | 1 |
| PHYS 116 | General Physics I | 3 | - | 3 |
| PHYS 116 | General Physics I Lab | 1 | - | 1 |
| CHEM 306 | Organic Chemistry II | - | 3 | 3 |
| CHEM 308 | Organic Chemistry II Lab | - | 1 | 1 |
| BIOL 112 | Principles of Modern Biology and Lab | - | 4 | 4 |
| MATH | Restricted Math Elective | - | 3 | 3 |
|  |  | 16 | 16 | 32 |
| JUNIOR YEAR |  |  |  |  |
| EDUC 315 | Data Driven Instructional Design | 3 | - | 3 |
| PSYC 212 | Human Growth and Development | - | 3 | 3 |
| SPED 403 | Classroom Management in Education Settings (FE) | - | 3 | 3 |
| Lang Elective | 100 or above | 3 | 3 | 6 |
| CHEM 401 | Physical Chemistry I | 3 | - | 3 |
| CHEM 411 | Analytical Chemistry II | - | 3 | 3 |
| CHEM 320 | Organic Chemistry III | 2 | - | 2 |
| GEES 181 | Earth Science and Lab | 4 | - | 4 |
|  | Social Science Elective | $\underline{3}$ | = | $\underline{3}$ |
|  |  | 18 | 12 | 30 |


|  | Semester Hours |  |  |  |
| :--- | :--- | :---: | :---: | :---: |
|  |  | 1st <br> $\mathbf{2}^{\text {nd }}$ | Total <br> Sem |  |
|  | Sem | Hours |  |  |
| EDUC 424 | Critical Issues in Education | 2 | - | 2 |
| CHEM 422 | Biochemistry and Lab | 4 | - | 4 |
| CHEM 420 | Seminar in Chemistry | 1 | - | 1 |
| CHEM 414 | Inorganic Chemistry | 3 | - | 3 |
| CHEM 415 | Inorganic Chemistry Lab | 1 | - | 1 |
| CHED 473 | Teaching Science | 3 | - | 3 |
| EDUC 427 | Reading in the Subject Area | 3 | - | 3 |
| CHED 402 | Student Teaching in Chemistry | - | 3 | 3 |
| EDUC 401 | Student Teaching Seminar | - | 3 | 3 |
| EDUC 402 | Student Teaching | - | $\underline{9}$ | $\underline{9}$ |
|  |  | 17 | 15 | $\mathbf{3 2}$ |

Recommend Spanish, one fulfills Humanities elective and one fulfills Global Studies elective.
**IDST 100/101 are not counted in semester hours or toward graduation requirement

# Course Descriptions <br> Physics 

PHYS 105 INTRODUCTION TO PHYSICS I - 3 semester hours F, Sp
A study of the basic concepts of physics including vector algebra, motion, momentum, angular momentum, energy, gravity and thermodynamics. This course is designed for science students not majoring in physics.

PHYS 105 INTRODUCTION TO PHYSICS I LABORATORY - 1 semester hour F, Sp
Laboratory experiments measurement techniques, mechanics, heat, and vibrations and waves emphasizing proper methods of data and error analysis designed to compliment PHYS 105.

PHYS 106 INTRODUCTION TO PHYSICS II - 3 semester hours
Sp, Su
A continuation of PHYS 105 treating electrostatics, magnetism, circuits, optics, relativity, atomic structure, the nucleus and fundamental particles.
Prerequisite: PHYS 105 Introduction to Physics I
PHYS 106 INTRODUCTION TO PHYSICS II LABORATORY $\mathbf{- 1}$ semester hour Sp, Su
Laboratory experiments in electromagnetism, wave motion, optics, atomic structure, and nuclear physics designed to complement PHYS 105.
Prerequisite: PHYS 105 Introduction to Physics I
Corequisite: PHYS 106 Introduction to Physics II
PHYS 112 GENERAL PHYSICS I - 3 semester hours F, Sp
A calculus-based study of the basic concepts of physics. Topics include vector algebra, kinematics, dynamics of single and many-particle systems, gravitation, energy, momentum, conservation laws, circular and rigid body motion, elasticity, fluid mechanics, thermal equilibrium, temperature, and the laws of thermodynamics with applications to ideal gases and thermodynamic processes.
Corequisite: MATH 200 Calculus I
PHYS 112 GENERAL PHYSICS I LABORATORY -1 semester hour F, Sp
Laboratory experiments in mechanics, fluids, and heat designed to compliment PHYS 112.
Corequisite: PHYS 112 General Physics I
PHYS 113 GENERAL PHYSICS II - 3 semester hours F, Sp
A continuation of PHYS 112 treating electromagnetism and optics.
Prerequisite: PHYS 112 General Physics I
PHYS 113 GENERAL PHYSICS II LABORATORY-1 semester hour F, Sp
Laboratory experiments in electromagnetism and optics designed to complement PHYS 113.
Prerequisite: PHYS 112 General Physics I Laboratory
Corequisite: PHYS 113 General Physics II
PHYS 122 PHYSICS OF MUSIC - 2 semester hours
Primarily for music majors: the relation of the sounds of music to basic physical laws and concepts. The nature and transmission of sound, hearing, temperament, acoustics of rooms and musical instruments.

PHYS 214 GENERAL PHYSICS III - 3 semester hours
F
A study of vibrations, wave motion, interference, diffraction, polarization, special relativity, the quantum theory of radiation, the Bohr atom, quantum mechanics, x-rays, radioactivity, nuclear reactions, fundamental particles, solid state physics, and electonics
Prerequisites: PHYS 113 General Physics II; MATH 200 Calculus I
Pre or Corequisite: MATH 300 Calculus III

PHYS 214 GENERAL PHYSICS III LABORATORY -1 semester hour
F
Experiments involving physical optics including diffraction, interference, polarization of light will be performed. Also, selected experiments from atomic, molecular, and nuclear physics will be included. Additionally, fundamental constants will be measured. The analysis of data and errors will be further developed.
Prerequisites: PHYS 113 General Physics II
Corequisite: PHYS 214 General Physics III
PHYS 215 GENERAL PHYSICS IV - 3 semester hours

## Sp

A study of interference, diffraction, wave motion, the quantum theory of radiation, relativity, the Bohr atom, quantum mechanics, x-rays, radioactivity, nuclear reactions, fundamental particles, solid state physics and electronics. Prerequisites: PHYS 112 General Physics I; PHYS 113 General Physics II; PHYS 214 General Physics III

PHYS 215 GENERAL PHYSICS IV LABORATORY -1 semester hour Sp
Experiments involving physical optics i.e. diffraction, interference, etc. will be performed. Also, selected experiments from atomic and molecular physics will be included. Additional fundamental constants will be measured. The analysis of data and errors will be further developed using available techniques.
Prerequisites: PHYS 112 General Physics I; PHYS 113 General Physics II; PHYS 214 General Physics III Corequisite: PHYS 215 General Physics IV

PHYS 217 INTERMEDIATE LABORATORY I - 2 semester hours
Sp
A study of elementary workshop practice, basic instruments for the measurement of mechanical, electromagnetic, optical and thermal quantities, and the effect of uncertainties in measurements on calculated quantities. Selected experiments are also performed and written up by the students.
Prerequisite: PHYS 214 General Physics III
PHYS 218 INTERMEDIATE LABORATORY II - 2 semester hours
F
A continuation of PHYS 217.
Prerequisite: PHYS 217 Intermediate Laboratory I

## PHYS 301 CONTEMPORARY ISSUES IN PHYSICS - 4 semester hours <br> Sp

A course for students who plan to study the current issues in the physical sciences as they relate to: industrial policy, waste disposal, global warming, nuclear energy, the ozone layer and etc. Solutions to the above problems will be explored using the scientific method. A laboratory will accompany the course.

PHYS 302 CONCEPTUAL PHYSICS - 3 semester hours F, Sp
A survey of selected topics in physics which are designed to meet the needs of students preparing to teach at the middle school level.
PHYS 302 CONCEPTUAL PHYSICS LABORATORY $\mathbf{- 1}$ semester hour
A set of laboratory experiences designed to support the topics covered in the lectures.
Corequisite: PHYS $\mathbf{3 0 2}$ Conceptual Physics

PHYS 311 OPTICAL PHYSICS - 3 semester hours
F
A study of wave motion, interference, diffraction, polarization, dispersion, scattering, and spectra with an introduction to quantum optics.
Prerequisites: PHYS 214 General Physics III; MATH 300 Calculus
PHYS 312 THERMAL PHYSICS - 3 semester hours
Sp
A unified approach to the thermal properties of matter based on the quantum viewpoint. Intuitive concepts of probability used to discuss entropy, temperature, chemical potential, free energy, and various thermodynamic potentials. The laws of thermodynamics are developed from simple models of physical systems. Elements of statistical mechanics are introduced. The thermal properties of the monatomic ideal gas are derived using the Boltzmann distribution, and classical kinetic theory is discussed.
Prerequisites: PHYS 214 General Physics III; MATH 300 Calculus III

## PHYS 313 PHYSICAL MECHANICS - 3 semester hours

A study of vector analysis, kinematics, particle dynamics, the gravitational field, oscillations, motion of particles in two and three dimensions, planetary motion, motion of groups of particles, rigid bodies, and introduction to Lagrangian and Hamiltonian methods.
Prerequisites: PHYS 214 General Physics III; MATH 300 Calculus III
Pre or Corequisite: MATH 350 Differential Equations
PHYS 319 ADVANCED LABORATORY I - 3 semester hours
A study of thermionic emission vacuum and solid state diodes and triodes in the linear approximation; simple oscillators and amplifiers including frequency response, gain and stability consideration; basic oscilloscopes; devices for detecting and measuring radiation and particle; fundamental considerations involved in pulse analysis and counting methods of measurements and accuracy of determination of several of the fundamental constants.
Prerequisites: PHYS 217 Intermediate Laboratory I; PHYS 218 Intermediate Laboratory II
PHYS 320 ADVANCED LABORATORY II - 2 semester hours
A continuation of PHYS 319.
Prerequisite: PHYS 319 Advanced Laboratory I
PHYS 321 PHYSICS DEMONSTRATIONS - 3 semester hours F
A study of some procedures used in handling demonstration equipment used in teaching the basic laws and principles of physics. This course is designed primarily for students following the Endorsement in Education curriculum and high school teachers.
Prerequisite: Permission of instructor
PHYS 350 CONTINUUM MECHANICS - 3 semester hours
Sp
Study of elasticity and fluid mechanics. Topics include stress, strain, elastic moduli, elastic properties of rods, sheets and shells, basics of fluid mechanics, and viscous flows in simple geometries.
Prerequisites: PHYS 313 Physical Mechanics; MATH 350 Differential Equations
PHYS 351 FUNDAMENTALS OF ACOUSTICS - 3 semester hours
Sp
A study of the fundamental principles of acoustical phenomena including the production, transmission, and detection of acoustical waves. Special applications of these principles to geophysics and music are emphasized.

PHYS 414 ELECTROMAGNETISM I-3 semester hours
F even years
A study of vector calculus, electrostatics, dielectric materials, special relativity, and the four vector notation.
Prerequisites: PHYS 214 General Physics III; MATH 300 Calculus III
Pre or Corequisite: MATH 301 Multivariate Calculus
PHYS 415 ELECTROMAGNETISM II - 3 semester hours
Sp odd years
A continuation of PHYS 414 including magnetic fields, electromagnetic induction, magnetic properties of matter, Maxell's equations, electromagnetic waves, and radiation.
Prerequisite: PHYS 414 Electromagnetism I: MATH 301 Multivariate Calculus
PHYS 416 QUANTUM MECHANICS I - 3 semester hours
F odd years
A study of the foundations of the quantum theory, the Schrodinger equation, wave packets, free particles, particle in a box, the harmonic oscillator, coherent states, angular momentum and spin, Pauli spin matrices, addition of angular momenta, the hydrogen atom, complex atoms, Heisenberg matrix mechanics, and quantum computation.
Prerequisites: PHYS 313 Physical Mechanics
PHYS 417 QUANTUM MECHANICS II - 3 semester hours
Sp even years
Continuation of the study of quantum mechanics. Perturbation theory - time independent and time dependent, variational techniques, applications to atomic and molecular states, interaction of atoms and molecules with external electric and magnetic fields, relativistic quantum mechanics.
Prerequisites: PHYS 416 Quantum Mechanics I

## PHYS 418 METHODS OF THEORETICAL PHYSICS - 3 semester hours

F odd years
Mathematical techniques for solving physics problems are developed. Infinite series, vector analysis, boundary and initial value problems, complex analysis, special functions, Fourier analysis, probability theory, variational methods, stochastic processes and simulations, numerical methods for integrals, Fourier transforms, and linear algebra, and statistical methods for point and interval estimation and hypothesis testing are discussed..
Prerequisites: MATH 300 Calculus III
PHYS 419 INTRODUCTION TO CONDENSED MATTER PHYSICS - 3 semester hour F odd years A study of many-particle systems. Topics include electronic states in crystals, statistical mechanics of polymers and membranes, liquid crystals, superconductivity, phase transitions, defects, Brownian motion, ordering kinetics.

## Prerequisites: PHYS 312 Thermal Physics; PHYS 313 Physical Mechanics

Pre or Co-requisite: PHYS 416 Quantum Mechanics I
PHYS 421 PHYSICS DEMONSTRATION II - 3 semester hours
Primarily for Associate in Education majors; procedures in handling demonstration equipment used in teaching the basic laws and principles of physics.
Prerequisites: PHYS 214 General Physics IIII, MATH 300 Calculus

## PHYS 422 ATOMIC AND MOLECULAR PHYSICS - 3 semester hours

Sp even years
A study of the photoelectric effect, the Compton effect, matter waves, the atomic nature of matter, Rutherford's and Bohr's models of the atom, wave mechanics, one-electron atoms, magnetic moments, spin, transition rates, the exclusion principle, multielectron atoms, the periodic table, quantum statistics, molecules, ionic and covalent bonds, molecular spectra, rotational and vibrational spectra and the Raman effect..
Prerequisites: PHYS 311 Optical Physics; PHYS 312 Thermal Physics; PHYS 416 Quantum Mechanics I
Pre or Corequisite: Quantum Mechanics II
PHYS 424 SENIOR THESIS - 2 semester hours
F, Sp
For senior physics major only; independent research/study on an approved topic of particular interest to the student. The student must submit a written thesis and pass a comprehensive oral examination.

PHYS 480 SPECIAL TOPICS - 3 semester hours $\quad$ F, Sp
An introduction to topics in physics of current research interest.
Prerequisites: PHYS 312 Thermal Physics; PHYS 313 Physical Mechanics

## PHYS 481 BIOPHYSICS - 3 semester hours

Sp odd years
This course will cover concepts and techniques from experimental and theoretical physics useful in analyzing biological problems at the molecular, cellular, whole organism, and eco-system levels. Topics include statistical mechanics of polymers, membranes, and other flexible objects, basics of low-Reynolds number fluid dynamics, physics of complex fluids - equilibrium and dynamics, single molecule fluorescence and micromechanical techniques - theory and experiments, elastic response of cells to mechanical perturbations, mechanics of bird and insect flight, and evolutionary dynamics.
Prerequisites: Junior level or above and permission of instructor
PHED 402 STUDENT TEACHING IN PHYSICS - 3 semester hours F, Sp
This course is designed to provide supervision on the content area for pre-service secondary physics candidates.
Prerequisite: Departmental Approval
Corequisites: EDUC 402 Student Teaching Seminar; EDUC 402 Student Teaching

## DEPARTMENT OF CHEMISTRY AND PHYSICS <br> Physics Major <br> Engineering Physics Concentration

|  | Engicering Physics Con | Semester Hours |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1{ }^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
|  | FRESHMAN YEAR |  |  |  |
| PHYS 112, 113 | General Physic I and II | 3 | 3 | 6 |
| ENGL 110, 111 | Composition I/II | 3 | 3 | 6 |
| GEHE | Wellness Elective | 2 | - | 2 |
| MATH 200, 201 | Calculus I and II | 3 | 3 | 6 |
| FRST | Freshman Studies | 2 | - | 2 |
| GE | History Elective | - | 3 | 3 |
| GE | Humanities Elective | 3 | - | 3 |
| ENGT 100 | Introduction to Engineering Technology | - | $\underline{2}$ | $\underline{2}$ |
|  |  | 16 | 14 | 30 |
|  | SOPHOMORE YEAR |  |  |  |
| PHYS 214, 215 | General Physics III and IV | 3 | 3 | 6 |
| PHYS 217 | Intermediate Lab | - | 2 | 2 |
| GEPI 140 | Introduction to Philosophy | 3 | - | 3 |
| MATH 300, 301 | Calculus III/Multivariate Calculus | 3 | 3 | 6 |
| TECH | Technical Elective | 3 | - | 3 |
| ENGT 105 | Engineering Problem Solving | - | 1 | 1 |
| ELET 101, 102 | Circuit Analysis I, II | 4 | 4 | 8 |
|  | Unrestricted Elective | - | $\underline{2}$ | $\underline{2}$ |
|  |  | 16 | 15 | 31 |
|  | JUNIOR YEAR |  |  |  |
| PHYS 218 | Intermediate Lab | 2 | - | 2 |
| PHYS 312 | Thermal Physics | - | 3 | 3 |
| ENGT 301 | Computer Programming | 3 | - | 3 |
| MATH 350 | Differential Equations | - | 3 | 3 |
| CHEM 101, 102 | General Chemistry | 4 | 4 | 8 |
| GE | Humanities Elective | - | 3 | 3 |
| PHYS 311 | Optical Physics | 3 | - | 3 |
| GE | Literature Elective | 3 | - | 3 |
| ECON 100 | Basic Economics | $=$ | 3 | $\underline{3}$ |
|  |  | 15 | 16 | 31 |
|  | SENIOR YEAR |  |  |  |
| PHYS 414, 415 | Electromagnetism and Relativity | 3 | 3 | 6 |
| PHYS 424 | Senior Thesis | - | 2 | 2 |
| ELET 203 | Introduction to Electronics | 4 | - | 4 |
| CPEG 403 | Engineering Computations | 3 | - | 3 |
| GE | Global Studies | 3 | - | 3 |
| PHYS 416 | Introduction to Quantum Mechanics | - | 3 | 3 |
| ENGT 321 | Engineering Economy | - | 3 | 3 |
| MCET 102 | Machines Laboratory | 1 | - | 1 |
|  | Restrictive Elective | = | 3 | $\underline{3}$ |
|  |  | 14 | 14 | 28 |
|  |  |  |  | 120 |

Restricted electives can be selected from upper level engineering/physics/math/statistics/computer science courses.

## DEPARTMENT OF CHEMISTRY AND PHYSICS NON-ENDORESMENT <br> Engineering Physics Concentration

|  |  | Semester Hours |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1{ }^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
|  | FRESHMAN YEAR |  |  |  |
| PHYS 112, 113 | General Physic I and II | 3 | 3 | 6 |
| ENGL 110, 111 | Composition I/II | 3 | 3 | 6 |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| MATH 200, 201 | Calculus I and II | 3 | 3 | 6 |
|  | Language French/Ger. (200 or above) | 3 | 3 | $\underline{6}$ |
|  |  | 14 | 12 | 26 |
|  | SOPHOMORE YEAR |  |  |  |
| PHYS 214, 215 | General Physics III and IV | 3 | 3 | 6 |
| GE | History Elective | - | 3 | 3 |
| MATH 300, 301 | Calculus III, Multivariate Calculus | 3 | 3 | 6 |
| GE | Literature Elective | 3 | - | 3 |
| PHYS 217 | Intermediate Lab | - | 2 | 2 |
| TECH | Technical Elective | - | 3 | 3 |
|  | Unrestrictive Elective | 2 | - | 2 |
|  | Restrictive Elective | $\underline{3}$ | = | $\underline{3}$ |
|  |  | 14 | 14 | 28 |
|  | JUNIOR YEAR |  |  |  |
| PHYS 218 | Intermediate Lab | 2 | - | 2 |
| PHYS 312 | Thermal Physics | - | 3 | 3 |
| PHYS 313 | Physical Mechanics | 3 | - | 3 |
| MATH 325 | Linear Algebra | 3 | - | 3 |
| MATH 350 | Differential Equations | - | 3 | 3 |
| CHEN 101, 102 | General Chemistry | 4 | 4 | 8 |
| GE | Humanities Elective | 3 | - | 3 |
| PHYS 311 | Optical Physics | - | 3 | 3 |
| PHYS 319 | Advanced Lab | - | $\underline{2}$ | $\underline{2}$ |
|  |  | 15 | 15 | 30 |
|  | SENIOR YEAR |  |  |  |
| PHYS 320 | Advanced Lab | 2 | - | 2 |
| PHYS 424 | Senior Thesis | - | 2 | 2 |
| GEPI 140 | Introduction to Philosophy | 3 | - | 3 |
| PHIL 220 | Logic | - | 3 | 3 |
| GE | Global Studies | 3 | - | 3 |
| GEPS 124 | Introduction to Psychology | - | 3 | 3 |
|  | Restrictive Elective | 6 | 6 | 12 |
|  | Unrestrictive Elective | $\underline{2}$ | - | $\underline{2}$ |
|  |  | 16 | 14 | 30 |
|  |  |  |  | 120 |

Restricted electives can be selected from upper level Math, Statistics, Chemistry and Physics courses.

DEPARTMENT OF CHEMISTRY AND PHYSICS
Physics with a Minor in Secondary Education 6-12 (124 hrs)

|  |  | Semester Hours |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1{ }^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
|  | FRESHMAN YEAR |  |  |  |
| IDST 100 | Analytical Reading, Writing and Reasoning I | $2^{* *}$ | - | $2^{* *}$ |
| IDST 101 | Analytical Reading, Writing and Reasoning II | - | $2^{* *}$ | 2 |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| ENGL 110 | Composition I | 3 | - | 3 |
| ENGL 111 | Composition II | - | 3 | 3 |
| MATH 200 | Calculus I | 3 | - | 3 |
| MATH 201 | Calculus II | - | 3 | 3 |
| PHYS 112 | General Physics I/Lab | 4 | - | 4 |
| PHYS 113 | General Physics II/Lab | - | 4 | 4 |
|  | Unrestricted Elective | 3 | - | 3 |
| HISTORY | Elective | - | 3 | 3 |
| HPER 170 | Health and Wellness | - | $\underline{2}$ | $\underline{2}$ |
|  |  | 15 | 15 | 30 |
|  | SOPHOMORE YEAR |  |  |  |
| EDUC 201 | Introduction to Teaching I | 2 | - | 2 |
| EDUC 202 | Introduction to Teaching II | - | 2 | 2 |
| IDST 200 | Digital Media in Teacher Education | 3 | - | 3 |
| ENGL 202 | African American Literature | - | 3 | 3 |
| PHYS 214 | General Physics III | 4 | - | 4 |
| PHYS 215 | General Physics IV | - | 4 | 4 |
| PHYS 217 | Intermediate | - | 2 | 2 |
| CHEM 101 | General Chemistry I | 3 | - | 3 |
| CHEM 103 | General Chemistry I/Lab | 1 | - | 1 |
| CHEM 102 | General Chemistry II | - | 3 | 3 |
| CHEM 104 | General Chemistry II Lab | - | 1 | 1 |
|  | Literature Elective | 3 | - | 3 |
| MATH | Restricted Math Elective | - | $\underline{3}$ | $\underline{3}$ |
|  |  | 16 | 18 | 34 |
|  | JUNIOR YEAR |  |  |  |
| EDUC 315 | Data Driven Instructional Design | 3 | - | 3 |
| PSYC 212 | Human Growth and Development | - | 3 | 3 |
| SPED 403 | Classroom Management in Educational Settings (FE) | - | 3 | 3 |
| LANG ELECTIVE | 100 or Above | - | 3 | 3 |
| PHYS 311 | Optical Physics | 3 | - | 3 |
| PHYS 218 | Intermediate Laboratory II | - | 2 | 2 |
| PHYS 313 | Physical Mechanics | - | 3 | 3 |
| PHYS 312 | Thermal Physics | 3 | - | 3 |
|  | Unrestricted Elective | - | 3 | 3 |
| PHYS 319 | Advanced Laboratory I | 2 | - | 2 |
| PSYC 212 | Human Growth and Development | $\underline{3}$ | $=$ | $\underline{3}$ |
|  |  | 14 | 17 | 31 |

## SENIOR YEAR

| EDUC 424 | Critical Issues in Education | 2 | - | 2 |
| :--- | :--- | :--- | :--- | :--- |
| PHYS 414 | Electromagnetism and Relativity | 3 | - | 3 |
| PHED 473 | Teaching Science | 3 | - | 3 |
|  | Unrestricted Elective | 3 | - | 3 |
| EDUC 427 | Reading in the Subject Area | 3 | - | 3 |
| PHED 402 | Student Teaching in Physics | - | 3 | 3 |
| EDUC 401 | Student Teaching Seminar | - | 3 | 3 |
| EDUC 402 | Student Teaching | $\overline{9}$ | $\underline{9}$ | $\underline{9}$ |
|  |  | 14 | 15 | 29 |

Recommend Spanish, one Fulfills Humanities Elective and one fulfills Global Studies Electives
${ }^{* *}$ IDST 100/101 are not counted in semester hours or toward graduation requirement.

# DEPARTMENT OF ENGINEERING TECHNOLOGY 

| Chairperson: | Keith M. Williamson, Box 9212, 145W Hunter McDaniel, Phone: 524-5193 |
| :--- | :--- |
| Professors: | Ali Ansari, Ben Nwoke, Earl Yarbrough, Sr. |
| Associate Professors: | Stephen Tompkins, Keith M. Williamson |
| Assistant Professors: | Sandeep Ahuja, Shahzad Akbar, Salame Amr, Jahangir Ansari, Nasser Ghariban, Amir <br> Javaheri, Yoon Kim, Nasser H. Rashidi, Ehsan Sheybani, Nancy Study |
| Instructors: | Kwame Adom |

## Description of Department

The Department of Engineering, and Technology consists of Engineering, Engineering Technology, and Industrial Technology units that are described as follow:

## Engineering

Engineers work very closely with other members of the engineering team consisting of scientists, technologists, technicians, and craftsmen. The engineers typically design, develop, optimize systems and processes.

## Engineering Technology

Engineering Technologists work very closely with other members of the engineering team consisting of scientists, engineers, technicians, and craftsmen. The engineering technologist typically organizes the manpower, materials and equipment to design, construct, operate, maintain and manage technical engineering projects.

## Industrial Technology

Industrial Technologists work very closely with other members of the engineering and marketing team consisting of scientists, engineers, technicians, craftsmen, marketers, trainers, and managers, within a broad variety of industries. The industrial technologists typically assume positions in training, production management, quality management, facilities management, industrial sales and marketing, and manufacturing management.

## Mission of Department

The Department of Engineering, and Technology has the mission of specifically promoting and sustaining Bachelor of Science degree programs which meet the needs of industry and society, particularly, in the central/south-side Virginia.

## Academic Units

## Engineering Unit

The Engineering unit offers Bachelor of Science Degrees in Computer Engineering and Manufacturing Engineering which focuses on the following fundamentals:

1. a fundamental understanding of the analytical tools and physical models that provide the foundation of engineering science and problem solving;
2. the synthesis and creative application of engineering science to current practical engineering systems;
3. a systems view, critical thinking, and an ability to communicate in preparation for leadership roles;
4. a broad intellectual and academic training that develops individuals beyond disciplinary boundaries; and
5. a scientific and professional education that prepares students for success as career engineers, and in the lifelong process of learning.

## Computer Engineering

Computer Engineering is concerned with the analysis, design, and application of computer systems. It includes design of computer based real-time data acquisition systems, analysis and design of computer hardware, software, and their tradeoffs. Computer engineering is more concerned with the physical implementation of computing devices, the interaction between hardware and software, and the methodologies for designing digital systems.

An industry involved with electronics and computers has many positions classified as computer engineering. Since most industries rely heavily on computers and automation, there are indeed many computer engineering positions for graduates in this field.

## Manufacturing Engineering

The manufacturing engineer is responsible for helping design manufacturing processes as well as deciding how to build the product after the design specifications are determined. Students will learn about engineering materials and their transformations through manufacturing processes into products. To practice this profession, students must have a special knowledge of manufacturing processes and a working knowledge of many other related disciplines.

Manufacturing engineering graduates are in demand by all types and sizes of manufacturing companies because of their diversified training in traditional as well as new areas of manufacturing. The rapid growth of new technologies in computer-integrated manufacturing has opened an entirely new world of opportunities for manufacturing engineers. The trend in industry is toward utilizing design engineers and manufacturing engineers as a team in order to produce more economical and functional products.

## Engineering Technology Unit

Engineering Technology unit offers a Bachelor of Science Degree in Electronics Engineering Technology and Mechanical Engineering Technology. These two engineering technology programs are accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC of ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 - telephone: (410) 347-7700. The goals of the Engineering Technology unit are as follows:

1. To prepare graduates to be productive technical employees immediately upon graduation and throughout their professional careers.
2. To prepare graduates to function effectively as individuals and as members of an increasingly technological and global society.
3. To prepare students to be competent system problem solvers with knowledge of currently established design and laboratory techniques.
4. To maintain programs and activities that prepare graduates to enter the work force of the 21 st century, pursue advanced study, assume leadership roles, and be competitive in a global society.

## Electronics Engineering Technology

The future electronics engineering technologist will study theory and practice in all areas of electronics using modern electronic and microprocessor laboratories. He/she will become familiar with all the areas of electronics, including analog and digital integrated circuits, instrumentation, discrete power devices, electronic communications and control devices. This hardware oriented program provides students with a knowledge of currently established design and laboratory techniques. The laboratory facilities will be supplemented by the use of video resources, microprocessor trainers, and the use of computers to solve problems and design analog and digital circuits.

## Mechanical Engineering Technology

Mechanics and thermal processes form the core of the program. Mechanics examines the forces acting on machines and their tendency to cause failure. Thermal processes cover energy conversion principles as applied to engines, refrigeration, and other systems. Laboratory experiences include mechanical measurements, computer aided drafting, materials testing, and hydraulic and pneumatic systems. Emphasis is given to the use of computers in the program. Overall, the program provides students with a practical approach to problem solving in such areas as machine design and production and manufacturing.

## Industrial Technology Unit

Industrial Technology unit offers a Bachelor of Science Degree in Industrial Technology with concentrations in Computer Aided Drafting and Design, and Technology Management. The program is designed to produce technical/management professional who are typically involved with:
a. application of theories, concepts, and principles found in the humanities and the social and behavioral sciences, including a thorough grounding in communications skills.
b. understanding of the theories and the ability to apply the principles and concepts of mathematics and science and the application of computer fundamentals.
c. application of concepts derived from, and current skills developed in, a variety of technical and related disciplines which may include, but are not limited to, materials and production processes, industrial management and human relations, marketing, communications, electronics, and graphics.
d. completion of a field of specialization, for example, electronic data processing, computer aided design, computer integrated manufacturing, manufacturing, construction, energy, polymers, printing, safety, or transportation.

The Computer Aided Drafting and Design option is designed to prepare computer aided drafters, designers and management technical/management-oriented professionals for employment in industry, business, education, and government establishments.

The Technology Management option is designed to prepare young men and women as technical managers in a variety of positions in industry, business, education and government related to production, processing and manufacturing. The programs deals with tools, materials, machines, equipment, products, processes, occupation and management.

## Course Descriptions

## COMPUTER ENGINEERING

CPEG 201 SOPHOMORE LABORATORY I (CIRCUIT ANALYSIS \& DIGITAL DESIGN) -

## 1 semester hour

Measurement techniques and experiments on fundamental laws and analysis techniques of circuit analysis, such as, Ohm's law, Kirchhoffs current and voltage laws, the law of conservation of energy, Norton's and Thevenin's Theorems, DeMorgan's theorem, mesh and nodal analysis, superposition, source transformations, Boolean algebra and K-Map.

CPEG 202 SOPHOMORE LABORATORY II (MICROPROCESSOR) - 1 semester hour
Microprocessor-based laboratory utilizing computer programming language. Emphasis is on writing and running programs on the 8088/86 based microprocessor systems. Lab includes both software and hardware.

CPEG 207 INTRODUCTION TO DIGITAL SYSTEMS - 3 semester hours
Boolean algebra and logic design of combinational and sequential circuits. Gate and flip-flop characteristics for TTL technology adders, multipliers, register transfer language, general-purpose processor design, basic computer organization, machine level programming, relationships between software and hardware.

## CPEG 208 MICROPROCESSORS -3 semester hours

Principles of operation of $80 \times 86$ family of microprocessors, including assembly language programming, internal architecture of $80 \times 86$ processors, timing analysis, and interfacing techniques. Special emphasis will be placed on hardware-software interactions, design of memory systems for microprocessors, and on utilization of programmable peripheral devices.

## Prerequisite: CPEG 207 Introduction to Digital Systems

CPEG 301 JUNIOR LABORATORY I (ELECTRONICS) $\mathbf{- 1}$ semester hour

## Corequisite: CPEG 303 Introduction to Electronics

Prototype bread-board electronic circuits using diodes, bipolar junction transistors, MOSFETS with DC biasing configurations and with superimposition of AC signals. Operational and differential amplifier and active filter circuits.

## CPEG 302 JUNIOR LABORATORY II (ADVANCED DIGITAL DESIGN) -1 semester hour

## Corequisite: CPEG 309 Advanced Digital System Design

System design using programmable logic devices and high-level design techniques. Application of state-of-the-art hardware devices as well as design and simulation tools.

## CPEG 303 INTRODUCTION TO ELECTRONICS - 3 semester hours

Basic semiconductor physics, theory of p-n junctions; diodes, field effect transistors, and bipolar transistors; modeling of diode and transistor devices; analysis and design of diode switching and rectifier circuits; basic transistor switching circuits and single stage amplifiers; multistage transistor amplifier biasing; op amps, and output stages; electronic simulation using PSPICE.
Prerequisite: ENGR 201 Circuit Analysis
CPEG 305 OPERATING SYSTEMS - 3 semester hours
Sp
Functions and components of an operating system, including process synchronization, job scheduling, memory management, file systems protection, and deadlocks. Related system software, such as loaders, linkders, assemblers, and windowing systems.
Prerequisite: CPEG 208 Microprocessors
CPEG 306 COMPUTER ARCHITECTURE I - 3 semester hours
Sp
Hardware and software structures found in modern digital computers. Instruction set architecture, hardwired design of the processor, microprogramming, I/Q and memory units, analysis of instruction usage, and hardware complexity.
Prerequisite: CPEG 208 Microprocessors

## CPEG 307 LINEAR SYSTEM ANALYSIS - 3 semester hours

F
Transient response of linear time-invariant, continuous-time and discrete-time dynamic systems by various methods including Laplace transform, and z-transform; properties of sampling; input-output characteristics; frequency response analysis.

## Prerequisites: ENGR 201 Circuit Analysis; MATH 350 Differential Equations <br> Corequisite: MATH 350 Differential Equations

## CPEG 308 ANALOG COMMUNICATION - 3 semester hours

Filter design, noise, signal-to-noise ratio, amplitude modulation, frequency modulation.
Prerequisites: CPEG 303 Introduction to Electronics; PHYS 113 General Physics II

## CPEG 309 ADVANCED DIGITAL SYSTEM DESIGN - 3 semester hours

Design of digital systems using programmable logic devices and high-level design techniques. Emphasizes the application of state-of-the-art hardware devices as well as design and simulation tools.
Prerequisite: CPEG 208 microprocessors
CPEG 320 INTEGRATED CIRCUIT DEVICE DESIGN - 3 semester hours Sp
Introduction to VLSIC semiconductor device physics, operation, design and physical layout techniques for semiconductor devices.

## CPEG 400 SENIOR SEMINAR -1 semester hour (3 contact hours)

Engineering design, literature searches, industry vs. graduate school career options, ethics, professionalism, and safety. The Fundamentals of Engineering (FE) Exam review for students seeking certification as an Engineer-in-Training (EIT) and subsequently as a professional Engineer (PE). A departmental assessment exam on fundamentals of engineering will be administered.

## CPEG 401 SENIOR LABORATORY I -1 semester hour

Project oriented laboratory course in the areas on microprocessor based systems and micro-controllers.

## Prerequisite: CPEG 208 Microprocessors

Corequisite: CPEG 416 Advanced Microprocessors and MicroControllers

## CPEG 402 SENIOR LABORATORY II -1 semester hour

Project oriented laboratory course in the areas of advanced digital and computer based systems.

## CPEG 403 ENGINEERING COMPUTATIONS - 3 semester hours

Linear algebra, complex analysis and phasor calculus; algorithms for roots of equations. Programming in C and use of the application language, such as, MATLAB.
Prerequisite: senior standing

## CPEG 404 REAL-TIME DATA ACQUISITION AND CONTROL SYSTEM - 3 semester hours

Advanced course in design of microcomputer-based systems. Emphasis is on the application of state-of-the-art microprocessors, microcomputers for data collection using A/D converters; D/A converter. Includes Laboratory.
Prerequisite: senior standing

## CPEG 406 COMPUTER ARCHITECTURE II - 3 semester hours

Pipelined control and ALU designs, parallel processor organizations including SIMD and shared memory MIMD, message passing MIMD, data-flow processing, cache memory design, and processor-memory interconnections.
Prerequisite: CPEG 306 Computer Architecture I

## CPEG 407 LINEAR CONTROL SYSTEM DESIGN - 3 semester hours

Classical and modern techniques for design and compensation of linear feedback control systems. Includes Bode design, root locus design, state variable pole placement design.

## Prerequisites: CPEG 307 Linear System Analysis; PHYS 112 General Physics I

## CPEG 408 SENIOR DESIGN - 3 semester hours

A major design project that focuses the student's attention on professional practice, accumulated background of curricular components, and recent developments in the field. This major design emphasis is directed to topics within the field of computer engineering. Includes design projects that require laboratory work.
Prerequisite: Senior standing

## CPEG 410 DIGITAL COMMUNICATION - 3 semester hours

Discrete Fourier Transforms. Binary and M-ary Signaling, Digital Communication in the Presence of Noise, Matched Filtering and Equalization, Introduction to Information Theory.
Prerequisite: CPEG 307 Linear System Analysis; CPEG 308 Analog Communication
CPEG 411 COMMUNICATION SYSTEM DESIGN - 3 semester hours
Application of communication theory to system design. Development of communication system specifications. System simulation utilizing a graphical programming language. Hardware and software design and simulation. Design of a complete analog or digital transmitter and receiver or significant subsystems.
Prerequisite: CPEG 410 Digital Communication
CPEG 412 ORGANIZATION AND DESIGN OF DIGITAL SYSTEMS AND COMPUTERS - 3 semester hours Considerations for hardware organization of computer and digital systems; includes ALU and CPU structures, control unit organization, storage systems, and the I/O channels. Microprogramming the control unit and different interrupt structures.
Prerequisite: CPEG 208 Microprocessors

## CPEG 413 DIGITAL SIGNAL PROCESSING AND FILTER DESIGN - 3 semesters hours

Discrete-time signals and systems, sampling, discrete Fourier transforms, analog filter characteristics, non-recursive and recursive filter design, and CAD tools for filter design.
Prerequisite: CPEG 307 Linear System Analysis

## CPEG 414 INTRODUCTION TO PATTERN RECOGNITION - 3 semester hours

Design of learning and adaptive machines. Elementary decision theory, perceptron algorithm, Bayes classification rule, learning algorithms, elements of syntactic pattern recognition, adaptive classifiers.
Prerequisite: Senior standing in CPEG. Non-majors require consent of instructor.
CPEG 415 INTRODUCTION TO DIGITAL IMAGE PROCESSING - 3 semester hours
Basic methods for digitizing, storing, processing, and displaying images. Computational procedures for image enhancement, restoration, coding, and segmentation.
Prerequisite: Senior standing in CPEG. Non majors require consent of instructor.

## CPEG 420 NANOTECHNOLOGY FABRICATION PRINCIPLES - 3 semester hours

Introduction to semiconductor fabrication principles and technology, including crystal growth, oxidation, diffusion, ion implantation, photolithography, chemical vapor deposition, physical vapor deposition, plasma reactive ion etching, chemical mechanical polishing and other nanotechnology manufacturing techniques.

## CPEG 422 ADVANCED INTEGRATED CIRCUIT DESIGN

Advanced designed topics will be addressed, including digital design circuits, propagation delay, noise margins, power dissipation, various design styles and architectures as well as the issues that designers must face, such as the influence of technology scaling on circuit performance and the impact of interconnect parasitics for optimizing the speed, area or power. CAD Tools for layout, extraction and simulation will be used for assignments.

## CPEG 499 SPECIAL TOPICS -1 to 3 semester hours

Topics relating to basic design and current practice. Maximum three hours.
Prerequisite: Completion of all junior CPEG courses

## ENGINEERING

ENGR 101 INTRODUCTION TO ENGINEERING I - 2 semester hours
Introduction to the engineering profession, Introduction to problem solving using analytical, graphical, and computer tools including scientific word processors, spreadsheets and database packages, mathematical computation software. Introduction to logic. Engineering ethics and professional responsibilities. This course includes lab sessions.

## ENGR 102 INTRODUCTION TO ENGINEERING II - 2 semester hours

Introduction to problem solving using analytical, graphical, and computer tools including scientific word processors, spreadsheets and database packages, mathematical computation software. Introduction to engineering analyses. Engineering ethics and professional responsibilities. This course includes lab sessions.

ENGR 200 ENGINEERING GRAPHICS (Lab included) -2 semester hours
Freehand sketching, lettering scales, use of instruments, layout drawings, orthogonal projection, descriptive geometry, pictorials, and basic dimensioning. Communicating technical information in engineering design and research. Introduction to computer-aided design drafting. Introduction to solid modeling.

ENGR 201 CIRCUIT ANALYSIS - 3 semester hours
Fundamentals laws of circuit analysis. Ohm's Law, Kirchhoff's current and voltage laws, the law of conservation of energy, circuits containing independent and dependent voltage and current sources, resistance, conductance, capacitance and inductance analyzed using mesh and nodal analysis, superposition and source transformations, and Norton's and Thevenin's Theorems. Steady state analysis of DC and AC circuits. Complete solution for transient analysis for circuits with one and two storage elements.
Prerequisite: MATH 201 Calculus II
ENGR 203 INTRODUCTION TO PROGRAMMING - 3 semester hours F
An introduction to the computer, to the algorithmic process, and to programming in $\mathrm{C} / \mathrm{C}++$ using standard control structures. Windows and/or UNIX operating systems are used.
Prerequisite: ENGR 101 Introduction to Engineering I; ENGT 105 Engineering Problem Solving or Permission of the instructor

ENGR 204 INTRODUCTION TO OBJECT ORIENTED PROGRAMMING - 3 semester hours
Advanced program design and implementation in the $\mathrm{C}++$ programming language. Object-oriented programming with concepts including class structure and behavior, objects, inheritance and reuse, virtual functions and polymorphism, exception handling, templates, and the Standard Template Library. The Windows and/or UNIX operating are used. Prerequisite: ENGR 203 Introduction to Programming

## ENGR 210 STATICS/STRENGTH OF MATERIALS - 3 semester hours

The first part of this course covers the application of the principles of engineering mechanics to problems involving equilibrium of particles and solids. Topics include resultants, equilibrium, friction, trusses, center of gravity and moments of inertia. The second part of this course introduces the principles of mechanics necessary for the solution of engineering problems relating to strength, stiffness and material selection. Topics covered include stress, strain, torsion, beams, columns and combined stresses at a point.
Prerequisite: PHYS 112 General Physics I
Corequisite: MATH 300 Calculus III

## ENGR 301 ENGINEERING STATISTICS - 3 semester hours

Engineering applications of the concepts of probability, statistical distributions, statistical analysis, regression and correlation analysis, analysis of variance and covariance, design of experiments.

## ENGR 305 MATERIALS ENGINEERING - 3 semester hours

Structure of matter. Physical and mechanical properties of materials including metals, polymers, ceramics, composites, and electronic materials. Equilibrium diagrams. Heat treatments, material selection and testing and corrosion phenomena.

## ENGR 310 ENGINEERING ECONOMICS - 3 semester hours

Analysis of the time value of money as applied to the manufacturing environment. Economic analysis of engineering decisions. Determining rates of return on investments. Effects of inflation, depreciation and income taxes. Sensitivity, uncertainty, and risk analysis. Application of basic principles and tools of analysis using case studies.
Prerequisite: MATH 200 Calculus I
ENGR 313 THERMAL ENGINEERING - 3 semester hours
Basic concepts and definitions, properties of pure substance, work and heat, first law of thermodynamics, second law of thermodynamics, and introduction to conductive, and radiative heat transfer.
Prerequisites: MATH 300 Calculus III; PHYS 112 General Physics I
ENGR 315 DYNAMICS - 3 semester hours
Kinematics of particles and rigid bodies. Rectilinear motion, Curvilinear motion, Coordinates systems, velocity, acceleration, relative motion. Newton's second law. Kinetics of particles, Angular momentum, Work-energy methods, Impulse and momentum. Vector mathematics where appropriate.

## Prerequisites: ENGR 210 Statics/Strength of Materials

## ENGR 430 QUALITY ENGINEERING - 3 semester hours

An analysis of the basic principles of quality control, including Total Quality Management and design and analysis of process control charts and sampling plans.

## MANUFACTURING ENGINEERING

## MANE 205 INTRODUCTION TO DESIGN AND MANUFACTURING - 3 semester hours

The types and properties of engineering materials including metals and polymers as employed in contemporary practice. The traditional manufacturing processing methods by which this materials are shaped into products such as machining, casting, forming, and fabricating techniques. Several experiments will be conducted.

## Prerequisite: CHEM 101 General Chemistry I

MANE 210 PRODUCTION ENGINEERING - 3 semester hours
Sp
Modern manufacturing processes and related topics. Includes ceramics, composites, powder metallurgy, property enhancing and surface processing operations, rapid prototyping, and micro-fabricating. An introductory review of manufacturing support system including production planning and control, quality control, and measurement and inspection.
Prerequisite: MANE 205 Manufacturing Process
MANE 301 JUNIOR LABORATORY (MATERIALS) -1 semester hour
F
Effect of processing on material properties and structure, material characterization, etc.

MANE 310 COMPUTED-AIDED MANUFACTURING WITH LAB - 3 semester hours
Design components and assemblies using wire-frame, surface and solid model generation. Manual NC part programming. Benefits, limitations, and selection of CAD and CAM systems. CAD as in input to CAM, and graphics-based NC programming. Configuration of CAD/CAM software; post-processor generation.

## Prerequisite: MANE 210 Production Engineering

MANE 315 MANUFACTURING AUTOMATION - 3 semester hours
Design of integrated production systems including flexible, programmed automatic control for fabrication, assembly, packaging, movement, and storage. Introduction to numerical control, industrial robotics, programmable logic controllers, and computer integrated manufacturing. Several experiments will be conducted.
Prerequisite: ENGR 201 Circuit Analysis; ENGR 315 Dynamics; MANE 210 Manufacturing Process II

## MANE 320 WORK DESIGN AND MEASUREMENT - 3 semester hours

Principles of work simplification and motion analysis. Recording of workflow and methods. Work measurement and standards, time study, synthetic data, predetermined time systems. Allowance and performance rating, productivity measures. Work design improvement. Military standards.

## Prerequisite: Permission of the instructor

MANE 340 TOOL ENGINEERING - 3 semester hours
Design and engineering of jigs, fixtures, molds, and dies; material selection. Field trips to manufacturing centers.
Prerequisite: ENGR 210 Engineering Statics and dynamics
MANE 400 SENIOR SEMINAR -1 semester hour
Sp
Engineering design, literature searches, industry vs graduate school career options, ethics, professionalism and safety. The Fundamentals of Engineering (FE) Exam will be reviewed for students seeking certification as an Engineer-inTraining and subsequently as Professional Engineer. A departmental assessment examination on fundamental of engineering will be administrated.
Prerequisite: Senior standing in MANE.
MANE 401 SENIOR LAB (DATA ACQUISITION \& CONTROL ) - $\mathbf{1}$ semester hour F
Computer control of processes and data acquisition and analysis.
Prerequisite: Senior standing in MANE.
MANE 410 PRODUCTION PLANNING AND INVENTORY CONTROL - 3 semester hours
Analysis and design of systems for planning, scheduling and controlling production, inventory and service operations and activities using operations research and dynamic systems method. Inventory analysis and control for single and multi-item systems. Production control methods like MRP, MRP-II, JIT, and Kanban. Manufacturing Strategy and competitiveness.

MANE 415 ENGINEERING TEST DESIGN AND ANALYSIS - 3 semester hours
This course introduces Project Management skills needed to define, plan, monitor and complete projects as well as to identify the tools and techniques to resolve problems associated with bringing projects in on time and within an established budget and with high quality. Discussion will include application of network flow and sensitivity analysis in managing, scheduling and controlling a project with GANTT, CPM and PERT method. We will combine theories, techniques, group activities, and computer tools such as Microsoft Project.
Prerequisite: STAT 330 Introduction to Probability \& Statistics
MANE 420 SIMULATIONS - 3 semester hours
An introduction to discrete event simulation methods with emphasis on applications in manufacturing. The operations research topic of queuing theory is used to illustrate the importance of simulation as a problem-solving tool. Concepts and techniques of simulation modeling are covered as well as the statistical concepts and techniques required to obtain representative data, apply it to the model, and evaluate the results. A current high-level simulation language will be used to code the model for funning on the computer.
Prerequisites: STAT 330 Introduction to Probability and Statistics; ENGR 203 Introduction to Programming

## MANE 440 MANUFACTURING STRATEGY/ERP - 3 semester hours

A study of development of economic production systems for discrete products in a competitive manufacturing environment. Emphasis is on the interrelationships between product design and production process selection. Concepts of design for manufacture and assembly, tool engineering, and manufacturing systems design are included.

## Prerequisite: Senior standing in MANE

MANE 450 MANUFACTURING DESIGN IMPLEMENTATION - 2 semester hours

## F

A mix of industry and in-house structured group projects, using process, toll, computer control, quality knowledge, and societal considerations. Projects will progress through a complete manufacturing cycle from design through implementation. Field trips to manufacturing centers.
Prerequisite: Senior standing
MANE 461, 462 SENIOR PROJECT I, II, - 3 semester hours per course
Faculty supervised projects typical of problems which graduates encounter in their professions and which involve costs, planning scheduling and research. Formal written reports suitable for reference library, that include discussions of methodology, results, and conclusions.
Prerequisite: Senior standing in MANE

## MANE 499 SPECIAL TOPICS IN MANUFACTURING ENGINEERING - 3 semester hours

A course of independent study covering topics in Manufacturing Engineering as technical elective. Goal is to enhance student skills and knowledge in relevant topic.
Prerequisite: Permission of the instructor

## DEPARTMENT OF ENGINEERING AND TECHNOLOGY <br> Computer Engineering Major <br> Bachelor of Science Degree

|  |  | Semester Hours |  |  |
| :--- | :--- | :---: | :---: | :---: |
|  |  | $\mathbf{1}^{\text {st }}$ | $\mathbf{2}^{\text {nd }}$ | Total |
|  | FRESHMAN YEAR |  | Sem | Sem | Hours

## SENIOR YEAR

| CPEG 416 | Adv. Micro \& Micro-Controllers | 3 | - | 3 |
| :--- | :--- | :---: | :---: | :---: |
| ENGR 301 | Engineering Statistics | 3 | - | 3 |
| CPEG 408 | Senior Design | 3 | - | 3 |
| CPEG 413 | Digital Signal Processing and Filter Design | 3 | - | 3 |
| GE | Social Sciences Elective | 3 | - | 3 |
| CPEG 401 | Senior Lab I | 1 | - | 1 |
| CPEG 404 | Real Time Data Acquisition and Control | - | 3 | 3 |
| GESO | Global Studies Elective | - | 3 | 3 |
| ENGR/CSCI | Elective | - | 3 | 3 |
| PHIL 450 | Applied Ethics | - | 3 | 3 |
| ENGL | Literature Elective | - | 3 | 3 |
| CPEG 400 | Senior Seminar | - | $\underline{1}$ | $\underline{1}$ |
|  |  | 16 | 16 | 32 |
| TOTAL CREDITS |  |  | 128 |  |

## DEPARTMENT OF ENGINEERING AND TECHNOLOGY <br> Manufacturing Engineering <br> Bachelor of Science Degree

|  |  |  | est | ours |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
|  | FRESHMAN YEAR |  |  |  |
| MATH 200 | Calculus I | 3 | - | 3 |
| ENGL 110 | Composition I | 3 | - | 3 |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| ENGR 101 | Introduction to Engineering I | 2 | - | 2 |
| HPER | Wellness/Health | 2 | - | 2 |
| CHEM 101 | General Chemistry | 3 | - | 3 |
| CHEM 103 | General Chemistry Lab | 1 | - | 1 |
| MATH 201 | Calculus II | - | 3 | 3 |
| ENGL 111 | Composition II | - | 3 | 3 |
| GESO | History Elective | - | 3 | 3 |
| ENGR 102 | Introduction to Engineering II | - | 2 | 2 |
| PHYS 112 | Physics I with Lab | - | 4 | 4 |
|  |  | 16 | 15 | 31 |
|  | SOPHOMORE YEAR |  |  |  |
| MATH 300 | Calculus III | 3 | - | 3 |
| PHYS 113 | Physics II with Lab | 4 | - | 4 |
| ENGR 210 | Statics and Strength of Material | 3 | - | 3 |
| MANE 205 | Manufacturing Process I | 3 | - | 3 |
|  | Social Science Elective | 3 | - | 3 |
|  | Literature Elective | - | 3 | 3 |
| MATH 350 | Differential Equations | - | 3 | 3 |
| MANE 210 | Manufacturing Process II | - | 3 | 3 |
|  | Global Studies Elective | - | 3 | 3 |
| ENGR 315 | Dynamics | - | 3 | 3 |
| ENGR 200 | Engineering Graphics with Lab | - | $\underline{2}$ | $\underline{2}$ |
|  |  | 16 | 17 | 33 |
|  | JUNIOR YEAR |  |  |  |
| MANE 310 | CAD/CAM with Lab | 3 | - | 3 |
| ENGR 305 | Materials Engineering | 3 | - | 3 |
| ENGR 203 | Introduction to Programming | 3 | - | 3 |
| ENGR 301 | Engineering Statistics | 3 | - | 3 |
| ENGR 201 | Electronic Circuits | 3 | - | 3 |
| ENGR 313 | Thermal Engineering | - | 3 | 3 |
| ENGR 430 | Quality Control with Lab | - | 3 | 3 |
|  | Elective Math/Science | - | 3 | 3 |
| ENGL 342 | Technical Communication | - | 3 | 3 |
| MANE 315 | Manufacturing Automation | $=$ | 3 | $\underline{3}$ |
|  |  | 15 | 15 | 30 |

## SENIOR YEAR

| MANE 410 | Production Planning and Inventory Control | 3 | - | 3 |
| :--- | :--- | :---: | :---: | :---: |
| ENGR/MANE | Elective | 3 | - | 3 |
| MANE 450 | Manufacturing Design Implementation with Lab | 3 | - | 3 |
| MATH 392 | Linear Programming | 3 | - | 3 |
| ENGR 310 | Engineering Economy | 3 | - | 3 |
| MANE 415 | Project Engineering and Management | 2 | - | 2 |
| MANE 420 | Simulation | - | 3 | 3 |
|  | Elective | - | 3 | 3 |
| ENGR/MANE | Elective | - | 3 | 3 |
| PHIL 275/450 | Ethics/Applied Ethics | - | 3 | 3 |
| ENGR/MANE | Elective | - | 3 | 3 |
| MANE 400 | Senior Seminar | - | 1 | 1 |
|  |  | 17 | 16 | 33 |

## ELECTRONICS ENGINEERING TECHNOLOGY

ELET 101 CIRCUIT ANALYSIS I - $\mathbf{4}$ semester hours
F, Sp
A beginning course in electric circuit analysis with emphasis on direct-current applications. Topics include: SI units and scientific notation, electrical quantities, measuring electrical quantities, power and energy, resistive circuits, methods of analysis, network theorems and capacitance.
Corequisites: ENGT 100 Introduction to Engineering Technology; MATH 120 College Algebra and Trigonometry I

ELET 102 CIRCUIT ANALYSIS II - 4 semester hours F, Sp
A beginning course in electric circuit analysis with emphasis on alternating-current applications. Topics include: magnetic circuits, inductors, sinusoidal waveforms, basic elements and phasors, series and parallel ac circuits, series-parallel networks, ac power, resonance, and three-phase systems.
Prerequisites: ELET 101 Circuit Analysis I; MATH 120 College Algebra and Trigonometry I
Corequisite: MATH 121 College Algebra and Trigonometry II
ELET 203 INTRODUCTION TO ELECTRONICS - 4 semester hours
F
An introductory course in solid-state electronic devices and their applications. Topics include the following: diodes and their applications, Zener diodes, the junction transistor, $\mathrm{CE}, \mathrm{CB}$, and CC configurations of junction transistors, the SCR and other thyristors, and field-effect transistors.
Prerequisite: ELET 102 Circuit Analysis II
ELET 204 ELECTRONIC CIRCUITS - 4 semester hours
Sp
An introductory course in solid-state electronic circuits and their applications. Topics include the following: amplifier frequency response, power amplifiers, oscillators, differential and operational amplifiers, operational amplifier applications, power supplies, and voltage regulators.
Prerequisite: ELET 203 Introduction to Electronics
ELET 207 DIGITAL CIRCUITS - 4 semester hours
F
An introductory course in digital-circuit concepts, applications, and design. Topics include the following: number systems and codes, logic gates, Boolean algebra, Karnaugh mapping, combinational logic design, sequential logic circuits, sequential logic design, and IC logic families.
Prerequisite: ELET 102 Circuit Analysis II
ELET 208 MICROPROCESSORS - 4 semester hours
Sp
Introduction to 16-bit microprocessors with emphasis on programming. Topics include the following: data control, memories, data transmission, addressing modes, subroutines, and introduction to hardware.
Prerequisite: ELET 207 Digital Circuits or equivalent
ELET 304 ADVANCED CIRCUIT ANALYSIS - 3 semester hours
Sp
An advanced course in electric circuit analysis. Topics include the following: review of analysis methods for dc and ac networks, waveforms, differential equations, Laplace transforms and applications, and transfer function. Prerequisites: ELET 102 Circuit Analysis II; MATH 200 Calculus I

ELET 306 ADVANCED ELECTRONICS - 4 semester hours
F
An advanced course in the design and applications of linear integrated circuit devices. Topics include the following: power supply regulators, op-amp characteristics, single-supply operation, signal generator circuits, and active filters. Prerequisites: ELET 204 Electronic Circuits MATH 200 Calculus I

ELET 309 ADVANCED DIGITAL CIRCUITS - 4 semester hours
Sp
A design course for digital computer circuits using integrated circuit devices. Topics include the following: shift registers, counters, encoders, multiplexers, arithmetic circuits, D/A and A/D converters, and memory circuits.
Prerequisite: ELET 207 Digital Circuits or equivalent class or group of students in lieu of another technical elective or as independent study to upgrade their skills and knowledge in a particular area.

## ELET 401 ELECTRIC MACHINERY - 3 semester hours

Sp
A course in electric machines designed for students majoring in electronics engineering technology. Topics include the following: fundamentals of electromagnetics, dynamo construction, dc generators and motors, ac dynamos, synchronous machines, ideal and practical transformers, polyphase and single-phase induction motors, and other single-phase motors.
Prerequisites: ELET 102 Circuit Analysis II; MATH 200 Calculus I;
PHYS 117 General College Physics II (or equivalent)
ELET 403 CONTROL SYSTEMS - 3 semester hours
F
A course in control theory and applications. Topics include the following: feedback control, servo components, mathematical techniques, transfer functions, block diagrams, analysis of second-order servo systems, stability and frequency response analysis, and compensation.
Prerequisites: ELET 304 Advanced Circuit Analysis; MATH 201 Calculus II; PHYS 116 General College Physics I (or equivalent)

ELET 406 COMMUNICATION SYSTEMS - 3 semester hours
Sp
Introduction to the theory and practice of communication systems. Covers communication system theory, analog and digital communication techniques. Topics include the following: amplitude, phase, analog, pulse and digital modulation, design and analysis of modulation systems.
Prerequisites: ELET 208 Microprocessors; ELET 306 Advanced Electronics; ELET 309 Advanced Digital Circuits; PHYS 117 General College Physics II (or equivalent)

## ELET 408 ADVANCED MICROPROCESSORS I-4 semester hours

## F

An advanced course in microprocessors with emphasis on the hardware of a 16 -bit processor. Topics include the following: introduction to the 8086/8088 microprocessor, arithmetic and logic instructions, program control instructions, 8086/8088 hardware specifications, memory interfacing, input/output interfacing, and interrupt circuits.
Prerequisite: ELET 208 Microprocessors
ELET 409 ADVANCED MICROPROCESSORS II - 4 semester hours
F, Sp
An advanced course in microprocessors with emphasis on the hardware interfacing of the 8086/8088 to compatible chips. Topics include the following: basic I/O interfacing (using the 8255A PPI), interrupts (using the 8259A PIC), direct memory access, the 8089 I/O coprocessor, the 8087 arithmetic coprocessor, and other 8086/8088 family members. Prerequisite: ELET 408 Advanced Microprocessors I

## ELET 410 INTRODUCTION TO ELECTRICITY/ELECTRONICS - 3 semester hours

F
A course in electrical circuits and electrical machines for students NOT majoring in electronics engineering technology. Topics include the following: resistors, dc circuits, magnetism, electromagnetic forces, ac voltage and current, inductance and capacitance, dc generators and motors, ac circuits, single-phase and three-phase circuits, transformers, 3-phase induction motors, synchronous motors and generators, single-phase motors, motor controls, and electrical distribution.

## Prerequisites: PHYS 117 General College Physics II; MATH 121 College Algebra and Trigonometry II

ELET 420, 421 SENIOR PROJECT I, II -1 to 4 semester hours
Design, construction, documentation, and demonstration of a chosen project which shows a strong understanding of a selected subject in electronics.
Prerequisite: senior standing in EET Curriculum.

## ELET 499 SPECIAL TOPICS - 3 semester hours

## ENGINEERING TECHNOLOGY

ENGT 100 INTRO TO ENGINEERING TECHNOLOGY - 2 semester hours F, Sp
Introduction to professional field of engineering technology; professional ethics and responsibilities of technologists; application of hand calculator to engineering problem solving; systems of units and their conversions; engineering problem-solving techniques.

## Corequisite: MATH 120 College Algebra and Trigonometry I

ENGT 105 ENGINEERING PROBLEM SOLVING -1 semester hour F, Sp
Introduction to use of computers for solving engineering problems. Topics include: Computer Systems, Mathematics and Engineering Technology/Engineering Software Packages.
Prerequisite: ENGT 100 Introduction to Engineering Technology
ENGT 321 ENGINEERING ECONOMY - 3 semester hours F, Sp
Study of time value of money and evaluation of investment alternatives. Topics include cash flow diagrams, evaluation factor formulas, interest, gradients, depreciation, rate of return, breakeven analysis, corporate taxation, evaluation of multiple alternatives and sensitivity analysis.
Prerequisites: MATH 121 College Algebra and Trigonometry II and Junior standing
ENGT 105 Engineering Problem Solving or permission of the instructor

## MECHANICAL ENGINEERING TECHNOLOGY

## MCET 102 MACHINES LABORATORY -1 semester hour F, Sp

Basic hand tools, shop safety procedures; fundamental machine operations of drilling, sawing, milling, turning; inspection tools, gauges, measuring instruments.
Prerequisite: None
MCET 200 STATICS - 3 semester hours
Force systems, resultants, and equilibrium; trusses, method of joints, method of sections; friction; centroids, moments of inertia.
Prerequisites: MATH 121 College Algebra and Trigonometry II;
ENGT 100 Introduction to Engineering Technology
Corequisite: PHYS 116 General College Physics I
MCET 201 STRENGTH OF MATERIALS - 3 semester hours
Sp
Stress and deformation; axial, tensile and compressive stresses, torsion; shear and moment in beams; stresses in beams; and design of beams. Use of computers in beam design is included.
Prerequisite: MCET 200 Statics
MCET 202 STRENGTH OF MATERIALS LAB -1 semester hour
Sp
Tensile, compressive, torsional, bending, impact, hardness, and fatigue tests of materials; use of electrical resistance strain gages; statistical evaluation of data.
Prerequisites: MCET 200 Statics; MCET 102 Machines Lab
Corequisite: MCET 201 Strength of Materials
MCET 301 INTRODUCTION TO THERMODYNAMICS - 3 semester hours
Sp
An introduction to fundamentals of thermodynamics; including work and heat; first and second laws; properties of gases, gas mixtures; compression and expansion of gas steam tables are covered.
Prerequisites: MATH 200 Calculus I
MCET 305 MANUFACTURING MATERIALS AND PROCESSES - 3 semester hours
The study of the physical and mechanical properties of various materials as applied to design, processing, and fabrication methods.

## Corequisite: CHEM 101/103 General Chemistry I and Laboratory

MCET 306 MACHINE DESIGN I - 3 semester hours
The design of basic elements used in machines, including machine columns, welds, rivets, screws, springs, flexible couplings, belt and chain drives. Design for fatigue strength is included.
Prerequisites: MCET 201 Strength of Materials; DRFT 261 Computer Aided Drafting; MATH 200 Calculus I

MCET 307 KINEMATICS OF MACHINES - 3 semester hours
The study of techniques for the analysis of displacement, velocity, and acceleration of machine elements; emphasis on graphical kinematics of linkages; introduction to cams.

## Prerequisites: DRFT 261 Computer Aided Drafting; MCET 311 Dynamics

## MCET 311 DYNAMICS - 3 semester hours <br> F

The kinematics and kinetics of particles and rigid bodies; rectilinear and curvilinear motion, work, energy, impulse and momentum. Use of computers for problem solving is included.
Prerequisites: MCET 200 Statics; MATH 201 Calculus II; PHYS 116 General College Physics I
MCET 313 FLUID MECHANICS - 3 semester hours
Properties of fluids; fluid statics and dynamics, including momentum, energy, Bernoulli's equation, fluid flow in pipes, fluid machinery, and open channels: study of the siphon, pitot tube, venturi meter, orifices, nozzles, diffusers, weirs, etc. Prerequisites: MCET 200 Statics; MATH 200 Calculus I

MCET 314 FLUID MECHANICS LABORATORY -1 semester hour
Laboratory demonstrations, experiments, and exercises dealing with the verification of fluid equations, and principles and characteristics of fluid machinery.
Corequisite: MCET 313 Fluid Mechanics
MCET 401 APPLIED THERMODYNAMICS - 3 semester hours
Study of thermodynamic cycles; includes Carnot, Rankine, Sterling and Application of thermodynamic principles to turbines and compressors.
Prerequisites: MCET 301 Introduction to Thermodynamics; MATH 201 Calculus II
MCET 403 QUALITY CONTROL - 3 semester hours
F, Sp
A study of the principles and techniques of quality control and its applications to industrial processes. Topics include: An overview of Total Quality Management (TQM), statistics, process control charts, and probability. The relationship between process capability and product specifications is analyzed.
Prerequisite: ENGT 105 Engineering Problem Solving or permission of the instructor
MCET 404 ENERGY LABORATORY - 1 semester hour
A study of heat transfer equipment; shell and tube heat exchangers, energy conversion from chemical to mechanical energy; calorimeters; internal combustion engines (diesel and Otto cycles).
Corequisite: MCET 401 Applied Thermodynamics
MCET 406 MACHINE DESIGN II - 3 semester hours F, Sp
A further development of the principles and techniques of machine element design with particular regard to gears, axles and shafts, bearings, clutches, brakes, gaskets and seals. Design projects are included.
Prerequisite: MCET 306 Machine Design I
MCET 415 INSTRUMENTATION AND CONTROLS - 3 semester hours
Sp
A study of the basic concepts and principles associated with the operation and use of sensors and instruments for the measurement and for the control of various properties (temperature, pressure, liquid level, fluid flow, etc); accuracy and reliability of instruments and their role in control systems.
Prerequisites: ELET 410 Introduction to Electricity and Electronics

MCET 416 MEASUREMENTS LABORATORY -1 semester hour

## Corequisite: MCET 415 Instrumentation and Controls

MCET 420 SENIOR PROJECT -1 to 4 semester hours F, Sp
Student will design a project to illustrate basic knowledge and skills in one phase of his major field. In many cases a prototype will be built and tested.
Prerequisite: Senior standing in MET curriculum. (All 300 level courses in the MET Program successfully completed)

MCET 421 HYDRAULICS AND PNEUMATICS - 3 semester hours

## MCET 422 HYDRAULICS AND PNEUMATICS LAB -1 semester hour <br> Sp

Selected design problems and projects dealing with principles and methods discussed in MCET 421. Preparation of circuit diagrams, flow charts, and detailed designs; circuits are set up and analyzed.
Corequisite: MCET 421 Hydraulics and Pneumatics
MCET 441 HEAT TRANSFER - 3 semester hours $\quad$ F, Sp
A course on the fundamental principles of heat transfer with a broad range of engineering applications. The classic modes of heat transfer, steady state and transient conduction, natural and forced convection, and radiation, will be emphasized. Both numerical and analytical solutions are discussed and illustrated. Application to problems associated with both mechanical and electronic engineering will be demonstrated through problems such as those related to the heating and cooling of buildings and the cooling of electronic equipment.
Prerequisite: Math 201 and Permission of instructor

## MCET 499 SPECIAL TOPICS IN ENGINEERING TECHNOLOGY -3 semester hours

A course or independent study covering some topic in Engineering Technology as technical elective. Goal is to enhance student skill and knowledge in relevant topic.
Prerequisite: Permission of instructor

## INDUSTRIAL TECHNOLOGY

INTC 115 BASIC ELECTRONICS - 3 semester hours magnetism, principles of motor and generator operation, series and parallel circuits. Ohm's and Network Theorems. A study of inductance and capacities and the use of multimeters, oscilloscopes, power supplies and signal generators. Also, an introduction to altering current and voltage.

INTC 161 ENGINEERING GRAPHICS I - 3 semester hours F, S
Introduction to basic 2D technical drawing and drafting, including sketching, lines, points, geometry, orthographic projection, auxiliary views, section views, basic dimensioning, visualization, basic drawing standard. Student projects required (sketching, drawing, and CAD software).

## Prerequisite: None

INTC 201 TECHNOLOGY, SOCIETY AND DEVELOPMENT - 3 semester hours F, S
A comprehensive study of technology - characteristics, paradigms, and trajectories; advantages and limitations; legislative and regulatory actions. Technological innovations and the process of development. Incisive analysis of the dimensions of technology in society.

INTC 212 PRINCIPLES OF TECHNOLOGY - 3 semester hours
Principles students with experience in the application of the principles of physics and mathematics as they relate to the modern technological systems, including robotics in a unified systems approach to explore mechanical, electrical, fluid, and thermal systems dealing with force, work, rate, resistance, energy, power, force transformers, momentum, wave, energy converters, transducers, radiation, optical systems, and time constants.

INTC 217 TECHNICAL GRAPHICS COMMUNICATION - 3 semester hours
F
Introduction to the use of various technical graphics media and methods of presentation of technical information. Topics include: electronic slide shows, graphic file formats, basic editing of graphic data, user interface design, graphic presentation, and interpreting graphic data.
Prerequisite: CISY 201

INTC 250 MANUFACTURING MATERIALS AND PROCESSES - 3 semester hours
S
A comprehensive study of materials and processes used to produce consumer goods. Include basic concepts of forming, combining, assembling, and finishing techniques. Emphasis on safe use of tools and machines and related research.

## INTC 261 ENGINEERING GRAPHICS II - 3 semester hours

Introduction to 3D modeling including CSG modeling, primitives, Boolean operators, view extraction, basic parametric modeling, file management, assembly, dimensioning, basic GD\&T, and drawing standard, student projects required (sketcing, CAD software).
Prerequisites: INTC 161

INTC 280 INDUSTRIAL AND COMMUNITY RELATIONS - 3 semester hours
F, S
A study of the human factors in industry with emphasis on the area of cooperation between labor, management and the schools.

## INTC 281 INDUSTRIAL SAFETY - 3 semester hours

OSHACT and its administration. Safety engineering and program management of specific construction and industrial hazards; standards, codes, and other safety documents. Accident investigation and safety analysis. Topics in occupational safety and environmental health.

INTC 350 INDUSTRIAL CONTROLS - 3 semester hours
Study of the devices, procedures, and techniques essential to industrial measurement and transmission of data in the areas of machine control, process control, and automated testing. Topics include: switches, transformers, relays, actuators, solenoids, transducers, timers, counters, motor starters, ladder diagrams, and power factor correction.
Prerequisite: INTC 212

INTC 353 FLUID POWER - 3 semester hours
Provides students with experiences in the application of the principles of physics and mathematics as they relate to problem solving in modern technological systems, including robotics in a unified systems approach to explore mechanical, electrical, fluid, and thermal systems dealing with force, work, rate, resistance, energy, power, force transformers, and time constants as it relates to fluid power.
Prerequisites: INTC 212
INTC 355 AUTOMATED SYSTEMS - 3 semester hours
F
General principles of operation and programming of automated systems including; automated assembly, automated manufacturing, inspection systems, automated storage/retrieval systems, computer numerical control, industrial robotics, and computer integrated manufacturing.
Prerequisite: INTC 212

INTC 359 TECHNOLOGY MANAGEMENT AND SUPERVISION - 3 semester hours
Designed to prepare students in organizing and executing technology/laboratory instruction, maintaining tools and equipment, purchasing and handling materials and supplies, keeping records, making inventories, and responding to problems in setting up and operating laboratory courses. The study of the management of technology, employees, and administrators in project management.
Prerequisite: INTC 201
INTC 362 ENGINEERING GRAPHICS III - 3 semester hours
F
Continuation of INTC 261. Advanced parametric modeling, product development and design, technical animation of assemblies - group project required (CAD software).
Prerequisite: INTC 261
INTC 364 APPLIED MACHINE DRAFTING - 3 semester hours
S
A study of problems relating to machines and machine components in industry. Emphasis on the development of machine drawing using current design software; detailed and assembly drawings; production illustration. Geometric dimensioning and tolerance applications. Student projects are required.
Prerequisite: INTC 261
INTC 365 MECHANICAL PRINT READING - 3 semester hours F
Reading prints as related to current common practices in engineering and technology. Emphasis on standardization and quality real world manufacturing industry print examples. Application of national (ANSI Y-14) and international standards and related documentation practices, including geometric tolerancing.
Prerequisites: INTC 161 and INTC 250
INTC 370 ARCHITECTURAL DRAFTING AND DESIGN I - 3 semester hours F
Introduction to residential architecture, plots plans, footings and foundations, residential structures, building codes, schedules, basic interiors. Student projects required (sketching, CAD software).

## Prerequisite: INTC 161

INTC 372 ARCHITECTURAL DRAFTING AND DESIGN II - 3 semester hours S
Continuation of INTC 370, focus on material, schedules, HVAC, plumbing, and electrical details. Student projects required (sketching, CAD software).

## Prerequisite: INTC 370

INTC 374 STATICS AND STRENGTH OF MATERIALS - 4 semester hours
F
Structural principles and concepts linked to real buildings and components. Elementary statics and strength of materials as they related to the basic principles of mechanics. Gravity and lateral load tracings; determinate structural frame-works. Concept of stress and strain, and material properties; cross-sectional properties; Beam and column analysis and design; steel connections. Use of structural software to generate graphically display and outlook.

## Prerequisites: MATH 212, INTC 372 or consent of instructor

## INTC 382 WRITING AND PRESENTING TECHNICAL DOCUMENTS - 3 semester hours

A fundamental course designed to meet the writing and presentation needs on Industrial Technology students. Special attention is placed upon unique applications and use of technical terms associated with the design and development of materials, processes and controls used in construction and manufacturing industries. Students are required to develop, write, present and transmit technical and/or management information typical of technical managers in industry.

## Prerequisite: ENGL 111 and GEEN 310

INTC 383 QUALITY MANAGEMENT - 3 semester hours
S
Quality management philosophies of Deming, Juran, and Cosby; total quality management (TQM); quality improvement and problem solving, with practical examples of quality problem tools; sampling techniques. The Taguchi loss function, quality function and policy deployment, materials control and just-in-time; quality audits; ISO 9000 inspection standards; charts for statistical process control and interpretation.
Prerequisites: CISY 212 or MATH 210

INTC 385 COST ESTIMATING - 3 semester hours
Principles and techniques necessary for the economic analysis and cost evaluation of construction and industrial design projects. Interpretation of construction and engineering drawings and specifications; estimating, operations, products, projects, and systems. Estimate assurance and contract considerations.

## Prerequisites: INTC 250 and INTC 261

INTC 473 ARCHITECTURAL DRAFTING AND DESIGN III - 3 semester hours
Focus on commercial structures and codes, various international styles of architecture, alternative building materials and energy sources. Student projects required. (sketching, CAD software)
Prerequisite: INTC 372
INTC 480 FACILITIES PLANNING AND MANAGEMENT - 3 semester hours
Facilities planning strategies, product, process, and schedule design; flow space and activity relationships; design of material handling system. Facilities functions and systems; quantitative facilities planning models, including the use of software applications (VisFactory). Industrial facility management.
Prerequisite: INTC 362

## INTC 481 MECHANICAL INSPECTION - 3 semester hours

Inspection points, personnel, and planning, using various graphical inspection techniques. Inspection as an appraisal activity in business/industry. Dimensional metroology-application of common and special gages; surface plate tools and techniques. Inspection planning and procedures; sampling and testing methods; non destructive testing. Laboratory activities are included. Industrial visitation is required.
Prerequisite: INTC $\mathbf{3 8 3}$ or Consent of Instructor

INTC 485 PROJECT MANAGEMENT - 3 semester hours
The principles and techniques of managing engineering and construction projects from the conception phase through design and construction, to completion. Working with project teams, early estimates, and design proposals; project budgeting, scheduling, and aggregate planning. Case study approach is emphasized.
Prerequisite: INTC 385
INTC 490 SENIOR DESIGN PROJECT - 3 semester hours
F, S
This course requires the student to complete an individual project that emphasizes the solving of a technical problem using a multidisciplinary technology approach. This project is intended to be a culmination of management and technology theories and will be integrated with design or research. Report and end of semester formal presentation required.
Prerequisite: senior status
INTC 499 SPECIAL TOPICS - 3 semester hours
F, S
A course or independent study covering a topic in Industrial Technology that may be used in lieu of a technical elective. The goal of this course is to enhance students' skills and knowledge in an area relevant to their area of study.
Prerequisite: Permission of Instructor

## DEPARTMENT OF ENGINEERING AND TECHNOLOGY ELECTRONICS ENGINEERING TECHNOLOGY <br> Bachelor of Science Degree

|  |  | Semester Hours |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1{ }^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
|  | FRESHMAN YEAR |  |  |  |
| ELET 101, 102 | Circuit Analysis/Lab I, II | 4 | 4 | 8 |
| ENGT 100, 105 | Intro Engr Tech, Eng Prob Solving | 2 | 1 | 3 |
| ENGL 110, 111 | Composition I and II | 3 | 3 | 6 |
| HPER 170 or EQUIVALENT | Wellness/Health | 2 | - | 2 |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| MATH 120, 121 | College Algebra \& Trigonometry I, II | 3 | 3 | 6 |
| GEPS 124 | Intro Psychology | - | $\underline{3}$ | $\underline{3}$ |
|  |  | 16 | 14 | 30 |
| SOPHOMORE YEAR |  |  |  |  |
| ELET 203, 204 | Intro Electro/Lab, Electronic Circ/Lab | 4 | 4 | 8 |
| ELET 207, 208 | Digital Circuits/Lab, Microprocessors/Lab | 4 | 4 | 8 |
| MATH 200, 201 | Calculus I, Calculus II | 3 | 3 | 6 |
| PHYS 116, 117 | Gen College Physic/Lab I, II | $\underline{4}$ | 4 | $\underline{8}$ |
|  |  | 15 | 15 | 30 |
| JUNIOR YEAR |  |  |  |  |
| CHEM 101, 103 | General Chemistry I \& Lab | 4 | - | 4 |
| ELET 309 | Adv Digital Circuits/Lab | - | 4 | 4 |
| ELET 306, 304 | Adv Electronics/Lab, Adv Circuit Anal | 4 | 3 | 7 |
| ENGR 203, ENGT 321 | Intro to Prog, Engr Economy | 3 | 3 | 6 |
| ENGL 342 | Technical Communication | - | 3 | 3 |
| SPEE 214 | Introduction to Public Speaking | 3 | - | 3 |
| GE HISTORY, GE LITERATURE | History Elective, Literature Elective | $\underline{3}$ | 3 | $\underline{6}$ |
|  |  | 17 | 16 | 33 |
|  | SENIOR YEAR |  |  |  |
| ELET 403, 401 | Control Systems, Electric Machinery | 3 | 3 | 6 |
| ELET 408, 406 | Adv Microprocessors/Lab, Communi Sys | 4 | 3 | 7 |
| PHIL 450 | App Ethics, Global Studies Elective | 3 | 3 | 6 |
| RESTRICTIVE ELECTIVE | ENGT/ENGR/MATH Elective | 3 | 3 | 6 |
| ELET 420/421 | Senior Project Elective | 3 | - | 3 |
| FREE ELECTIVE | Free Elective | - | 3 | $\underline{3}$ |
|  |  | 16 | 15 | 31 |

## DEPARTMENT OF ENGINEERING AND TECHNOLOGY <br> MECHANICAL ENGINEERING TECHNOLOGY Bachelor of Science Degree

|  |  | Semester Hours |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1{ }^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
|  | FRESHMAN YEAR |  |  |  |
| INTC 161, 261 | Mech Drawing, Comp. Aided Draft | 3 | 3 | 6 |
| ENGT 100, 105 | Intro. Engr. Tech., Engr Probl Solving | 2 | 1 | 3 |
| ENGL 110, 111 | Composition I, II | 3 | 3 | 6 |
| MATH 120, 121 | College Alg, Trig I \& II | 3 | 3 | 6 |
| MCET 102 | Machine Lab | - | 1 | 1 |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| GEPS 124, HISTORY ELECTIVE | Intro Psychology, History Elective | $\underline{3}$ | 3 | $\underline{6}$ |
|  |  | 16 | 14 | 30 |
|  | SOPHOMORE YEAR |  |  |  |
| Global Studies | Global Studies Elective | 3 | - | 3 |
| HPER 170 or EQUIVALENT | Personal Health, Personal Fitness | 2 | - | 2 |
| MATH 200, 201 | Calculus I, Calculus II | 3 | 3 | 6 |
| MCET 200, 201, 202 | Statics, Str. of Materials, Lab | 3 | 4 | 7 |
| PHYS 116, 117 | Gen. College Physics/Lab I, II | 4 | 4 | 8 |
| ENGL 342 | Tech. Comm. | - | 3 | 3 |
| SPEE 214 | Intro. Public Speaking | - | 3 | $\underline{3}$ |
|  |  | 15 | 17 | 32 |
| JUNIOR YEAR |  |  |  |  |
| ENGR 203 | Intro to Prog | 3 | - | 3 |
| CHEM 101, 103 | General Chemistry I, Lab | 4 | - | 4 |
| MCET 301 | Intro to Thermodynamics | - | 3 | 3 |
| ENGT 321 | Engr. Economy | - | 3 | 3 |
| MCET 305, 306 | Mfg. Matl. Processes, Machine Design I | 3 | 3 | 6 |
| MCET 311 | Dynamics | 3 | - | 3 |
| MCET 313, 314 | Fluid Mechanics, Lab | 4 | - | 4 |
| GE LITERATURE | Literature Elective | - | 3 | 3 |
| RESTRICTIVE TECHNICAL ELECTIVE | Engr. Tech. | - | $\underline{3}$ | $\underline{3}$ |
|  |  | 17 | 15 | 32 |
|  | SENIOR YEAR |  |  |  |
| ELET 410 | Intro Electricity/Electronics | 3 | - | 3 |
| MCET 401, 404 | Applied Thermodynamics, Energy Lab | 4 | - | 4 |
| MCET 415, 416 | Instrum and Control, Measurements Lab | - | 4 | 4 |
| RESTRICTIVE TECHNICAL ELECTIVE | Engr Tech | 3 | 3 | 6 |
| PHIL 450, MCET 441 | Applied Ethics, Heat Transfer | 3 | 3 | 6 |
| MCET 421, 422 | Hydraulics/Pneumatics, Lab | - | 4 | 4 |
| TECHNICAL ELECTIVE | Math, Engr., Engr. Tech | 3 | - | $\underline{3}$ |
|  |  | 16 | 14 | 30 |

Total program semester hours $=124$

# DEPARTMENT OF ENGINEERING AND TECHNOLOGY INDUSTRIAL TECHNOLOGY-COMPUTER AIDED DRAFTING AND DESIGN CONCENTRATION <br> Bachelor of Science Degree 

|  |  | Semester Hours |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1{ }^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
|  | FRESHMAN YEAR |  |  |  |
| ENGL 110, 111 | Composition I and II | 3 | 3 | 6 |
| MATH 121, 212 | College Algebra and Trig/Intro to Calculus | 3 | 3 | 6 |
| INTC 161, 261 | Engineering Graphics I and II | 3 | 3 | 6 |
| INTC 201 | Technology, Society \& Development | 3 | - | 3 |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| ELECTIVE | Wellness/Health | 2 | - | 2 |
| GEHI 122 or 123 | United States History | - | 3 | 3 |
| INTC 115 | Basic Electronics |  | $\underline{3}$ | 3 |
|  |  | 16 | 15 | 31 |
| SOPHOMORE YEAR |  |  |  |  |
| ELECTIVE | Literature Elective | 3 | - | 3 |
| INTC 217 | Technical Graphics Communication | 3 | - | 3 |
| PHYS 116, 117 | General College Physics I and II | 4 | 4 | 8 |
| INTC 281 | Industrial Safety | 3 | - | 3 |
| INTC 250 | Manufacturing Materials and Processes | 3 | - | 3 |
| CISY 201 | Microcomputer Concepts | - | 3 | 3 |
| ECON 210 | Principles of Microeconomics | - | 3 | 3 |
| INTC 212 | Principles of Technology | - | 3 | 3 |
| CISY 260 or STAT 210 | Business Statistics or Elementary Statistics I | $=$ | 3 | $\underline{3}$ |
|  |  | 16 | 16 | 32 |
| JUNIOR YEAR |  |  |  |  |
| GEEN 310 | Advanced Communication Skills | 3 | - | 3 |
| GEPI 140 | Philosophy | 3 | - | 3 |
| ACCT 201 | Introduction to Accounting I | 3 | - | 3 |
| INTC 370 | Architectural Drafting and Design I | 3 | - | 3 |
| INTC 365 | Mechanical Print Reading | 3 | - | 3 |
| INTC 382 | Writing and Presenting Technical Documents | - | 3 | 3 |
| INTC 385 | Cost Estimating | - | 3 | 3 |
| INTC 383 | Quality Management | - | 3 | 3 |
| INTC 372 | Architectural Drafting and Design II | - | 3 | 3 |
| ELECTIVE | Free Elective |  | 3 | 3 |
|  |  | 15 | 15 | 30 |
| SENIOR YEAR |  |  |  |  |
| INTC 485 | Project Management | 3 | - | 3 |
| GEPS 124 | Introduction to Psychology | 3 | - | 3 |
| INTC 374 | Statics and Strength of Materials | 4 | - | 4 |
| INTC 473 | Architectural Drafting and Design III | 3 | - | 3 |
| ELECTIVE | Global Studies Elective | 3 | - | 3 |
| INTC 362 | Engineering Graphics III | - | 3 | 3 |
| ARTS 205 | Basic Art | - | 3 | 3 |
| ELECTIVE | Free Elective | - | 3 | 3 |
| INTC 490 | Senior Project | $=$ | $\underline{1}$ | $\underline{3}$ |
|  |  | 16 | 12 | 28 |

Students not ready for MATH 121 in their freshman year may take MATH 120 and substitute the credits for their free elective.

## DEPARTMENT OF ENGINEERING AND TECHNOLOGY INDUSTRIAL TECHNOLOGY - TECHNOLOGY MANAGEMENT CONCENTRATION Bachelor of Science Degree

|  |  | Semester Hours |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1{ }^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
|  | FRESHMAN YEAR |  |  |  |
| GEEN 110, 111 | Freshman Writing I and II | 3 | 3 | 6 |
| MATH 121, 212 | College Algebra and Trig/Intro to Calculus | 3 | 3 | 6 |
| INTC 161, 261 | Engineering Graphics I and II | 3 | 3 | 6 |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| ELECTIVE | Wellness/Health | 2 | - | 2 |
| INTC 201 | Technology, Society \& Development | 3 | - | 3 |
| PHYS 116 | General College Physics I | - | 4 | 4 |
| INTC 115 | Basic Electronics | - | 3 | $\underline{3}$ |
|  |  | 16 | 16 | 32 |
| SOPHOMORE YEAR |  |  |  |  |
| ELECTIVE | Literature Elective | 3 | - | 3 |
| INTC 217 | Technical Graphics Communications | 3 | - | 3 |
| PHYS 117 | General College Physics II | 4 | - | 4 |
| INTC 250 | Manufacturing Materials and Processes | 3 | - | 3 |
| CISY 201 | Microcomputer Concepts I | 3 | - | 3 |
| INTC 281 | Industrial Safety | - | 3 | 3 |
| ECON 210 | Principles of Microeconomics | - | 3 | 3 |
| INTC 212 | Principles of Technology | - | 3 | 3 |
| GEHI 122 or 123 | United States History | - | 3 | 3 |
| CISY 260 or STAT 210 | Business Statistics or Elementary Statistics I | - | 3 | $\underline{3}$ |
|  |  | 16 | 15 | 31 |
| JUNIOR YEAR |  |  |  |  |
| GEEN 310 | Advanced Communication Skills | 3 | - | 3 |
| INTC 374 | Statics and Strength of Materials | 4 | - | 4 |
| ACCT 201 | Introduction to Accounting I | 3 | - | 3 |
| INTC 353 | Fluid Power | 3 | - | 3 |
| GEPI 140 | Philosophy | 3 | - | 3 |
| INTC 382 | Writing and Presenting Technical Documents | - | 3 | 3 |
| INTC 385 | Cost Estimating | - | 3 | 3 |
| INTC 383 | Quality Management | - | 3 | 3 |
| INTC 359 | Technology Management and Supervision | - | 3 | 3 |
| INTC 480 | Facilities Planning and Management | - | $\underline{3}$ | $\underline{3}$ |
|  |  | 16 | 15 | 31 |
| SENIOR YEAR |  |  |  |  |
| INTC 485 | Project Management | 3 | - | 3 |
| GEPS 124 | Introduction to Psychology | 3 | - | 3 |
| ELECTIVE | Free Electives | 3 | 3 | 6 |
| INTC 355 | Automated Systems | 3 | - | 3 |
| INTC 481 | Mechanical Inspection | 3 | - | 3 |
| ARTS 205 | Basic Art | - | 3 | 3 |
| ELECTIVE | Global Studies Elective | - | 3 | 3 |
| INTC 490 | Senior Project | = | $\underline{3}$ | $\underline{3}$ |
|  |  | 15 | 12 | 27 |

# DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE 

| Chairperson: | Dawit Haile, P.O. Box 9068, 213S Hunter McDaniel, Phone: 524-5920 |
| :--- | :--- |
| Professors: | Krishan Agrawal, V. Sagar Bakhshi, Gerald Burton, Rana Singh, George Wimbush |
| Associate Professors: | Kenneth Bernard, Stephen Bique, Raymond Fletcher, Dawit Haile, Diana Perdue, <br> Bourama Toni, Jeff Zadeh |
| Assistant Professors: | Cheryl Adeyemi, Fabio Guerinoni, Giti Javidi, Seonkoo Han, Frances Lane, <br>  <br> Instructor: |
| Tariq Qazi, Mohammad Tabanjeh, Hui Qing Yang, Robert Wieman, Aparna Varde |  |

## Description of the Department

The Department of Mathematics and Computer Science at Virginia State University offers course work leading to the Bachelor of Science degree with a major in Mathematics with five options or concentrations; and the Bachelor of Science degree with a major in Computer Science. The department, in conjunction with the Center for Undergraduate Professional Education Programs, offers teaching endorsement in Mathematics (6-12). To fulfill requirements for the endorsement, students need to complete a mathematics major and minor in secondary education. The Department also offers course work leading to the Master of Science degree in Mathematics.

The Department offers four (4) curricula of study: Math/Mathematics-Statistics Curriculum (Pure and Applied Mathematics), Computer Science Curriculum, Cooperative Engineering Curriculum, and Mathematics Endorsement Curriculum. Each of the several areas of specialization in the Department includes a unique selection of required courses from these different areas.

The Department sponsors five student-oriented organizations: (1) the Walter Johnson Mathematics and Computer Science Club, in which the primary emphasis is on topics and activities of interest to mathematics and computer science students and teachers, (2) the Kappa Mu Epsilon Mathematics National Honor Society (Virginia Alpha Chapter), which provides incentive and opportunity for scholarly work in mathematics, (3) a student chapter of the Association of Computing Machinery (ACM), and (4) a student chapter of the Mathematical Association of America (MAA) and (5) Upsilon Pi Epsilon Computer Science Honor Society. All majors qualify for membership in the Mathematics and Computer Science clubs; however, membership in Kappa Mu Epsilon Mathematics National Honor Society and Upsilon Pi Epsilon Computer Science Honor Society is based on high academic achievement. The Department also holds Institutional Membership with the following state and/or national organizations: Mathematical Association of America (MAA), National Association of Mathematicians (NAM), Virginia Council of Teachers of Mathematics (VCTM).

## Goals of the Department

The goals of the department are to:

- provide opportunities for students to develop fundamental concepts in mathematics and computer science, thus building a background for more advanced mathematics and computer science study,
- produce students capable of pursuing successful careers as mathematicians, statisticians, computer scientists and engineers in such areas as industry, private business and government service,
- prepare students for teaching mathematics by using new pedagogy and technology,
- offer quality instruction to all persons seeking a strong mathematics and/or computer science background, and promote research by offering technical and professional assistance and engaging in research activities for the advancement of science and the improvement of teaching.


## Bachelor of Science (B.S.) Degree in Mathematics

## Mission Statement of the Mathematics Program

The mission of the Mathematics Program at Virginia State University is to produce graduates for productive careers and advanced study in mathematics by providing challenging academic opportunities offered by accomplished, experienced faculty.

The Department offers four curricula of study or concentrations leading to the Bachelor of Science Degree (B.S.) in Mathematics.

- The Mathematics Concentration provides students with a general pure and applied mathematics background, enabling entry to the job market or graduate study in advanced mathematics with relevant science and computer training. A minimum of 63 hours in Mathematics and 7 hours in Computer Science is required.
$\square$ The Mathematics/Statistics Concentration develops the proficiency in Mathematics, Probability and Mathematical Statistics necessary for the application of statistical techniques and computer applications. A minimum of 42 hours in Mathematics and 21 hours in Statistics and 7 hours in Computer Science is required.
$\square \quad$ The Mathematics Endorsement Concentration prepares students with an endorsement in mathematics at the secondary school level. The emphasis in the final semester is on student teaching. A minimum of 39 hours in Mathematics and 6 hours in Computer Science is required.
$\square$ Cooperative Engineering 3+2 Program enables students to obtain a joint degree in conjunction with Old Dominion University (ODU). This five-year program permits students to complete three years of study at Virginia State University (VSU) and two years of study at ODU. Graduates are awarded a B.S. degree in Mathematics from Virginia State University and a B.S. degree in either Electrical Engineering, Environmental Engineering, Mechanical or Civil Engineering from ODU. The B.S. Degree in Mathematics at VSU is awarded at the end of the first year at ODU. A minimum of 30 hours in Mathematics and 6 hours in Computer Science at VSU is required.


## Course Requirements for the B.S. in Mathematics

- Complete a minimum of 120 hours with a cumulative GPA of 2.00 or higher;
- Earn at least a grade of "C" in all Mathematics, Computer Science and Statistics courses;
- Pass the capstone mathematics course, MATH 495 - Mathematics Seminar


## Minor in Mathematics

The minor in mathematics consists of a planned sequence of six courses offered by the Mathematics and Computer Science Department. The calculus sequence, MATH 200, MATH 201 and MATH 300, is required. In addition, three more courses at the 300 level or above may be selected from Mathematics and/or Statistics courses. MATH 284 or MATH 290 can be used as a substitute for one of the 300 level courses. A student must earn a grade of "C" or better in all courses pursued toward fulfillment of the requirements for a minor in mathematics.

## Bachelor of Science (B.S.) in Computer Science

## Mission Statement of the Computer Science Program

The mission of the Computer Science Program at Virginia State University is to provide an undergraduate program in Computer Science that prepares students for a productive career and advanced study in the areas of Computer Science.

## Objectives of the Computer Science Program

The objectives of the Computer Science program are consonant with the mission of the University: to provide our students with an education that will serve their needs and the needs of local industries. Our goals of professional responsibility and the understanding of the social impact of computer science tie in with the University's objective of creating citizens who are committed to assuming productive roles in a challenging and ever-changing global society.

The objective of the computer science program is to prepare graduates who will:

1. communicate effectively,
2. work productively,
3. participate in the computing field,
4. have high standards of professionalism and knowledge of ethical responsibilities in the computing field, and
5. be enrolled in a university program or employed.

The courses listed in the Computer Science Curriculum will provide the student with a firm foundation in both hardware/architecture and software, as well as a "hands-on" understanding of a variety of applications of the fundamental ideas and techniques of Computer Science. Through a selection of advanced electives from Mathematics, Computer Science, Computer Engineering, and Information Systems and Decision Science programs, students will have the opportunity to explore areas of special interest in depth.

Students in the program will interact with their instructors and will be offered timely guidance and advice about the program's requirements and their career alternatives. No computer science classes will have more than 25 students. Faculty will be available to students at least five hours per week during required office hours, and also by appointment. Faculty and students will also interact extensively by e-mail and/or other electronics communication media on the Internet.

The curriculum in Computer Science combines technical requirements with general education requirements and electives to prepare students for a professional career in the computer science field, for further study in computer science, and for functioning in modern society. The technical requirements include up-to-date coverage of basic and advanced topics in computer science as well as an emphasis on science and mathematics.

In addition to high school graduates satisfying the admission criteria, the Mathematics and Computer Science Department welcomes community college graduates and transfer students. Students who have completed an associate's degree with a major in sciences, arts and sciences, computer science, education, or engineering are encouraged to consider applying for admission to the program.

## Course Requirements for the B.S. in Computer Science

- Have a minimum of 121 semester hours of credit and have a cumulative GPA of 2.0 or better;
- Complete the General Education (Core) requirements;
- Complete a minimum of 45 hours in Computer Science, 27 hours in Mathematics and Statistics, 6 elective hours in Mathematics (MATH), Computer Information Systems (CISY), Computer Science (CSCI) or Computer Engineering (CPEG)


## Minor in Computer Science

The minor in computer science consists of a total of 18 credit hours. A planned sequence of five courses offered by the Department of Mathematics and Computer Science is required. The sequence of courses CSCI 120, CSCI 150, CSCI 250, CSCI 260 and CSCI 386 or CSCI 387 is required. In addition, one other computer science course at the 300 or 400 level is required. A student must earn a grade of " C " or better in all courses pursued towards fulfillment of the requirements for a minor in Computer Science.

## Course Descriptions

## COMPUTER SCIENCE

## Introductory Courses

## CSCI 100 INTRODUCTION TO COMPUTER SCIENCE - 3 semester hours <br> F, Sp, Su

Brief history of computers. Computer architecture: Processing, Input/Output and Communication Devices. Software:operating systems and applications. The Internet, networking and mobile computing. Introduction to basic application programs

## CSCI 120 INTRODUCTION TO PROBLEM SOLVING USING COMPUTERS

## - 3 semester hours F, Sp, Su

This is a first exposure to the use of an algorithm to solve a problem. Emphasis is in the techniques: sequence, conditional and iteration, implemented through a procedural language such as $\mathrm{C}++$. This course provides a solid foundation to approach more complicated problems using an advanced language.

## Core courses

CSCI 150 PROGRAMMING IN C++ I - 3 semester hours F, Sp A formal approach to basic elements, syntax and semantics, of C++. Basic Input/Output. Statement, expressions, precedence rules. Basic control structures. Functions, void functions. Reference and value parameters.
Prerequisites: High school programming or CSCI 120 Introduction to Problem Solving Using Computers
CSCI 250 PROGRAMMING IN C++ II - 3 semester hours F, Sp
Topics include: arrays, pointers, strings, structures, sorting and searching algorithms, introduction to classes. Prerequisite: CSCI 150 Programming in C++ I

CSCI 260 OBJECT ORIENTED PROGRAMMING - 3 semester hours
F, Sp
Pointers and recursive programming. Fundamentals: objects and methods. Object Oriented features of C++. Classes: data abstraction, hiding and encapsulation. Inheritance and derived classes. Static and dynamic binding. Polymorphism and virtual functions.
Prerequisite: CSCI 250 Programming in C++ II
CSCI 281 DISCRETE STRUCTURES - 3 semester hours
F, Sp
Recursion and Solutions of recurrence relations, Introduction to Graph Theory, Trees, Language and Grammars, Finite State Machines.
Prerequisite: MATH 280 Discrete Mathematics for Computer Science

## CSCI 303 COMPUTER ORGANIZATION AND ASSEMBLY LANGUAGE PROGRAMMING

## - 3 semester hours <br> F

Machine representation of data and instructions. Machine organization, primary storage, registers, arithmetic logic unit, control unit, operations. Assembly language programming, interface to high level languages. Assemblers and loaders. Prerequisite: CSCI 250 Programming in C++ II

CSCI 356 DATABASE SYSTEMS - 3 semester hours

## CSCI 388 ARCHITECTURE AND OPERATING SYSTEMS - 3 semester hours

A treatment of computer architecture. Introduction to operating systems. Computer system and operating system architectures, processes, inter-process communication, inter-process synchronization, mutual exclusion, deadlocks, memory hierarchy, virtual memory, CPU scheduling, file systems, I/O device management, security.
Prerequisites: CSCI 387 Data Structures; CSCI 303 Computer Organization and Assembly Language Programming

CSCI 389 HUMAN COMPUTER INTERACTION - 3 semester hours
Sp
Human information processing, user interface design principals, information presentation, visual, auditory and tactile display, speech communication, data entry, controls, tools and feedback, human factors in computer programming, workspace design, environmental, ethical and legal considerations.

## Prerequisite: CSCI 260 Object Oriented Programming

CSCI 485 PROGRAMMING LANGUAGES - 3 semester hours
Concepts for structuring data, computation, and whole programs. Object-oriented languages, functional languages, logic- and rule-based languages. Data Types, type checking, exception handling, concurrent processes, synchronization, modularity, encapsulation, interfaces, separate compilation, inheritance, polymorphism, dynamic binding, sub typing, overloading, beta-reduction, unification.

## Prerequisite: CSCI 387 Data Structures

CSCI 493 SENIOR PROJECT - 3 semester hours F, Sp
The investigation of special problems in computer science on an individual basis. The student must submit a proposal of this investigation. The result of the investigation will be printed in a report.
Prerequisite: Senior level standing in Computer Science or Instructor's Permission
CSCI 495 TOPICS IN COMPUTER SCIENCE - 3 semester hours
F, $\mathbf{S p}$
Topics vary depending upon needs of students and current interest of the instructor. Students interested in the specific content of this course as offered in a particular term should consult the instructor.
Prerequisite: Consent of Instructor.

## Elective Courses

CSCI 402 INTRODUCTION TO ARTIFICIAL INTELLIGENCE - 3 semester hours
Basic problem-solving strategies, heuristic search, problem reduction AND/OR graphs, knowledge representation, expert systems, generating explanations, uncertainty reasoning, game playing, planning, machine learning, computer vision, and programming systems such as Lisp or Prolog.
Prerequisite: CSCI 387 Data Structures
CSCI 445 COMPUTER COMMUNICATION NETWORKS - 3 semester hours
F
ISO model for communications. Protocols for physical, data link and network communications. Sockets. TCP/IP. Applications. Protocol correctness and efficiency. Error detection and recovery. Local-area and Wide-area networks.
Prerequisites: CSCI 387 Data Structures

## CSCI 460 COMPUTABILITY AND FORMAL LANGUAGE THEORY - 3 semester hours

CSCI 480 COMPUTER GRAPHICS - 3 semester hours
Techniques of modeling objects for the purpose of computer rendering: boundary representations, constructive solids geometry, hierarchical scene descriptions: mathematical techniques for curve and surface representation. Basic elements of computer graphics rendering pipeline; architecture of modern graphics display devices; Geometrical transformations such as rotation, scaling, translation, and their matrix representations. Homogenous coordinates, projective and perspective transformations: Algorithms for clipping, hidden surface removal, rasterization, and anti-aliasing. Scan-line based and ray rendering algorithms. Lighting models for reflection, refraction, transparency.
Prerequisites: CSCI 387 Data Structures; MATH 301 Multivariate Calculus; MATH 325 Linear Algebra

## CSCI 482 MATRIX COMPUTATIONS - 3 semester hours <br> F

This course is fundamental for students who will pursue graduate studies of applications of computers to science and engineering. Vector and matrix Norms. Numerical Linear Algebra, condition number, singular values. Householder and Given transformations. Orthogonalization and least Squares methods. The eigenvalue problem. Basic iterative methods: Jacobi Gauss-Seidel and SOR.
Prerequisites: CSCI 250 Programming in C++ II; MATH 325 Linear Algebra
CSCI 487 SOFTWARE DESIGN AND DEVELOPMENT - 3 semester hours F, Sp
A formal approach to current techniques in software design and development. Students work in teams in the organization, management, and development of a large software project.

## Prerequisite: CSCI 387 Data Structures

CSCI 492 ALGORITHMS AND COMPLEXITY - 3 semester hours
F, Sp
Recommended for students pursuing a graduate degree in Computer Science. Definitions of algorithm and its complexity. Proof of correctness of an algorithm. Average and worst case complexity. Complexity of search and sorting algorithms. Recurrence relations arising from basic algorithms. Linear and non-linear recurrences. Divide-and-conquer algorithms. Ordinary and Exponential Generating functions. Big-O notation and asymptotic approximations. An in-depth study of one of the following: number-theoretical, permutation, tree or graph algorithm.
Prerequisite: CSCI 387 Data Structures
In addition, students may choose any two of the following Mathematics, Information Systems and/or Computer Engineering courses as electives:

MATH 392, MATH 301, MATH 350, MATH 400, MATH 425, MATH 432, MATH 445, CPEG 303, CPEG 307, CPEG 308, CPEG 410, CPEG 411, CPEG 415, CISY 344, CISY 350, CISY 358, CISY 359, CISY 466, CISY 480.

## Cognate Courses

MATH 280 DISCRETE MATHEMATICS FOR COMPUTER SCIENCE - 3 semester hours F, Sp The purpose of this course is to introduce fundamental techniques in Discrete mathematics for application in Computer Science. Sets, Mathematical logic, Proof Techniques, Relations, Functions, Mathematical Induction, Counting Principle, Analysis of Algorithms.

## Prerequisite: MATH 121 College Algebra and Trigonometry II

STAT 340 PROBABILITY AND STATISTICS FOR COMPUTER SCIENTISTS - 3 semester hours F, Sp Introduction to the concepts of probability, random variables, estimation, hypothesis testing, regression, and analysis of variance with emphasis on application.
Prerequisites: MATH 201 Calculus II; CSCI 281 Discrete Structures

## MATHEMATICS WITH A MINOR IN SECONDARY EDUCATION (6-12)

MAED 402 STUDENT TEACHING IN MATHEMATICS - 3 semester hours F, Sp
This course is designed to provide supervision in the content area for pre-service secondary mathematics candidates.
Prerequisite: Departmental approval
Corequsites: EDUC 401 Student Teaching Seminar; EDUC 402 Student Teaching
MAED 473 THE TEACHING OF MATHEMATICS IN SECONDARY SCHOOLS I - 3 semester hours F
A study of modern instructional strategies for teaching, planning and directing mathematics learning in secondary schools.
Prerequisites: EDUC 201, EDUC 202 Introduction to Teaching I and II

## MATHEMATICS

MATH 111 INTRODUCTION TO COLLEGE ALGEBRA - 3 semester hours
F, Sp, Su
The real number system, factoring, simplifying algebraic expressions, equations and inequalities, problem solving, system of linear equations, functions and their graphs

MATH 120 COLLEGE ALGEBRA AND TRIGONOMETRY I-3 semester hours F, Sp, Su
A pre-calculus course in algebra. Graphs, functions and their graphs, equations and inequalities, polynomial and rational functions, systems of equations and inequalities, and matrices.
Prerequisites: Two units of high school mathematics and placement criteria
MATH 121 COLLEGE ALGEBRA AND TRIGONOMETRY II - 3 semester hours F, Sp, Su
Exponential and logarithmic functions, trigonometric functions, analytic trigonometry, and applications of trigonometry.
Prerequisite: MATH 120 College Algebra and Trigonometry I
MATH 122 FINITE MATHEMATICS - 3 semester hours
F, Sp, Su
Solving systems of Linear Equations and Inequalities, Introduction to Matrices and Linear Programming, Mathematics of Finance, Sets, Counting and Probability.
Prerequisite: MATH 120 College Algebra and Trigonometry I
MATH 130 NUMBER AND OPERATIONS - 3 semester hours F, Sp
ONLY for students seeking certification to reach PreK $-3 /$ PreK -6
Examines number systems and operations, elementary number theory, concepts of integers and rational number, proportions, logic, computational algorithms, and coming techniques in a problem-solving environment. Will include student investigations and hands-on activities.
Prerequisites: Two units of high school mathematics and placement criteria
MATH 131 ALGEBRA AND FUNCTIONS - 3 semester hours
ONLY for students seeking certification to teach PreK - 3/PreK - 6
Examines basic algebraic operations, linear and quadratic equations, linear systems of equations and inequalities, algebraic and trigonometric functions in the context of modeling and various representations of functions (graphical, tabular, symbolic). Will include student investigations and hands-on activities.
Prerequisites: MATH 130 Number and Operations

MATH 200 CALCULUS I - 3 semester hours
F, Sp, Su
Analytic Geometry (introduction to conic sections), review of functions and their graphs, limit and rate of change, continuity, derivatives, derivatives of trigonometric functions, chain rule, implicit differentiation, higher derivatives, related rates, applications of differentiation: maximum and minimum values, The Mean Value Theorem, the first and second derivative tests, optimization problems.
Prerequisite: MATH 121 College Algebra and Trigonometry II

MATH 201 CALCULUS II - 3 semester hours
Antiderivatives, areas, definite integral, Fundamental Theorem of Calculus, indefinite integrals, areas between curves (in the Cartesian Plane), volumes, integration techniques: substitution rule, integration by parts, trigonometric substitutions, integration of rational functions, table of integration, transcendental functions and their inverses, applications of integration.
Prerequisites: MATH 200 Calculus I
MATH 212 INTRODUCTION TO CALCULUS - 3 semester hours F, Sp, Su
Calculus for Non-Science and Non-Mathematics majors. Fundamental concepts of limits, continuity, differentiability and integrability of functions and their application to problems in various disciplines. This course cannot be taken as a Mathematics elective by Mathematics majors.

## Prerequisites: Math 121 College Algebra and Trigonometry II; MATH 122 Finite Mathematics

## MATH 230 GEOMETRY AND MEASUREMENT - 3 semester hours <br> F, Sp

ONLY for students seeking certification to reach PreK $-3 / \operatorname{PreK}-6$
A basic study of properties and relationships of polygons and polyhedra, transformation geometry, coordinate geometry, construction, deductive and inductive reasoning, the processes of measurement through geometric investigations, and an introduction to non-Euclidean geometries. This course does not satisfy the requirements of MATH 340.
Prerequisites: MATH 131 Algebra and Functions or its equivalent
MATH 284 DISCRETE MATHEMATICS I - 3 semester hours F, Sp
Binary number systems; computer codes; computer arithmetic; logic truth tables; sets and relations; Boolean algebra; logic gates; simplifications of logic circuits, graphs, and directed graphs equivalence relations.
Prerequisite: MATH 121 College Algebra and Trigonometry II
MATH 285 DISCRETE MATHEMATICS II - 3 semester hours
Duality, mathematical induction and contradiction, recurrence relations, posets and sorting, vectors and matrices, planar and non-planar graphs, networks, error propagation, combinatorics, circuits, lattices, algebraic systems and machines, algorithms for flowcharting and programming.
Prerequisite: MATH 284 Discrete Mathematics I
MATH 290 FOUNDATIONS OF MATHEMATICS - 3 semester hours
A study of the development of mathematical concepts and of the great mathematicians who introduced these concepts; development of integral and differential calculus, development of concepts in modern algebra and the use of rigorous set theory as the foundation for analysis, algebra and topology.
Prerequisite: MATH 201 Calculus II or concurrent with MATH 201
MATH 300 CALCULUS III - 3 semester hours F, Sp, Su
Conic sections and polar coordinates, indeterminate forms, improper integrals, Taylor's theorem, L'Hopital's rule, Taylor's polynomials, sequences and series, absolute and conditional convergence, differentiation and integration of power series, vectors in the plane and in space, and cylindrical and spherical coordinates.
Prerequisite: MATH 201 Calculus II
MATH 301 MULTIVARIATE CALCULUS - 3 semester hours
F, Sp
Vector functions, vector differentiation, parametric equations, differentiation of functions of two and three variables, multiple integration, the triple integral, introduction to vector analysis, line and surface integrals, Green's and Stoke's Theorems.
Prerequisite: MATH 300 Calculus III
MATH 325 LINEAR ALGEBRA - 3 semester hours F, Sp
Systems of linear equations, matrices, determinants, vector spaces, bases, dimensions, linear independence, eigenvalues and eigenvectors, and linear transformations.
Prerequisite: MATH 200 Calculus I or MATH 212 Introduction to Calculus

MATH 340 MODERN GEOMETRY I - 3 semester hours
A study of the foundations of Euclidean geometry including transformations deductive and inductive reasoning and an introduction to non-Euclidean geometries.
Prerequisite: MATH 121 College Algebra and Trigonometry II
MATH 341 MODERN GEOMETRY II - 3 semester hours Sp
Euclidean geometry, logic and incidence geometry, Hilbert's axioms, projective geometry, neutral geometry, parallel postulate - history and independence, Non-Euclidean geometry, geometric transformations, hyperbolic geometry and philosophical implications.
Prerequisite: MATH 340 Modern Geometry
MATH 350 DIFFERENTIAL EQUATIONS - 3 semester hours Sp
Solutions of ordinary differential equations with applications to science and engineering. Linear differential equations with constant coefficients using operator methods. Series solutions and applications.
Prerequisite: MATH 201 Calculus II
MATH 352 INTRODUCTION TO MATHEMATICAL BIOLOGY - 3 semester hours
F
This course is designed to develop mathematical models in biology and study the behavior of such models using numerical techniques and review the mathematical concepts behind many important biological principles. Topics will be drawn from conversation biology, genetics, and physiology. Mathematics and computational methods to be reviewed include functions in biology, difference and differential equations, integration as needed, probability, numerical matrix algebra and curve fitting software. Students can receive credit either for MATH 352 or BIOL 352 but not for both.
Prerequisites: MATH 200 Calculus I, BIOL 120 Principles of Biology I and BIOL 121 Principles of Biology II, or consent of instructor.

MATH 392 INTRODUCTION TO LINEAR PROGRAMMING - 3 semester hours
F
Matrices, vectors and vector spaces, linear programming; simplex method; duality, degeneracy, game theory, applications to transportation, warehouse, nutrition, and investment problems.

## Prerequisite: MATH 201 Calculus II

MATH 395 MATHEMATICS PROBLEM SOLVING SEMINAR - 3 semester hours
A seminar-based approach which examines areas including the appropriate uses of technology, cooperative learning projects, problem-solving, mathematics content on the state mandated licensing examination for Secondary Mathematics, and presentations by experienced mathematics educators and business leaders. Mathematical topics will include Algebra and Number Theory, Measurement, Geometry, Trigonometry, Functions, Calculus, Data Analysis and Statistics, Probability, Matrix Algebra and Discrete Mathematics. Students must register for and take the state mandated licensing examination for Secondary Mathematics as a requirement of the course. (May not be used as a mathematics elective).
Prerequisite: Admitted to Teacher Education Candidacy
MATH 400 ADVANCED CALCULUS I - 3 semester hours
F
Sets and functions, series and sequences of real numbers, limits and continuity in metric spaces, vector functions and multiple integrals, proofs.
Prerequisite: MATH 301 Multivariate Calculus
MATH 401 ADVANCED CALCULUS II - 3 semester hours
Uniform continuity, differentiability, line and surface integrals, convergence of series, uniform convergence, improper integrals, introduction to completeness, compactness and connectedness; Riemann - Stieltjes Integral.
Prerequisite: MATH 400 Advanced Calculus
MATH 425 MODERN ALGEBRA - 3 semester hours
Abstract groups, subgroups, cyclic groups, groups of symmetries, even and odd permutations, the alternating group cosets, normal subgroups, Lagrange's theorem, quotient groups, solvable groups, mappings, group homomorphisms, isomorphisms.
Prerequisite: MATH 201 Calculus II

MATH 426 MODERN ALGEBRA - 3 semester hours
Sp
Rings, ring homomorphisms, subrings, ideals, quotient rings, integral domains, polynomial extensions of rings, fields and field extensions.

## Prerequisite: MATH 425 Modern Algebra

MATH 432 THEORY OF FUNCTIONS - 3 semester hours
Sp
Brief introduction of Complex numbers and its properties, Elementary functions of Complex variable, Analytic functions and its basic properties, Contour integration, Cauchy's Theorem and Integral formula, Maximum modulus principles, Series representation of analytic functions, Taylor's Theorem, Classification of singularities, Laurent series, Calculation of residues.

## Prerequisite: MATH 301 Multivariate Calculus

MATH 445 INTRODUCTION TO POINT SET TOPOLOGY - 3 semester hours
Metric spaces, topological spaces, separation axioms, connectedness, compactness, homeomorphisms and product spaces.
Prerequisite: MATH 300 Calculus III or MATH 425 Modern Algebra
MATH 452 NUMERICAL ANALYSIS - 3 semester hours
A survey of modern numerical methods with emphasis on those best suited for digital computer application. Polynomial interpolation, iterative methods for solving simultaneous linear and non-linear equations, solutions of algebraic equations, solutions to differential equations.
Prerequisite: MATH 201 Calculus II

## MATH 470 HISTORY OF MATHEMATICS - 3 semester hours

F
An introduction to the chronological history of mathematics and the mathematics who made significant contributions, emphasizing the evolution of basic concepts ranging from primitive number systems through the foundations of set theory. Topics include development of Mathematical concepts in ancient societies, pre-Calculus and Calculus of the seventeenth century; and a historical review of mathematical analysis, probability, statistics, algebra, number theory and geometry.

MATH 490 GRAPH THEORY - 3 semester hours
F, Sp
Introduction to graphs and digraphs, introduction to algorithms, tree, networks, Eulerian and Hamiltonian graphs, planar graphs, coloring of graphs.
Prerequisites: MATH 201 Calculus II; CSCI 281 Discrete Structures
MATH 495 MATHEMATICS SEMINAR - 3 semester hours
F, Sp
Required of all senior mathematics majors. A capstone course designed (1) review, unify, and extend concepts and skills developed in previous mathematics courses; (2) give students additional experience in presenting mathematical concepts in oral and written form and improving problem-solving skills; (3) assess students' comprehensive mathematical knowledge through the administration of a departmental Field Test. Students will be expected to achieve a satisfactory level of performance on the Field Test in order to be eligible for graduation.

## Prerequisite: Senior academic standing or by permission of instructor

MATH 499 GRE MATHEMATICS REVIEW - 3 semester hours
Sp, Su
Whole numbers, fractions, decimals, percents, signed numbers, averages and medians, powers, exponents and roots, algebraic expressions, equations, verbal problems, counting problems, ratio and proportions, sequence and progressions, inequalities, lines, polygons, tri-angles, quadrilaterals, circles, area and perimeter, coordinate geometry, tables, circle, line and bar graphs, cumulative graphs, analytical reasoning tactics, and logical reasoning tactics. A considerable part of the course will be devoted to practice tests similar to quantitative tests of GRE in order to develop the problem-solving and test-taking techniques required.

## STATISTICS

STAT 210 ELEMENTARY STATISTICS - 3 semester hours F, Sp, Su
An introductory statistics course without a calculus prerequisite. Presentation of data, frequency distributions, descriptive statistics, elementary concepts of probability, random variables, binomial and normal distributions, sampling procedures, student's t-test, linear correlation. Interpretation of examples of data which occur in daily life. This course cannot be taken as a mathematics elective by mathematics majors.
Prerequisites: GEMA 112 Basic Mathematics I; GEMA 113 Basic Mathematics II or the equivalent

## STAT 310 ELEMENTARY STATISTICS II - 3 semester hours

An applied statistics course designed for students who have some background in college algebra. Sampling of attributes, comparison of several samples, one-way analysis of variance, sign test, median test, Kruskal-Wallis test and test for randomness, simple regression analysis and test of correlation coefficients. Some use of Statistical packages for the Social Sciences.
Prerequisite: STAT 210 Elementary Statistics I or equivalent

## STAT 330 INTRODUCTION TO PROBABILITY AND STATISTICS - 3 semester hours F, Su

An introductory course in probability and statistics with an elementary calculus prerequisite. Elementary descriptive statistics, basic probability rules, conditional probability, independence, B ayes' theorem, discrete and continuous probability distributions, probability density functions, binomial, Poisson, hypergeometric, negative binomial, geometric and normal distributions.
Prerequisite: MATH 201 Calculus II

## STAT 380 PROBABILITY AND STATISTICS I - 3 semester hours

Sp
Mathematical derivations, computational formulas, and applications and interpretations associated with the techniques of probability theory and elementary statistical inference will be emphasized. Moment-generating functions, basic sampling distribution theory, $t$ and chi-square distributions, one-sample estimation and tests of hypotheses. Prerequisites: MATH 201 Calculus II; STAT 330 Introduction to Probability and Statistics

## STAT 382 INTRODUCTION TO SAMPLING METHODS - 3 semester hours <br> Sp

A course that presents the basic ideas of sampling: random, stratified, systematic and cluster sampling, ratio and regression estimates, estimation of sample size, sampling methods in social, economic and biological surveys, sources of error in surveys.
Prerequisite: STAT 380 Probability and Statistics I

## STAT 385 ANALYSIS OF VARIANCE - 3 semester hours <br> Sp

A survey of the theory, methodology, and practical applications of analysis of variance (ANOVA). Topics will include: one-factor and two-factor ANOVA; multiple comparisons; two-factor and three-factor balanced factorial designs with interactions; random, fixed and mixed-effect models; contrasts and confounding; and the regression approach to ANOVA. Prerequisite: STAT 310 Elementary Statistics II or STAT 380 Probability and Statistics I

## STAT 410 ADVANCED STATISTICAL METHODS - 3 semester hours <br> F, Su

A course designed for students who plan to apply statistical methods in the context of research problems in social sciences, natural sciences, agriculture and education. Uses of computers and packaged computer programs are emphasized.
Prerequisite: STAT 310 Elementary Statistics II or STAT 385 Analysis of Variance

## STAT 480 PROBABILITY AND STATISTICS II - 3 semester hours

F
A course emphasizing the statistical techniques which are useful in the treatment of multiple samples. Topics include the properties of joint discrete and continuous probability distributions, conditional and marginal distributions, covariance, independent random variables, estimation and hypothesis testing of population parameters in the twosample case, chi-square tests, and simple linear regression and correlation.
Prerequisite: STAT 380 Probability and Statistics I

STAT 481 NONPARAMETRIC STATISTICS - 3 semester hours
A course which examines statistical techniques which are applicable even if the form of the sampled population is unknown. Wilcoxon rank-sum test, Mann-Whitney U-test, sign test, Wilcoxon signed-rank test, tests for randomness, Spearman's correlation, Kolmogorov-Smirnov statistics, Tukey's quick test, Friedman and Cochran's test, computer programs.
Prerequisite: STAT 380 Probability and Statistics I
STAT 482 APPLIED MULTIVARIATE STATISTICS - 3 semester hours
A course in multivariate methods using matrix algebra and applied statistics to analyze several correlated measurements made on each experimental unit. Multivariate normal distribution, estimation and hypotheses testing in multiple regression, Hotelling's T, one-way multivariate analysis of variance, introduction to discriminant and factor analysis, principal components and canonical correlations. Multivariate analysis programs from BMD and SPSS will also be discussed.
Prerequisite: STAT 310 Elementary Statistics II or STAT 410 Advanced Statistical Methods
STAT 484 APPLIED PROBABILITY - 3 semester hours
A course designed to apply probability theory to the study of phenomena in engineering, management science, operations research, and the physical and social sciences. Markov's inequality, conditional expectation, Markov chains, Chapman-Kolmogorov equation, interarrival and waiting time distributions.

## Prerequisite: STAT 480 Probability and Statistics II

STAT 490 PROBABILITY THEORY - 3 semester hours
A rigorous development of the theory of probability, emphasizing the axiomatic development of the subject. Formal probability systems, conditional probability, sequences of events, independence of events, random variables, probability density and distribution functions, joint distributions, independence of random variables, functions and transformations of random variables, fundamental limit theorems.
Prerequisites: At least two 400-level courses or consent of the instructor

## DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE Bachelor of Science Degree - Computer Science Major

|  |  | Semester Hours |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1{ }^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hour |
|  | FRESHMAN YEAR |  |  |  |
| CSCI 120 | Problem Solving Using Comp | 3 | - | 3 |
| CSCI 150 | Programming in $\mathrm{C}++\mathrm{I}$ | - | 3 | 3 |
| MATH 120 | College Algebra \& Trig I | 3 | - | 3 |
| MATH 121 | College Algebra \& Tri II | - | 3 | 3 |
| ENGL 110 | Composition I | 3 | - | 3 |
| ENGL 111 | Composition II | - | 3 | 3 |
| FRST 101 | Freshmen Studies | 2 | - | 2 |
| GEPS 124 | Introduction to Psychology | - | 3 | 3 |
| PHYS, CHEM or BIOL | Lab Science | 4 | - | 4 |
| PHYS, CHEM, BIOL | Lab Science II | - | 4 | 4 |
|  |  | 15 | 16 | 31 |
| SOPHOMORE YEAR |  |  |  |  |
| CSCI 250 | Programming in C++ II | 3 | - | 3 |
| CSCI 260 | Object Oriented Programming | - | 3 | 3 |
| MATH 200 | Calculus I | 3 | - | 3 |
| MATH 201 | Calculus II | - | 3 | 3 |
| MATH 280 | Discrete Mathematics | 3 | - | 3 |
| CSCI 281 | Discrete Structures | - | 3 | 3 |
| LITERATURE | Elective | 3 | - | 3 |
| PHYS, CHEM or BIOL | Lab Science | - | 4 | 4 |
| SOCIAL SCIENCE | Elective | 3 | - | 3 |
| PHIL 275 or PHIL 450 | Ethics or Applied Ethics | - | 3 | 3 |
| WELLNESS/HEALTH | Elective ${ }^{1}$ | $\underline{2}$ | - | $\underline{2}$ |
|  |  | 17 | 16 | 33 |
| JUNIOR YEAR |  |  |  |  |
| CSCI 387 | Data Structures | 3 | - | 3 |
| CSCI 388 | Architecture and OS | - | 3 | 3 |
| CSCI 303 | Computer Org. and Assembly Pro | 3 | - | 3 |
| CSCI 356 | Database System | - | 3 | 3 |
| MATH 325 | Linear Algebra | 3 | - | 3 |
| CSCI 389 | Human Comp Interaction | - | 3 | 3 |
| MATH 300 | Calculus III | 3 | - | 3 |
| STAT 340 | Probability and Stat for Comp Science | - | 3 | 3 |
| GEEN 310 | Advanced Communication Skills ${ }^{2}$ | 3 | - | 3 |
| CSCI | Elective | - | 3 | 3 |
|  |  | 15 | 15 | 30 |
| SENIOR YEAR |  |  |  |  |
| MATH/CSCI/CPEG/CISY | Elective | 3 | - | 3 |
| CSCI 495 | Topics in CS | - | 3 | 3 |
| CSCI 493 | Senior Project | 3 | - | 3 |
| CSCI 485 | Programming Languages | - | 3 | 3 |
| CSCI | Elective | 3 | - | 3 |
| MATH 452 | Numerical Analysis | - | 3 | 3 |
| HUMANITIES | Elective | 3 | - | 3 |
| CSCI/CPEG/CISY | Elective | - | 3 | 3 |
| HISTORY | Elective | - | 3 | 3 |
|  |  | 12 | 15 | 27 |

[^3]
## DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE Mathematics with a Minor in Secondary Education 6-12

|  |  | Semester Hours |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1{ }^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hour |
|  | FRESHMAN YEAR |  |  |  |
| MATH 200 | Calculus I | 3 | - | 3 |
| MATH 201 | Calculus II | - | 3 | 3 |
| CSCI 120 | Problem Solving | 3 | - | 3 |
| CSCI 150 | Programming in C++ | - | 3 | 3 |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| Elective | History | - | 3 | 3 |
| ENGL 110 | Composition I | 3 | - | 3 |
| ENGL 111 | Composition II | - | 3 | 3 |
| PHYS, CHEM or BIOL | Laboratory Science I | 4 | - | 4 |
| PHYS, CHEM or BIOL | Laboratory Science II | - | 4 | 4 |
| IDST 100 (if needed) | Analytical Reading/Reasoning I | (2) ${ }^{* *}$ | - | - |
| IDST 101 (if needed) | Analytical Reading/Reasoning II | $=$ | $\frac{(2)}{}_{16}^{*}$ | 31 |
| SOPHOMORE YEAR |  |  |  |  |
| MATH 300 | Calculus III | 3 | - | 3 |
| MATH 301 | Multivariate Calculus | - | 3 | 3 |
| MATH 284 | Discrete Mathematics | 3 | - | 3 |
| MATH 290 | Foundations of Math | - | 3 | 3 |
| EDUC 201 | Intro to Teaching I | 2 | - | 2 |
| EDUC 202 | Intro to Teaching II | - | 2 | 2 |
| Elective | Literature | 3 | - | 3 |
| IDST 200 | Digital Media in Ed | - | 3 | 3 |
|  | Foreign Language ${ }^{(1)}$ | 3 | - | 3 |
|  | Foreign Language ${ }^{(1)}$ | - | 3 | 3 |
| WELLNESS/HEALTH | Elective ${ }^{(2)}$ | $\underline{2}$ | $=$ | $\underline{2}$ |
|  |  | 16 | 14 | 30 |
| JUNIOR YEAR |  |  |  |  |
| MATH 325 | Linear Algebra | 3 | - | 3 |
| MATH 350 | Differential Equations | - | 3 | 3 |
| STAT 330 | Intro to Probability \& Statistics | 3 | - | 3 |
| MATH 340 | Modern Geometry | - | 3 | 3 |
| MATH 395 | Math Problem-Solving Seminar | 3 | - | 3 |
| MATH | Elective (MATH 300 or higher) | - | 3 | 3 |
| HUMANITIES | Elective | 3 | - | 3 |
| PSYC 212 | Human Growth \& Develop | - | 3 | 3 |
| EDUC 315 | Data Driven Inst. Design | 3 | - | 3 |
| SPED 403 | Classroom Management | - | 3 | 3 |
|  |  | 15 | 15 | 30 |
| SENIOR YEAR |  |  |  |  |
| MATH 425 | Modern Algebra | 3 | - | 3 |
| EDUC 401 | Student Teaching Seminar | - | 3 | 3 |
| MATH 470 | History of Mathematics | 3 | - | 3 |
| EDUC 402 | Student Teaching | - | 3 | 3 |
| MAED 473 | Teaching Mathematics | 3 | - | 3 |
| MAED 402 | Student Teaching in Math | - | 9 | 9 |
| EDUC 424 | Critical Issues ED | 2 | - | 2 |
| EDUC 427 | Reading in Content Area | $\underline{3}$ | - | $\underline{3}$ |
|  |  | 14 | 15 | 29 |

${ }^{(1)}$ Recommend Spanish, one fulfills Humanities elective and one fulfills Global Studies elective ${ }^{(2)}$ Or may select two from among identified GEPE courses in the catalog
${ }^{* *}$ IDST 100/101 are not counted in semester hours or toward graduation requirment

## DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE <br> Bachelor of Science Degree - Cooperative Engineering Concentration

|  |  | Semester Hours |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1{ }^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hour |
|  | FRESHMAN YEAR |  |  |  |
| CSCI 120 | Problem Solving Using Comp | 3 | - | 3 |
| CSCI 150 | Programming in $\mathrm{C}++\mathrm{I}$ | - | 3 | 3 |
| MATH 200 | Calculus I | 3 | - | 3 |
| MATH 201 | Calculus II | - | 3 | 3 |
| ENGL 110 | Composition I | 3 | - | 3 |
| ENGL 111 | Composition II | - | 3 | 3 |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| GEPS 124 | Introduction to Psychology | - | 3 | 3 |
| PHYS 112 | General Physics I | 4 | - | 4 |
| PHYS 113 | General Physics II | $=$ | 4 | 4 |
|  |  | 15 | 16 | 31 |
|  | SOPHOMORE YEAR |  |  |  |
| MATH 300 | Calculus III | 3 | - | 3 |
| MATH 301 | Calculus IV | - | 3 | 3 |
| CHEM 101 | General Chemistry I | 4 | - | 4 |
| CHEM 102 | General Chemistry II | - | 4 | 4 |
| LITERATURE | Elective | 3 | - | 3 |
| MATH 350 | Differential Equations | - | 3 | 3 |
| CSCI 250 | Programming in C++ II | 3 | - | 3 |
| MATH 325 | Linear Algebra | - | 3 | 3 |
| PHYS 214 | General Physics III | 4 | - | 4 |
| PHYS 215 | General Physics IV | $=$ | 4 | 4 |
|  |  | 17 | 17 | 34 |
| JUNIOR YEAR |  |  |  |  |
| MATH 400 | Advanced Calculus | 3 | - | 3 |
| MATH 432 | Theory of Functions | - | 3 | 3 |
| STAT 330 | Intro to Probability \& Statistics | 3 | - | 3 |
| MATH 495 | Mathematics Seminar | - | 3 | 3 |
| PHYS 313 | General Physics V | 3 | - | 3 |
| MATH 452 | Numerical Analysis | - | 3 | 3 |
| GLOBAL STUDIES | Elective | 3 | - | 3 |
| HISTORY | Elective | - | 3 | 3 |
| GEEN 310 | Advanced Communication | 3 | - | 3 |
| HUMANITIES | Elective | - | 3 | 3 |
| GEHE 164 | Personal Health | $\underline{2}$ | - | $\underline{2}$ |
|  |  | 17 | 15 | 32 |

## DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE <br> Bachelor of Science Degree - Mathematics/Statistics Concentration

|  |  | Semester Hours |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1{ }^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hour |
|  | FRESHMAN YEAR |  |  |  |
| CSCI 120 | Problem Solving Using Comp | 3 | - | 3 |
| CSCI 150 | Programming in C++ I | - | 3 | 3 |
| MATH 120 | College Algebra and Trig I | 3 | - | 3 |
| MATH 121 | College Algebra and Trig II | - | 3 | 3 |
| ENGL 110 | Composition I | 3 | - | 3 |
| ENGL 111 | Composition II | - | 3 | 3 |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| GEPS 124 | Introduction to Psychology | - | 3 | 3 |
| PHY, CHEM or BIOL | Lab Science I | 4 | - | 4 |
| PHY, CHEM or BIOL | Lab Science II | - | 4 | $\underline{4}$ |
|  |  | 15 | 16 | 31 |
| SOPHOMORE YEAR |  |  |  |  |
| MATH 200 | Calculus I | 3 | - | 3 |
| MATH 201 | Calculus II | - | 3 | 3 |
| PHY, CHEM or BIOL | Lab Science III | 4 | - | 4 |
| PHY, CHEM or BIOL | Lab Science IV | - | 4 | 4 |
|  | Foreign Language ${ }^{1}$ | 3 | - | 3 |
|  | Foreign Language ${ }^{1}$ | - | 3 | 3 |
| LITERATURE | Elective | 3 | - | 3 |
| WELLNESS/HEALTH | Elective ${ }^{2}$ | - | 2 | 2 |
| CSCI 250 | Programming in C++ II | 3 | - | 3 |
| GEEN 310 | Advanced Communication | - | $\underline{3}$ | $\underline{3}$ |
|  |  | 16 | 15 | 31 |
| JUNIOR YEAR |  |  |  |  |
| MATH 300 | Calculus III | 3 | - | 3 |
| MATH 301 | Multivariate Calculus | - | 3 | 3 |
| STAT 330 | Intro to Probability \& Stat | 3 | - | 3 |
| STAT 380 | Probability \& Stat I | - | 3 | 3 |
| MATH 325 | Linear Algebra | 3 | - | 3 |
| MATH 392 or STAT 382 | Linear Programming or Intro to Sampling Methods | - | 3 | 3 |
| SOCIAL SCIENCE | Elective | 3 | - | 3 |
| MATH 350 | Differential Equations | - | 3 | 3 |
| MATH 290 | Foundation of Math | 3 | - | 3 |
| HISTORY | Elective | - | 3 | 3 |
| GEPE 165 | Personal Fitness | 1 | - | 1 |
|  |  | 16 | 15 | 31 |
| SENIOR YEAR |  |  |  |  |
| MATH 400 | Advanced Calculus I | 3 | - | 3 |
| MATH 401 or STAT 484 or STAT 490 | Adv Calc II or App Prob. or Probability Theory | - | 3 | 3 |
| MATH 445 or STAT 481 | Topology or Nonparametric Stat | 3 | - | 3 |
| MATH 445 or STAT 385 | Elective or Analysis of Variance | - | 3 | 3 |
| STAT 480 | Probability and Stat II | 3 | - | 3 |
| MATH 452 | Numerical Analysis | - | 3 | 3 |
| MATH 425 | Modern Algebra | 3 | - | 3 |
| MATH 432 | Theory of Functions | - | 3 | 3 |
| MATH 495 | Math Seminar | - | 3 | 3 |
|  |  | 12 | 15 | 27 |

[^4]${ }^{2}$ Or may select two from among identified GEPE courses in the catalog

## DEPARTMENT OF NURSING

Director:
Assistant Professors:

Karen Faison, Box 9059, Room 140NA, Hunter McDaniel, Phone: 524-6722<br>Beverly Brown, Delores Couch, Frances Montague

## Description of Department

The Department of Nursing offers the associate of science degree in nursing. This is a pre-licensure two year (5 semesters) program which prepares graduates for the National Council Licensure Examination for Registered Nurses (NCLEX-RN). As an RN graduates are eligible for employment in a variety of health care delivery settings to include but not limited to hospitals, health centers, ambulatory settings and private physician offices.

The Department of Nursing began the pre-licensure associate of science degree in nursing program Fall 2005. The first class will graduate in May, 2007. The nursing program received permission to enroll nursing students from the Virginia State Board of Nursing. This provisional approval is the initial status granted to a nursing education program which shall continue until the first class has graduated and the Board has taken final action on the application for approval. The Virginia State Board of Nursing sets forth regulations for approval of nursing education programs and the practice of professional nursing in Virginia. The Board has the authority to deny, revoke, or suspend a license issued, or to otherwise discipline a licensee upon proof that the licensee has violated any of the provisions of a specified Code of Virginia. Individuals with criminal records may be denied licensure and should contact the Virginia Board of Nursing for further information. The Board is located at 6603 West Broad Street, $5^{\text {th }}$ Floor, Richmond, Va. 23230-1712. The Board's contact number is 804-662-9909. The Virginia Board of Nursing is on the web at www.dhp.state.va.us/nursing .

The VSU Department of Nursing will seek accreditation through the National League for Nursing Accrediting Commission (NLNAC). A program seeking initial accreditation must apply for candidacy. Candidacy is a limited status granted after a staff review of the nursing education program's potential to achieve NLNAC accreditation. The NLNAC is located at 61 Broadway- $33^{\text {rd }}$ Floor, New York, NY 10006. The phone number is $800-669-1656$, ext. 153. The NLNAC is on the web at www.nlnac.org .

## ADMISSION REQUIREMENTS

Students applying for the Associate of Science Degree in Nursing must first meet the university requirements. After admission into the university, the student must apply for admissions to the Nursing Program by contacting the Department of Nursing for a separate application.

Admission into the program is competitive; therefore, the student should apply to the university early in the spring semester of the high school senior year. Students should apply to the nursing program by May 1 prior to the fall semester the student plans to enroll. The following additional application process is necessary for the Department of Nursing:

1. Submit a complete Department of Nursing Application. (Application to the VSU Undergraduate Program is not acceptable).
2. Write a two-page, typed essay entitled, "Three reasons I want to be a RN."

## Transfer Students

1. Students who have completed prior college coursework are also eligible to apply to the nursing program.
2. All completed coursework should be submitted to the university as part of the application packet.
3. Once the student has been accepted into the university, the student should apply to the nursing program by contacting the Department of Nursing for a separate application.
4. Transfer students are encouraged to apply to the university early during the spring semester to meet the May 1, deadline for applying to the Department of Nursing.

## Evaluation Process

1. Students who have completed the requirements will be accepted into the Nursing Program until the class is full. Students who are not accepted may reapply during the next application process.
2. When accepted into the nursing program, students must submit current (within 6 months) completed medical, dental and visual examinations. Evidence of current immunization status is required. All supporting health forms are due to the Department of Nursing within 30 days of notification of acceptance into the program.
3. In addition to routine immunizations, students must submit documentation of completion of the Hepatitis-B vaccination series (or be in the process of completion). Students who do not wish to receive the Hepatitis-B vaccination must sign a declination statement. Prior to enrollment, students must also submit evidence of varicella immunization status and current tuberculosis screening.
4. Students should be free of any mental, physical or chemical dependency condition, which could interfere with their ability to practice nursing. Clinical site affiliations require that students submit to a urine drug screen and criminal background check. The Virginia Board of Nursing may choose to deny licensure to any applicant who has ever been convicted or pled guilty or nolo contendere to the violation of any federal, state or other statue or ordinance constituting a felony or misdemeanor; or who has a mental, physical or chemical dependency condition that could interfere with his/her current ability to practice nursing. Applicants should confidentially discuss this information with the program director prior to pursuing the nursing program.
5. Students must earn a minimum cumulative grade point average of 2.0 to remain eligible for continued enrollment in the program. In order to take the next course in a sequence, a grade of C or higher must be earned in the previous course. Grades of C -, D or F are unacceptable in nursing or non-nursing co-requisite coursework.
6. Nursing courses are offered once a year. You must pass each nursing course each semester to complete the nursing program.
7. In addition to the costs of college tuition, book and materials, students in the nursing program are required to purchase student uniforms, accessories, and certain laboratory supplies. Students are also responsible for the cost of standardized tests, health examinations, drug screenings, criminal background checks and transportation to and from the University and the various clinical sites. It is recommended that all students carry accident insurance and personal health insurance due to the inherent risk of exposure to disease. The University does not assume responsibility for accidents/incidents that occur in the off campus clinical affiliations. The student assumes financial responsibility for accidents/incidents requiring medical attention.

## Associate of Science Degree Program Policies

Specific policies related to grading, promotion, and retention in the program are delineated in the Associate of Science Degree in Nursing Student Handbook, published annually and distributed when students begin their associate degree nursing courses. It is the student's responsibility to read the Handbook and follow the policies as described. The Handbook is discussed during the first nursing course.

## Nursing Curriculum Plan of Study* <br> Associate of Science in Nursing 69 Semester Hours

|  | First Semester <br> (Fall) | Semester <br> Fall | Semester <br> Spring | Hour |
| :--- | :--- | :--- | :---: | ---: |
| NURS 100 | Introduction to Nursing | 5 credits | - | 5 |
| MATH 120 | College Algebra | 3 credits | - | 3 |
| BIOL 110 | General Biology | 4 credits | - | 4 |
| FRST 101 | Freshman Orientation | 2 credits | - | 2 |
| ENGL 110 | English Comp. I | 3 credits | - | $\underline{3}$ |
|  |  |  |  | 17 |

Second Semester
(Spring)

| NURS 110 | Pharmacology for Nursing | - | 3 credits | 3 |
| :--- | :--- | :--- | :--- | ---: |
| NURS 150 | Principles of Nursing I | - | 5 credits | 5 |
| BIOL 318 | Anatomy and Physiology | - | 4 credits | 4 |
| PSYC 216 | Developmental Psychology | - | 3 credits | $\underline{3}$ |

Third Semester (Summer Session)

| ENGL 111 | English Comp. II | 3 credits | - | 3 |
| :--- | :--- | :--- | ---: | ---: |
| CISY 155 | Introduction to Technology | 3 credits | - | $\underline{3}$ |
|  |  |  |  | 6 |
| NURS 252 | Principles of Nursing II | 10 credits | - | 10 |
| NURS 250 | Dimensions Nursing | 1 credit | - | 1 |
| BIOL 319 | Anatomy and Physiology | 4 credits | - | $\underline{4}$ |
|  |  |  |  | 15 |

## Fifth Semester

 (Spring)NURS 255 Principles of Nursing III - 10 credits 10
NURS 256 The Practice of Nursing - 2 credits 2
BIOL 240 Microbiology - 4 credits $\underline{4}$
*This curriculum is effective Fall 2007 and replaces the original nursing curriculum.

## COURSE DESCRIPTIONS

NURSING 100 INTRODUCTION TO NURSING WITH LAB - 5 semester hours
NURS 100 is a fundamental nursing course required for all entering nursing students. This course introduces theories of nursing practice, the nursing process and beginning application of nursing skills.
Prerequisite: admission into the nursing program.
NURSING 110 PHARMACOLOGY FOR NURSING - 3 semester hours
F, Sp
NURS 110 focuses on the basic concepts of pharmacology with emphasis on the role of the nurse in developing a comprehensive approach to the clinical application of drug therapy through the use of the nursing process. The course is designed to assist in developing skills necessary for the safe preparation and administration of drug dosages.
Prerequisite: MATH 120 admission into the nursing program or permission of the department.
NURSING 150-PRINCIPLES OF NURSING I WITH LAB - 5 semester hours
NURS 150 continues the application of the nursing process and clinical practice theories acquired in NURS 100 to the management of adult clients with specific health needs related to selected medical-surgical conditions. Prerequisite: admission into the nursing program.

NURSING 250 DIMENSIONS OF NURSING - 1 semester hour
NURS 250 introduces the nursing student to contemporary factors affecting nursing care. The learner will explore concepts related to managing groups of patients, delegation, prioritization, care delivery strategies and working with two or more patients on the clinical setting.
Prerequisites: admission into the nursing program. This course will begin Fall 2008.
NURSING 252-PRINCIPLES OF NURSING II WITH LAB - 10 semester hours
F
NURS 252 has a dual focus: I. Pediatrics Nursing which focuses on the nursing care of infants, children and adolescents who are experiencing alterations in their health status and II. Obstetrics Nursing which focuses on the health care of child bearing women.
Prerequisites: admission into the nursing program.

NURSING 253 COMMUNITY HEALTH IN NURSING - 3 semester hours
NURS 253 prepares nursing students to deliver nursing care in community settings, providing care to individuals and families. General principles of community health nursing are presented to assist students to apply those principles to nursing practice.
Prerequisites: admission into the nursing program. This course will no longer be required after Fall 2007

NURSING 254 STRATEGIES OF HEALTH TEACHING IN NURSING - 2 semester hours
F
NURS 254 will explore effective health education strategies and techniques to assists clients to make knowledgeable decisions, cope more effectively with health and life-style alterations, and assume greater personal responsibility for their health. The focus of this course will be on principles of patient education strategies delivered by the professional nurse.
Prerequisites: admission into the nursing program. This course will no longer be required after Fall 2007.

NURS 255 PRINCIPLES OF NURSING III WITH LAB - 10 semester hours
NURS 255 has a dual focus: I. Adult Nursing focuses on nursing practice with clients experiencing acute, chronic and rehabilitation disorders and II. Psychiatric Nursing which focuses on comprehensive mental health care across the life span.
Prerequisites: admission into the program.
NURSING 256 THE PRACTICE OF NURSING - 2 semester hours
NURS 256 is a capstone nursing seminar that prepares students for professional nursing role. This course focuses on role development and NCLEX-RN success.
Prerequisites: admission into the nursing program.

## DEPARTMENT OF PSYCHOLOGY

| Chairperson: | Oliver Hill, Box 9079, Room 102 Hunter McDaniel Hall, Phone: 524-5938 |
| :--- | :--- |
| Professor: | Oliver Hill |
| Associate Professor: | Vernessa R. Clark, Reginald Hopkins, Christine Smith, Katrina Walker |
| Assistant Professors: | Renia Brown-Cobb, Kimberly Boyd-Starke |
| Instructor: | Bernice Carson |

## Description of the Department

The Department offers a program of general psychology on the undergraduate level. Graduate faculty members from this department offer a graduate program leading to the master's degree, with concentrations in general, clinical, or educational psychology. The undergraduate program emphasizes general psychology, which is basic to all areas of psychology and provides a foundation of preprofessional education for a variety of vocations. Through a departmental advisory system the faculty aids the major to find and pursue his or her area of greatest interest. Students who plan to prepare for school psychology, psychiatric or medical social work, guidance and counseling, vocational rehabilitation, clinical psychology, child development, law, criminal justice, medicine, religion, public service, or college teaching and research will find the psychology offerings to be fundamental to their goals.

The Department hosts a chapter of Psi Chi, the national honor society in psychology, which encourages and promotes high scholastic attainment. In addition, the Department sponsors a psychology club where membership is open to all psychology majors.

## Mission of the Department

The mission of the Department of Psychology is to provide a solid background of knowledge in the major areas of psychology and proficiency in the research methods of psychology, to prepare students for graduate study in the discipline, or employment in one of the human service fields.

## Objectives of the Department

The objectives of the Department are (1) to provide fundamental training in the science of psychology, thus, preparing psychology majors for advanced study in the field, (2) to contribute to the general education of all students by providing an understanding of the scientific approach to the study of human behavior, and (3) to offer instruction in the principles and applications of psychology for other departments that require psychology in the programs of their majors.

## Course Descriptions

## PSYCHOLOGY

PSYC 111 GENERAL PSYCHOLOGY - 3 semester hours
F, Sp
A basic course in psychology, serving as the foundation for subsequent courses on specialized topics. Required of all psychology majors.

PSYC 117 THE PSYCHOLOGY OF EARLY CHILDHOOD - 3 semester hours
A course designed to emphasize personality development of young children at the pre-school and primary levels.

PSYC 210 ADOLESCENT PSYCHOLOGY - 3 semester hours
Sp
Characteristics of behavior during the adolescent phase of development; personal social adjustments of the individual between childhood and adulthood.

PSYC 212 HUMAN GROWTH AND DEVELOPMENT - 2 semester hours F, Sp
A course designed primarily for students preparing to teach in elementary and secondary schools. It aids students in developing fundamental understanding of the patterns and sequence of development from conception through the adolescent period. Students are required to observe children under guidance and to apply some of the methods of child study.

PSYCH 216 DEVELOPMENTAL PSYCHOLOGY - 3 semester hours
F, Sp
A course which aims to develop a comprehensive theoretical base in developmental psychology. Complex processes of human development throughout the life span will be analyzed in systematic form and the major premises of developmental theorists will be critically examined. Supplemented by required observation and participation with children.

PSYC 305 PRACTICUM - 8 HRS. PRACTICE - 2 semester hours
Supervised field experience in mental health.

## PSYC 309 EXPERIMENTAL PSYCHOLOGY LABORATORY -1 semester hour F, Sp

Experiments conducted that illustrate techniques of control and statistical analysis in various areas of psychology. Focuses on human performance, equipment and laboratory procedures used in the performance. Must be taken concurrently with PSYC 310.
Prerequisite: PSYC 315 Quantitative Methods
PSYC 310 EXPERIMENTAL PSYCHOLOGY - 3 semester hours F, Sp
Experimental design of psychological research involving appropriate techniques of control and statistical analyses. Must be taken concurrently with PSYC 309.
Prerequisite: PSYC 315 Quantitative Methods

## PSYC 311 MENTAL HYGIENE - 3 semester hours

A critical consideration of the literature on mental health and personal adjustment. Emphasis is placed on the maintenance of wholesome personal-social relations and the prevention of serious mental disturbances.

## PSYC 313 COGNITIVE BEHAVIOR AND LEARNING - 3 semester hours <br> F, Sp

Focus on an analysis of cognitive behavior, such as attention memory, thinking, problem solving and metacognition and theories of learning. Instructional strategies in the use of cognitive behaviors to enhance learning will be discussed. The effects of psychological variables on learning will also be examined. Practical applications for educators, psychologists, developmentalists, and human service workers.
Prerequisite: Psychology 212 or Psychology 216
PSYC 314 EDUCATIONAL TESTS AND MEASUREMENTS - 3 semester hours F, Sp
A study of the general field of tests and measurements including elementary statistics. Concerned with the selection and administration of group tests of mental ability, aptitude, interest, achievement and personality.
Prerequisite: Psychology 212 or Psychology 216
PSYC 315 QUANTITATIVE METHODS IN PSYCHOLOGY - 3 semester hours F, Sp
A general introductory course to the study of methods and techniques of research in psychology with emphasis upon research design and statistical concepts. Some automatic data processing experience is also provided.
Prerequisite: STAT 210

## PSYC 316 ABNORMAL PSYCHOLOGY - 3 semester hours <br> Sp

A study of the origins and symptoms of psychopathological behavior. This course considers psychopathology from the major theoretical perspectives. The course is supplemented by required observations at selected agencies. Prerequisites: Psychology 111 and 216

PSYC 318 APPLIED PSYCHOLOGY - 3 semester hours
The application of psychological research in the solution of specific problems. Emphasis upon psychology industry (training, human engineering, fatigue, other conditions affecting work) and in advertising (attention, motivation, imagery appeal).

PSYC 325 PERSONALITY DEVELOPMENT - 3 semester hours
A survey of theory and research on the development of the personality. Primary emphasis is upon the factors that shape personality. Class projects involve some laboratory work with children.
Prerequisites: GEPS 124 or Psychology 111
PSYC 400 SENIOR SEMINAR - 3 semester hours F
An integrative course designed to show the relationship among the separate courses pursued by the student in the undergraduate experience by an in-depth review of some of the major concepts and issues in psychology. Prerequisite: Senior status as a Psychology Major

## PSYC 401 TOPICS IN PSYCHOLOGY - 3 semester hours

Involves a critical discussion of current theoretical and experimental issues in four areas of psychology: African-American experiences, Spiritual Experiences, Adulthood and Aging, and Selected Issues in Psychology. One topic will be offered each semester, and the course may be repeated once for credit.

PSYC 410 INTRODUCTION TO PSYCHOLOGICAL TESTING - 4 semester hours
Focuses on supervised intellectual assessment of children and adults using such instruments as WAIS, WISC, WPPSI and Stanford-Binet. Relevant literature on the concept of intelligence and test construction is required reading. Practice in report writing is provided.
Prerequisites: PSYC 216
PSYC 411 DIAGNOSTIC PROCEDURES FOR EXCEPTIONAL CHILDREN - 4 semester hours
A study of psychodiagnostic procedures useful in evaluating the abilities of exceptional children and youth. Includes how to select and administer appropriate tests of intelligence, personality, and specific disabilities, and how to utilize the findings in planning pupil experience.

## Prerequisite: Psychology Introduction to Psychological Testing

PSYC 412 PHYSIOLOGICAL PSYCHOLOGY - 3 semester hours
F
A study of the physiological systems of the human organism as a basis for psychological reactions, with special reference to the endocrine and central nervous systems.
Prerequisites: Biology 315 and 316
PSYC 413 HISTORY AND SYSTEMS OF PSYCHOLOGY - 3 semester hours
Sp
The history of scientific psychology through a critical analysis of the major psychological systems, stressing the problems, methods, and contribution of each and the philosophical and physiological foundations of the discipline.
Prerequisite: Senior or Graduate Status
PSYC 414 - PERCEPTION - 3 semester hours
The various theories of perception and the experimental research relating to them.

## PSYC 415 CULTURE AND PERSONALITY - 3 semester hours

A course designed to enhance the general education of students regardless of their majors. A cross-cultural approach to the study of personality and national character by examining the value systems, institutions, culture traits and child-rearing practices of diverse cultures.

PSYC 416 THE TEACHING OF PSYCHOLOGY IN SECONDARY SCHOOL - 3 semester hours F
Focuses on methods and materials of instruction in psychology at the secondary level, with emphasis on the design of laboratory activities, the implementation of ethical principles, and arrangement of major topics within psychology under the core areas. Students will explore lecture, discussion inquiry, audiovisual presentations, core history analysis, role playing, simulation, field work, demonstration, experiments, research projects as techniques for making abstract conceptions of psychology more accessible.

## PSYC 417 PSYCHOLOGICAL DEVELOPMENT THROUGH THE PRIMARY YEARS

## - 3 semester hours

A course designed for teachers seeking certification in early childhood education (K-3), and for those students pursuing the master's degree in early childhood education. Aims to develop an understanding of psychological growth and personality development during the first decade of life. Not open to students who have credit for Psychology 117.

A course examining the dynamics of the behavior of disadvantage groups. After an analysis of major historical revolutions, the focus is turned to contemporary groups who occupy disadvantaged positions in American society, such as migrants, ghetto dwellers, Native American Indians, Mexican-Americans, et. al
Prerequisite: Upperclass or Graduate Status
PSYC 419 INTRODUCTION TO SCHOOL PSYCHOLOGY - 3 semester hours
A course designed to acquaint the student with educational policies and procedures and the role of the school psychologist.
PSYC 420 DRUGS AND BEHAVIOR - 3 semester hours
A course designed to aid students in understanding the chemistry of certain drugs and their effects upon the organism as well as the psychological changes that accompany them, and to aid service providers in dealing constructively with the problem.
Prerequisites: Junior Status and above
PSYC 421 LANGUAGE AND COGNITIVE DEVELOPMENT - 3 semester hours
Sp
An overview of recent advances in the understanding of language acquisition and cognitive development in the child. It emphasizes several major theoretical positions and associated empirical works.

## Prerequisite: Junior Status and above

PSYC 424 RESEARCH IN PSYCHOLOGY - 3 semester hours
Independent research project done under the supervision of a faculty member.
Prerequisite: PSYC 309 Experimental Psychololgy Lab and PSYC 310 Experimental Psychology
PSYC 429 CRISIS INTERVENTION STRATEGIES - 3 semester hours
F
A course designed primarily to give students an opportunity to learn how to select and utilize psychological knowledge for the determination of appropriate strategies for crisis intervention situations. The course is supplemented by field work in selected agencies.

## Prerequisite: Consent of Instructor

PSYC 430 THE CLINICAL INTERVIEW - 3 semester hours
A seminar designed to provide an understanding of the relationship of theory to practical experience and skillbuilding in the use of the interview process. Emphasis is upon employing the interview to establish and maintain support with human service recipients.
Prerequisite: Consent of Instructor

DEPARTMENT OF PSYCHOLOGY
Bachelor of Science Degree in Psychology

|  |  | Semester Hours |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1{ }^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
|  | FRESHMAN |  |  |  |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| PSYC 110 | Introduction to Psych. I | 3 | - | 3 |
| GEPE | Physical Education Elective | 1 | - | 1 |
| FOREIGN LANGUAGE | (200 level or above) | 3 | - | 3 |
| MATH 120 | College Algebra and Trig. | 3 | - | 3 |
| ENGL 110 | Composition I | 3 | - | 3 |
| ENGL 111 | Composition II | - | 3 | 3 |
| PSYC 111 | Introduction to Psych. II | - | 3 | 3 |
| FOREIGN LANGUAGE | (200 level or above) | - | 3 | 3 |
| HUMANITIES ELECTIVE | (Not philosophy) | - | 3 | 3 |
| GEBI 116 | Biological Science \& Lab | - | 3 | 3 |
|  |  | 15 | 15 | 30 |
|  | SOPHOMORE |  |  |  |
| GEHI 114 or GEHI 115 | World History | 3 | - | 3 |
| ENGL 201 | Intro to Literature | 3 | - | 3 |
| GEPE | Physical Education Elective | 1 | - | 1 |
| PSYC 216 | Developmental Psychology | 3 | - | 3 |
| GE NATURAL SCIENCE LAB | Natural Science Lab | 4 | - | 4 |
| GEHI 122 or 123 | U.S. History | - | 3 | 3 |
| PSYC 214 | Social Psychology | - | 3 | 3 |
| GEPE | Physical Education Elective | - | 3 | 3 |
| GE | Technology Elective | - | 3 | 3 |
| GEEN 310 | Advanced Comm. Skills | - | 3 | 3 |
| STAT 210 | Elementary Statistics | - | 3 | $\underline{3}$ |
|  |  | 14 | 18 | 32 |
|  | JUNIOR YEAR |  |  |  |
| GEPI 140 | Philosophy | 3 | - | 3 |
| PSYC 311 | Mental Hygiene | 3 | - | 3 |
| PSYC 325 | Personality Development | 3 | - | 3 |
| BIOL 315 | Human Anatomy | 3 | - | 3 |
| PSYC 315 | Quantitative Methods | 3 | - | 3 |
| PSYC ELECTIVE | Elective | - | 3 | 3 |
| PHIL ELECTIVE | Elective | - | 3 | 3 |
| BIOL 316 | Human Physiology | - | 3 | 3 |
| PSYC 310 | Experimental Psych Lec | - | 3 | 3 |
| PSYC 309 | Experimental Psych Lab | - | 1 | 1 |
| PSYC 316 | Abnormal Psychology | - | 3 | 3 |
|  |  | 15 | 16 | 31 |

## SENIOR YEAR

SOCIAL SCIENCE
PSYCHOLOGY
GEPE
PSYC 412
PSYC 314 or 410
UNRESTRICTIVE ELECTIVE UNRESTRICTIVE ELECTIVE SOCIAL SCIENCE PSYCHOLOGY
PSYC 413

| Restrictive Elective | 3 | - | 3 |
| :--- | :---: | :---: | :---: |
| Elective | 3 | - | 3 |
| Physical Education Elective | 1 | - | 1 |
| Physiological Psychology | 3 | - | 3 |
| Test \& Meas or Intro to Psych Testing | 3 | - | 3 |
| Unrestrictive Elective | - | 3 | 3 |
| Unrestrictive Elective | - | 3 | 3 |
| Restrictive Elective | - | 3 | 3 |
| Elective | - | 3 | 3 |
| History and Systems | $\overline{-}$ | $\underline{3}$ | $\underline{3}$ |
|  | 13 | $\underline{15}$ | $\underline{28}$ |

## SCHOOL OF LIBERAL ARTS AND EDUCATION Mission of School

The mission of the School of Liberal Arts and Education is to maintain a world class vision of excellence which is designed to prepare students to assume productive leadership roles anywhere in the world. To this end, high quality faculty, staff, and administrators are sought to provide world class leadership programs that integrate instruction, technology, research, public service, and professional development activities.

## Goals

The School of Liberal Arts and Education will fulfill its mission by:

- Constantly assessing all personnel and programs and restructuring when deemed necessary to achieve the mission;
- Creating innovative programs that address global trends and issues, accommodate traditional and non-traditional students, and carve a world class niche for the School;
- Continually integrating contemporary technology into the academic and administrative routines of the School;
- Ensuring that programs and resources are managed efficiently by competent professionals;
- Maintaining accreditation in those disciplines which have achieved such status and acquiring accreditation in those programs whose academic standards merit such recognition.
- Providing effective academic support, professional development, and co-curricular programs that provide opportunities for students to: benefit from the guidance of caring, competent, and visionary professionals; graduate in a timely fashion; secure leadership positions or graduate school opportunities in their chosen professions; acquire appropriate social acumen; and learn to communicate effectively with persons from diverse backgrounds.
- Securing external funds to operate world class programs through a variety of research, grantsmanship, and funddevelopment activities.
- Recruiting traditional and non-traditional students whose academic, co-curricular, and other experiences suggest that they are desirous of completing School of Liberal Arts and Education programs.
- Developing strategic alliances with school systems, community colleges, other four-year institutions, corporate affiliates, local businesses, civic and social organizations, alumni groups, and a variety of other constituencies.
- Providing concomitant professional development opportunities for faculty, staff and administrators.
- Utilizing contemporary communicative strategies and vehicles to market the School's programs on a world-wide basis.
- Employing a participatory style of governance that invites input from faculty, staff, administrators, students in general, and student leadership groups, advisory boards, alumni, parents, community partners, and other constituencies.


## Organization of the School

The School of Liberal Arts and Education consists of seven undergraduate departments and the ROTC Department. Programs focusing on the humanities and social sciences serve to strengthen critical thinking and analysis, problemsolving capabilities, communication skills and interpretive insights.

The Education programs provide students with a strong foundation in the arts and sciences on which to build their skills in teaching. The teaching endorsement qualifies the students for teaching positions throughout the country. The Education programs are accredited by the National Council for the Accreditation of Teacher Education and approved by the Virginia Department of Education.

## Major Programs of Undergraduate Study

Students pursuing undergraduate study may major in the following programs:

## Economics

Administrative Systems Management

Center for Undergraduate Professional Education Programs<br>Interdisciplinary Studies:<br>Teaching Endorsement Elementary Education (PreK-6)<br>Teaching Endorsement Special Education<br>Emotionally Disturbed (K-12)<br>Learning Disabled (K-12)<br>Mentally Retarded (K-12)

## Health, Physical Education \& Recreation with concentrations in

Health and Physical Education, PreK-12 Teaching Endorsement
Recreation
Sport Management
Health
Dance

## History and Philosophy

History
History, Secondary Teaching Endorsement

## Languages and Literature

English
English, Secondary Teaching Endorsement
English with Mass Communications Minor
French, German, or Spanish Concentration Mass Communications

## Military Science (Minor)

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Music, Art and Design
    Art and Design
    Visual Communications
    Studio Concentration
    Music
        Choral Music Teaching Endorsement (Vocal)
    Instrumental Music Teaching Endorsement (Brass, Percussion, String)
    Music Performance (Instrument, Keyboard, Vocal)
```


## Political Science and Public Administration

Political Science
Public Administration
Legal Studies Minor Program
Minor Program in Political Science
Sociology, Social Work and Criminal Justice
Criminal Justice
General Sociology
Social Work

## Special Opportunities

In the liberal arts, interdisciplinary study in international affairs enhances opportunities for students to study abroad. Internships and cooperative work assignments provide managerial experiences for students with private firms and government agencies. Special assignments in the Governor's Office and with state legislators provide students with insights into public policy.

## Special Facilities and Equipment

WVST, the campus radio station, and the Virginia State Television Network (VSUN), the units under the University Academic Technology Department provide production skill training and teach the use of current technologies. Computer-assisted writing laboratories assist students with special problems.

## Organizations and Clubs

There are many groups students can join to satisfy their intellectual interests or provide opportunities for cocurricular pursuits. There are clubs connected to academic disciplines that provide informal forums to discuss topics of interest in politics, languages, science, history, computers, literature, technology, and business, among others. There are organizations whose focus is on individual interests, such as dance, broadcasting, and journalism as well.

The Department of Languages and Literature offers several specific facilities: a digital production studio, a computer writing center, an electronic writing classroom, television editing laboratory, a radio laboratory, a foreign language laboratory, and a multimedia computer classroom.

The Department of Sociology, Social Work and Criminal Justice offers two specialized laboratories: a forensic laboratory and a computer laboratory.

## Other Pertinent Information

The School also offers graduate programs in a variety of areas. Please refer to the Graduate Catalog for details.

## DEPARTMENT OF ECONOMICS

Chairperson: Kwadwo Bawuah, Box 9046, Room 321, Singleton Hall, Phone: 524-5363<br>Professor:<br>Associate Professor:<br>Kwadwo Bawuah<br>Maxwell Eseonu, Ceslav Ciobanu<br>Assistant Professor: Richard Omotoye, Jae Kwang Hwang, Young Dimkpah

## Description and Mission of Department

Economics is the study of allocation of scarce resources, choice, and opportunity costs. Economic and financial principles underlie the operations and behavior of consumers, business firms, financial institutions, and governments in a domestic and global environment. Familiarity with these principles equips one to understand, predict, control, and react rationally to the changing economy. The Economics curriculum is designed to provide the practical and theoretical tools of analysis that permit one to solve real-world problems, as well as to understand broad economic and financial forces and institutions operating in the United States and the global arena. Majors follow a curriculum that develops a strong foundation in analytical, verbal, and written skills. These are of great use in themselves, but they also prepare students for a lifetime of learning after graduation. The program offers students job opportunities in business, finance, and government.

## Objectives of the Department

To see that our students have a competitive advantage in the market, the Department has set the following objectives.

- to foster development of requisite conceptual and analytical skills to apply economic and financial knowledge to contemporary domestic and global business, financial institutions, government, and social and political issues,
- to provide both theoretical and practical knowledge of U.S. business and financial institutions and public policy as well as alternative global institutions,
- to apply computer knowledge and skills in solving business, economic and financial problems through the application of economic and financial models,
- to sensitize and increase students understanding and participation in research and community service, and
- to prepare students for career opportunities in business, finance, and government or for graduate study in business, economics, finance, government, law, and related fields.


## Major Programs in the Department

The Department offers a Bachelor of Science and a Master of Arts degrees in the framework of liberal arts. The Liberal Arts option permits students a more individualized course of study with courses from within and outside the School of Liberal Arts and Education in such areas as Criminal Justice, Finance, Marketing, and Political Science.

Majors in Liberal Arts option qualify for an attractive range of career opportunities in financial institutions, businesses, and governmental institutions. Recent graduates have taken diverse positions as budget analyst, bank analyst, mortgage analyst, insurance underwriter, personnel officer, project manager, sales, and teaching. Professional programs, such as law, public administration, and business management look favorably on these concentrations as providing an excellent foundation for advanced study.

Majors may minor in Criminal Justice, Marketing, Finance, Management, Political Science, Public Administration, and Sociology. Students must take 18 hours in their respective minor programs. Students must take 18 hours in their respective minor programs. The minor courses must be at 300 levels or higher.

## Minor Programs

The minor program in Economics is designed to give students from other programs in the University the opportunity to diversify and complement their educational experience through a minor in economics. The program is especially recommend for students majoring in Criminal Justice, Marketing, Management, Political Science, Public Administration, and Sociology. It consists of 18 credit hours spread between nine hours of core courses and the remaining nine hours in an of the 300 level or higher elective courses in economics.

## Pre-Law Program

The program consists of careful elaborate mix of courses from other Departments and economics courses. It is designed to provide students with the opportunity to develop the logical, analytical, and other foundation skills necessary for successful undertaking a law school program.

## Other Departmental Information

The Department also offers a Master of Arts degree with the option of a concentration in Public Administration. See the Graduate Catalog for complete information on this program.

## Course Descriptions

## ECONOMICS

## ECON 100-3 semester hours

F, Sp, Su
A one-semester survey course designed to cover basic microeconomics and macroeconomics for those not planning further course work in the field. Basic microeconomic and macroeconomic theories are used to explain the economic system, the institutions that make up the system and their functions.

## ECON 210 PRINCIPLES OF MICROECONOMICS - 3 semester hours

F, Sp, Su
The course analyzes the price system and its functions in a market economy of distributing goods and services and allocating resources. Concepts include the examination of markets as they range from highly competitive to monopolistic.

## ECON 211 PRINCIPLES OF MACROECONOMICS - 3 semester hours

F, Sp, Su
The course analyzes national and international economic problems, such as inflation, unemployment, productivity, economic growth, and the balance of trade. Particular attention is given to the role of government policy as it seeks to improve economic performance in these areas.
Prerequisite: ECON 210 Principles of Microeconomics

## ECON 310 MICROECONOMICS - 3 semester hours

Microeconomics provides a foundation for understanding the basic organization and operation of the economy. The subject is developed from three aspects: demand analysis, theory of the firm, and market interaction.

## Prerequisite: ECON 210 Principles of Microeconomics

## ECON 313 MANAGERIAL ECONOMICS - 3 semester hours

The focus of this course is on the application of economic method to planning and decision making within the firm with respect to profit maximization, market structure, and forecasting.

## Prerequisite: ECON 210 Principles of Microeconomics

ECON 320 MACROECONOMICS - 3 semester hours

## ECON 321 FINANCIAL MARKETS AND INSTITUTIONS- 3 semester hours

F, Sp, Su
An economic analysis of financial instruments, markets, and institutions is presented. Topics include the commercial banking system and the money expansion process, the Federal Reserve System, monetary theory and policy; and international finance.
Prerequisite: ECON 210 Principles of Microeconomics, ECON 211 Principles of Macroeconomics

## ECON 330 ECONOMETRICS - 3 semester hours <br> Sp

Microeconomics and macroeconomics theories are presented in an analytical and researchable format. Econometric theories and procedures are introduced with an emphasis on application through explaining and predicting various economic phenomena using econometric software.
Prerequisite: ISDS 260 Business Statistics or equivalent
ECON 340 LABOR ECONOMICS - 3 semester hours
F
This course presents theories of the demand for labor, the supply of labor, unemployment, and wage determination. Related topics include investment in human capital, labor mobility, and unions and collective bargaining as they affect employment and earnings.
Prerequisite: ECON 210 Principles of Microeconomics; ECON 211 Principles of Macroeconomics

## ECON 350 ECONOMIC DEVELOPMENT - 3 semester hours <br> Sp

The focus of this course is on the examination and analysis of alternative theories of economic development in less developed countries. Special emphasis is placed on factors such as capital formation, population growth, institutions, policies and planning for development.
Prerequisite: ECON 210 Principles of Microeconomics; ECON 211 Principles of Macroeconomics

## ECON 366 ECONOMICS AND MINORITY GROUPS - 3 semester hours

This course examines and analyzes the economic problems and conditions of minority groups, including problems of the effects of numerous programs influencing that development; and strategies for economic and social changes. Prerequisite: One semester of Economics or permission of the instructor

## ECON 411 INDUSTRIAL ORGANIZATION AND REGULATION - 3 semester hours <br> Sp

Industrial organization and structure is analyzed in terms of market strategies, pricing, and the determinants of the most efficient firm size. Analysis and investigation of the rationale for government regulation of firms and the resulting economic impact is also covered.
Prerequisite: ECON 210 Principles of Microeconomics; ECON 211 Principles of Macroeconomics
ECON 423 PUBLIC FINANCE - 3 semester hours Sp
This course analyzes the economic effects of public expenditures, revenues, and indebtedness with reference to select tax and budgetary problems.
Prerequisite: ECON 210 Principles of Microeconomics; ECON 211 Principles of Macroeconomics
ECON 451 INTERNATIONAL ECONOMICS - 3 semester hours
Sp
International economics deals with the study of the theories of causes of trade, directions of trade, and the gains from trade, balance of payments, foreign exchange, and current trade policies and problems including international financial reforms.
Prerequisite: ECON 310 Microeconomics, or the approval of the instructor

## ECON 455 COMPARATIVE ECONOMIC SYSTEMS - 3 semester hours

The economic life under alternative systems in the world today is studied in this course. Emphasis is placed on capitalism, socialism, communism and democratic socialism.
Prerequisite: ECON 210 Principles of Microeconomics; ECON 211 Principles of Macroeconomics

## ECON 465 URBAN ECONOMICS - 3 semester hour

The focus of urban economics is on the economic functions of cities, metropolitan decentralization, urban growth and development, transportation, housing markets, urban renewal, local government finance, and poverty.
Prerequisite: ECON 210 Principles of Microeconomics; ECON 211 Principles of Macroeconomics

## ECON 470 HISTORY OF ECONOMIC THOUGHT - 3 semester hours

The course surveys the development of economic thought and the advancement of economic analysis, including the physiocrats, classicists, marginalists, socialists, neoclassicists, institutionalists, and contemporary schools.
Prerequisite: ECON 210 Principles of Microeconomics; ECON 211 Principles of Macroeconomics

## ECON 490 READINGS IN ECONOMICS - 3 semester hours

The readings course provides an opportunity for students to select topics not otherwise included in Economics course work. It requires intensive reading supervised by the instructor and reported on by the students.

## Prerequisite: ECON 210 Principles of Microeconomics; ECON 211 Principles of Macroeconomics, and

 approval of instructor
## ECON 498 ECONOMICS INTERNSHIP - 3 semester hours

The economics internship provides an opportunity for students to observe and be exposed to the application of economic theories and methods to practical work experience in a closely supervised environment.
Prerequisite: Junior standing and department approval.
ECON 499 SEMINAR IN ECONOMICS - 3 semester hours
Through this course a student will demonstrate the ability to choose a well-defined research topic or case review under faculty advising then proceed to search for essential information and correct procedures for analysis, write-up, and presentation.
Prerequisite: Senior standing

## DEPARTMENT OF ECONOMICS <br> Bachelor of Arts Degree in Economics

|  |  | Semester Hours |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
|  | FRESHMAN |  |  |  |
| ENGL 110 | Freshman Writing | 3 | - | 3 |
| ENGL 111 | Reading and Writing Lit. | - | 3 | 3 |
| MATH 120 | College Algebra and Trig | 3 | - | 3 |
| MATH 122 | Finite Mathematics | - | 3 | 3 |
| ASYM 130 | Introduction to Microcomputer | 3 | - | 3 |
| SCIENCE | GE Menu | - | 4 | 4 |
|  | Foreign Language | 3 | 3 | 6 |
| GEHI 122 | US History I | 3 | - | 3 |
| GEPI 140 | Intro to Philosophy | - | 3 | 3 |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| PHYSICAL EDUCATION | HPER Menu | $=$ | $\underline{2}$ | $\underline{2}$ |
|  |  | 17 | 18 | 35 |
|  | SOPHOMORE YEAR |  |  |  |
| ACCT 201 | Intro to Accounting | 3 | - | 3 |
| ECON 210 | Prin. of Microeconomics | 3 | - | 3 |
| ECON 211 | Prin. of Macroeconomics | - | 3 | 3 |
| STAT 210 | Elementary Statistics I | 3 | - | 3 |
| MGMT 270 | Legal Environment of Bus. | - | 3 | 3 |
| MATH 212 | Intro to Calculus | - | 3 | 3 |
| SCIENCE | GE Menu | 4 | - | 4 |
| ENGL 201 | Intro to Literature | 3 | - | 3 |
| GEEN 310 | Advanced Communication Skill | - | 3 | 3 |
|  | Non-Business Elective | - | $\underline{3}$ | 3 |
|  |  | 16 | 15 | 31 |
| JUNIOR YEAR |  |  |  |  |
| ECON 310 | Microeconomics | 3 | - | 3 |
| ECON 320 | Macroeconomics | - | 3 | 3 |
| ECON 321 | Finan. Markets and Inst. | 3 | - | 3 |
| FIN 350 | Principles of Finance | 3 | - | 3 |
| MKTG 300 | Principles of Marketing | - | 3 | 3 |
|  | Non-Business Electives | 3 | 3 | 6 |
|  | Upper Level Liberal Arts Electives | 3 | $\underline{6}$ | $\underline{9}$ |
|  |  | 15 | 15 | $\underline{3} 0$ |
| SENIOR YEAR |  |  |  |  |
| ECON 451 | International Economics | 3 | - | 3 |
| ECON 470 | Economic Thought | - | 3 | 3 |
| ECON 490 | Reading in Economics | - | 3 | 3 |
| ECON 498 or ECON 499 | Internship or Seminar in Economics | - | 3 | 3 |
|  | Econ Elective | 3 | - | 3 |
|  | Non-Business Upper Level Electives | 3 | 3 | 6 |
| HUMANITIES | GE Menu | 3 | - | 3 |
| GLOBAL STUDIES | GE Menu | $\underline{3}$ | - | $\underline{3}$ |
|  |  | 15 | 12 | 27 |

# Administrative Systems Management (formerly Business Education) 

## Description of Program/Mission

The mission of the Administrative System Management program is to prepare competent administrative managers who will enter positions in industry, government, and business as contributing members of an education workforce in the state and the nation. The program seeks to provide preparation for managing administrative and information processing activities of organizations. Several career paths are available to graduates of the program.

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The Administrative Systems Management Program provides courses to:
- prepare students for careers in administrative systems management,
- provide opportunities for development of leadership ability,
- several local and regional professional communities through provision of courses, workshops, and seminars designed (a) to strengthen existing knowledge and skills, (b) to provide for acquisition of additional and new competencies, and (c) to provide development and analysis tools for administrative systems problem solving.
- prepare students for graduate study in business education
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## Course Descriptions

## ADMINISTRATIVE SYSTEMS MANAGEMENT PROGRAM

## ASYM 101 KEYBOARDING -3 semester hours

F, Sp
Development of skill in touch keyboarding using microcomputers and other electronic technology; study of basic elements of style, format, and use of simple business forms.

ASYM 130 INTRODUCTION TO MICROCOMPUTERS - 3 semester hours F, Sp, Su A computer literacy course for those who desire to learn about the capability and applications of computers in today's society.

ASYM 201-202 WORD PROCESSING I and II - 3 semester hours
F, Sp
Acquisition of skill in microcomputer word processing and word processing applications to include emphasis upon production and decision-making skills.

ASYM 301 BUSINESS COMMUNICATIONS - 3 semester hours
F, Sp
Communications as a function of management. Development of language transactional skills, including effective interpersonal communications as tools in solving management problems.
Prerequisite: GE 110, 111
ASYM 306-307 INFORMATION PROCESSING I and II - 3 semester hours
F
Study of and development of skill in information processing elements as essential tools for management action. Includes skill development in data base management, spreadsheet use, graphics, multi-media presentations, and work processing; development of systematic methods of starting with raw data and proceeding to a comprehensive report. Study of telecommunications and artificial intelligence as appropriate.

## ASYM 315 ADMINISTRATIVE SYSTEMS TECHNOLOGY - 3 semester hours

F
Administrative/office systems analysis and design; study of fundamental systems: records management, reprographic, financial, communications, data/word/information processing.

## ASYM 401 BUSINESS REPORTING - 3 semester hours

Oral and written reporting in business. Includes planning, researching, organizing, and presenting oral and report; emphasis upon effective use of graphics and other visual aids; includes broad range of report formats, styles, functions, and content.
Prerequisite: Permission of Instructor

Planning organizing, and installing efficient office methods and systems; review and evaluation of micro-computer software; installation of software for word processing, spreadsheets, data bases, and telecommunications; employee supervision, management, recruitment, and retention; wage, salary, evaluation, and promotion plans.

ASYM 420, 421 ADMINISTRATIVE MANAGEMENT INTERNSHIP I AND II - 3 semester hours $\mathbf{F}$, $\mathbf{S p}$, Su Actual and simulated work experience integrating subject matter content of administrative management systems subjects. Includes opportunities for teaching in corporate training programs.

## ADMINISTRATIVE SYSTEMS MANAGEMENT MAJOR <br> Bachelor of Science Degree

|  |  | Semester Hours |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
| FRESHMAN YEAR |  |  |  |  |
| ENGL 110, 111 | Freshman Writing | 3 | 3 | 6 |
| HPER 170 | Health \& Wellness or 2 GEPE's (GE Menu) | - | 2 | 2 |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| GEHI 122 | U.S. History | 3 | - | 3 |
| MATH 120, 121 | College Algebra and Trigonometry | 3 | 3 | 6 |
| ELECTIVE | Restrictive Elective | 3 | - | 3 |
| ASYM 130 | Introduction to Microcomputers | - | 3 | 3 |
| GE | Laboratory Science (GE Menu) | - | 4 | 4 |
|  |  | 14 | 15 | 29 |
| SOPHOMORE YEAR |  |  |  |  |
| ACCT 201, 202 | Intro Accounting I and II | 3 | 3 | 6 |
| ASYM 201, 202 | Word Processing I and II | 3 | 3 | 6 |
| ECON 210 | Principles of Microeconomics | 3 | - | 3 |
| ECON 211 | Principles of Macroeconomics | - | 3 | 3 |
| MGMT 270 | Legal Environment | 3 | - | 3 |
|  | Restrictive Elective | - | 3 | 3 |
| GEPS 124 | Introduction to Psychology | 3 | - | 3 |
| GE | Laboratory Science (GE Menu) | - | 4 | 4 |
|  |  | 15 | 16 | 31 |
| JUNIOR YEAR |  |  |  |  |
| ASYM 301 | Business Communications | - | 3 | 3 |
| ASYM 306, 307 | Information Processing I and II | 3 | 3 | 6 |
| ASYM 315 | Admin Systems Technology | 3 | - | 3 |
|  | Literature Elective (GE Menu) | 3 | - | 3 |
| MKTG 300 | Marketing Principles | 3 | - | 3 |
| MGMT 381 | Organization \& Management | 3 | - | 3 |
| ELECTIVE | (See advisor) | - | 3 | 3 |
|  | Global Studies (GE Menu) | - | 3 | 3 |
| ASYM | Elective | - | 3 | 3 |
|  |  | 15 | 15 | 30 |
| SENIOR YEAR |  |  |  |  |
| ASYM 401 | Business Reporting | 3 | - | 3 |
| ASYM 410 | Administrative Management | 3 | - | 3 |
| ASYM 451 | Teaching Business Subjects I | 3 | - | 3 |
|  | Global Studies (GE Menu) | - | 3 | 3 |
| ASYM | Elective | - | 3 | 3 |
| ASYM 483 | Systems and Procedures | - | 3 | 3 |
| ELECTIVES | (See advisor) | 3 | 3 | 6 |
| GE | Humanities Electives (GE Menu) | 3 | 3 | $\underline{6}$ |
|  |  | 15 | 15 | 30 |

# DEPARTMENT OF HEALTH, PHYSICAL EDUCATION <br> RECREATION AND DANCE 

Chairperson: Andrew Kanu, Box 9066, Daniel Gymnasium, Phone: 524-5033<br>Associate Professor: Leon Bey, Benita Brown, Gilbert Gipson, Paulette Johnson, Andrew Kanu, Reginald Overton, Linda Person, Serena Reese<br>Assistant Professor: Harold Deane, Elijah Johnson

## Description of Department

The Department of Health, Physical Education and Recreation offers a wide range of curricula for Virginia State University students who wish to earn a Bachelor of Science Degree. Through teaching, research, and outreach-public service activities, the Department's goal is to prepare students to negotiate the demands of an ever-changing, highly competitive, and global profession.

The department in conjunction with the Center for Undergraduate Professor Education Programs offers teaching endorsement programs in Health and Physical Education (PreK-12). This program is listed under the Center for Teacher Education.

The Physical Education, PreK-12 Endorsement Program, is a National Council for Accreditation of Teacher Education (NCATE) and Virginia Department of Education approved curriculum. All departmental concentrations are State approved.

Students completing a course of study within the Department will have acquired those competencies necessary to function as exemplary practitioners in the contemporary marketplace and as potential candidates for graduate school.

## Mission of Department

The Department of Health, Physical Education, and Recreation (HPER) is a component of the School of Liberal Arts and Education (SLAE). In harmony with the mission of the SLAE, the HPER Department's purpose is to prepare professionals to serve the public in the areas of teaching, wellness, leisure and recreation, sports marketing, and allied fields.

This purpose is facilitated through teaching, research/technology-based activities, outreach-public service endeavors, practical experiences, and graduate school preparation strategies. These components are designed to prepare students to negotiate the demands of a global marketplace that require a sensitivity to members of diverse cultures and special populations.

## General Objectives of the HPER Department

The general objectives of the department are to:

- Provide students an opportunity to acquire a thorough knowledge of the principles of health science, physical education, leisure studies, personnel and program management, and allied professions.
- Prepare students to demonstrate competence in the teaching profession and to become exemplary practitioners in allied fields.
- Produce students who are effective and altruistic participants in community and civic affairs.
- Offer a diverse selection of course options to accommodate varied student interests and occupational pursuits.
- Prepare students to pursue graduate studies and other professional endeavours beyond the undergraduate level.
- Prepare students to remain active with professional organizations and engage in professional development activities.
- Prepare students to assume a variety of leadership roles and serve as productive managers, administrators, coaches, educators, and entrepreneurs.
- Produce students who are fully equipped to compete in a dynamic marketplace.
- Provide a learning environment that includes theoretical and practical experiences among its central foci
- Prepare students to negotiate the challenges of cultural pluralism and gender equity, and to accommodate the needs of the mentally and physically challenged.


## Programs (Major) in Department

To accomplish programmatic goals and accommodate the diverse interests of its students, the HPER Department has developed the following programs.

1. Health and Physical Education, PreK-12 Teaching Endorsement: For students seeking certification at the PreK-12 levels as health physical education teachers and for those interested in careers in coaching and athletic administration.

Total hours required for degree: 121 *Students must pass Praxis I and Praxis II before they are allowed to do student teaching.
2. Concentration: Recreation: Prepares students for professional leadership roles in resorts, outdoor educational environments, municipal parks, recreational agencies, tourism departments, correctional institutions, youth service agencies, industrial settings, religious-based agencies, and state and federal governmental agencies.
Total hours required for degree: 120
3. Concentration: Sport Management: Prepares students for careers as entrepreneurs, producers, advertisers, public relations specialists, fund developers, event managers, consultants, sales representatives, sports researchers, and corporate executives in the collegiate, amateur, and professional sports industries. Total hours required for degree: 120
4. Concentration: Health: Enables students to pursue careers in public health departments, hospitals, and private and public health agencies. It also prepares students to design and promote health and wellness programs, and to pursue graduate work in related fields. Total hours required for degree: 120
5. Concentration: Dance: Prepares students for a number of diverse employment opportunities in dance. Students may be employed as performers in a range of professional dance companies, smaller dance companies, public and private schools, colleges, private studios, recreation centers, children's dance programs, and drama departments. Students can find gainful employment as choreographers in dance, opera, musicals, comedy companies, Broadway, television, and videos. They can be employed as dance therapists in hospitals, mental health settings, Wellness centers, or other rehabilitation programs. The dance concentration prepares students for graduate study in dance so they may find jobs as dance critics, historians, and writers of movement notation.

Sankofa is the official theatrical dance company at VSU. It is the professional, performing arts extension of the dance concentration major and minor at Virginia State University. Students perform lyrical, modern, jazz, hip-hop, African-Diaspora, and traditional African dance in professional presentations throughout the University and surrounding community. Upon a successful audition, students must register for dance classes during each semester that the student is involved with Sankofa Dance Theater. Participation in "Sankofa" dance theatre is mandatory for majors and minors

## Other Departmental Information

The HPER Department features the Sankofa Dance Troupe. Interested students are encouraged to join this exciting performing arts group.

The HPER Department also offers two endorsement opportunities which are listed below:

## DRIVER EDUCATION (Add-on Endorsement)

Students seeking an add-on endorsement in Driver Education shall have an endorsement in a secondary area (such as Physical Education) and shall take:

| HLTH 143 | Principles of Accident Causation and Prevention | 3 hrs |
| :--- | :--- | :--- |
| HLTH 445 | Driver Education Instructional Principles | 3 hrs |

## Course Descriptions

## DANCE

DANC 101 BALLET I-2 semester hours
Introduction to the basic concepts, movement, and vocabulary of ballet technique.

## DANC 102 BALLET II - 2 semester hours

Further studies in the concepts, movement, and vocabulary of ballet technique.

## DANC 110 FRESHMAN REPERTORY - 3 semester hours

This course provides dance majors with a structured rehearsal experience that culminates in a performance.

## DANC 111 SPECIAL TOPICS IN DANCE -1 semester hour

For majors and non-majors involved in dance or theatrical productions. Students may register for this course repeatedly during each semester that the student is involved in a dance production.

## DANC 201 MODERN DANCE - 2 semester hours

An introduction to the concepts and disciplines of modern dance. Basic movement experiences to promote the understanding and cultivation of the body as an instrument of dance.

## DANC 202 MODERN DANCE II - 2 semester hours

Development of basic concepts, theory and technique in Modern Dance in preparation for performance. Students will create and perform their own choreography.

DANC 205 FOUNDATIONS OF DANCE - 3 semester hours
An introduction to career options focusing on dance as education, performance, recreation, and therapy-including the development of a dance portfolio and grant writing.

## DANC 210 REPERTORY - 3 semester hours

This course provides students with a structured rehearsal experience that culminates in performance. This class is repeatable.

## DANC 238 ANATOMY AND KINESIOLOGY FOR THE DANCER - 3 semester hours

A study of the human anatomy, emphasizing basic anatomical structures, kinesthetic movement, motor skills, musculature development, injury prevention and care, maintenance, and wellness for dancers.
Prerequisite: GEBI 116 Biology Science/Lab
DANC 250 DANCERCISE - 3 semester hours
Introduction to the basic concepts, movement, and vocabulary of dance in combination with conditioning and toning exercises specifically for the dancer. Aerobic dance activity, weightlifting and toning of the muscles are included in the course activities.

DANC 301 JAZZ DANCE I -1 semester hour
Introduction to movement experiences in Jazz Dance vocabularies used in contemporary dance an theater.

DANC 302 JAZZ DANCE II - 2 semester hours
Intermediary movement experiences in Jazz Dance vocabularies used in contemporary dance an theater.

## DANC 311 APPRENTICESHIP IN DANCE - 3 semester hours

Direct study with an experienced choreographer of the student's choice.

## DANC 315 RHYTHMIC TRAINING FOR DANCERS - 3 semester hours

Rhythmic timing and organization of movement in dance are analyzed for the purpose of adding clarity to performance, choreography and teaching skills. Beginning musical notation, scoring and accompaniment skills are developed for the purposes of creating choreographic structures.

DANC 327 DANCE COMPOSITION - 3 semester hours
A structural approach to creating choreography incorporating various themes, music, staging, and movement technique. Students will have laboratory assignments of creating dances with small groups.

## DANCE 328 ADVANCED DANCE COMPOSITION - 3 semester hours

The incorporation of various themes, music, staging, and movement technique. Students will have laboratory assignments of creating dances with small groups. Laboratory problems will include dance criticism and preparation problems in staging dance for the theater.

## DANC 355 INDEPENDENT STUDY IN DANCE - 3 semester hours

Structured research in dance on a topic of choice as agreed between the student and instructor.

## DANC 378 HISTORY OF DANCE AND THE BLACK EXPERIENCE - 3 semester hours

A survey course of dance history in America and the contributions of African Americans to historical and current trends in dance.

## DANC 401 AFRICAN/CARIBBEAN DANCE FORMS I - 3 semester hours

Introduction to the movement, history and socio-cultural implications that influence dance movements found in Africa and the Caribbean.

DANC 402 AFRICAN/CARIBBEAN DANCE FORMS II - 3 semester hours
Intermediate to advanced movement sequences as well as socio-cultural implications that accompany traditional dances found in Africa and the Caribbean.

## DANC 404 SOMATIC MOVEMENT AND THEATER - 3 semester hours

Interwoven interdisciplinary movement techniques exploring the interface of dance and drama. Includes dancing through mental imagery, interpreting stories, scripts, poetry, and technique of improvisation and composition.

## DANC 480 FIELD EXPERIENCE - 8 semester hours

Field experience of teaching dance to any population of students in preparation for a dance performance.

## Course Descriptions

## HEALTH

## HLTH 143 PRINCIPLES OF ACCIDENT CAUSATION AND PREVENTION - 3 semester hours Sp

This course is designed to present an overview of the dimensions of the accident problem with special attention to accident prevention, concepts and theories. Special attention is directed to the prevention of failures within the highway transportation system and factors that influence performance ability. Emphasis is placed on student safety and other legal issues, signs, signals, pavement markings, and right-of-away rules; interaction with other highway users (pedestrians, animals, motorcycles, bicycles, trucks, buses, trains, trailers, motor homes, ATVs, and other recreational users); time/space and risk management; alcohol and other drugs and driving; behaviour aspects of crash prevention and the natural laws of driving; adverse driving conditions and emergencies; planning ahead for a trip.

HLTH 150,151,248,249,338,339,448
HEALTH EDUCATION LABORATORIES $\mathbf{- 1}$ semester hour each F, Sp
Courses designed for the prospective health educator to establish life-career goals, identify program strengths and weaknesses and plan and implement necessary measures to complete successfully the prescribed program.

## HLTH 210 FOUNDATIONS OF HEALTH SCIENCE - 2 semester hours

The historical and philosophical perspectives of the development of health science will be covered in this course. A comparison will be made of the major concepts and theories of health and characteristics of health education programs in schools and communities. Career opportunities in health are reviewed; medical terminology is included for basic preparation in health professions.

## HLTH 330 DRUG USE AND DRUG ABUSE EDUCATION - 3 semester hours

This course will discuss the different categories of drugs and explain their routes of administration. Patterns of illicit drug use, misuse, and abuse, including who uses illicit drugs and abuse of controlled substances and why they use them, will also be addressed. The legal, social, financial, and personal impact of drug abuse will be addressed.
Prerequisite: Junior/Senior Standing

## HLTH 337 HEALTH PRACTICUM -3 semester hours

F, Sp
Provides various opportunities for the professional student to work with individuals and groups in a variety of settings. These opportunities shall include observation and/or participation in health related activities in school and/or community locations.

HLTH 340 COMMUNITY HEALTH -3 semester hours
F
Designed to cover community health issues relating to foundations and organizations of public health. It includes the study of community health organizations and programs, epidemiology and disease control, environmental health, community and occupational safety and health, the health care system, aging, and other community health issues.

## HLTH 342 CONTEMPORARY HEALTH ISSUES -3 semester hours <br> Sp

Designed to meet the educational needs and interests of students through a study of contemporary health issues. Specific topics relevant for today's society will be determined and covered including women's health concerns, nutrition and nutritional disorders, pre-menstrual syndrome, sexually transmitted diseases, domestic violence, child abuse, rape, and cancer. Cardiovascular diseases and others may also be included.

## HLTH 343 HEALTH COUNSELING -3 semester hours

A basic introductory course designed to assist prospective health care providers deal with multi-diversified, troubled individuals in a school setting.

HLTH 346 SCHOOL AND COMMUNITY HEALTH PROGRAMS - 2 semester hours
Covers the organization and administration of comprehensive school and community health programs. Topics student safety, child abuse, and other legal issues, health services, instruction, program planning and assessment, the role of administration in comprehensive school health, personal health and fitness, active lifestyles and health, environmental, mental and emotional health, family disruptions, nutrition, tobacco, alcohol and other drugs, school and consumer health, and disease prevention and treatment. An overview of the knowledge, skills, and processes needed to teach school health on the elementary, middle, and secondary levels is also provided.
Co-requisite: PHED 300 Practicum I (See Professional Studies Requirements for Catalog Description)
HLTH 347 FIRST AID AND EMERGENCY MEDICAL CARE - 2 semester hours F, Sp
Lectures and demonstrations on first aid measures for wounds, hemorrhages, burns, exposure, sprains, dislocations, fractures, unconscious conditions, suffocation, drowning, and poisons, with skill training in all procedures. Emphasis will be given to the following areas: student safety and other legal issues, activating the emergency medical services, safety and emergency care (first aid, CPR, universal precaution), injury prevention and rehabilitation, and an understanding of the basic content knowledge needed to teach first aid, and the structure and function of selected body systems.

HLTH 440 INTRODUCTION TO HUMAN REPRODUCTION AND SEXUAL DEVELOPMENT 3 semester hours
Course intended for majors in Health and Physical Education and others who will use knowledge of the subject matter covered in their professional work. Anatomy and physiology of male and female reproductive systems; conception, prenatal development, labor and delivery; psychosexual development, sources of sexual outlet; and family planning are among discussion topics.

HLTH 441 STRATEGIES OF HEALTH TEACHING - 3 semester hours
Fundamental methods of health teaching as applied to school and public health education. Materials applicable to health education, evaluation techniques, preparation of health training units and bibliographies, and surveys of current literature in the field of health education are presented and/or researched.

## HLTH 445 DRIVER EDUCATION INSTRUCTIONAL PRINCIPLES - 3 semester hours

This course is designed to provide an analysis of the rules and regulations governing driver education in the Commonwealth of Virginia with application to program organization and administration, and the development and conduct of learning experiences in the classroom and laboratory. It also provides a guide for teachers, supervisors, and administrators in the organization, administration and planning of a driver and traffic safety curriculum. Emphasis is placed on coordinating schedules for in-car instruction; assessment of knowledge and abilities; safety education and legal issues; juvenile licensing and related statues; compulsory attendance and other vehicle procurement and equipment requirements and instructional technology; understanding content knowledge for teaching in the classroom and in-car instruction; and use of instructional technology; understanding of content knowledge for classroom teaching in-car instruction that includes: traffic laws and rules of the road, and road signs; vehicle control; time space and risk management; alcohol and drugs; restraint systems; vehicle maintenance; legal responsibilities of operating and owning a vehicle; simulation instruction; administration of written and road skills examination; process for licensing students with disabilities; and understanding in grammar usage and mechanic in writing.

HLTH 447 PROGRAM PLANNING IN HEALTH EDUCATION - 3 semester hours
Principles of program planning in public health education, including needs assessment, health hazard appraisal, community analysis and organization, selection of program topics, coordination of health education and health promotion activities in school and community settings, audience analysis, task analysis, and the role of evaluation.

HLTH 449 CARE AND PREVENTION OF ATHLETIC INJURIES - 3 semester hours Sp
An introduction to the basic concepts and techniques of the prevention, diagnosis, treatment, and rehabilitation of athletic injuries. The practical application for prevention relative to sports activities and the design and function of protective equipment are examined.

## HLTH 450 INSTRUCTIONAL STRATEGIES FOR HEALTH EDUCATION - 2 semester hours Sp

Application of innovative strategies for teaching health education on the elementary, middle, and secondary school level. Attention is given to conceptualizing instruction, specifying instructional objectives, planning properly written units and lessons, utilizing various instructional methods, selecting and using instructional materials, and evaluating teaching effectiveness and technology. Topics include personal health and fitness-related issues such as: mental and emotional health, healthy social development skills, basic consumer, environmental, and school health, nutrition, tobacco, alcohol and other drugs, basic disease prevention and treatment strategies, and the relationship between a physically active lifestyle and health.
Co-requisite: PHED 300, Practicum II (See Professional Studies Requirements for Catalog Description)
HLTH 451 INDEPENDENT STUDY- 3 semester hours F
Course designed to provide opportunities for the pursuit of in-depth knowledge and understanding of a variety of significant and emerging health problems and issues in the instructional program. Two specific topics, to be approved by the instructor, will be examined.

## HLTH 452 OCCUPATIONAL SAFETY- SAFETY CODES AND STANDARDS - 3 semester hours

An introduction and analysis of the occupational safety and health general industry standards as they apply to the private and federal sector. Emphasis will be given to the following areas: student safety and other legal issues, safety codes and standards, and requirements and opportunities in the field of hazard control.

HLTH 453 PRE-HEALTH INTERNSHIP -1 semester hour F, Sp
Course designed to provide opportunities to systematically plan and prepare for the health internship in a community agency for the following semester. Representatives from placement sites and the instructor will establish seminar format or facilitate student acquisition of needed information and experiences.
Prerequisite: Satisfactory completion of the requirements through the Junior Year or by permission of instructor.

HLTH 454 HEALTH INTERNSHIP - 6 semester hours
F, Sp
An internship designed to afford the prospective health professional various opportunities to work with individuals and groups in a community health agency. It will encompass certain roles of the health educator, including experiences with exceptional individuals.

## PHYSICAL EDUCATION

## PHED 120 FOUNDATIONS OF PHYSICAL EDUCATION - 2 semester hours <br> F, Sp

An introduction to the personal and professional challenges and opportunities available in the field of human movement. Its primary purpose is to help the student gain insight into the broad discipline of physical education; to acquaint the student, generally, with the organized body of knowledge embraced within the discipline of physical education; and to show the proper relationship of physical education to the fields of health and recreation.

## PHED 125 BODY MECHANICS -1 semester hour

This course is a requirement for all physical education majors. The primary purpose of the course is to acquaint students with the basic knowledge, understanding, and value of physical activity as related to optimal healthful living. Emphasis is placed on improving students' performance of basic gross motor skills.

## PHED 126 THEORY AND PRACTICE OF GYMNASTICS AND APPARATUS -1 semester hour

A course is designed to equip students with basic water skills and knowledge needed to make them reasonably safe while in, on, or about the water. Attention given to safety and emergency care (First Aid, CPR, Universal Precaution).

## PHED 128 INTERMEDIATE SWIMMING -1 semester hour

F, Sp
Upon completion of this course, students should comprehend the elements of good swimming. Instruction in intermediate swimming is given to students who have taken and passed the beginner's swimming course, or those who have never had swimming instruction but can pass the beginner's swimming test.

## PHED 130 ELEMENTARY KARATE - 2 semester hours

F, Sp
Course designed to introduce the student to basic karate, one of the more popular and potent phases of the Oriental Martial Arts, and to broaden his or her horizons and views on oriental culture.

## PHED 200 TEAM SPORTS I -1 semester hour

Development of physical skills and an understanding of the knowledge, skills, and processes needed to teach soccer, volleyball, basketball, and softball on the pre K-1 2 levels. Content includes an analysis of skills, progressions, drill, error analysis, and corrections, and the development of rudimentary unit and lesson plans. The cultural significance of team sports, competition, and sportsmanship is also included.

PHED 211 LIFETIME SPORTS I -1 semester hour
Development of fundamental and advanced skills, knowledge of rules and the ability to perform a variety of individual sports, including archery, badminton, and bowling.

## PHED 212 LIFETIME SPORTS II -1 semester hour

Sp
Development of fundamental and advanced skills, knowledge of rules and the ability to perform a variety of individual sports, including golf, tennis, and track and field.

## PHED 214 OUTDOOR EDUCATION AND LEISURE ACTIVITIES -1 semester hour F, Sp

Provides knowledge, skills, and processes for teaching contemporary outdoor (e.g. camping, hiking, walking, and tenets of cooperative living) and leisure activities suitable for life-long participation. Attention given to the selection development, and utilization of appropriate instructional resources; the cultural significance of dance, leisure, competition, and sportsman; the relationship between a physically active lifestyle and health: the needs of special and diverse populations; safety and emergency care; and injury prevention.

## PHED 217 LIFESAVING -1 semester hour

F, Sp
Course designed to enable students to meet the requirements for the American National Red Cross Advanced Lifesaving Certificate.
Prerequisites: PHED 127 Beginning Swimming; PHED 128 Intermediate Swimming
PHED 232 COACHING AND OFFICIATING - 2 semester hours
F
Concepts and competencies applicable for the physical educator who desires breadth and depth of preparation in athletic coaching and officiating. Designed to prepare the student to understand the role of coaching and the art of officiating in ways that complement his/her basic knowledge of each course activity and its skills.

PHED 236 MODERN DANCE -1 semester hour
F
An introduction to various modern dance techniques. This course also includes an exploration of the history of modern dance and the contributions of modern dance pioneers.

## PHED 238 WATER SAFETY -1 semester hour <br> Sp

Satisfactory completion of this course qualifies the student for the American National Red Cross Instructor's Certificate. Prerequisite: PHED 217 Lifesaving

## PHED 272 BASKETBALL OFFICIATING -1 semester hour

F
The rules and mechanics of officiating basketball. Students will gain practical experience by officiating intramural, recreation league, or other organized games. This course prepares students for future careers in officiating.

## PHED 273 FOOTBALL OFFICIATING -1 semester hour

F
The rules and mechanics of officiating football. Students will gain practical experience by officiating intramural, recreation league, or other organized games. This course also prepares students for future careers in officiating.

## PHED 274 HISTORY, PRINCIPLES AND OBJECTIVES OF PHYSICAL EDUCATION 3 semester hours

The study of the historical foundations of physical education from earlier times to the present and their implications for society. Attention is given to understanding principles which have been developed to insure a valid interpretation of the place of the physical education program. Content also includes the cultural significance of dance, leisure, competition, and sportsmanship, and the value of physical fitness.

## PHED 275 SOFTBALL OFFICIATING -1 semester hour

 recreation league, or other organized games. This course also prepares students for future careers in officiating.PHED 328 DANCE COMPOSITION AND PRODUCTION - 2 semester hours
F, Sp
A study of composition based on elements of modern dance background and immediate sponsors of modern art. Laboratory problems with criticism, and preparation problems in staging dance for the theatre.
Prerequisite: PHED 327 Advanced Dance Skills and Composition or by permission of Instructor

## PHED 329 MOTOR LEARNING - 2 semester hours

Course designed to provide the student with an understanding of motor behaviour. It is specifically concerned with the efficacy of motor skill acquisition and motor skill performance.

## PHED 330 SPORTS MARKETING - 3 semester hours

A study and critical examination of the marketing mix (product, price, place and promotion) related to sports marketing. Special emphasis will be placed on production and advertising and sales techniques applied to educational environments, athletic programs and to amateur and professional sports.

## PHED 335 RHYTHMIC FORMS -1 semester hour

Explores the historical perspective and cultural significance of American and international folk, square, and social dance, and their steps, patterns, and formations. Integrates an understanding of personal health and skill-related fitness components (e.g., flexibility, strength, coordination, balance....) And the knowledge, skills, and processes needed to teach rhythmic forms and dance. Attention given to the selection, development, and utilization of appropriate instructional resources, and technology.

## PHED 338 KINESIOLOGY - 3 semester hours

Course designed to provide the student with an understanding of the anatomical and biomechanical bases of human motion, with applications for motor skill acquisition, and developmental and rehabilitative exercise. This course also emphasizes the application of mechanical physics to body movement and sports medicine. Prerequisites: GEBI 116 Biological Science; BIOL 315 Human Anatomy; BIOL 316 Human Physiology; Or by permission of instructor

PHED 339 MEASUREMENTANDEVALUATIONINHEALTHANDPHYSICALEDUCATION - 3 semester hours F The focus of this course is on the development of evaluation and measurement skills used by teachers and administrators of physical education throughout the nation. Major emphasis is placed on interpreting descriptive statistics and developing test construction techniques. Students are given many opportunities to administer physical performance tests and to acquire knowledge about different grading techniques.

## PHED 343 ELEMENTARY SCHOOL PHYSICAL EDUCATION METHODS AND ACTIVITIES -

## 2 semester hours

F, Sp
Provides knowledge, skills, and processes needed to teach elementary physical education. Includes the election, development, and utilization of appropriate instructional methods, resources, and technology. Emphasis is place on: the importance of the development and maintenance of physically active lifestyles and good health, skills theme approaches and developmental physical education; activities designed to help students understand, develop and value personal fitness; cooperative activities; and activities for special and diverse populations including gifted and talented. A review of the scientific principles of movement (personal and skill-related fitness components) is included. Other topics also include rhythmics and dance, childhood growth and motor development, accreditation, legal liability concerns, and an overview of the cultural significance of dance, leisure and sportsmanship.
Field experiences in this course will provide opportunities for pre-candidates to observe, plan, and participate in different roles as a teacher in a school setting prior to doing student teaching. Pre-candidates will observe experienced teachers in a clinical setting to properly orientate them to the teaching profession.

PHED 344 MIDDLE AND SECONDARY SCHOOL PHYSICAL EDUCATION METHODS AND ACTIVITIES - 3 semester hours
Methods and materials of teaching physical education in secondary schools. Emphasis is on program content, and the selection, organization, and guidance of learning experiences appropriate for desired out-comes, and the integration of technology. Content also includes a review of personal health-related (flexibility, strength, aerobic, endurance, body composition) and skill-related (coordination, agility, power, balance, speed) fitness components, an understanding of the knowledge, skills, and processes needed to teach cooperative activities, rhythmics and dance, team and individual activities, the relationship between a physically active lifestyle and health, the value of lifelong fitness programs, activities for the mentally and physically challenged, activities for the talented and gifted and the cultural significance of dance, leisure, competition, and sportsmanship.
Field experiences in this course will provide opportunities for pre-candidates to observe, plan, and participate in different roles as a teacher in a school setting prior to doing student teaching. Pre-candidates will observe experienced teachers in a clinical setting to properly orient them to the teaching profession.

## PHED 350 SPORT FACILITY AND EVENT MANAGEMENT - 3 semester hours

This course will provide students with effective management skills for the successful operating of sports facilities in regards to operations, security, and event planning.

## Prerequisite: Junior Standing

## PHED/MKTG 372 MARKETING INTERNSHIP - 3 semester hours <br> F, Sp, Su

Practical work experiences obtained in management-oriented positions of business firms under supervised conditions. The purpose is for the internees to improve their quantitative and qualitative experiences as a marketing manager in a real business world.

## PHED 400 ADAPTED PHYSICAL EDUCATION - 4 semester hours F, Sp

This course is designed to provide the student with an understanding of disabling conditions, definitions, and implications as they relate to special education, adapted physical education, injury prevention and rehabilitation, the regular physical education program, integration, and future trends. Emphasis is placed on instructional methods and materials as well as teaching laboratory practical experiences, teaching methods appropriate for exceptional students, including gifted and talented, and those with disabling conditions, and the integration of technology.
Field experiences in this course will provide opportunities for pre-candidates to observe, plan, and participate in different roles as a teacher in a school setting prior to doing student teaching. Pre-candidates will observe experienced teachers in a clinical setting to properly orient them to the teaching profession.

## PHED 401 ORGANIZATION AND ADMINISTRATION OF HEALTH PHYSICAL EDUCATION AND ATHLETIC PROGRAMS - 3 semester hours <br> F, Sp, Su

Provides a basic understanding of the many aspects of administering health, physical education, and athletic programs on the pre K-12 levels, in colleges and universities, as well as in recreational and private industry sectors. Content includes: the need for quality instruction, risk management, student safety and other legal issues, the role of administration in comprehensive school health programs and personnel and programmatic planning, management, and assessment. Contemporary and computer-driven team building exercises, research presentations, and community service projects, afford students opportunities to integrate theoretical concepts into practical application, and strengthen their verbal, written, and technological levels of proficiency.
Prerequisite: Completion of Junior Year or by Permission of Instructor
PHED 403 PHYSIOLOGY OF EXERCISE - 3 semester hours
F
This course is designed to provide the student with a better understanding of medical and physiological aspects of motor activity, relationships between motor activity and health, knowledge of the basic fundamentals necessary to understand and apply exercise physiology, and guidelines for devising and managing programs for both active and sedentary individuals.
Prerequisites: GEBI116 Biological Science; BIOL 315 Human Anatomy; BIOL 316 Human Physiology or by permission of instructor

## PHED 405 SPORTS IN AMERICAN SOCIETY - 3 semester hours

Discusses the phenomenon of sports as it represents one of the most pervasive social institutions today. The major theme of this course is to demonstrate how sports reflect and enforce the beliefs, values, and ideologies of society. Emphasis is place on changing attitudes and current trends in the world of sports. The course will be taught from a sociological and philosophical perspective.

## Prerequisite: Consent of Instructor

## PHED 406 SPORTS LAW - 3 semester hours

Identification and application of various areas of law to sports industry. Includes how constitutional law, contract law, anti-trust law, and tort law impact sports management decisions. Special emphasis placed on discrimination in sports (e.g., race, gender, ethnicity, and disability).

## Prerequisite: Consent of Instructor

## PHED 407 SPORTS PSYCHOLOGY - 3 semester hours

This course involves the study of the psychological basis of coaching strategies, methodologies, and public relations. Emphasis is placed on applying knowledge in a field setting.
Prerequisite: Senior Standing
PHED 408 FINANCIAL ASPECTS OF RECREATION AND SPORTS MANAGEMENT - 3 semester hours This course will investigate fund raising activities and the appropriate use of financial resources within the sports industry. Prerequisite: Senior Standing

## PHED 471 INTERNSHIP SEMINAR -1 semester hour

To secure enriching experiences in their Internship, students must investigate all aspects of potential sponsoring organizations, their expectations of internship, and how they can maximize their field experience toward professional growth.
Prerequisite: Senior Standing

## PHED 472 INTERNSHIP - 6 semester hours

Supervised work experience at approved sports marketing and management site with emphasis on managerial tasks and administrative procedures. Field experiences should enable students to grow personally and professionally. To secure enriching experiences, students must investigate all aspects of potential sponsoring organizations. Prerequisite: Senior Standing

## PHED 473 POST INTERN SEMINAR - $\mathbf{1}$ semester hour

Orientation to the internship experience in sports marketing and management. Discussions and analysis of related internship experiences will be facilitated. Students will discuss the expectations of both the department and the respective sport organizations.
Prerequisites: Completion of Lower Division Core Courses

## RECREATION

## RECR 156 INTRODUCTION TO COMMUNITY RECREATION - 2 semester hours

Community recreation programs, including camping, survey of agencies, activities in the recreation program, recreation as a profession, trends, and an introduction to the literature in the field.

## RECR 231 TOURISM AND COMMERCIAL RECREATION - 3 semester hours

Analysis of private, commercial, and industrial recreation fields, focusing on economic impact, marketing strategies, consumer protection, and career opportunities.
Prerequisite: None

## RECR 321 RECREATION PROGRAMMING - 3 semester hours

An examination of the principles and practices of recreation programming in terms of needs assessments, development, content, public relation, funding, facilities, leadership, and evaluation. Program methodologies in municipal, voluntary, private, religious, and commercial agencies will be examined.

## RECR 322 INTRODUCTION TO THERAPEUTIC RECREATION - 3 semester hours

Theoretical, philosophical, and historic foundation of therapeutic recreation; role of treatment and rehabilitation with a survey of major services and settings.

## Prerequisite: None

## RECR 350 LEISURE SERVICE MARKETING - 3 semester hours

This course involves the study of the theoretical/practical application of marketing/advertising strategies in the development/delivery of leisure services.

## Prerequisite: Junior Standing

## RECR 351 ORGANIZATION AND ADMINISTRATION OF THE COMMUNITY RECREATION PROGRAM - 3 semester hours

Problems commonly encountered in establishing and organizing recreation programs, services, playgrounds, youth centers, community centers, campus and other areas and facilities.

## RECR 352 CAMP COUNSELING/OUTDOOR LEISURE ACTIVITIES - 3 semester hours

## RECR 353 METHODS AND MATERIALS IN SOCIAL RECREATION - 2 semester hours

 dances, picnics, special celebrations, and a variety of quiet games.
## RECR 354 RECREATIONAL AREAS AND FACILITIES - 2 semester hours

## Prerequisite: Junior standing HPER major or consent of instructor

RECR 355, 356 PRE-FIELD WORK EXPERIENCES - 2 semester hours
Observation and practice of leadership in supervised recreation programs on campus and in the environment. One class meeting per week; other leadership periods by arrangement.

## RECR 452 FIELD WORK--6 semester hours

Off-campus opportunity provided for the student leader to put into use, under expert guidance, the theories and techniques involved in a total community organization for recreation.

## RECR 453 THEORY AND PHILOSOPHY OF RECREATION - 3 semester hours

F
An examination of philosophical concepts and issues of recreation and leisure with a focus upon current trends and issues in professional leisure service delivery. Play, games, work, and recreation are studied as aspects of human behavior affected by global, physical, societal, and personal concerns.
Prerequisite: Senior standing HPER major or consent of instructor

## DEPARTMENT OF HEALTH, PHYSICAL EDUCATION, RECREATION AND DANCE DANCE CONCENTRATION <br> Bachelor of Science

|  |  | Semester Hours |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
| FRESHMAN YEAR |  |  |  |  |
| GEBI 116 | Bio-Science/Lab | 4 | - | 4 |
| ENGL 110, 111 | Composition I \& II | 3 | 3 | 6 |
| GEMA 112, 113 | Basic Math I, II | 3 | 3 | 6 |
| GEHI 122, 123 | U.S. History | 3 | 3 | 6 |
| GEHE 164 | Personal Health | 2 | - | 2 |
| FRST 101 | Freshman Studies | - | 2 | 2 |
| DANC 101 | Ballet I | - | 2 | 2 |
| DANC 110 | Freshman Repertory | 3 | - | 3 |
| PHED 125 | Body Mechanics | - | 1 | 1 |
| PHED 126 | Theory/Prac/Gym | $=$ | 1 | 1 |
|  |  | 18 | 15 | 33 |
| SOPHOMORE YEAR |  |  |  |  |
| DIET 101 | Nutrition - Contemporary Health Issues/Lab | 4 | - | 4 |
| GEPS 123 | Intro to Psychology | 3 | - | 3 |
|  | Global Studies Elective | 3 | - | 3 |
| ENGL 311 | African American Literature | 3 | - | 3 |
| DANC 102 | Ballet | 2 | - | 2 |
| DANC 201, 202 | Modern Dance I, II | 2 | 2 | 4 |
| DANC 210 | Sophomore Repertort | - | 3 | 3 |
|  | Technology Elective | - | 3 | 3 |
| DRAM 113 | Acting | - | 3 | 3 |
| PSYC 112 | Human Growth/Dev | - | 3 | 3 |
| SOCI 102 | Intro to Anthropology | $=$ | $\underline{3}$ | $\underline{3}$ |
|  |  | 17 | 17 | 34 |
| JUNIOR YEAR |  |  |  |  |
| ARTS 205 | Basic Art | 3 | - | 3 |
| SPEE 214 | Intro to Public Speaking | 3 | - | 3 |
| HLTH 347 | First Aid/Emer. Care | 3 | - | 3 |
| DANC 238 | Anatomy \& Kinesiology | 3 | - | 3 |
| DANC 301, 302 | Jazz Dance I, II | 2 | 2 | 4 |
| DANC 310 | Junior Repertory | 3 | - | 3 |
| DANC 311 | Apprentice in Dance | - | 3 | 3 |
| DANC 315 | Rhythmic Training for Dancers | - | 3 | 3 |
| DANC 327 | Dance Composition | - | 2 | 2 |
| DANC 328 | Adv. Dance Comp | - | 2 | 2 |
| DRAM 414 | Direct \& Prod. | - | $\underline{3}$ | $\underline{3}$ |
|  |  | 17 | 15 | 32 |

## SENIOR YEAR

| GEMU 289 | Music and Art | 3 | - | 3 |
| :--- | :--- | :---: | :---: | :---: |
| DANC 378 | Hist. of Dance and the African-Amer Exper. | 3 | - | 3 |
| DANC 401 | African//Carribbean Dance Forms | 3 | - | 3 |
| DANC 404 | Somatic/Threat/Movement | 3 | - | 3 |
| DANC 410 | Senior Repertory | - | 3 | 3 |
| DANC 480 | Field Experience | - | 8 | 8 |
|  | Unrestrictive Elec. | - | $\underline{1}$ | $\underline{1}$ |
|  |  | 12 | 12 | 24 |

## PHYSICAL EDUCATION

## Recreation Concentration

|  |  | SEMESTER HOURS |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
|  | FRESHMAN YEAR |  |  |  |
| ENGL 110 | Compostion I | 3 | - | 3 |
| GEMA 112 | Basic Math | 3 | - | 3 |
| GEHI 122 | U.S. History | 3 | - | 3 |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| HPER 164 | Personal Health | 2 | - | 2 |
| PHED 125 | Body Mechanics | 1 | - | 1 |
|  | Technology Elective | 3 | - | 3 |
| GEBI 116 | Biol Sci/Lab | - | 4 | 4 |
| ENGL 111 | Composition II | - | 3 | 3 |
| GEMA 113 | Basic Math | - | 3 | 3 |
| ARTS | Art Elective | - | 3 | 3 |
| PHED 120 | Found of PE | - | 2 | 2 |
| PHED 126 | Theory/Prac/Gym | - | 1 | 1 |
| PHED 212 | Lifetime Sports | - | $\underline{1}$ | $\underline{1}$ |
|  |  | 17 | 17 | 34 |
|  | SOPHOMORE YEAR |  |  |  |
| DIET 101 | Nutrition | 4 | - | 4 |
| RECR 231 | Indust \& Comm Recr | 3 | - | 3 |
| ENGL 214 | World Literature I | 3 | - | 3 |
| PHED | Elective | 1 | - | 1 |
| RECR 352 | Camp Counseling | 3 | - | 3 |
| PHED 200 | Team Sports | 1 | - | 1 |
| PHED 335 | Rhythmic Forms | 1 | - | 1 |
| PHED 274 | Hist/Prin?Obj of PE | - | 3 | 3 |
|  | Global Elective | - | 3 | 3 |
| PHED 329 | Motor Learning/Beh | - | 2 | 2 |
| PHED 127/128 | Beg/Inter Swimming | - | 1 | 1 |
| SOCI 102 | Intro to Anthropology | - | 3 | 3 |
| RECR 156 | Intro to Community Recr | - | 2 | 2 |
| HPER 165 | Personal Fitness | - | 1 | 1 |
|  |  | 16 | 15 | 31 |

JUNIOR YEAR

BIOL 315
PHED 339
GEMU 280
PHED 332
HLTH 347
RECR 355
BIOL 316
RECR 351
GEEN 310
HRIM 302 or RECR 321
RECR 353

RECR 453
PHED 400
RECR 322
PHED 401
RECR 356
RECR 354
RECR 452

| Human Anat/Lab | 4 | - | 4 |
| :--- | :---: | :---: | :---: |
| Meas/Eval HPE | 3 | - | 3 |
| Music and Art | 3 | - | 3 |
| Coaching/Officiating | 2 | - | 2 |
| First Aid/Emer Care | 2 | - | 2 |
| Pre-Field Work | 2 | - | 2 |
| Human Physiology | - | 3 | 3 |
| Org/Adm Recr Prog | - | 3 | 3 |
| Adv. Comm. Skills | - | 3 | 3 |
| Club Mgmt or Recreation Pro | - | 3 | 3 |
| Meth/Mat Social Recr | - | $\underline{2}$ | $\underline{2}$ |
|  | 16 | 14 | 30 |
| SENIOR YEAR |  |  |  |

Theory/Phil Recr 3 - 3
Adapted PE 3 - 3
Intro to Therap Recr 3 - 3
Org/Adm PE/Heath 3 - 3
Pre-Field Work 2 - 2
Rec Areas/Facilities $2-2$
Field Work $\quad=\quad \underline{6}$
$16 \quad 6 \quad 22$

## PHYSICAL EDUCATION

Sport Management Concentration

|  |  | SEMESTER HOURS |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
| FRESHMAN YEAR |  |  |  |  |
| ENGL 110 | Compostion I | 3 | - | 3 |
| GEMA 112 | Basic Math | 3 | - | 3 |
| GEHI 122 | U.S. History | 3 | - | 3 |
| CISY 155 | Intro to Info Systems | 3 | - | 3 |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| PHED 120 | Foundation of PE | 2 | - | 2 |
| GEBI 116 | Biol Sci/Lab | - | 4 | 4 |
| ENGL 111 | Composition II | - | 3 | 3 |
| GEMA 113 | Basic Math | - | 3 | 3 |
| GEPS 124 | Intro to Psychology | - | 3 | 3 |
| HPER 164 | Personal Health | - | 2 | 2 |
| PHED 126 | Theory/Prac/Gym | - | 1 | 1 |
|  |  | 16 | 16 | 32 |
| SOPHOMORE YEAR |  |  |  |  |
| GE | Nat. Sci Elective/Lab | 4 | - | 4 |
| PHED 202 | Foundation of Sport Mgmt | 3 | - | 3 |
| GE | Global Studies Elective | 3 | - | 3 |
| PHED 274 | Hist. Prin. Obj. PE | 3 | - | 3 |
| HLTH 347 | First Aid/Emergency Care | 2 | - | 2 |
| PHED 332 | Coaching and Officiating | 2 | - | 2 |
| GESO 111 | Intro to Social Science | - | 3 | 3 |
| ECON 100 | Basic Economics | - | 3 | 3 |
| ACCT 201 | Accounting | - | 3 | 3 |
| GEEN 310 | Adv. Comm. Skills | - | 3 | 3 |
| SPEE 214 | Intro to Public Speaking | = | $\underline{3}$ | $\underline{3}$ |
|  |  | 17 | 15 | 32 |
| JUNIOR YEAR |  |  |  |  |
| BIOL 315 | Human Anat/Lab | 4 | - | 4 |
| MKTG 300 | Principles of Marketing | 3 | - | 3 |
| PHED 330 | Sports Marketing | 3 | - | 3 |
| GEMU 280 | Music and Art | 3 | - | 3 |
| MGMT 300 | Organization \& Management | 3 | - | 3 |
| PHED 407 | Sports Psychology | - | 3 | 3 |
| MGMT 444 | Entrep \& Sm Bus Mgmt | - | 3 | 3 |
| PHED 350 | Sport Facility \& Event Mgmt | - | 3 | 3 |
| RECR 350 | Leisure Service Maketing | - | 3 | 3 |
| PHED 338 | Kinesiology | - | 3 | 3 |
| PHED 329 | Motor Learning | - | $\underline{2}$ | $\underline{2}$ |
|  |  | 16 | 17 | 33 |

## SENIOR YEAR

| PHED 401 | Org/Adm PE/Health | 3 | - | 3 |
| :--- | :--- | :--- | :--- | :--- |
| PHED 406 | Sports Law | 3 | - | 3 |
| PHED 408 | Financial Aspects of Recr \& Sport Mgmt | 3 | - | 3 |
| MGMT 340 or MKTG 303 | Person Human Res Mgmt or Pro Mgmt (Restrictive Elec) | 3 | - | 3 |
| PHED 405 | Sports in American Society | 3 | - | 3 |
| PHED 471 | Internship Seminar | 1 | - | 1 |
| PHED 472 | Internship | - | 6 | 6 |
| PHED 473 | Post Internship Seminar | $=$ | $\frac{1}{7}$ | $\frac{1}{4}$ |
|  |  | 16 | 7 | 23 |

## PHYSICAL EDUCATION

## Health Concentration

|  |  | SEME | STER | HOURS |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
|  | FRESHMAN YEAR |  |  |  |
| GEBI 116 | Bio. Science/Lab | 4 | - | 4 |
| ENGL 110 | Composition I | 3 | - | 3 |
| GEMA 112 | Basic Math | 3 | - | 3 |
| GEHI 122 | U.S. History | 3 | - | 3 |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| GECH 119 | Chem/Soc/Lab | - | 4 | 4 |
| ENGL 111 | Composition II | - | 3 | 3 |
| GEMA 113 | Basic Math | - | 3 | 3 |
|  | Technology Elect. | - | 3 | 3 |
| HPER 164 | Personal Health | - | 2 | 2 |
| HPER 165 | Personal Fitness | $=$ | $\underline{1}$ | 1 |
|  |  | 15 | 16 | 31 |
|  | SOPHOMORE YEAR |  |  |  |
| GEHO 201 | Consumer Econ. | 3 | - | 3 |
| GEMU 280 | Music and Art | 3 | - | 3 |
| PHED 274 | Hist/Prin/Obj PE | 3 | - | 3 |
| GE | Humanities Elective | 3 | - | 3 |
| PHED 120 | Found of PE | 2 | - | 2 |
| HLTH 210 | Found/Health Science | 2 | - | 2 |
| PSYC 216 | Develop. Psychology | - | 3 | 3 |
| BIOL 241 | Intro/Microbio/Lab | - | 4 | 4 |
| GESO 211 | Intro to Soc. Sci | - | 3 | 3 |
|  | Global Studies Elective | - | 3 | 3 |
| HLTH | Elective | - | 3 | 3 |
| PHED 127/128 | Beg/Inter. Swimming | $=$ | 1 | 1 |
|  |  | 16 | 17 | 33 |
|  | JUNIOR YEAR |  |  |  |
| BIOL 315 | Hum. Anat./Lab | 4 | - | 4 |
| HLTH 340 | Community Health | 3 | - | 3 |
| HLTH 330 | Drug Use/Drug Abuse | 3 | - | 3 |
| HLTH 346 | Sch/Comm Hlth Prog | 2 | - | 2 |
| HLTH 349 | Sci Rdgs Health | 2 | - | 2 |
| HLTH 347 | First Aid/Emer Care | 2 | - | 2 |
| BIOL 316 | Human Physiology | - | 3 | 3 |
| HLTH 342 | Cont. Health Issues | - | 3 | 3 |
| GEEN 310 | Adv.Comm. Skills | - | 3 | 3 |
| HLTH 337 | Health Practicum | - | 3 | 3 |
| HLTH 343 | Health Counseling | $=$ | $\underline{3}$ | $\underline{3}$ |
|  |  | 16 | 15 | 31 |

## SENIOR YEAR

PHED 400
PHED 401
PHED 402
HLTH 441
HLTH 440 or SOCI 301 or FCCS 401
HLTH 453
HLTH 454
PSYC 316/420

| Adapted PE | 3 | - | 3 |
| :--- | :---: | :---: | :---: |
| Org/Adm PE/Ath | 3 | - | 3 |
| Physio. of Exercise | 3 | - | 3 |
| Strat. Hlth Teaching | 3 | - | 3 |
| Restrictive Elective | 3 | - | 3 |
| Pre-Health Internship | 1 | - | 1 |
| Health Internship | - | 6 | 6 |
| Restrictive Elective | $\mathbf{Z}$ | $\underline{3}$ | $\underline{3}$ |
|  | 16 | 9 | 25 |

## DEPARTMENT OF HEALTH, PHYSICAL EDUCATION, RECREATION, AND DANCE Health and Physical Education with a Minor in Secondary Education (PreK-12)

|  |  | SEMESTER HOURS |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
| FRESHMAN YEAR |  |  |  |  |
| IDST 100, 101 | Analytical Reading, Writing and Reasoning I \& II | $2^{* *}$ | $2^{* *}$ | 4 |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| ENGL 110, 111 | Composition I \& II | 3 | 3 | 6 |
| MATH 112, 113 | Basic Math I \& II | 3 | 3 | 6 |
| GEBI 116 | Biological Science and Lab | - | 4 | 4 |
| PHED 120 | Foundations of Physical Education | - | 2 | 2 |
| PHED 126 | Theory and Practice/Gym | - | 1 | 1 |
| HPER 165 | Personal Fitness | - | 1 | 1 |
| PHED 125 | Body Mechanics | 1 | - | 1 |
| PHED 127/128 | Beg/Inter Swimming | 1 | - | 1 |
| GEHE 164 | Personal Health | 2 | - | 2 |
| GEHI 122 | U.S. History | 3 | - | 3 |
|  |  | 15 | 14 | 29 |
| SOPHOMORE YEAR |  |  |  |  |
| EDUC 201, 202 | Introduction to Teaching I, II | 2 | 2 | 4 |
| IDST 200 | Digital Media in Teacher Education | 3 | - | 3 |
| SCIENCE | Natural Science/Lab Elective | 4 | - | 4 |
| ENGL | Advanced Communications | - | 3 | 3 |
| ENGL 201/201 | Literature Elective | 3 | - | 3 |
| HLTH 347 | First Aid/Emergency Care | 2 | - | 2 |
| PHED 200/201 | Team Sports | 1 | - | 1 |
| PHED 211/212 | Lifetime Sports | - | 1 | 1 |
| PHED 335 | Rhythmic Forms | 1 | - | 1 |
| GESO | Social Science | - | 3 | 3 |
| GLOBAL STUDIES | Global Studies Electives | - | 3 | 3 |
| ECON 100 | Basic Economics | - | $\underline{3}$ | $\underline{3}$ |
|  |  | 16 | 15 | 31 |
| JUNIOR YEAR |  |  |  |  |
| EDUC 315 | Data Driven Instructional Design | 3 | - | 3 |
| PSYC 212 | Human Growth and Development | - | 3 | 3 |
| SPED 403 | Classroom Management in Educational Settings (FE) | - | 3 | 3 |
| PHED 343 | Elementary Methods in PE | 2 | - | 2 |
| PHED 338 | Kinesiology | 3 | - | 3 |
| HLTH 346 | School and Community Health Program | 2 | - | 2 |
| PHED 344 | Secondary Methods in PE | - | 3 | 3 |
| BIOL 315 | Human Anatomy | - | 3 | 3 |
| BIOL 316 | Human Physiology | 3 | - | 3 |
| PHED | Motor Learning | - | 2 | 2 |
| PHED 339 | Measurements and Evaluation in HPE | $\underline{3}$ | - | $\underline{3}$ |
|  |  | 16 | 14 | 30 |

## SENIOR YEAR

| EDUC 424 | Critical Issues in Education | 2 | - | 2 |
| :--- | :--- | :--- | :--- | :--- |
| PHED 401 | Org/Adm in HPE and Athletics | 3 | - | 3 |
| PHED 402 | Physiology of Exercise | 3 | - | 3 |
| PHED 400 | Adapted Physical Education | 3 | - | 3 |
| EDUC 427 | Reading in the Subject Area | 3 | - | 3 |
| PHED 402 | Teaching of Health and PE | - | 3 | 3 |
| EDUC 401 | Student Teaching Seminar | - | 3 | 3 |
| EDUC 402 | Student Teaching | - | $\underline{9}$ | $\underline{9}$ |
|  |  | 14 | 15 | 29 |

**IDST 100/101 are not counted in semester hours or toward graduation requirement

## Driver Education Endorsement (Add-on Endorsement

The applicant seeking an add-on endorsement in driver education shall have an endorsement in a secondary or K-12 subject area and shall take:

HLTH 143 Principles of Accident Causation/Prevention 3
HLTH 445 Driver Education Instructional Principles 3
Total 6

## DEPARTMENT OF HISTORY AND PHILOSOPHY

Chairperson: Arthur Abraham, Box 9070, Room \#101 Colson Hall, Phone: 524-5129<br>Professors:<br>Arthur Abraham, Olwyn Blouet<br>Associate Professors: Majid Amini, Renee Hill, Dirk Philipsen<br>Assistant Professors: Paul Alkebulan, Richard Chew, Wesley Hogan, Christina Porenza-Coles, Stephen Rockenbach

## Description of Department

The academic programs offered by the History and Philosophy Department prepare persons for professional positions in history, philosophy, and history education. Students who want to study the black experience from an academic perspective may take the Black History concentration. The department, in conjunction with the Center for Undergraduate Professional Education Programs offers teaching endorsement in History and Social Sciences (6-12).

The Department's faculty, are active in research, writing and other academic activities that enhance professional growth and development. Both faculty and students participate in organizations and activities for the improvement of the academic performance of the Department's majors. There is an active VSU chapter of Phi Alpha Theta, the National History Honor Society.

## Mission of Department

The Department of History and Philosophy was established in 1914, and became one of the first University programs to offer the M.A. Degree. The mission of the Department is to engender knowledge of the struggles and achievements of previous generations, foster an appreciation of global interdependence and cultural diversity, and produce students with strong communication and research skills. Majors from the Department are prepared for graduate and professional programs such as History, International Relations or Law, and they possess an essential foundation for a variety of careers in the public sectors, museum and library and archival work, research agencies and Think Tanks and in teaching History on the secondary school level.

## Objectives of Department

The general objectives of the department are to:

- Prepare majors for graduate and professional schools.
- Service History and Philosophy courses in the GE Program.
- Provide the advanced History, Philosophy and Geography courses required for students in other disciplines.
- Prepare majors to teach History in the public schools.


## Programs in Department

There are a number of undergraduate programs in the History and Philosophy Department.

- The basic History curriculum prepares students for graduate work and for careers as teachers, historians, archivists, and professionals in related areas.
- The History and Social Sciences Endorsement curriculum prepares students to teach in the secondary schools and for careers in related fields.
- The Black History program is a concentration in the history curriculum, which places the study of people of African descent at the center of academic interest. It consists of a minimum of 15 semester hours of courses relating to the Black experience, nine of which are core courses and the rest are electives.
- The Department also offers a minor in Philosophy, which enables students to broaden their academic and professional options. As a structured sequence of philosophy courses, the Minor provides an opportunity for students to develop their critical thinking, analytical abilities, and effective communication. People trained in philosophy are very much in demand for professions such as law, journalism, publishing, banking, civil service and many others.
- In collaboration with the Department of Political Science and Public Administration, the department offers a pre-Law program to help prepare students with skills necessary for the challenges of a law school environment.

In addition to these formal program, the Department offers courses to prepare students for other career options.

## Other Departmental Information

Undergraduates in the Department are active in the Philosophy Club and the History Club. Members participate in campus-wide programs, travel to meetings and sites related to their career goals and engage in cultural and social events. Students who meet the academic requirements become members of Phi Alpha Theta, the National History Honor Society.

The academic progress and needs of majors are assessed by written and oral tests at various stages of their programs.

## Course Descriptions

## GEHI 114 WORLD HISTORY TO 1500-3 semester hours <br> F, $\mathrm{Sp}, \mathrm{Su}$

A topical introduction to the development of civilization up to the eve of the Modern Period, covering the growth of independent cultural traditions and diffusion of ideas, institutions and people.

## GEHI 115 WORLD HISTORY SINCE 1500-3 semester hours

F, Sp, Su
A Topical introduction to the evolution of civilizations through the scientific, industrial, political and economic revolutions of the Modern Period down to the present. Emphasis will be placed on the evolution of global interdependence through the interaction of western and non-western cultures.

GEHI 122 UNITED STATES HISTORY TO 1865-3 semester hours
F, Sp, Su
Introduces students to the social, political and economic history of the United States from Pre-Columbian America to the end of the Civil War.

GEHI 123 UNITED STATES HISTORY AFTER 1865-3 semester hours
F, Sp, Su
Introduces students to the social, political and economic history of the United States from Reconstruction to Contemporary America.

## GEPI 140 PHILOSOPHY - 3 semester hours

F, Sp, Su
An introduction to methods of critical thinking, and to the major problem areas of philosophy such as epistemology, metaphysics and ethics.

## GEOGRAPHY

GEOG 210 WORLD GEOGRAPHY - 3 semester hours
F, Sp, Su
An introduction to the geographic principles underlying different types of climate and their influence on society in various physical and political regions.

GEOG 313 VIRGINIA GEOGRAPHY - 3 semester hours
A survey of the geographic regions of Virginia, and the influence of geographic factors on social and economic problems in Virginia, past and present.

GEOG 314 GEOGRAPHY OF NORTH AMERICA - 3 semester hours
Sp
A study of the physical and cultural environments of North America with emphasis on regional economic activities.
GEOG 316 HUMAN GEOGRAPHY - 3 semester hours
A survey of the content of human geography. Topics include population, migration, urban geography, the distribution of agriculture and industry, and human environmental impact.

A study of the relationships between population and economic development in developing countries, and of possible responses to current problems and their consequences.

GEOG 411 URBAN GEOGRAPHY - 3 semester hours
An examination of the economic basis, regional spacing and internal social and economic organization of cities.

GEOG 412 SEMINAR OF LAND USE AND DEVELOPMENT - 3 semester hours
F
Interpretation of the landscape features of the United States with an emphasis on the historical and present patterns of social and economic activities.

GEOG 413 ECONOMIC GEOGRAPHY - 3 semester hours
Sp
A study of the relation between natural resources and the development and interdependence of national industrial and trade centers.

## HISTORY

HIST 201 HISTORICAL METHODS IN U.S. HISTORY - 3 semester hours
F
An introduction of the craft of researching and writing in the discipline of history.
HIST 222 U.S. HISTORY, EARLY BEGINNINGS TO 1865-3 semester hours
F, Sp
This reading and writing intensive survey course provides students with an in-depth analysis of key historical issues of American history from the first habitation to the end of the Civil War.

HIST 223 U.S. HISTORY, 1865 TO PRESENT - 3 semester hours F, Sp
This reading and writing intensive survey course students with an in-depth analysis of key historical issues of American history from 1865 to day.

HIST 250 AMERICAN SPORTS HISTORY - 3 semester hours
F, Sp, Su
A social history of America, using sports and leisure as indicators of how these activities reflect American attitudes from the colonial period to the present day.

HIST 299 SPECIAL TOPICS IN HISTORY - $\mathbf{3}$ semester hours
F, sp
A temporary and/or topic specific course with content appropriate for a sophomore level audience.
HIST 301 HISTORY OF ASIA - 3 semester hours
A survey of the cultures, empires and people of Asia.
HIST 304 AMERICAN MILITARY HISTORY - 3 semester hours
A study of American Military History, and the origin and the growth of the United States Army and its accomplishments in war and peace from 1775 to the present.

## HIST 312 HISTORY OF RUSSIA AND THE SOVIET UNION- 3 semester hours F, Sp

A historical overview of the development of the Russian state, the time period of Communist control as the Soviet Union and the re-emergence of non-communist Russia.

HIST 317 HISTORY OF ENGLAND - 3 semester hours
A survey of the social, economic, and political development of England from 1485 to the twentieth century.

## HIST 325 SURVEY OF LATIN AMERICA - 3 semester hours F, Sp

An overview of the history, culture, and politics of Latin American from the pre-Columbian era to the present day.

## HIST 327 HISTORY OF THE CARIBBEAN - 3 semester hours

A history of the political, economic, and social characteristics of the Caribbean region.

HIST 341 AFRICAN AMERICAN HISTORY FROM 1865 TO PRESENT - 3 semester hours Sp
This reading and writing intensive course will provide students with an analysis of important issues in African American history from 1865 to the present.

## HIST 352 BLACK VOICES IN AMERICAN HISTORY - 3 semester hours <br> F, Sp

A reading and discussion intensive course that explores the ways in which African Americans have experienced and responded to life in the social, political, and economic spheres of American society.

HIST 399 SPECIAL TOPICS IN HISTORY - 3 semester hours
F, Sp
A temporary and/or topic-specific course with content appropriate for an upperclassman audience.
HIST 401 COLONIAL AMERICA TO 1763-3 semester hours F, Sp
A study of the establishment and development of British colonies in North America emphasizing their political, social and economic patterns.

## HIST 402 STUDENT TEACHING IN HISTORY - 3 semester hours

F, Sp
This course is designed to provide supervision in the content area for pre-service secondary history candidates.
HIST 405 REVOLUTIONARY AND EARLY NATIONAL PERIOD, 1763-1815-3 semester hours
An examination of the founding of the United States from the Revolution through the War of 1812.
HIST 406 NATIVE AMERICANS IN EARLY AMERICA - 3 semester hours
A study of native Americans in North American from the earliest settlements on the continent until the early nineteenth century.

HIST 409 ANTE BELLUM AMERICA- 3 semester hours
F, Sp
An overview of the United States from 1815 to the outbreak of the Civil War, with an emphasis on major political, economic and social trends.

HIST 413 CIVIL WAR AND RECONSTRUCTION - 3 semester hours
A study of the Civil War and its causes as well as the economic, political, and social changes in the South during Reconstruction.

HIST 415 THE NEW SOUTH - 3 semester hours
F, Sp

A study of the effects of the Civil War and Emancipation on southern reconstruction, industrialization, and agriculture.

HIST 417 PROGRESSIVISM TO DEPRESSION, 1900-1933-3 semester hours F, Sp
An intensive study of the United States in the first three decades of the twentieth century, including a consideration of Progressive Reform, World War I, the Twenties, the Crash, and the Depression.

HIST 421 NEW DEAL TO NOW, 1933 TO THE PRESENT - 3 semester hours F, Sp, Su
A concentrated study of the recent history of the United States, including a consideration of the Depression and the New Deal, the Second World War, the Cold War, Civil Rights struggle, and other domestic developments.

HIST 425 CONTEMPORARY AMERICAN HISTORY - 3 semester hours
F, Sp, Su
An intensive study of contemporary topics and analysis of their background and impact.
HIST 426 METHODS AND MATERIALS FOR TEACHING HISTORY AND SOCIAL STUDIES IN THE SECONDARY SCHOOL - 3 semester hours F, Sp
Implications of contemporary teaching strategies, educational materials, and instructional designs for cross-disciplinary instruction in history and social studies.

## HIST 428 AMERICA IN TWO WORLD WARS - 3 semester hours

A study of America's participating in World War I and World War II, the conflicts that marked American's transition to a global superpower.

A general course on the development of Virginia and its role in the history of the nation.
HIST 435 AMERICAN DIPLOMATIC HISTORY - 3 semester hours
F ,Sp, Su
A comprehensive study of American foreign relations from the colonial era to the present day.
HIST 437 ECONOMIC AND BUSINESS HISTORY OF THE UNITED STATES - 3 semester hours F
A study of the ideas, forces, and people behind the emergence of a capitalist economy in the United States, from the Revolution to the present.

## HIST 439 AMERICAN CONSTITUTIONAL HISTORY - 3 semester hours <br> F, Sp

A historical study of the creation of the U.S. constitution, it s impact upon American development and society, and the evolution of the document to contemporary history.

HIST 441 AMERICAN INTELLECTUAL AND CULTURAL HISTORY - 3 semester hours F, Sp
An overview of the major social trends of the various peoples of American, including intellectual, religious, cultural and literary movements.

## HIST 443 HISTORY INTERNSHIP - 3 semester hours F, Sp

Provides students with the opportunity to experience the practice of history through placement in internships with public or private agencies.

HIST 444 SENIOR SEMINAR - 3 semester hours
F
Designed as a capstone course for History majors, the Senior Seminar requires students to demonstrate their historical knowledge and skills through the research, writing, presentation and defense of a seminar paper on a topic approved by the seminar director.

## HIST 445 WOMEN'S HISTORY - 3 semester hours

$\mathrm{Sp}, \mathrm{Su}$
A study of the significance of women in American history, focusing on the changing historical roles of women in society and the emergence of the women's movement.

## HIST 449 HISTORY OF THE AMERICAN WEST - 3 semester hours

An examination of the primary events, social movements and historical impact of American migration into the West from the nineteenth century to the present day.

## HIST 451 BLACK HISTORY - 3 semester hours

A study tracing the career of Afro-Americans throughout American history from the African background to present times.

HIST 453 HISTORY OF BLACK EDUCATION IN THE UNITED STATES - 3 semester hours F, Sp An investigation into the ideologies, methods, and struggles involved in the education of blacks in the United States across time and regions.

## HIST 455 BLACK PROTEST IN THE TWENTIETH CENTURY - 3 semester hours

An extensive examination of the efforts of Afro-Americans to secure freedom and dignity in twentieth-century America with emphasis on the philosophies and leaders of the major protest organizations.

HIST 459 A HISTORY OF BLACK RELIGIOUS EXPERIENCES IN AMERICA - 3 semester hours F, Sp This course examines the origins and contributions of the black sectarian and established religious experiences in America from the Colonial period to the present.

HIST 462 HISTORY OF AFRICA SINCE 1800 - 3 semester hours
Survey of the history of African since the late $18^{\text {th }}$ century as a background for understanding today's events. The course will examine socio-economics and political developments inside Africa, relations with outside forces, and the increasing European interest in Africa, which paved way for the imposition of Europeans colonialism. The colonial impact and African reactions, decolonization, the post-colonial period and the current problems and prospects of Africa will be studied.

HIST 463 THE RISE OF THE ATLANTIC WORLD - 3 semester hours
F, Sp
A study of the how European exploration and trade brought together Europe, Africa and the new World in a commercial relationship culminating in the Atlantic slave trade; the coping mechanisms and the role of Africans in the emergence of new communities around this Atlantic world

HIST 465 WEST AFRICA IN THE ERA OF THE ATLANTIC SLAVE TRADE - 3 semester hours F, Sp A study of the social, political and economic developments inside West Africa in the era of the greatest forced migration in human history. Attention will be paid to the ways in which the slave trade influenced internal developments and impacted societies in West Africa.

## HIST 471 COMPARATIVE WORLD RELIGIONS - 3 semester hours

A comparison of the world's major religions and their influence on World History.
HIST 481 EUROPE, 1814-1914-3 semester hours
F
An examination of the rise of nationalism and industrialism in Europe during the nineteenth century and the causes of World War I.

## HIST 483 EUROPE SINCE 1914-3 semester hours

Sp
An examination of conditions in Europe since 1914: the rise of dictatorship; the coming of World War II; the defeat of the Axis; the end of European imperialism; and post-war European organization and problems.

## HIST 487 BRITISH EMPIRE/COMMONWEALTH - 3 semester hours <br> F, Sp

A survey of the development of the British Empire from the American Revolution to the Commonwealth of Nations and its place in the Age of Anti-Colonialism.

HIST 489 AMERICAN LEGAL HISTORY - 3 semester hours F, Sp
A history of the American legal system from the colonial era to the present, emphasizing the changing nature of the law to reflect American society.

## HIST 491 THE FRENCH REVOLUTION - 3 semester hours

F, Sp
An analytical examination of the people and processes of the French Revolutionary period. A special focus of this course will be the study of revolutionary theories developed by social scientists during the last several decades.

HIST 492 AMERICAN IMMIGRATION HISTORY - semester hours
F, Sp, Su
A history of immigration to the Western Hemisphere, including a discussion of where the immigrants came from, why they came, and how they influenced America after their arrival.

## HIST 495 INDEPENDENT STUDY IN HISTORY - 3 semester hours

F, Sp, Su
An open format history course featuring directed supervision of the student in their chosen topic by a designated faculty member.

## PHILOSOPHY

PHIL 180 CRITICAL THINKING - 3 semester hours
F, Sp
An introductory course exploring the nature and structure of arguments and enhancing reasoning abilities. Students will learn to develop and analyze arguments, identify informal fallacies, differentiate among assumptions, opinions, and facts, and hone critical reading and writing skills.

PHIL 213 HISTORY OF PHILOSOPHY - 3 semester hours
F, Sp
A survey of the history of Western philosophy from the Renaissance through the nineteenth century, including Hobbes, Descartes, Leibnitz, Spinoza, Locke, Berkeley, Hume, Kant, and Hegel.

PHIL 220 INTRODUCTION TO LOGIC - 3 semester hours
F, Sp
An introduction to the methods of elementary formal logic, including traditional syllogistic, Venn diagrams, sentential logic, truth tables, methods of deduction, and inductive reasoning.

PHIL 275 ETHICS - 3 semester hours $\quad$ F, Sp
An introductory study of the nature, analysis, and justification of moral judgments.
PHIL 290 BUSINESS ETHICS - 3 semester hours $\quad$ F, Sp
A course designed to introduce students to ethical theories and moral reasoning which they will then apply to business case studies. Students will consider contemporary moral dilemmas confronting businesses and corporations. They will develop the critical skills needed to analyze complex moral situations and formulate, weigh, discuss and defend appropriate moral solutions.

PHIL 314 PHILOSOPHY OF RELIGION - 3 semester hours
A survey of Eastern and Western religious thought, including the idea of God, knowledge of God, the problem of evil, immortality, and reincarnation.

PHIL 315 AFRICAN PHILOSOPHY - 3 semester hours
F
An exploration of metaphysical, epistemological and ethical theories arising from peoples of the African continent. Students will analyze, discuss and compare the differing principles and world views of the diverse African societies.

## PHIL 323 READINGS IN PHILOSOPHY - 3 semester hours <br> F, Sp

A close reading of original philosophical works on an in-depth treatment of a philosophical problem, such as readings in the philosophy of law, Black philosophy, existentialism, the philosophy of language, and symbolic logic.

## PHIL 340 PHILOSOPHY OF MIND - 3 semester hours

The question 'what is it to have a mind?' forms the focus of the course, and the objective is to arrive at an answer by examining the multifarious manifestations of mind. The course is organized around an interdisciplinary approach by incorporating theories from psychology, artificial intelligence and cognitive science.

PHIL 350 PHILOSOPHY OF LAW - 3 semester hours
Sp
An examination of the source, content and extent of political and moral rights and obligations. Other concepts explored will be autonomy, privacy, freedom of religion, equal opportunity, paternalism, and how these concepts impact issues such as conscientious objection, flag burning, pornography, affirmative action, abortion, and euthanasia.

## PHIL 400 CONTEMPORARY PHILOSOPHY - 3 semester hours F, Sp

A study of twentieth century Western philosophy, including the work of such contemporary philosophers as Russell, Wittgenstein, Pierce, James, Dewey, Heidegger, and Sartre.

PHIL 422 PHILOSOPHY OF SCIENCE - 3 semester hours
F, Sp
An examination of the fundamental conceptual basis of the sciences; consideration given to scientific methods of certification, theory construction and explanation, the metaphysical assumptions and implications of scientific theories, and the relations between the scientific and non-scientific views of the world.

PHIL 424 SEMINAR IN PHILOSOPHY - 3 semester hours
F, Sp
An opportunity for students to pursue original research in an area of the instructor's special interest and study.
PHIL 450 APPLIED ETHICS - 3 semester hours $\quad$ F, Sp
An in-depth exploration of moral theory and discussion of its application to broad areas such as business, the environment, or bio-medical issues.

## PHIL 460 EPISTEMOLOGY AND METAPHYSICS - 3 semester hours

F, Sp The course examines the nature of knowledge and reality. It covers epistemological issues such as skepticism, analysis of knowledge, relevance of gender and race to understanding and the ethics of belief. It also deals with metaphysical questions about what there is in reality and how the world works by discussion issues like appearance and reality, substance and identify, causation and laws, and space and time.

## DEPARTMENT OF HISTORY AND PHILOSOPHY <br> History Major Bachelor of Arts Degree

|  |  | SEMESTER HOURS |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1{ }^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
| FRESHMAN YEAR |  |  |  |  |
| GEHI 114 | World History to 1500 | 3 | - | 3 |
| ENGL 110 | Composition I | 3 | - | 3 |
| MATH | GE Menu | 3 | - | 3 |
| LANG |  | 3 | - | 3 |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| GEHI 115 | World History Since 1500 | - | 3 | 3 |
| ENGL 111 | Composition II | - | 3 | 3 |
| MATH | GE Menu | - | 3 | 3 |
| LANG |  | - | 3 | 3 |
| SCIENCE/LAB | GE Menu | - | 4 | 4 |
|  |  | 14 | 16 | 30 |
| SOPHOMORE YEAR |  |  |  |  |
| HIST 222 | U.S. History to 1865* | 3 | - | 3 |
| GEPI 140 | Philosophy | 3 | - | 3 |
| SOC. SCI | (GE Menu; not Consumer Econ) | 3 | - | 3 |
| ENGL 201 | Intro to Lit | 3 | - | 3 |
| HIST 111 or HIST 112 | Intro to History or Intro to Black History | 3 | - | 3 |
| HIST 223 | US History After 1865* | - | 3 | 3 |
| PHIL 180 | Critical Thinking | - | 3 | 3 |
| SCIENCE/LAB | GE Menu | - | 4 | 4 |
| HEALTH \& WELLNESS | GE Menu | - | 2 | 2 |
| TECHNOLOGY | GE Menu | - | $\underline{3}$ | $\underline{3}$ |
|  |  | 15 | 15 | 30 |
| JUNIOR YEAR |  |  |  |  |
| GEOG | Elective | 3 | - | 3 |
| HIST 201 | Historical Methods | 3 | - | 3 |
| HIST 404 | Revolution | 3 | - | 3 |
| GEEN 310 | Advance Comm. Skills | 3 | - | 3 |
| HIST | Elective | 3 | - | 3 |
| HIST 413 | Civil War \& Reconstruction | - | 3 | 3 |
| HUMANITIES | GE Menu | - | 3 | 3 |
| HIST | Elective | - | 6 | 6 |
| UNRESTRICTIVE | Elective | - | $\underline{3}$ | $\underline{3}$ |
|  |  | 15 | 15 | 30 |
| SENIOR YEAR |  |  |  |  |
| HIST 421 | New Deal to Now | 3 | - | 3 |
| HIST 444 | Senior Seminar | 3 | - | 3 |
| HIST | Elective | 6 | - | 6 |
| UNRESTRICTIVE | Elective | 3 | - | 3 |
| HIST | Elective | - | 9 | 9 |
| UNRESTRICTIVE | Elective (300 level or higher) | - | $\underline{6}$ | $\underline{6}$ |
|  |  | 15 | 15 | 30 |

*When HIST 222 and 223 are not offered, GEHI 122 and 123 may substitute.

## DEPARTMENT OF HISTORY AND PHILOSOPHY

History and Social Sciences with a Minor in Secondary Education 6-12 Bachelor of Arts Degree (120 hours)

|  |  | SEMESTER HOURS |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1{ }^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
|  | FRESHMAN YEAR |  |  |  |
| GEHI 114 | World History to 1500 | 3 | - | 3 |
| ENGL 110 | Composition I | 3 | - | 3 |
| GEMA 112 | Basic Mathematics | 3 | - | 3 |
| GEES 181 | Earth Science and Lab | 4 | - | 4 |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| IDST 100 | Analytical Reading, Writing and Reasoning I | (2)** | - | (2)** |
| GEHI 115 | World History II | - | 3 | 3 |
| GEMA 113 | Basic Mathematics | - | 3 | 3 |
| LANG | Elective | - | 3 | 3 |
| ENGL 111 | Composition II | - | 3 | 3 |
| GEAG 150 | Environmental Science and Lab | - | 4 | 4 |
| IDST 101 | Analytical Reading, Writing and Reasoning II | - | (2) ${ }^{* *}$ | (2) ${ }^{* *}$ |
|  |  | 15 | 16 | 31 |
| SOPHOMORE YEAR |  |  |  |  |
| HIST 222 | U.S. History to 1865* | 3 | - | 3 |
| GEPI 140 | Philosophy | 3 | - | 3 |
| EDUC 201 | Introduction to Teaching I | 2 | - | 2 |
| ENGL 202 | African American Lit | 3 | - | 3 |
| HEALTH \& WELLNESS | (GE Menu) | 2 | - | 2 |
| GEEN 310 | Adv. Communication Skills | 3 | - | 3 |
| HIST 223 | US History After 1865* | - | 3 | 3 |
| ECON 100 | Basic Economics | - | 3 | 3 |
| EDUC 202 | Introduction to Teaching II | - | 2 | 2 |
| GEPO 150 | US Government | - | 3 | 3 |
| IDST 200 | Digital Media in Education | = | $\underline{3}$ | $\underline{3}$ |
|  |  | 16 | 14 | 30 |
| JUNIOR YEAR |  |  |  |  |
| GEOG | Elective | 3 | - | 3 |
| HIST 201 | Historical Methods | 3 | - | 3 |
| HIST 405 | Revolution | 3 | - | 3 |
| POLI 102 | State and Local Government | 3 | - | 3 |
| EDUC 315 | Data Driven Instructional Design | 3 | - | 3 |
| HIST 413 | Civil War \& Reconstruction | - | 3 | 3 |
| EDUC 427 | Reading in Subject Area | - | 3 | 3 |
| HIST 431 | Virginia History | - | 3 | 3 |
| PSYC 212 | Human Growth \& Development | - | 3 | 3 |
| SPED 403 | Classroom Management | - | 3 | 3 |
|  |  | 15 | 15 | 30 |
| SENIOR YEAR |  |  |  |  |
| HIST 421 | New Deal to Now | 3 | - | 3 |
| HIST 444 | Senior Seminar | 3 | - | 3 |
| HIST 426 | Methods for Teaching History/Social Studies | 3 | - | 3 |
| EDUC 424 | Critical Issues in Education | 2 | - | 2 |
| HIST/SOC. SCI. | Elective | 3 | - | 3 |
| EDUC 401 | Student Teaching Seminar | - | 3 | 3 |
| HIST 402 | Student Teaching in History | - | 3 | 3 |
| EDUC 402 | Student Teaching | - | $\underline{9}$ | $\underline{9}$ |
|  |  | 14 | 15 | 29 |

# DEPARTMENT OF LANGUAGES AND LITERATURE 

| Chairperson: | Freddy Thomas, Box 9072, Room 300T Colson Hall, Phone: 524-5489 |
| :--- | :--- |
| Professors: | Rita Dandridge, Carl Garrott, Osayimwense Osa, Freddy Thomas |
| Associate Professors: | Diann L. Baecker, Katherine Chute, Donna Crawford, Rodger L. Doss, David P. Dussere, <br>  <br>  <br>  <br>  <br>  <br> Deborah Goodwyn, Giles G. Hall, Kay Heath, John R. Holmes, Mohamed S. Kabia, Sheikh <br> Kamarah, Gary MacDonald, Gladys C. Nunnally, Hildegard Rissel, Maxine Sample, <br> Assistant Professors:Sylviane Townsel <br> Carmen Alverio, Aisha Bailey, Lillie E. Bailey, Bennis Blue, Jacqueline Burleson, M. <br> Lynn Byrd, Duane Byrge, Carlton Edwards, Willie Hobbs, Curtis Holsopple, Cherlyn |
|  | Johnson, Michael McClure, Consuelo Navarro, Pamela Reed, Carol Wilcox |

## Description of the Department

The Department offers a wide range of writing, language-study, and literature courses in the fields of English, English Education, French, Spanish, and German; and courses in Mass Communications Media, Drama, and Speech. The Department offers two undergraduate programs leading to the Bachelor of Arts degree: one in English and one in Mass Communications. For the English major, there is also a minor in Secondary Education that may lead to a teaching endorsement. The Mass Communications program offers three options: Print Media, Radio and Television, and Public Relations. In addition, the Department offers minors in Africana Studies, English, French, German, Mass Communications, Spanish, and Writing.

## Mission of Department

The Department of Languages and Literature's programs and functions support the University's mission by welcoming and extending Department resources to all who strive for academic excellence, whatever their national, racial, ethnic or religious affiliation. The Department, in conjunction with the University, is ultimately dedicated to the promotion of knowledgeable, perceptive, and humane citizens secure in their self-awareness, equipped for personal fulfillment, sensitive to the needs of others, and committed to assuming productive roles in a challenging and ever changing global society.

Department programs and courses provide particular support for Mission principles concerned with advanced scholarship in the discipline of English, the African-American heritage, globally oriented studies, and students who are diversely prepared in communication skills.

The purpose of the Department of Languages and Literature is to assist students in (1) developing competence in language skills, especially in writing and in speaking; (2) developing knowledge of language, the literature of various periods and peoples, and the processes of critical thinking and writing; (3) preparing for the teaching profession, further study and research, and other careers involving analytical, critical, and communicative proficiencies; (4) and developing a broad intellectual background and specialized skills in Mass Communications and related media.

## Objectives of Department

- To develop students' competence in language skills, especially writing and speaking effectively
- To develop students' knowledge about language, the literature of various periods and peoples, and the processes of critical thinking and writing.
- To prepare students for teaching, further study and research, and other careers involving analytical, critical, and communicative proficiencies.
- To provide students a broad intellectual background and specialized skills in Mass Communications and related media.


## Special Facilities and Equipment

The Department of Languages and Literature offers several specific facilities: a state-of-the-art digital production studio, a multimedia computer writing center, an electronic classroom, a television editing laboratory, a radio laboratory, a foreign language laboratory, and a multimedia journalism computer classroom.

## DEPARTMENT OF LANGUAGES AND LITERATURE

## Africana Studies Minor

The Africana Studies Minor requires 18 semester hours.
The Africana Studies minor is a multidisciplinary program that combines the study, research, interpretation, and the dissemination of knowledge concerning the African presence in Africa, the Americas, Europe, and other parts of the world from the birth of human civilization to the present. Students are introduced to critical and theoretical perspectives for the multicultural approach to the historical, political, and socioeconomic realities of peoples of African descent. Students will examine the African American cultural experience and the similarities and differences among the cultures of peoples of African origin, while considering the values of these cultures and the continuity and change among geographical areas over time.

## COURSE

IDUP 270

One course from
The following:
The follow:

TITLE

Introduction to Africana Studies

ENGL 311 African-American Literature
ENGL $320 \quad$ Harlem Renaissance
ENGL 410 Readings in African American Literature
One course from
The following:

ENGL 315
ENGL 411
ENGL 412
African Literature
Readings in African Literature Caribbean Literature

One course from
The following:

IDUP 371 Study Abroad in Africa (3 to six hours)
IDUP $470 \quad$ Special Topics in African Studies
One course from EACH category below: Unrestricted Elective

|  | Humanities Course in Blacks in Africa <br> or African Diaspora | 3 |
| :--- | :--- | ---: |
| Unrestricted | Social Science Course Blacks in Africa <br> or African Diaspora | 3 |
| Elective | O |  |

## English Minor

The English Minor requires 18 hours ( $\mathbf{6}$ classes) from the following:

1. Nine hours ( 3 courses) from English Literature I/II (ENGL 210-211) and American Literature I/II (ENGL 212-213). One course must be taken from each sequence, and both courses in one of the sequences must be taken.
2. Three hours (1 course) from the foundation Figures Group: Chaucer (ENGL 401), Shakespeare (ENGL 403/404), Milton (ENGL 402).
3. Six hours (2 courses) from ENGL courses at the 300/400 level, at least three hours of which must be literature.

## French Minor

Students in any school at Virginia State University may declare the French Minor and satisfy the requirements by completing a minimum of $\mathbf{1 8}$ semester hours as indicated below.

| FREN 212 | Intermediate French I | 3 sem hrs. |
| :---: | :---: | :---: |
| FREN 213 | Intermediate French II |  |
| One course from the following: |  | 3 sem hrs. |
| FREN 310 | Composition |  |
| FREN 313 | Conversation |  |
| FREN 314 | Advanced Conversation |  |
| Two courses from |  | 6 sem hrs. |
| The following: |  |  |
| FREN 410 | French Literature of the $17^{\text {th }}$ Century |  |
| FREN 411 | French Literature of the $18^{\text {th }}$ Century |  |
| FREN 412 | French Literature of the $19^{\text {th }}$ Century |  |
| FREN 416 | French Civilization |  |
| Unrestricted | Any three hour course from the | 3 sem hrs. |
| Elective | French curriculum exclusive of FREN 110 and FREN 111 |  |

## German Minor <br> Students in any school at Virginia State University may declare the German Minor and satisfy the requirements by completing a minimum of 18 semester hours as indicated below.

| GERM 212 | Intermediate German | 3 sem hrs. |
| :--- | :--- | :--- |
| GERM 213 | Intermediate German II | 3 sem hrs. |
| GERM 310 | German Composition | 3 sem hrs. |
| GERM 313 | German Conversation | 3 sem hrs. |
| One course from |  |  |
| the following: |  | 3 sem hrs. |
| GERM 300 Survey of German Literature I <br> GERM 301 <br> Survey of German Literature II  |  |  |
| One course from <br> the following |  | 3 sem hrs. |
| GERM 312 | Practice in German Phonetics |  |
| GERM 415 | German Civilization |  |

## Mass Communications Minor

The Mass Communications Minor (18 semester hours) consists of five of the required courses in the major core. Students select a sixth course from the other Mass Communications offerings.

| MCOM 201 | Introduction to Mass Communications | 3 sem hrs. |
| :--- | :--- | :--- |
| MCOM 205 | Journalism I | 3 sem hrs. |
| MCOM 301 | Journalism II | 3 sem hrs. |
| MCOM 306 | Broadcast Journalism | 3 sem hrs. |
| MCOM 400 | Media Law Ethnics | 3 sem hrs. |
| MCOM Elective |  | 3 sem hrs. |

## Spanish Minor

To obtain a Spanish Minor, a student must complete 18 semester hours at the 200 -level. Nine of the twelve hours must be taken at the advanced level, including SPAN 300, 301, 310, 313, 314, 315, 316,414, 415, and 416. SPAN 310 and SPAN 313 are required for all minors.

| SPAN 212 | Intermediate Spanish I |
| :--- | :--- |
| SPAN 213 | Intermediate Spanish II |
| SPAN 214 | Commercial Spanish |
| SPAN 300 | Survey of Spanish Literature I |
| SPAN 301 | Survey of Spanish Literature II |
| SPAN 310 | Spanish Composition |
| SPAN 312 | Practical Spanish Phonetics |
| SPAN 313 | Spanish Conversation |
| SPAN 314 | Advanced Spanish Conversation |
| SPAN 315 | Survey of Latin American Literature I |
| SPAN 316 | Survey of Latin American Literature II |
| SPAN 414 | Spanish Civilization I |
| SPAN 415 | Spanish Civilization II |
| SPAN 416 | Special Topics in Spanish |

Students enrolled in the Spanish Minor may take the last six to nine hours in study abroad in a Spanish and/or Latin American university.

## Writing Minor

Students in any school at Virginia State University may declare the English Minor in Writing and satisfy the requirements by completing a minimum of 18 semester hours as indicated below. The foundation of the minor will be a required course in Rhetorical Traditions and a required course in Expository Writing. The remaining hours will be satisfied through the selection of 300 -and 400 -level courses in the minor. All courses are 3 semester hours unless indicated otherwise. The Practicum allows students the opportunity to put their knowledge to the test in real-world applications and to gain valuable practical skill. Before beginning course work in the minor, students must have completed ENGL 110 (Composition I) and ENGL111 (Composition II), and successfully passed these courses with at least a "C."

Group I
ENGL 341
ENGL 421/521

## Required

Expository Writing
Rhetorical Traditions

## Group II

## 12SCH

Students will select TWELVE hours from the following list. Students may choose to take a prepondence of creative writing or professional writing courses or any combination.

## Creative and Professional Writing Courses

ENGL 343 Writing Poetry
ENGL 344 Writing Short Fiction
ENGL 345 Writing Creative Non-fiction
ENGL 440/540 Advanced Creative Writing
ASYM $301 \quad$ Business Communications
ASYM $401 \quad$ Business Reporting
ENGL 342 Technical Report Writing
MCOM 205 Journalism I (Note: MCOM 201 is a prerequisite)
MCOM 301 Journalism II (Note: MCOM 201 and 205 are prerequisite)

## Practicum Courses

ENGL 346
MCOM 311 Newspaper Production I (1 credit hour)
MCOM 312 Newspaper Production II (1 credit hour)
MCOM 313 Newspaper Production III (1 credit hour)
**(Note: Students may take no more than 3 credit hours of Practicum courses)

## AFRICANA STUDIES

## IDUP 270 INTRODUCTION TO AFRICANA STUDIES - $\mathbf{3}$ semester hours

This course examines the various disciplinary and theoretical approaches to Africana Studies and its development as a field of scholarly inquiry. Through fiction and nonfiction, students will explore topics that will include Africa and its place in the world community, the Atlantic slave trade, nationalism, Pan-Africanism, Afrocentricity, and the roles of race, gender, and class in shaping the experiences of people of African descent in African and the Diaspora.
Prerequisites: ENGL 110 Composition I; ENGL 111 Composition II

## IDUP 371 STUDY ABROAD IN AFRICA - 3-6 semester hours

An individually designed and planned learning experience at an African university.

## IDUP 470 SPECIAL TOPICS IN AFRICANA STUDIES - 3 semester hours

In-depth study of a selected topic in the literatures and/or languages of Africa and/or the African Diaspora. Topics will vary from semester to semester.
Prerequisites: ENGL110 Composition I; ENGL 111 Composition II

## DRAMA

## DRAM 113 ACTING - 3 semester hours

Basic instruction in the fundamentals of acting, emphasizing vocal and body techniques employed in creating and presenting characterizations. Includes studies of historical and modern acting styles, techniques, theories, and dramatic relationships. Laboratory experiences.

## DRAM 215 STAGECRAFT I - 3 semester hours

Lecture-laboratory approach to the study of elementary principles and problems regarding crews, scripts, and stage design concepts, design procedures, construction, and color and paint.

DRAM 217 ACTIVITIES IN DRAMA - 3 semester hours
Practice in optional phases of presenting dramatic productions.
DRAM 301 DRAMATIC PRODUCTION -1 semester hour, repeatable 6 times
Students work on the creation, technical production, and management of performances given by the Little Theatre and the VSU Performers.

## DRAM 316 STAGECRAFT II - 3 semester hours

Lecture-laboratory approach to the study of elementary principles and problems regarding properties, lighting, special sound and visual effects, make-up, and costumes.

## DRAM 414 DIRECTING AND PRODUCING - 3 semester hours

Lecture-laboratory approach to the principles and techniques of directing and producing.

## ENGLISH EDUCATION

## ENED 371 THE TEACHING OF ENGLISH IN SECONDARY SCHOOLS - 3 semester hours

Examination of traditional and current theories and practices in the teaching of English, with opportunities for supervised lab and firsthand experiences in practice teaching.

## Prerequisite: EDUC 301 Foundations of Instruction

## ENED 402 STUDENT TEACHING IN ENGLISH - 3 semester hours

## ENED 431 TEACHING COMPOSITION - 3 semester hours

A course dealing with developing a philosophy of composition, emphasizing particularly the relationship between the process of composing and the process of exploring a subject. Also presents ways of organizing and conducting the composition class as well as techniques of evaluation.

## ENED 432 READING AND LITERATURE - 3 semester hours

Sp
A course based on the premise that one is likely to read well by reading often in a favorable, positive atmosphere. Emphasis on environments teachers create and materials and procedures they use which can lead to students developing the desire to read and the habit of reading extensively. Practicum in planning lessons in literature for students with various abilities and interests, with emphasis on adolescent literature.

## ENED 433 VERBAL PROFICIENCY EXAMINATION - 0 semester hours

A written and oral examination to assess students' verbal competencies at the beginning of their senior year.

## ENGLISH

## ENGL 201 INTRODUCTION TO LITERATURE - 3 semester hours <br> F, Sp

A course in reading, thinking critically about, and discussing literature from a variety of genres and cultures, through the study of significant texts and authors. Writing intensive.

## Prerequisite: ENGL 110 Composition I and ENGL 111 Composition II

## ENGL 202 INTRODUCTION TO AFRICAN AMERICAN LITERATURE - 3 semester hours F, Sp

A course in reading, thinking critically about, and discussing literature from a variety of genres, through the study of significant texts by African American authors. Writing intensive.
Prerequisites: ENGL 110 and ENGL 111
ENGL 210 ENGLISH LITERATURE I - 3 semester hours
F
Study of English literature and its background from Anglo-Saxon times through the age of Samuel Johnson.

## ENGL 211 ENGLISH LITERATURE II - 3 semester hours

Study of English literature and its background from the Romantic age to the twentieth century.
ENGL 212 AMERICAN LITERATURE I - 3 semester hours
F, Sp
Survey of various topics, literary form, and writer representative of achievements and trends from Colonial times to the Civil War.

ENGL 213 AMERICAN LITERATURE II - 3 semester hours F, Sp
Survey of various types of creative works and critical opinions, designed to show the variety and strengths of literary achievement from the Civil War to the present.

ENGL 214 WORLD LITERATURE I - 3 semester hours
F, Sp
Survey in English of world literature from the Ancient World through the Renaissance, with attention to main ideas and genres.

ENGL 215 WORLD LITERATURE II - 3 semester hours
Survey in English of world literature from the seventeenth century to the present, with attention to main ideas and generes.

## ENGL 301 ENGLISH LITERATURE OF THE MIDDLE AGES - 3 semester hours

Study of the chief works of medieval English literature from Beowulf to the fifteenth century against a background of prevailing social, political, and religious ideas.

## ENGL 302 ENGLISH LITERATURE OF THE RENAISSANCE - 3 semester hours

Study of the principal writers of the Renaissance and the Interregnum, from Skelton to Milton. Prevailing social, political, and religious thought of the Renaissance and early seventeenth century as background.

## ENGL 303 ENGLISH LITERATURE OF THE RESTORATION AND EIGHTEENTH CENTURY

## 3 semesters hours

Study of the principle writers of the Restoration and eighteenth century. Prevailing social, cultural, and political thoughts of the Restoration $/ 18^{\text {th }}$ century as background.

## ENGL 304 ENGLISH LITERATURE OF THE NINETEENTH CENTURY - 3 semester hours

Study of the principal poets and prose writers of the Romantic movement and the Victorian period. Prevailing social, cultural, and political thought of the late $18^{\text {th }}$ century and $19^{\text {th }}$ century as background.

## ENGL 306 ENGLISH LITERATURE OF THE TWENTIETH CENTURY - 3 semester hours

Study of the principal writers of literary and critical movements in the $20^{\text {th }}$ century. Prevailing social, cultural, and political thought of the $20^{\text {th }}$ and early $21^{\text {st }}$ century as background.

## ENGL 307 AMERICAN LITERATURE BEFORE 1800 - 3 semester hours

Study of the major issues, movements, forms, and/or themes in American literature and culture before 1800. Topics may include narratives of exploration and encounter, Puritan and/or Enlightenment writings, captivity and slave narratives, post-colonial approaches to colonial rhetoric and poetry, and/or in-depth studies of selected writers.

## ENGL 308 AMERICAN LITERATURE OF THE NINETEENTH CENTURY - 3 semester hours

Study of the major issues, movements, forms and/or themes in $19^{\text {th }}$ century American literature and culture. Topics may include the American Renaissance, literature and abolition, African American novels and poetry, romance and romanticism, the rise of the short story, realism, naturalism, the frontier, representations of region, American capitalism, and/or in-depth studies of selected writers.

## ENGL 309 AMERICAN LITERATURE OF THE TWENTIETH CENTURY - 3 semester hours

Study of the major issues, movements, forms, and/or themes in $20^{\text {th }}$ century American literature and culture. Topics may include Modernism, Post-Modernism, the Harlem Renaissance, Depression-era literature, consumer society, the Beats, Civil Rights literature of American imperialism, and/or in-depth studies of selected writers.

## ENGL 311 AFRICAN-AMERICAN LITERATURE - 3 semester hours

Survey of the African-American literary tradition from its earliest expressions to the present. Topics may include Modernism, Post-Modernism, the Harlem Renaissance, Depression-era literature, consumer society, the Beats, Civil Rights literature, literature of American imperialism, and/or in-depth studies of selected writers.

ENGL 312 WOMEN'S LITERATURE - 3 semester hours
Study of selected literary works by or about women, within the context of women's literary traditions as they have developed in various cultures and historical periods.

## ENGL 313 CLASSICS OF WESTERN LITERATURE - 3 semester hours

Study of Greek and Latin literature in translation, with consideration of major classical works and their influence on English and American literature. Will include works by such writers as Homer, Aeschylus, Sophocles, Euripides, Plato, Aristotle, Virgil, Horace, Catullus, Juvenal, and Ovid.

## ENGL 314 READINGS IN MULTI-CULTURAL LITERATURE - 3 semester hours

Variable content. Study of selected works from the literature of Native American, Jewish, Asian, Chicano/Latino, or other traditions. May be repeated once for credit with different topic, with consent of department.

## ENGL 315 AFRICAN LITERATURE - 3 semester hours

Study of the literature(s) of Africa from pre-colonial to contemporary times. Includes investigation of the relationship between oral and written forms, and how "Orature" has influenced and continues to influences written African literature. Will include representative works from such writers as Achebe, Soyinka, WaThiongo, Head, Emecheta, Ba, Osundare, U'Tamsi, and Aidoo.

## ENGL 320 HARLEM RENAISSANCE - 3 semester hours

Study of the flourishing of the literary, visual, and performing arts by African Americans during the period known as the Harlem Renaissance (1920-1940). Emphasis includes the articulation of black aesthetics and the impact on artistic productivity.

## ENGL 321 LESBIAN AND GAY LITERATURE - 3 semester hours

Study of representative literary works from the perspective of sexuality and sexual identity. May include consideration of literature by lesbian, gay, and bisexual writers; social and historical contexts of lesbians, gay, and bisexual literature; and theories of sexuality in the study of literature.

## ENGL 322 POST-COLONIAL LITERATURE - 3 semester hours

Survey of the development of literatures in English in former European colonies. Topics include the spread of European literary forms in Asia, Africa, the Caribbean, and the far new world (Australia and New Zealand) and the ways writers from colonies integrate influences from their cultures and influences from European literary traditions in their work.

## ENGL 323 ENVIRONMENTAL LITERATURE - 3 semester hours

Study of the relationship between literature and environmental values, and how literary interpretations of the land reflect and influence attitudes toward nonhuman nature and our orientations to our environment. Issues may include the environment as a hostile wilderness, divine nature, the frontier, as well as contemporary nature writers' concern with imperiled ecosystems. Some consideration of ecocriticism.

## ENGL 324 ANGLO-IRISH LITERATURE - 3 semester hours

Study of Irish literature in translation from medieval sagas and myths to the Irish Literary Revival (1880-1940). special emphasis on Yeats, Synge, Lady Gregory, Joyce, and the Abbey dramatists.

## ENGL 325 BIBLE AS LITERATURE - 3 semester hours

Study of selections from the Old and New Testaments as literary texts. May include consideration of the influence of Biblical texts on other literary works and traditions.

## ENGL 326/PHIL 326 MYTHOLOGY - 3 semester hours

An introductory survey of the traditional mythological narratives of ancient civilizations, considering the origins of myths, their nature, and their functions in shaping and expressing a culture's understanding of the divine, the natural world, human nature, and the institutions of human community.

## ENGL 327/PHIL 327 PHILOSOPHY IN LITERATURE - 3 semester hours

Study of basic philosophical problems in major works of literature.
Prerequisite: GEPI 140 or other philosophy course, or permission of instructor(s).

## ENGL 331 HISTORY OF DRAMA - 3 semester hours

Study of major developments of drama up to the $20^{\text {th }}$ century. Close reading and discussion of representative plays from major playwrights and literary periods in terms of their historical and social contexts.

## ENGL 332 MODERN DRAMA - 3 semester hours

Critical study of the development of modern drama from the late $19^{\text {th }}$ century to the present. Close reading and discussion of representative plays from major playwrights and literary movements in terms of their historical and social contexts.

## ENGL 333 READINGS IN POPULAR CULTURE - 3 semester hours

Variable content. Study of selected popular culture texts. May include genres such as mysteries, science fiction, romances, frontier literature, etc, as well as media such as television, advertising, and film. May be repeated once for credit with different topic, with consent of department.

## ENGL 341 EXPOSITORY WRITING - 3 semester hours

Focuses on oral and written discourse which is used to describe, explain, inform, and persuade. Emphasizes showing rather than telling to communicate to a audience or reader in clear and objective language. Required readings serve as prompts for the study of rhetorical patterns, style and organization. Involves research and appropriate technology.

## ENGL 342 TECHNICAL COMMUNICATION - 3 semester hours

Emphasizes clear, effective communication skills essential to technical and professional writing for students from a variety of majors. Builds on a writing process, basic rhetorical principles, audience awareness, and the writer's role in legal, ethical, and electronic communications. Emphasizes reports, memos, resumes, problem-solving, research, and proposals.

## Prerequisites: ENGL 110 Composition; ENGL 111 Composition II

## ENGL 343 WRITING POETRY - 3 semester hours

Development of skills in writing and evaluating poetry, with emphasis on traditional forms and patterns as well as contemporary trends; critical analysis of student works in a workshop setting.

## ENGL 344 WRITING SHORT FICTION - 3 semester hours

Development of skills in writing and evaluating short fiction, with emphasis on traditional uses of plot, characterization, etc. as well as contemporary trends; critical analysis of student works in a workshop setting.

## ENGL 345 WRITING CREATIVE NON-FICTION - 3 semester hours

Development of skills in writing and evaluating creative non-fiction prose, with emphasis on forms such as memoir, autobiography, nature and science writing, history, and interviewing writing; critical analysis of student works in a workshop setting.

## ENGL 346 PRACTICUM IN WRITING - 1-3 semester hours

Allows students the opportunity to do hands-on work in the field of professional writing through internships or work opportunities both on-campus and with the community. The number of credit hours earned will be determined by the instructor and based on the number of hours worked. Approval by the department required.

## ENGL 351 INTRODUCTION TO LANGUAGE STUDY - 3 semester hours

Study of the fundamental characteristics of language itself; introduction to the structure of English; English change through history; social and geographical varieties of English; conceptions about writing and usage.

## ENGL 352 ENGLISH STRUCTURE - 3 semester hours

Systematic analysis of language, overview of traditional and modern grammarians' conceptions of English structure, and study of English from the perspectives of structural and generative grammars.

## ENGL 401 CHAUCER - 3 semester hours

Study of the Canterbury Tales, Troilus and Criseyde, and/or selected minor poems.

## ENGL 402 MILTON- 3 semester hours

Study of the chief poems and prose works of Milton. Some emphasis on Milton's religious and political ideas.

## ENGL 403 SHAKESPEARE I - 3 semester hours

Survey of Shakespeare's early work, with reading of selected plays and their study against the background of Elizabethan social, critical, and theatrical ideas. Emphasis on comedies and histories.

## ENGL 404 SHAKESPEARE II - 3 semester hours

Survey of Shakespeare's later work, with reading of selected plays and their study against the background of Jacobean social, critical, and theatrical ideas. Emphasis on tragedies and romances.

## ENGL 405 THE ENGLISH NOVEL - 3 semester hours

Study of the English novel from its earliest expressions to the present. Emphasis on social and cultural contexts as well as principal novelists.

## ENGL 406 THE AMERICAN NOVEL - 3 semester hours

Study of the American novel from its earliest expressions to the present. Emphasis on social and cultural contexts as well as principal novelists.

ENGL 407 REALISM AND NATURALISM - 3 semester hours
Study of the ideas, literary methods, and influence of writers who furthered the development of the dominant mode of modern fiction.

## ENGL 408 LITERATURE OF THE AMERICAN SOUTH - 3 semester hours

Survey of main trends from Colonial times to the present, treated under such topics as patrician tradition, the Civil War, folklore, regionalism, the New South.

## ENGL 409 READINGS IN ENGLISH STUDIES - 3 semester hours

Variable content. Intensive study of a major issue, movement, form, theme, or figure in literature, film studies and/or language. May be repeated once for credit with different topic, with consent of department.

## ENGL 410 READINGS IN AFRICAN AMERICAN LITERATURE - 3 semester hours

Variable content. Intensive study of a major issue, movement, from, theme, or writer in African American literature and culture. May be repeated once for credit with different topic, with consent of department.

## ENGL 411 READINGS IN AFRICAN LITERATURE AND CULTURES - 3 semester hours

Variable content. Intensive study of a major issue, movement, form, theme, or writer in African literatures and cultures. May be repeated once for credit with different topic, with consent of department.

## ENGL 412 CARIBBEAN LITERATURE - 3 semester hours

Survey of Caribbean literature, which explores fictional and non-fictional prose, poetry, and drama in order to gain an appreciation of the literature and the cultures from which it springs.

## ENGL 420 SURVEY OF LITERARY THEORY AND CRITICISM - 3 semester hours

Examination of representative writings in literary criticism from ancient times to the present. Emphasis upon the effective application of critical principles to the analysis and evaluation of various literary forms.

## ENGL 421 RHETORICAL TRADITIONS - 3 semester hours

Introduces major traditions of rhetorical inquiry, with a particular emphasis on their relevance to composition studies. Study of the works of various rhetoricians from the Classical period to Modern times.
Prerequisites: A grade of "C" or better in ENGL 110 and ENGL 111, or permission of the instructor

## ENGL 422 HISTORY OF THE ENGLISH LANGUAGE - 3 semester hours

Survey of the historical development of modern English from its earliest Indo-European origins; a study of the sound, vocabulary, word-formation, and sentence structure of Old English, Middle English, and Modern Englishincluding a brief discussion of American dialects.

## ENGL 447 ADVANCED CREATIVE WRITING - 3 semester hours

A creative writing workshop in which students will complete an ambitious project: a group of short stories or poems, a play, or a novella. Editing, revising and critiquing with attention to the problems of longer literary forms.
Prerequisites: ENGL 343, 344, or 345 or permission of the instructor

## FRENCH

FREN 110 ELEMENTARY FRENCH I - 3 semester hours
Emphasis on the four skills of listening, speaking, reading, and writing in French: Pronunciation, understanding of grammatical construction, basic readings, dictations, and daily oral practice; open to students receiving no admission credit in French.

FREN 111 ELEMENTARY FRENCH II - 3 semester hours
F, Sp
Continued emphasis on the four skills of listening, speaking, reading, and writing in French: Pronunciation, understanding of grammatical construction, readings, dictations, and daily oral practice.
Prerequisites: FREN 110 Elementary French I or its equivalent
FREN 212 INTERMEDIATE FRENCH I - 3 semester hours F, Sp
Inductive review of grammar, reading of moderately difficult prose, and extensive oral drill in basic structures.
Prerequisite: FREN 111 Elementary French II or its equivalent
FREN 213 INTERMEDIATE FRENCH II - 3 semester hours F, Sp
Careful study and reading of representative modern prose with continued practice in pronunciation and conversation and some extensive reading.
Prerequisite: FREN 212 Intermediate French I or its equivalent
FREN 214 SCIENTIFIC FRENCH - 3 semester hours
Sp, Su
Intensive reading designed to develop an adequate vocabulary in the basic sciences and mathematics.
Prerequisite: FREN 212 Intermediate French I or its equivalent
FREN 300 SURVEY OF FRENCH LITERATURE I - 3 semester hours
General survey of French literature from the beginning to 1715, with illustrative readings and reports.
Prerequisite: FREN 213 Intermediate French II or its equivalent
FREN 301 SURVEY OF FRENCH LITERATURE II - 3 semester hours
Sp
Survey of French literature from 1715 to 1900, with illustrative readings and reports.
Prerequisite: FREN 213 Intermediate French II or its equivalent
FREN 310 FRENCH COMPOSITION - 3 semester hours
F
A course including a careful review and application of principles of grammar and considerable practice in writing French; special stress on the acquisition of a stock of idiomatic expressions. Conducted in French as far as possible.
Prerequisite: FREN 213 Intermediate French II or its equivalent
FREN 311 ADVANCED COMPOSITION - 3 semester hours
Sp
Continued practice in writing French with some attention to elements of style, topics for composition work assigned from day to day, and translation into French or English prose. Conducted in French.

FREN 313 FRENCH CONVERSATION - 3 semester hours F
Systematic study of modern spoken French aimed at the acquisition of a vocabulary based on material dealing with everyday life; the stress group, intonation and daily exercises in simple conversation.
Prerequisite: FREN 213 Intermediate French II or departmental permission
FREN 314 ADVANCED CONVERSATION - 3 semester hours
Continued practice in spoken French and daily drill in formal and informal speech.
Prerequisite: FREN 313 French Conversation or departmental permission
FREN 410 FRENCH LITERATURE IN THE SEVENTEENTH CENTURY - 3 semester hours

## F

Study of French classicism as reflected in Malherbe, Corneille, Racine, La Rochefoucauld, Moliere, La Fontaine, La Bruyere, Mme de Sevigne, and others.
Prerequisite: FREN 310 French Composition
FREN 411 FRENCH LITERATURE IN THE EIGHTEENTH CENTURY - 3 semester hours
Sp
Emphasis on nonfictional literature of the period.
Prerequisite: FREN 301 Survey of French Literature

FREN 412 FRENCH LITERATURE IN THE NINETEENTH CENTURY - 3 semester hours F
Romanticism as reflected in Chateaubriand, Mme de Stael, Lamartine, Hugo, Vigny, Musset, Gautier, Dumas pere, G. Sand and others.

Prerequisite: FREN 301 Survey of French Literature

FREN 416 FRENCH CIVILIZATION - 3 semester hours
Study and discussion of significant aspects of the social, political, and cultural life of France.
Prerequisite: FREN 213 Intermediate French II or its equivalent

## FREN 418 SENIOR SEMINAR IN FRENCH - 4 semester hours

Independent readings in French planned in consultation with and pursued under the direction of the instructor; acquaints the student with methods of research and literary criticism and introduces bibliographical material. Prerequisite: Eighteen semester hours of French

## GERMAN

GERM 110 ELEMENTARY GERMAN I - 3 semester hours
F
Emphasis on the four skills of listening, speaking, reading, and writing in German: Pronunciation, understanding of grammatical construction, basic reading, dictations, and daily oral practice; open to students receiving no admission credit in German.

GERM 111 ELEMENTARY GERMAN II - 3 semester hours
Sp
Continued emphasis on the four skills of listening, speaking, reading, and writing in German: Pronunciation, understanding of grammatical construction, readings, dictations, and daily oral practice.
Prerequisite: GERM 110 Elementary German I or its equivalent
GERM 212 INTERMEDIATE GERMAN I - 3 semester hours F
Review of grammar; reading of moderately difficult prose and poetry with provision for ample practice in oral and written composition.
Prerequisite: GERM 111 Elementary German II or its equivalent
GERM 213 INTERMEDIATE GERMAN II - 3 semester hours
Sp
Study of selected readings of more difficult nature from standard modern authors.
Prerequisite: GERM 212 Intermediate German I or its equivalent
GERM 214 SCIENTIFIC GERMAN - 3 semester hours
A course designed primarily for science majors and those students preparing to enter medical school.
Prerequisite: GERM 212 Intermediate German I or its equivalent
GERM 300 SURVEY OF GERMAN LITERATURE I - 3 semester hours
Historical study of German literature from the beginning through Goethe.
Prerequisite: GERM 213 Intermediate German II
GERM 301 SURVEY OF GERMAN LITERATURE II - 3 semester hours
Historical study of German literature from Goethe to the present.
Prerequisite: GERM 213 Intermediate German II
GERM 310 GERMAN COMPOSITION - 3 semester hours
Careful review and study of the fundamentals of grammar, including practice in written composition.
Prerequisite: GERM 213 Intermediate German II or its equivalent
GERM 312 PRACTICE GERMAN PHONETICS - 3 semester hours
Systematic study of pronunciation including sound production, stress group, and intonation of the spoken phrase; exercises in dictation and memorization.

Prerequisite: GERM 213 Intermediate German II
GERM 313 GERMAN CONVERSATION - 3 semester hours
Systematic drill in speaking modern German; acquisition of vocabulary based on material dealing with everyday life; daily exercises in simple conversation.
Prerequisite: GERM 213 Intermediate German II or permission of the instructor

## GERM 415 GERMAN CIVILIZATION - 3 semester hours

Comprehensive and systematic study of the life of the German people from early middle ages to modern times and their cultural role in the development of world civilization conducted in German.
Prerequisite: GERM 310 German Composition or GERM 313 German Conversation

## GERM 417 GRAMMAR AND COMPOSITION FOR TEACHERS OF GERMAN - $\mathbf{3}$ semester hours

Review of grammar and composition designed for prospective teachers and in-service teachers of German; emphasis on the more involved phases of syntax.
Prerequisite: GERM 310 German Composition or permission of instructor

## GERM 418 SENIOR SEMINAR IN GERMAN - 4 semester hours

Independent readings in German planned in consultation with and pursued under the direction of the instructor; acquaints the student with methods of research and literary criticism and introduces bibliographical material.

## JAPANESE

## JAPN 120 JAPANESE LANGUAGE AND CULTURE FOR BUSINESS I - 3 semester hours

Designed for students in the School of Business with no previous knowledge of Japanese language; the course prepares students who intend to work in business to communicate and interact properly with Japanese businessmen or the people of Japan. The course is designed to train students in oral-aural skills, in addition to the introduction of the most basic Japanese scripts Katakana and Hiragana.

JAPN 121 JAPANESE LANGUAGE AND CULTURE FOR BUSINESS II - 3 semester hours
A continuation of JAPN 120. The course continues to train students in oral-aural skills after the introduction of the most basic Japanese scripts Katakana and Hiragana.

## SPANISH

SPAN 110 ELEMENTARY SPANISH I - 3 semester hours
F, Sp
Emphasis on the four skills of listening, speaking, reading, and writing in Spanish: Pronunciation, understanding of grammatical construction, basic readings, dictations, and daily oral practice; open to students receiving no admission credit in Spanish.

SPAN 111 ELEMENTARY SPANISH II - 3 semester hours F, Sp
Continued emphasis on the four skills of listening, speaking, reading, and writing in Spanish: Pronunciation, understanding of grammatical construction, readings, dictations, and daily oral practice.
Prerequisite: SPAN 110 Elementary Spanish I or its equivalent
SPAN 212 INTERMEDIATE SPANISH I - 3 semester hours F, Sp
Review of grammar, reading of moderately difficult prose, practice in oral Spanish, and extensive work in written composition.
Prerequisite: SPAN 111 Elementary Spanish I or its equivalent
SPAN 213 INTERMEDIATE SPANISH II - 3 semester hours F, Sp
Careful study of representative modern prose; continued practice in pronunciation and conversation.
Prerequisite: SPAN 212 Intermediate Spanish or its equivalent

## SPAN 214 COMMERCIAL SPANISH - 3 semester hours

Designed for business majors and other students preparing for government positions as clerks, stenographers, typists, and in other branches of civil service.
Prerequisite: SPAN 212 Intermediate Spanish I; SPAN 213 Intermediate Spanish II
SPAN 300 SURVEY OF SPANISH LITERATURE I - 3 semester hours
Survey of Spanish literature from the beginning to the Siglo de Oro.
Prerequisite: SPAN 213 Intermediate Spanish II

## SPAN 301 SURVEY OF SPANISH LITERATURE II - 3 semester hours

Survey of Spanish literature from about 1700 to the present.
Prerequisite: SPAN 213 Intermediate Spanish II or its equivalent

## SPAN 310 SPANISH COMPOSITION - 3 semester hours

Careful review and application of the principles of grammar and considerable practice in writing Spanish with special stress on the acquisition of a stock of idiomatic expressions.
Prerequisite: SPAN 213 Intermediate Spanish II

## SPAN 312 PRACTICAL SPANISH PHONETICS - 3 semester hours

Systematic study of pronunciation including sound production, stress group, and intonation of the spoken phrase with exercises in dictation and memorization.
Prerequisite: SPAN 213 Intermediate Spanish II
SPAN 313 SPANISH CONVERSATION - 3 semester hours
Daily practice and drill in oral Spanish based principally on topics of current interest.
Prerequisite: SPAN 213 Intermediate Spanish II

## SPAN 314 ADVANCED SPANISH CONVERSATION - 3 semester hours

Continued practice in spoken Spanish through class discussion and oral presentation of topics of current interest; designed for Spanish majors and others admitted by departmental permission.
Prerequisite: SPAN 313 Spanish Conversation

## SPAN 315 SURVEY OF LATIN AMERICAN LITERATURE I - 3 semester hours

General survey of the literature of Latin American beginning with the letters of Cortez and continuing to Ricardo of Peru with emphasis on historical and social background; conducted in Spanish.
Prerequisite: SPAN 313 Spanish Conversation

## SPAN 316 SURVEY OF LATIN AMERICAN LITERATURE II - 3 semester hours

Continuation of SPAN 315 extending from Ricardo Palma to the present; conducted in Spanish.
Prerequisite: SPAN 213 Intermediate Spanish II

## SPAN 410 DRAMA OF THE GOLDEN AGE - 3 semester hours

Review of the rise of the drama of Spain, and critical study of representative works of Lope de Vega, Calderon, Tirso de Molina, Alarcon, Moreto, and others.
Prerequisite: SPAN 213 Intermediate Spanish II

## SPAN 412 THE NOVEL IN SPANISH LITERATURE - 3 semester hours

Examination and analysis of major Spanish novels with emphasis on the works of Cervantes, the picaresque novel, and the regional novel in Spain.
Prerequisite: SPAN 213 Intermediate Spanish II
SPAN 413 THE GENERATION OF 1898-3 semester hours
A study of the works of Valle-Inclan, Azorin, Unamuno, Maextu, and others.
Prerequisite: SPAN 213 INTERMEDIATE Spanish II

## SPAN 414 SPANISH CIVILIZATION - 3 semester hours

Comprehensive and systematic study of Spain and its role in world history from its origins as a nation to the transition to democracy and beyond; conducted in Spanish.
Prerequisite: SPAN 310 or SPAN 313 (Spanish Composition or Spanish Conversation)

## SPAN 415 HISPANIC AMERICAN CIVILIZATION II - 3 semester hours

Comprehensive and systematic study of the origin and development of the Spanish Americas and their role in world history from pre-Columbian civilizations to the present; conducted in Spanish.
Prerequisite: SPAN 310 Spanish Composition or SPAN 313 Spanish Conversation

## SPAN 416 SPECIAL TOPICS IN SPANISH - 3 semester hours

This course is designed to permit an in-depth study in an area of language and/or literature not available in current course offerings. Course may be repeated once upon change of topic.

## Prerequisite: SPAN 213 Intermediate Spanish II

## SPAN 418 SENIOR SEMINAR IN SPANISH - 4 semester hours

Independent readings and studies in Spanish planned in consultation with and pursued under the direction of the instructor; acquaints the student with methods of research and literary criticism and introduces bibliographical material.
Prerequisite: Eighteen semester hours of Spanish

## SPEECH

## SPEE 210 GENERAL AMERICAN PHONETICS - 3 semester hours

Discussion of the International Phonetic Alphabet as applied to American Speech. Analysis of dialects of American English, with attention to Standard American accent.

SPEE 214 INTRODUCTION TO PUBLIC SPEAKING - 3 semester hours
Compositional and delivery techniques for speaking before various kinds of audiences; instruction and participation in argumentation, debate, discussions, and parliamentary procedure. Emphasis upon participation.

## Prerequisites: ENGL 110 Composition I

## SPEE 215 VOICE AND DICTION - 3 semester hours

An analysis of speech patterns and organs responsible for the production of voice and speech, with special emphasis on the study and practice of the techniques of good articulation.
Prerequisites: MCOM 201 Introduction to Mass Communications or ENGL 110 Composition I;

## ENGL 111 Composition II

## SPEE 313 ORAL INTERPRETATION - 3 semester hours

Experience in reading and in oral presentations to develop greater appreciation for literature and also skills in conveying meanings and moods. Individual opportunities for literary comparisons, analyses, and recordings.

SPEE 316 PHYSIOLOGY AND PSYCHOLOGY OF SPEECH AND HEARING - 3 semester hours Physiological bases of speech and hearing, and integration of psychological development factors in the production of speech and language.

SPEE 319 SPEECH (LIP) READING AND AUDITORY TRAINING - 3 semester hours
Systematic consideration of speech reading, principles and techniques of auditory training for acoustically handicapped children and adults; clinical Practicum required.
Prerequisite: SPEE 210 General American Phonetics
SPEE 316 Physiology and Psychology of Speech and Hearing

## SPEE 417 SPEECH CORRECTION AND CLINICAL PROCEDURES - 3 semester hours

Introduction to the nature, causes and development of speech disorders, such as retarded speech, stuttering, voice problems, the cleft palate, aphasis, and cerebral palsy. Detailed and intensive studies coupled with clinical practice in the diagnosis and treatment of speech handicaps.

## Prerequisite: SPEE 210 General American Phonetics

## SPEE 418 INTRODUCTION TO AUDIOLOGY - 3 semester hours

Survey of nature of audiology. Attention given to the nature of sound anatomy and physiology of the ear, pathology of hearing, the testing of hearing loss, speech audiometry, hearing aids, and the rehabilitation of the acoustically handicapped.
Prerequisite: SPEE 316 Physiology and Psychology of Speech and Hearing;
SPEE 417 Speech Correction and Clinical Procedures

## MASS COMMUNICATIONS

## MCOM 201 INTRODUCTION TO MASS COMMUNICATIONS - 3 semester hours

Analysis of the communications professions through an understanding of their structure and functions, their development, their performance, and the controls exercised over them by various groups and institutions. A survey of newspapers, film, broadcasting, advertising, and public relations.
Prerequisites: ENGL 110 Composition I; ENGL 111 Composition II

## MCOM 204 Interpersonal Communication - 3 semester hours

The study and application of effective basic verbal and nonverbal communication concepts to interactive communication situation and problems.

## Prerequisites: ENGL 110 Composition I; ENGL 111 Composition II;

MCOM 201 Introduction to Mass Communications

## MCOM 205 JOURNALISM I - 3 semester hours

Working on deadline, students are exposed to the basics of news writing; emphasis on development of interviewing, news writing, and information gathering skills. Accuracy, fairness, and ethical issues in reporting are stressed.
Prerequisites: ENGL 110 Composition I; ENGL 111 Composition II;
MCOM 201 Introduction to Mass Communications

## MCOM 212 PHOTOJOURNALISM - 3 semester hours

Emphasizes the basic elements of photography for the mass media, including newspapers, advertising, and television. Student learns how to compose, shoot, develop, and lay out 35 mm . photographs for newspapers and magazines and how to operate portable television cameras used by commercial stations in electronic news gathering. Emphasis on news photography and the relation of the spoken or written word to the visual image.
Prerequisites: ENGL 110 Composition I; ENGL 111 Composition II; MCOM 201 Introduction to Mass Communications;

## MCOM 239 MOTION PICTURE APPRECIATION - 3 semester hours

Introduction to film history and criticism. Examination of motion picture genres as handled by major directors and analysis of cinema as a narrative art from beginnings to present day. Weekly screening and discussions of important motion pictures not only as art but as they reflect and affect our times.

## MCOM 301 JOURNALISM II - 3 semester hours

Practice in news gathering; development of sources, evaluation, and writing as required in the print media. Major attention given to contemporary issues and events, problems, and ethical considerations.
Prerequisite: MCOM 205 Journalism I

## MCOM 302 Public Relations I-3 semester hours

An overview of the principles and policies, as well as, the historical and contemporary practices of public relations in business, government, associations, and other organizations; analysis of public relations programs, ethics of public relations practice, and options of career opportunities.
Prerequisite: MCOM 201 Introduction to Mass Communications

## MCOM 303 PUBLIC RELATIONS II - 3 semester hours

Practice in media relations; the development of professional writing skills with emphasis on external and internal communications: press releases, public service announcements, publication design, employee communications, speech writing, audio visual presentations, and news conferences.
Prerequisite: MCOM 302 Public Relations I

## MCOM 304 COPY EDITING - 3 semester hours

Emphasis on journalistic desk work; editing stories, headline writing, typography, layout functions and relationships. Prerequisite: MCOM 301 Journalism II

## MCOM 306 BROADCAST JOURNALISM - 3 semester hours

An introduction to the broadcast media, with emphasis on news gathering, preparation, writing, and delivery techniques, as well as the rules and regulations that apply to broadcast journalism.

## Prerequisites: MCOM 205 Journalism I

## MCOM 309 RADIO PRODUCTION - 3 semester hours

The study and practice of basic concepts, skills, and techniques involved in the production of radio programs, with emphasis on persuasive communication techniques used in radio production.

## Prerequisite: MCOM 201 Introduction to Mass Communications

## MCOM 310: Advanced Radio Production - 3 semester hours

A continuation of MCOM 309; further study and practical experience in advanced radio production techniques, including programming. Student projects will focus on various types of productions done at both commercial and noncommercial stations.

## Prerequisite: MCOM 309 Radio Production

## MCOM 311 - NEWSPAPER PRODUCTION I-1 semester hour

Hands-on journalism experience by completing basic news stories and features for the Virginia Statesman.
Prerequisite: ENGL 110 Composition I; ENGL 111 Composition II

## MCOM 312 NEWSPAPER II - 1 semester hour

Hands-on journalism experience by completing complex news stories for the Virginia Statesman.

## Prerequisitie: MCOM 311 or Consent of Instructor

## MCOM 313 NEWSPAPER PRODUCTION II -1 semester hour

Hands-on journalism experience by completing editorials, columns, and other opinion pieces for the Virginia Statesman; editing the work of others, serving as one of the student editors; performing layout functions.
Prerequisite: MCOM 312 or consent of Instructor

## MCOM 319 PUBLIC RELATIONS LABORATORY - 3 semester hours

Workshops provide knowledge to enable students to research, design, implement and complete public relations projects for community-based organizations. The class is structured and run in a manner similar to a professional public relations agency with students assuming appropriate agency roles. The use of current information tools like websites and the Internet is emphasized.
Prerequisite: MCOM 303 Public Relations II

## MCOM 330 WRITING FOR RADIO AND TELEVISION - 3 semester hours

Practice of techniques and formats used in broadcasting; focus on news writing, documentary writing, commercial writing, and writing with specific time restraints.
Prerequisites: MCOM 306 Broadcast Journalism
MCOM 335 COMMUNICATION THEORY- 3 semester hours
Explains historical and contemporary theories of human communication, with emphasis on mass communication theories.
Prerequisites: MCOM 201 Introduction to Mass Communications and Junior Standing

MCOM 336 AFRICAN AMERICANS IN THE MEDIA - 3 semester hours
An overview of the history and contributions of African Americans in Mass Media. Examines legislation that aids or impacts negatively on the careers of African Americans, and particularly African American women.

## MCOM 337 HISTORY OF PRINT MEDIA AND TECHNOLOGICAL DEVELOPMENT - 3 semester hours

A historical review of the development of early print media into newspaper journalism and an analysis of the impact technology as had on the practice of journalism.

## Prerequisite: MCOM 201 Introduction to Mass Communication

## MCOM 338 HISTORY OF RADIO, TELEVISION, AND FILM - 3 semester hours

A detailed exploration of the historical development of radio, television, and film as mass media, with emphasis on their structure, economics, and programming.
Prerequisite: MCOM 201 Introduction to Mass communications

## MCOM 340 TELEVISION PRODUCTION - 3 semester hours

Practical aspects of television production: program planning; operation of cameras, lights, and audio components; control room discipline and simple direction. Knowledge of basic terms, work areas, and crew functions emphasized.
Prerequisites: MCOM 212 Photojournalism; MCOM 309 Radio Production

## MCOM 341 ADVANCED TELEVISION PRODUCTION - 3 semester hours

Continuation of MCOM 340; study and practical experience in television production, including television programming. Planning and videotaping of students' projects.
Prerequisite: MCOM 340 Television Production
MCOM 399 SPECIAL TOPICS IN MASS MEDIA - 3 semester hours
Working under direction of a professor, a student explores a specific area or media field relating to the professional responsibilities of the mass communications student looking toward the career marketplace.
Prerequisites: MCOM 201 Introduction to Mass Communications and Junior Standing

## MCOM 400 MEDIA LAW AND ETHICS - 3 semester hours

A study of legal issues and constitutional freedoms affecting the mass media, with emphasis on libel, copyright labels, FCC rules and regulations, the principles of professional ethics, and the social responsibility of mass communications.
Prerequisites: MCOM 201 Introduction to Mass Communications and Senior Standing

## MCOM 401 MULTI-MEDIA TECHNOLOGIES -3 semester hours

Practical application of new technology, including computer and digital technology, interactive media, telecommunications, and virtual reality; also, internet, mini-discs, and Web designs and publishing.
Prerequisites: MCOM 201 Introduction to Mass Communications Junior or Senior Standing

## MCOM 408 BROADCAST MANAGEMENT - 3 semester hours

Prepares students for future management positions in the broadcast media, through the study of concepts and principles of media management, an examination of how media companies function today, and how students can prepare themselves as future managers.
Prerequisites: MCOM 201 Introduction to Mass communications and Senior Standing

## MCOM 409 INTERNSHIP IN NEWSPAPER JOURNALISM - 3 semester hours

Work experience for one semester in a newspaper organization, with emphasis on practical application of classroom concepts. Minimum of 120 hours of assigned work, under the direction of the Internship Supervisor on site. Regular meetings with the faculty Internship Coordinator; weekly written reports. Dates and times of meetings with the faculty Internship Coordinator must be arranged by students.
Prerequisites: MCOM 301 Journalism II; MCOM 304 Copy Editing; and Permission of Internship Coordinator

## MCOM 429 INTERNSHIP IN RADIO - 3 semester hours

Work experience for one semester in a radio station, with emphasis on the practical application of classroom concepts. Minimum of 120 hours of assigned work, under the direction of the Internship Supervisor on site. Regular meetings with the faculty Internship Coordinator and weekly written reports; dates and times of meetings with the faculty Internship Coordinator must be arranged by students.
Prerequisites: MCOM 309 Radio Production and Permission of Internship Coordinator

## MCOM 439 INTERNSHIP IN PUBLIC RELATIONS - 3 semester hours

Work experience for one semester with a public relations organization, with emphasis on the practical application of classroom concepts. Minimum of 120 hours of assigned work, under the direction of the Internship Supervisor on site. Regular meetings with the faculty Internship Coordinator; weekly written reports; dates and times of meetings with the faculty Internship Coordinator must be arranged by students.
Prerequisites: MCOM 303 Public Relations II and Permission of Internship Coordinator

## MCOM 449 INTERNSHIP IN TELEVISION - 3 semester hours

Work experience for one semester in a television station, with emphasis on the practical application of classroom concepts. Minimum of 120 hours of assigned supervised work, under the direction of the Internship supervisor on site. Regular meetings with the faculty Internship Coordinator; weekly written reports; dates and times of meetings with the faculty Internship Coordinator must be arranged by students.
Prerequisites: MCOM 340 Television Production and Permission of Internship Coordinator

## MCOM 499 SENIOR SEMINAR IN MASS COMMUNICATIONS - 3 semester hours

A capstone course for Mass Communications majors focused on reading and researching selected topics in mass communications; designed to integrate knowledge in different areas in mass communications and to prepare students to take exit examination, produce a portfolio, and gain experience in research and oral presentation.
Prerequisite: To be taken in the last semester of a student's Mass Communications curriculum.

## DEPARTMENT OF LANGUAGES AND LITERATURE English Major Bachelor of Arts Degree

| SEMESTER |  |  |
| :---: | :---: | :---: |
| $\mathbf{1}^{\text {st }}$ | $2^{\text {nd }}$ | Total |
| Sem | Sem | Hours |

FRST 101
ENGL 110
ENGL 111
HISTORY
MATH
LANGUAGE 212, 213
SCIENCE
ENGL 201
PHILOSOPHY
TECHNOLOGY
HEALTH AND WELLNESS
SOCIAL SCIENCE
UNRESTRICTED ELECTIVES
Science

| Freshman Studies | 2 | - | 2 |
| :--- | :---: | :---: | :---: |
| Composition I | 3 | - | 3 |
| Composition II | - | 3 | 3 |
| GE Menu | 3 | 3 | 6 |
| GE Menu | 3 | 3 | 6 |
|  | 3 | 3 | 6 |
| GE Menu | - | $\underline{4}$ | $\underline{4}$ |
|  | 14 | 16 | 30 |

SOPHOMORE YEAR
Introduction to Literature 3 - 3

| Literature Surveys $^{1}$ | - | 6 | 6 |
| :--- | :--- | :--- | :--- |
| Elective | 3 | - | 3 |


| GE Menu | 3 | - | 3 |
| :--- | :---: | :---: | :---: |
| GE Menu | - | 2 | 2 |
| GE Menu | 3 | - | 3 |
|  | 3 | 3 | 6 |
| GE Menu | - | $\underline{4}$ | $\underline{4}$ |
|  | 15 | 15 | 30 |

JUNIOR YEAR

| Literature Surveys $^{1}$ | 6 | - | 6 |
| :--- | :---: | :---: | :---: |
| Period coverage courses $^{2}$ |  | 6 | 6 |
| Expository Writing $^{\text {Linguistics }}{ }^{3}$ | 3 | - | 3 |
| Elective | - | 3 | 3 |
| Electives | 3 | - | 3 |
|  | $\underline{3}$ | $\underline{6}$ | $\underline{9}$ |
|  | 15 | $\underline{15}$ | 30 |

SENIOR YEAR
ENGL 403 or 404
ENGL 300/400

SPEECH or DRAMA
UNRESTRICTED

| Shakespeare I or II | - | 3 | 3 |
| :--- | :---: | :---: | :---: |
| Courses | 3 | 3 | 6 |
| African American Literature $^{4}$ | 3 | - | 3 |
| African Diaspora Literature | - | 3 | 3 |
| Elective | 3 | - | 3 |
| Electives | $\underline{6}$ | $\underline{6}$ | $\underline{12}$ |
|  | 15 | 15 | 30 |

${ }^{1} 1$ class from English Lit (ENGL 210, ENGL 211), 1 from American Lit (ENGL 212, ENGL 213), 1 from World Lit (ENGL 214, ENGL 215) and 1 other survey class ( 12 hours total)
${ }^{2} 2$ classes from areas not covered by surveys, See Period Coverage Menus list.
${ }^{3} 1$ class from ENGL 351, ENGL 352, ENGL 422
${ }^{4} 1$ class from ENGL 311, ENGL 320, ENGL 410
${ }^{5} 1$ class from ENGL 315, ENGL 411, ENGL 412

## DEPARTMENT OF LANGUAGES AND LITERATURE <br> English Major - Africana Studies Minor Bachelor of Arts Degree

|  |  | SEMESTER HOURS |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
|  | FRESHMAN YEAR |  |  |  |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| ENGL 110 | Composition I | 3 | - | 3 |
| ENGL 111 | Composition II | - | 3 | 3 |
| HISTORY | GE Menu | 3 | 3 | 6 |
| MATH | GE Menu | 3 | 3 | 6 |
| LANGUAGE 212, 213 |  | 3 | 3 | 6 |
| SCIENCE | GE Menu | - | 4 | 4 |
|  |  | 14 | 16 | 30 |
| SOPHOMORE YEAR |  |  |  |  |
| ENGL 201 | Introduction to Literature | 3 | - | 3 |
|  | Literature Surveys ${ }^{1}$ | - | 6 | 6 |
| PHILOSOPHY | Elective | 3 | - | 3 |
| TECHNOLOGY | GE Menu | 3 | - | 3 |
| HEALTH AND WELLNESS | GE Menu | - | 2 | 2 |
| SOCIAL SCIENCE | GE Menu | 3 | - | 3 |
| IDUP 270 | Introduction to Africana Studies | 3 | - | 3 |
| UNRESTRICTED ELECTIVES |  | - | 3 | 3 |
| Science | GE Menu | - | 4 | 4 |
|  |  | 15 | 15 | 30 |
|  | JUNIOR YEAR |  |  |  |
|  | Literature Surveys ${ }^{1}$ | 6 | - | 6 |
| ENGL 300/400 | Period coverage courses ${ }^{2}$ |  | 6 | 6 |
| ENGL 341 | Expository Writing | 3 | - | 3 |
| LANGUAGE | Linguistics ${ }^{3}$ | - | 3 | 3 |
| Music or Art | Elective | 3 | - | 3 |
| ENGL 311 | African American Literature | - | 3 | 3 |
| IDUP 371 or IDUP 470 | Study Abroad in Africa or Special Topics in African Studies | 3 | - | 3 |
| UNRESTRICTED | Soc Sci course on Blacks in Africa or African Diaspora | - | 3 | 3 |
|  |  | 15 | 15 | 30 |
| SENIOR YEAR |  |  |  |  |
| ENGL 403 or 404 | Shakespeare I or II | - | 3 | 3 |
| ENGL 300/400 | Courses | 3 | 3 | 6 |
|  | African American Literature ${ }^{4}$ | 3 | - | 3 |
|  | African Diaspora Literature ${ }^{5}$ | - | 3 | 3 |
| HUMANITIES | Blacks in Africa or African Disaspora | 3 | - | 3 |
| SPEECH or DRAMA | Elective | 3 | - | 3 |
| UNRESTRICTED | Electives | 3 | 6 | $\underline{9}$ |
|  |  | 15 | 15 | 30 |

${ }^{1} 1$ class from English Lit (ENGL 210, ENGL 211), 1 from American Lit (ENGL 212, ENGL 213), 1 from World Lit (ENGL 214, ENGL 215) and 1 other survey class ( 12 hours total)
${ }^{2} 2$ classes from areas not covered by surveys, See Period Coverage Menus list.
${ }^{3} 1$ class from ENGL 351, ENGL 352, ENGL 422
${ }^{4} 1$ class from ENGL 311, ENGL 320, ENGL 410
${ }^{5} 1$ class from ENGL 315, ENGL 411, ENGL 412

## DEPARTMENT OF LANGUAGES AND LITERATURE <br> English Major - Mass Communications Minor Bachelor of Arts Degree

|  |  | SEMESTER HOURS |  |
| :--- | :--- | :--- | :--- | :--- |
| Total |  |  |  |
| 年 |  |  |  |

${ }^{1} 1$ class from English Lit (ENGL 210, ENGL 211), 1 from American Lit (ENGL 212, ENGL 213), 1 from World Lit (ENGL 214, ENGL 215) and 1 other survey class ( 12 hours total)
${ }^{2} 2$ classes from areas not covered by surveys, See Period Coverage Menus list.
${ }^{3} 1$ class from ENGL 351, ENGL 352, ENGL 422
${ }^{4} 1$ class from ENGL 311, ENGL 320, ENGL 410
${ }^{5} 1$ class from ENGL 315, ENGL 411, ENGL 412

DEPARTMENT OF LANGUAGES AND LITERATURE
English with a Minor in Secondary Education 6-12

|  |  | SEMESTER HOURS |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
|  | FRESHMAN YEAR |  |  |  |
| IDST 100, 101 | Analytical Reading, Writing and Reasoning I \& II | 2 | 2 | 4 |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| ENGL 110, 111 | Composition I \& II | 3 | 3 | 6 |
| MATH | (GE menu) | 3 | - | 3 |
| MATH | (GE menu) | - | 3 | 3 |
| SCIENCE | (GE menu) | - | 4 | 4 |
| LANGUAGE 212, 213 |  | 3 | 3 | 6 |
| HISTORY | (GE menu) | 3 | - | 3 |
| HISTORY | (GE menu) | - | 3 | 3 |
| HPER 170 | Health and Wellness | $\underline{2}$ | = | $\underline{2}$ |
|  |  | 16 | 16 | 32 |
| SOPHOMORE YEAR |  |  |  |  |
| EDUC 201, 202 | Introduction to Teaching I and II | 2 | 2 | 4 |
| IDST 200 | Digital Media in Teacher Education | 3 | - | 3 |
| SCIENCE | (GE menu) | - | 4 | 4 |
| PSYC 212 | Human Growth and Development | 3 | - | 3 |
| ENGL 201 or 202 | Intro to Lit I or Intro to African American Lit | 3 | - | 3 |
| ENGL | Literature Survey ${ }^{1}$ | 3 | - | 3 |
| ENGL | Literature Survey ${ }^{1}$ | - | 3 | 3 |
| MUSIC/ART | Elective | - | 3 | 3 |
| SPEECH/DRAMA | Elective | - | 3 | 3 |
|  |  | 14 | 15 | 29 |
| JUNIOR YEAR |  |  |  |  |
| EDUC 315 | Data Driven Instructional Design | 3 | - | 3 |
| SPED 403 | Classroom Management in Educational Settings (FE) | - | 3 | 3 |
| ENGL | Literature Survey ${ }^{1}$ | 3 | - | 3 |
| ENGL | Literature Survey ${ }^{1}$ | 3 | - | 3 |
| ENGL 341 | Expository Writing | 3 | - | 3 |
| ENGL | African American Literature ${ }^{3}$ | 3 | - | 3 |
| ENGL 300/400 Course |  | 3 | 3 | 3 |
| PHILOSOPHY | Elective | - | 3 | 3 |
| ENED 432 | Reading and Literature | - | 3 | 3 |
| ENGL | Language/Linguistics ${ }^{2}$ | 3 | $\underline{3}$ | $\underline{6}$ |
|  |  | 18 | 15 | 33 |
| SENIOR YEAR |  |  |  |  |
| ENGL 403 or 404 | Shakespeare I or II | 3 | - | 3 |
| EDUC 424 | Critical Issues in Education | 2 | - | 2 |
| ENED 371 | Teaching in English in Secondary Schools | 3 | - | 3 |
| ENED 431 | Composition Theory and Practices | 3 | - | 3 |
| ENGL | African Diaspora Literature ${ }^{4}$ | 3 | - | 3 |
| EDUC 401 | Student Teaching Seminar | - | 3 | 3 |
| ENGL 402 | Student Teaching English | - | 3 | 3 |
| EDUC 402 | Student Teaching | = | $\underline{9}$ | $\underline{9}$ |
|  |  | 17 | 15 | 32 |

[^5]214, ENGL 215) and 1 other survey class ( 12 hours total)
${ }^{2} 1$ class from ENGL 311, ENGL 320, ENGL 410
${ }^{3} 1$ class from ENGL 351, ENGL 352, ENGL 422
${ }^{4} 1$ class from ENGL 315, ENGL 411, ENGL 412
*IDST 100/101 are not counted in semester hours or toward

## DEPARTMENT OF LANGUAGES AND LITERATURE <br> Mass Communications Major - Public Relations <br> Bachelor of Arts Degree

|  |  | SEMESTER HOURS |  |  |
| :--- | :--- | :---: | :---: | :---: |
|  |  | $\mathbf{1}^{\text {st }}$ | $\mathbf{2}^{\text {nd }}$ | Total |
|  |  | FRESHMAN YEAR |  |  |
| Hem | Sem | Hours |  |  |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| ENGL 110 | Composition I | 3 | - | 3 |
| ENGL 111 | Composition II | - | 3 | 3 |
| HISTORY | GE Menu | 3 | 3 | 6 |
| MATH | GE Menu | 3 | 3 | 6 |
| HEALTH AND WELLNESS | GE Menu | - | 2 | 2 |
| TECHNOLOGY | GE Menu | 3 | - | 3 |
| SCIENCE | GE Menu | - | $\underline{4}$ | $\underline{4}$ |
|  |  | SOPHOMORE YEAR | 14 | 15 |

${ }^{1}$ ENGL 210, ENGL 211, ENGL 212, ENGL 213, ENGL 214, ENGL 215
${ }^{2}$ ENGL 311, ENGL 320, ENGL 410

# DEPARTMENT OF LANGUAGES AND LITERATURE <br> Mass Communications Major - Print Media Option Bachelor of Arts Degree 

|  |  | SEMESTER HOURS |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
|  | FRESHMAN YEAR |  |  |  |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| ENGL 110 | Composition I | 3 | - | 3 |
| ENGL 111 | Composition II | - | 3 | 3 |
| HISTORY | GE Menu | 3 | 3 | 6 |
| MATH | GE Menu | 3 | 3 | 6 |
| HEALTH AND WELLNESS | GE Menu | - | 2 | 2 |
| TECHNOLOGY | GE Menu | 3 | - | 3 |
| SCIENCE | GE Menu | - | 4 | 4 |
|  |  | 14 | 15 | 29 |
| SOPHOMORE YEAR |  |  |  |  |
| ENGL 201 | Introduction to Literature | 3 | - | 3 |
|  | Literature Surveys ${ }^{1}$ | - | 6 | 6 |
| LANGUAGE 212, 213 |  | 3 | - | 3 |
| PHILOSOPHY | Elective | 3 | - | 3 |
| MCOM 201 | Intro to Mass Communication | 3 | - | 3 |
| MCOM 205 | Journalism I | - | 3 | 3 |
| MCOM 302 | Public Relations I | - | 3 | 3 |
| SPEE 215 | Voice and Diction | 3 | - | 3 |
| SCIENCE | GE Menu | - | 4 | 4 |
|  |  | 15 | 16 | 31 |
|  | JUNIOR YEAR |  |  |  |
|  | Literature Surveys ${ }^{1}$ | 3 | - | 3 |
| ENGL | Elective | - | 3 | 3 |
| ENGL 341 | Expository Writing | 3 | - | 3 |
| SOCIAL SCIENCE | GE Menu | 3 | - | 3 |
| MCOM 212 | Photojournalism | 3 | - | 3 |
| MCOM 301 | Journalism II | - | 3 | 3 |
| MCOM 304 | Copy Editing | 3 | - | 3 |
| MCOM 306 | Broadcast Journalism | - | 3 | 3 |
| MCOM 311, 312 | Newspaper Production I \& II | 1 | 1 | 2 |
| MCOM 337 | History of Print Media \& Tech Dev | - | 3 | 3 |
| UNRESTRICTED | Elective (other than MCOM) | - | 3 | $\underline{3}$ |
|  |  | 16 | 16 | 32 |
|  | SENIOR YEAR |  |  |  |
|  | African American Literature ${ }^{2}$ | 3 | - | 3 |
| MUSIC OR ART | Elective | - | 3 | 3 |
| GLOBAL STUDIES | GE Menu | 3 | - | 3 |
| MCOM 313 | Newspaper Production III | 1 | - | 1 |
| MCOM 400 | Media Law and Ethics | - | 3 | 3 |
| MCOM | Elective | 3 | - | 3 |
| MCOM 409 | Internship in Newspaper Journalism | - | 3 | 3 |
| MCOM 499 | Senior Seminar in MCOM | - | 3 | 3 |
| UNRESTRICTED | Electives (other than MCOM) | 3 | 3 | $\underline{6}$ |
|  |  | 13 | 15 | 28 |

${ }^{1}$ ENGL 210, ENGL 211, ENGL 212, ENGL 213, ENGL 214, ENGL 215
${ }^{2}$ ENGL 311, ENGL 320, ENGL 410

DEPARTMENT OF LANGUAGES AND LITERATURE
Mass Communications Major - Radio and Television Option Bachelor of Arts Degree

|  |  | SEMESTER HOURS |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
|  | FRESHMAN YEAR |  |  |  |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| ENGL 110 | Composition I | 3 | - | 3 |
| ENGL 111 | Composition II | - | 3 | 3 |
| HISTORY | GE Menu | 3 | 3 | 6 |
| MATH | GE Menu | 3 | 3 | 6 |
| HEALTH AND WELLNESS | GE Menu | - | 2 | 2 |
| TECHNOLOGY | GE Menu | 3 | - | 3 |
| SCIENCE | GE Menu | - | 4 | 4 |
|  |  | 14 | 15 | 29 |
| SOPHOMORE YEAR |  |  |  |  |
| ENGL 201 | Introduction to Literature | 3 | - | 3 |
|  | Literature Surveys ${ }^{1}$ | - | 6 | 6 |
| LANGUAGE 212, 213 |  | 3 | - | 3 |
| PHILOSOPHY | Elective | 3 | - | 3 |
| MCOM 201 | Intro to Mass Communication | 3 | - | 3 |
| MCOM 205 | Journalism I | - | 3 | 3 |
| MCOM 302 | Public Relations I | - | 3 | 3 |
| SPEE 215 | Voice and Diction | 3 | - | 3 |
| SCIENCE | GE Menu | - | 4 | 4 |
|  |  | 15 | 16 | 31 |
| JUNIOR YEAR |  |  |  |  |
|  | Literature Surveys ${ }^{1}$ | 3 | - | 3 |
| ENGL | Elective | - | 3 | 3 |
| ENGL 341 | Expository Writing | 3 | - | 3 |
| SOCIAL SCIENCE | GE Menu | 3 | - | 3 |
| MCOM 306 | Broadcast Journalism | 3 | - | 3 |
| MCOM 309 | Radio Production | - | 3 | 3 |
| MCOM 330 | Writing for Radio and Television | 3 | - | 3 |
| MCOM 338 | History of Radio, Television and Film | - | 3 | 3 |
| MCOM 340 | Television Production | - | 3 | 3 |
| UNRESTRICTED | Elective (other than MCOM) | - | $\underline{3}$ | $\underline{3}$ |
|  |  | 15 | 15 | 30 |
|  | SENIOR YEAR |  |  |  |
|  | African American Literature ${ }^{2}$ | 3 | - | 3 |
| MUSIC OR ART | Elective | - | 3 | 3 |
| GLOBAL STUDIES | GE Menu | 3 | - | 3 |
| MCOM 310 or MCOM 341 | Adv. Radio Prod or TV Prod | - | 3 | 3 |
| MCOM 400 | Media Law and Ethics | 3 | - | 3 |
| MCOM | Elective | 3 | - | 3 |
| MCOM 429 or MCOM 449 | Internship in Radio or Internship in TV | - | 3 | 3 |
| MCOM 499 | Senior Seminar in MCOM | - | 3 | 3 |
| UNRESTRICTED | Electives (other than MCOM) | $\underline{3}$ | $\underline{3}$ | $\underline{6}$ |
|  |  | 15 | 15 | 30 |

${ }^{1}$ ENGL 210, ENGL 211, ENGL 212, ENGL 213, ENGL 214, ENGL 215
${ }^{2}$ ENGL 311, ENGL 320, ENGL 410

## DEPARTMENT OF MILITARY SCIENCE

## Description of Department

The Reserved Officers' Training Corps (ROTC) Program consists of two parts: the basic course and the advanced course. The student normally pursues the basic course during the freshman and sophomore years, and the advanced course is normally pursued during the junior and senior years. Each advanced-course student is entitled to an allowance of $\$ 400.00$ per month up to 10 months per year. Advanced-course students are required to attend a sixweek ROTC summer camp at the completion of their junior year. For this summer training, the student receives over $\$ 700.00$ plus travel pay to and from camp. Successful completion of the ROTC program qualifies the student for appointment as a second lieutenant in the Regular Army, Army Reserve, or Army National Guard.

## Mission of Department

To commission the future officer leadership of the U.S. Army and motivate young people to be better Americans.

## Objectives of Department

- to motivate selected students,
- to provide an understanding of the nature and operation of the United States Army,
- to develop the leadership and managerial potential of students,
- to encourage the development of mental and moral standards essential to military service, and
- to train students for commissioning in the United States Army, Army Reserves, or Army National Guard.


## Programs (Minor) in Department

A Minor in Military Science is offered with a minimum of 15 hours of study.

## Course Descriptions

## MILITARY SCIENCE

## MILS 101 ARMY CUSTOMS AND TRADITIONS I - 2 semester hours

A study of the organization of the Army and ROTC, with emphasis on the local program and career opportunities for the ROTC graduates. Significance of military courtesy, discipline, customs and traditions of the service.

## MILS 102 ARMY CUSTOMS AND TRADITIONS II - 2 semester hours

A study of the military as a profession, the historical growth and development of the Army, stressing the magnitude of management implications. Development of leadership through practical exercises.

## MILS 201 BASIC OFFICERS SKILLS I - 2 semester hours

A study of the functions, duties, and responsibilities of junior leaders, with continuing development of leadership through practical exercises.

## MILS 202 BASIC OFFICERS SKILLS II - 2 semester hours

A study of basic military skills and operations of the basic military team, to include military geography, and the use of maps and aerial photographs.

## MIL 300 BASIC LEADERSHIP TRAINING - 3 semester hours

This 42-day leadership skills course at Fort Knox, KY, equates to Military Science 101, 102, 201, and 202. Student will be given the challenges of leadership, physical fitness, rappelling, drown-proofing, basic tactical maneuvering, use of basic Army weapons, map reading, compass course and basic military drill and ceremonies.

## MILS 301 ADVANCED LEADERSHIP DEVELOPMENT I - 3 semester hours

A course stressing the development of the small unit leader skills, basic military skills, physical fitness and squad and platoon tactics.
Prerequisites: MILS 101 Army Customs and Traditions I; MILS 102 Army Customs and Traditions II; MILS 201 Basic Officers Skills I; MILS 202 Basic Officers Skills I

## MILS 302 ADVANCED LEADERSHIP DEVELOPMENT II - 3 semester hours

A course stressing the development of military skills with emphasis placed upon physical fitness, map reading and communications. Includes downproofing exercises, field training exercises, and drill and ceremonies.

## Prerequisite: MILS 301 Advanced Leadership Development I

## MILS 401 TRANSITION TO OFFICERSHIP I - 3 semester hours

A study of officer-enlisted relationship, staff procedures, military writing and correspondence and military justice.

## Prerequisites: MILS 301 ADVANCED LEADERSHIP DEVELOPMENT I;

MILS 302 ADVANCED LEADERSHIP DEVELOPMENT II

## MILS 402 TRANSITION TO OFFICERSHIP - 3 semester hours

Pre-commissioning seminars, study of Officer Evaluation Reports (OER's), Non-Commissioned Officer Evaluation Reports (NCOER's) division organizational structure, personal affairs, and unit administration are part of this course.
Prerequisites: MILS 301 Advanced Leadership Development I; MILS 302 Advanced Leadership Development II (1) Students with previous military experience may be given semester hour for these prerequisites.

## MILS 403 LEADERSHIP LAB

Serves as learning laboratories for hands-on practical experiences. Training is supplementary and includes operations and tactics, land navigation, first aid, and general military subjects. The Army Physical Fitness Test (APFT) is administered to assess the state of physical development. (All cadets must participate in the 2- hour leadership lab.)

## MILS 404 INTERNSHIP - 3 to 6 semester hours

This internship is offered primarily to ROTC cadets to allow them to obtain practical work experience in their major under supervised conditions. The internship provides real-world application in Marketing, Political Science, Social Science, History, Physical Education, etc. majors with emphasis on Army or ROTC aspects.
**Internship semester hours can be used during any semester for 3 to 6 semester hours.

SUMMARY
DEPARTMENT OF MILITARY SCIENCE

|  |  | SEMESTER HOURS |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{gathered} \text { 1st } \\ \text { Sem } \end{gathered}$ | $\begin{aligned} & 2^{\text {nd }} \\ & \text { Sem } \end{aligned}$ | Summer Sem. | Total Hours |
| FRESHMAN YEAR |  |  |  |  |  |
| MILS 101, 102 | Basic Leadership | 2 | 2 | 0 | 4 |
| MILS 403, 404 | Leadership Lab | 0 | 0 | 0 | 0 |
| SOPHOMORE YEAR |  |  |  |  |  |
| MILS 201, 202 | Basic Leadership* | 2 | 2 | 0 | 4 |
| MILS 403, 404 | Leadership Lab | 0 | 0 | 0 | 0 |
| MILS 300 | Basic Leadership Training* | 0 | 0 | 0 | 0 |
| *Basic Leadership Training can be substituted for the 100 and 200 level certain situations. |  |  |  |  |  |
| JUNIOR YEAR |  |  |  |  |  |
| MILS 301, 302 | Adv Leadership Dev | 3 | 3 | 0 | 6 |
| MILS 403, 404 | Leadership Lab | 0 | 0 | 0 | 0 |
| MILS 403, 404 | Advanced Leadership Training | 0 | 0 | 6 | 6 |
| SENIOR YEAR |  |  |  |  |  |
| MILS 401, 402 | Transition to Officership | 3 | 3 | 0 | 6 |
| MILS 403, 404 | Leadership Lab | 0 | 0 | 0 | 0 |
|  |  | Total Semester Hours 26 |  |  |  |

## Requirements for Commissioning:

26 hours Military Science
3 hours American Military History - HIST 304
3 hours Written/Oral Communication Skills - GEEN 310

3 hours Computer Literacy

3 hours Human Behavior
Contact the Professor of Military Science for additional information.
NOTE: ROTC students have an option of regular schedule class time for GEHI 164-15 and GEPE 165-11 or selecting ROTC class time (0600-0650). See catalog for course schedule

# DEPARTMENT OF MUSIC, ART AND DESIGN 

Chairperson: Thomas LaRose, P.O. Box 9026, 216 Harris Hall, Phone: 524-5188<br>Professor: Mark W. Phillips, Richard Schwartz, David Shaffer-Gottschalk<br>Associate Professors: Ethel N. Haughton, Brenda Mveng-Whitted, Karen Savage<br>Assistant Professors: Shirley Dort, Johnnella L. Edmonds, Thomas Larose, George L. Tuckwiller, III<br>Instructors: James Holden, Lisa Edward-Burrs, Lawrence Hawthorne, Francis E. Young

## Music Unit Description

The Music unit is accredited by the National Association of Schools of Music and offers courses leading to the Bachelor of Music Degrees in Music Education and Music Performance. All education curricula prepare music majors for the teaching profession and prepare them for certification to teach K-12. The Performance curricula prepare students for a career in performance in their respective performance areas. All curricula prepare students for advanced studies at the graduate level. The unit also offers a variety of courses for non-majors.

## Mission

The mission of the Music unit is to maintain both a level of academic excellence established by the university and a level of artistic achievement competitive with national standards. The Unit will promote diverse musical experiences that cross cultural boundaries, the use of technology, interaction with the community served by the university, and contact with the larger musical community. Through these experiences, the student will gain an awareness of his/her role in the university, local, national, and global community, and use that awareness to develop personal goals for future efforts and achievements.

## Objectives:

- To prepare effective teachers and proficient performers of vocal, keyboard and instrumental music.
- To provide students with solo performance opportunities in order to develop their performance skills to a high level and to provide the necessary ensemble performance opportunities so that they can perform effectively as chamber players as well as soloists. To offer curricula at various levels appropriate to the needs of the students according to national accreditation standards.
- To provide a variety of courses to meet the needs of non-music majors so that they may broaden their professional backgrounds and be more well-rounded individuals.
- To provide the University and community with professional services and expertise and increase their awareness and knowledge of the musical arts.
- To provide a strong background for majors interested in graduate work in the performance areas of music, music education or other related fields.


## Music Admission Requirements

## Piano:

I. Major scales, parallel motion, hands together

Minor scales (at least one form), parallel motion, hands together
Arpeggios - Major and minor triads for 4 octaves
II. A Bach Invention or work of comparable difficulty.
III. A contrasting work from the Classic, Romantic, or 20th Century repertoire.

## Voice:

1. A voice of attractive quality: agile and resonant with a range of two octaves.
2. The ability to distinguish tonality and sing songs on pitch.
3. A repertoire that includes songs by such well-known, classical composers as Handel, Schubert Purcell, etc.
4. A background that includes participation in solo and ensemble festivals sanctioned by your state music association and/or singing in the church.

## Instrumental:

Woodwind, Brass and String

1. All major scales. Each scale is to be played through the most accepted and practical range of your instrument.
2. Chromatic scale. This scale is to be played throughout the practical range of your instrument.

It should be slurred ascending and tongued descending or vice-versa.
3. One piece selected from the following:
a. Standard etude on your chosen instrument. (Rose for the clarinet, etc.)
b. Composition chosen from the Band and Orchestra Directors Manual of your home state or a piece with comparable music content.
c. A piece of band or orchestral literature that best demonstrates your technique, musicianship and interpretation.

## Percussion:

1. Play the following rudiments:

| Long Roll | Seven Stroke Roll | Double Drag |
| :--- | :--- | :--- |
| Flam | Flam Accent \# 1 | Double Paradiddle |
| Ruff | Flam Paradiddle | Single Ratamacue |
| Five Stroke Roll | Flamacue | Triple Ratamacue |
| Single Drag | Lesson 25 | Nine Stroke Roll |

Must be played open and closed.
2. Mallet players are expected to play all scales which include two octaves.
3. Perform one piece from the following list:
a. Standard etude on your chosen instrument.
b. Composition chosen from the Band and Orchestra Directors Manual of your home state or a piece with comparable music content.
c. A piece of band or orchestral literature that best demonstrates your technique, musicianship and interpretation.

## Areas of Specialization:

## Music with a Minor in Secondary Education - Bachelor of Music Degrees in:

1. Vocal/Choral
2. Instrumental (Brass, Percussion, String, Percussion)

A placement examination in music theory, piano and all performance mediums ( vocal or instrumental), will be given to all entering students in order to determine their level of ability. In the event that a student lacks sufficient background in one of the above areas, the student may be admitted on a probationary basis; however, it is expected that the student will make sufficient progress within a year's time, which will allow him/her to become a regular student and be admitted to the regular program, in good standing.

Twelve semester hours of applied music are required of all Music Education Majors. Beginning with the second semester of matriculation each student is required to perform at least once each semester on Student Seminar Recitals. A proficiency examination is required of all students in music theory, music history, piano and their applied area at the end of their sophomore year. All students are required to give a full senior recital. A jury examination is required six weeks prior to the recital.

## Music Performance Programs

The Bachelor of Music Degree in performance leads to a career in performance. Instruction is available in the following applied areas: Voice, Piano, Organ, String, Woodwind, Brass and Percussion.

An audition is required in the selected medium prior to admission to the program.
A placement examination in music theory, piano and all performance mediums ( vocal or instrumental), will be given to all entering students in order to determine their level of ability. In the event that a student lacks sufficient background in one of the above areas, the student may be admitted on a probationary basis; however, it is expected that the student will make sufficient progress within a year's time, which will allow him/her to become a regular student and be admitted to the regular program, in good standing.

Twenty-one semester hours of applied music are required of all Performance Majors in their major applied area and three additional hours for the senior recital. Beginning with the second semester of matriculation each student is required to perform at least twice each semester on Student Seminar Recitals. A proficiency examination is required of all students in music theory, music history, piano and their applied area at the end of their sophomore year.

Proficiency requirements for graduation include, along with the core curriculum, the development of advanced performance skills which meet professional musical standards ( e.g. the ability to execute music from memory, an outstanding sense of musicianship, and a substantial knowledge of the repertoire of his/her instrument. A proficiency examination is required of all students in music theory, music history, and their applied area at the end of their sophomore year. A basic proficiency in piano must be demonstrated by all performance majors other than piano majors.

All performance majors are required to give a full recital at the end of their junior and senior years as partial fulfillment for the performance degree. A jury examination is required six weeks prior to each recital.

## Course Descriptions

## MUSIC <br> MUSIC (APPLIED)

## APPLIED PIANO

MUSI 101, 102 APPLIED MAJOR PIANO - 2 semester hours
F, Sp

Major Scales-
Minor Scales-
Arpeggios-
Bach-

4 octaves, hands together in parallel motion
4 octaves, hands together in parallel motion, 3 forms
Major and Minor for 4 octaves, hands together
Two Part Inventions

Selected late intermediate to early advanced compositions from Classic, Romantic and $20^{\text {th }}$ Century periods.

MUSI 103, 104 APPLIED MAJOR PIANO - 3 semester hours

Major ScalesMinor Scales-Arpeggios-Bach-

4 octaves, hands together in parallel motion
4 octaves, hands together in parallel motion, 3 forms
Major and Minor for 4 octaves, hands together
Two Part Inventions

Selected early Haydyn sonatas, Mozart sonatas, C.P.E. Bach, or Beethoven op. 49, 79.
Selected compositions from the Romantic and/or $20^{\text {th }}$ Century periods.

| MUSI 201 \& 202 APPLIED PIANO MAJOR -2 semester hours | F, Sp |
| :--- | :--- |
| Major Scales- | octaves, hands together in parallel motion |
| Minor Scales- | octaves, hands together in parallel motion, 3 forms |
| Arpeggios- | Major and Minor for 4 octaves, hands together |
| Chromatic scale- 4 octaves, hands together in parallel motion |  |

MUSI 203 \& 204 APPLIED PIANO MAJOR - 3 semester hours F, Sp
Major Scales- 4 octaves, hands together in parallel motion
Minor Scales- 4 octaves, hands together in parallel motion, 3 forms
Arpeggios- Major, Minor, and Diminished $7^{\text {ths }}$ for 4 octaves, hands together
Chromatic scale- 4 octaves, hands together in parallel motion
Selected compositions from the Baroque, Classical, Romantic and $20^{\text {th }}$ Century periods.
Select repertoire and begin preparation of Junior Recital.

| MUSI 301 \& $\mathbf{3 0 2}$ APPLIED PIANO MAJOR - 2 semester hours |  |
| :--- | :--- |
| Major Scales- | 4 octaves, hands together in parallel motion |
| Minor Scales- | 4 octaves, hands together in parallel motion, 3 forms |
| Arpeggios- | Major, Minor, and Diminished $7^{\text {ths }}$ for 4 octaves, hands together |
| Chromatic scale- | 4 octaves, hands together in parallel motion |$\quad$ F, Sp

MUSI 303 \& 304 APPLIED PIANO MAJOR - 3 semester hours F, Sp
Major Scales- 4 octaves, hands together in parallel motion
Minor Scales- 4 octaves, hands together in parallel motion, 3 for
Arpeggios- Major, Minor, and Diminished and Dominant $7^{\text {ths }}$ for 4 octaves, hands together
Chromatic scale- $\quad 4$ octaves, hands together in parallel motion
Selected compositions from the Baroque, Classical, Romantic and $20^{\text {th }}$ Century periods.
Preparation and presentation of Junior Recital (required to pass MUSI 304).
MUSI 401 \& 402 APPLIED PIANO MAJOR - 2 semester hours
Major Scales- 4 octaves, hands together in parallel motion
Minor Scales- 4 octaves, hands together in parallel motion, 3 forms
Arpeggios- Major, Minor, and Diminished $7^{\text {ths }}$ for 4 octaves, hands together
Chromatic scale-4 octaves, hands together in parallel motion
Selected compositions from the Baroque, Classical, Romantic and $20^{\text {th }}$ Century periods.
Preparation of Senior Recital.

| MUSI 403 \& 404 APPLIED PIANO MAJOR - 3 semester hours |  |
| :--- | :--- |
| Major Scales- | 4 octaves, hands together in parallel motion |
| Minor Scales- | octaves, hands together in parallel motion, 3 forms |
| Arpeggios- | Major, Minor, and Diminished $7^{\text {ths }}$ for 4 octaves, hands together |
| Chromatic scale-4 octaves, hands together in parallel motion |  |$\quad$ F, Sp

MUSI 424 SENIOR RECITAL - 3 semester hours
Senior recital Jury heard by piano faculty 6 weeks before public performance date for approval.
(Performance majors only).
MUSI 499 SENIOR RECITAL - 1 semester hour F, Sp
Preparation and presentation of senior recital. Senior recital Jury will be heard by keyboard faculty six weeks before public performance date for approval. (Education majors only)

## APPLIED BRASS

MUSI 121 \& 122 APPLIED BRASS MAJOR - 2 semester hours F, Sp
Methods pertinent to development of good tone production, proper breath usage, embouchure information, articulation and musical interpretation in correlation with basic elements of musicianship. Selected technical and solo materials.

MUSI 123 \& 124 APPLIED BRASS MAJOR - 3 semester hours
F, Sp
Methods pertinent to development of good tone production, proper breath usage, embouchure information, articulation and musical interpretation in correlation with basic elements of musicianship. Selected technical and solo materials.

MUSI 221 \& 222 APPLIED BRASS MAJOR - 2 semester hours
F, Sp
Continuation of the study of basic musicianship, embouchure development, intervals, scales and study of arpeggios. Articulations, transposition and selected technical studies. Standard orchestral, solo and ensemble literature.

MUSI 223 \& 224-3 semester hours
F, Sp
Continuation of the study of basic musicianship, embouchure development, intervals, scales and study of arpeggios. Articulations, transposition and selected technical studies. Standard orchestral, solo and ensemble literature.

## MUSI 321 \& 322 APPLIED BRASS MAJOR - 2 semester hours

F, Sp
Continuation of previous studies. More intensive study of stylistic interpretative, technique, transposition and standard solo, ensemble and orchestral literature for brasses from principal historical periods. Preparation for senior recital.

## MUSI 323 \& 324 APPLIED BRASS MAJOR - 3 semester hours

F, Sp
Continuation of previous studies. More intensive study of stylistic interpretative, technique, transposition and standard solo, ensemble and orchestral literature for brasses from principal historical periods. Junior recital is required in MUSI 324. A Jury will be heard six weeks before public performance date for approval.

MUSI 421 \& 422 APPLIED BRASS MAJOR - 2 semester hours
F, Sp
Advanced technical study and repertoire development. Representative literature from principal historical periods.
MUSI 423 APPLIED BRASS MAJOR - 3 semester hours
F
Advanced technical study and repertoire development. Representative literature from principal historical periods. Preparation for senior recital.

## MUSI 424 SENIOR RECITAL - 3 semester hours

F, Sp
Preparation and presentation of senior recital. Senior recital Jury will be heard by instrumental faculty six weeks before public performance date for approval. (Performance majors only)

MUSI 499 SENIOR RECITAL - 1 semester hour
F, Sp
Preparation and presentation of senior recital. Senior recital Jury will be heard by instrumental faculty six weeks before public performance date for approval. (Education majors only)

## APPLIED PERCUSSION

MUSI 121 \& 122 APPLIED PERCUSSION MAJOR - 2 semester hours F, Sp
Snare drum and timpani technique. Basic elements of musicianship applied to tonal production, rhythm, dynamics, sight-reading, tuning, pedaling, intonation, sticking, rudiments and control. Standard technical studies and solos.

MUSI 123 \& 124 APPLIED PERCUSSION MAJOR - 3 semester hours
F, Sp
Snare drum and timpani technique. Basic elements of musicianship applied to tonal production, rhythm, dynamics, sight-reading, tuning, pedaling, intonation, sticking, rudiments and control. Standard technical studies and solos.

## MUSI 221 \& 222 APPLIED PERCUSSION MAJOR - 2 semester hours

F, Sp
Continuation of snare drum, timpani and basic musicianship studies. Study xylophone, marimba, bass drum, cymbals, traps and other mallet instruments. Selected technical, solo and ensemble literature.

MUSI 223 \& 224 APPLIED PERCUSSION MAJOR - 3 semester hours
Continuation of snare drum, timpani and basic musicianship studies. Study xylophone, marimba, bass drum, cymbals, traps and other mallet instruments. Selected technical, solo and ensemble literature.

MUSI 321 \& 322 APPLIED PERCUSSION MAJOR - 2 semester hours F, Sp
Continuation and expansion of prior technical studies, solos and ensemble literature to include more advanced studies, multi-percussion techniques and new notational system. Preparation for senior recital.

MUSI 323 \& 324 APPLIED PERCUSSION MAJOR - 3 semester hours
$\mathbf{F}, \mathbf{S p}$
Continuation and expansion of prior technical studies, solos and ensemble literature to include more advanced studies, multi-percussion techniques and new notational system. Junior recital required in MUSI 324. A Jury will be heard six weeks prior to public performance date for approval.

MUSI 421 \& 422 APPLIED PERCUSSION MAJOR - 2 semester hours
F, Sp
Continued development of technique and musicianship with application to expand repertoire, stylistic interpretation.
MUSI 423 APPLIED PERCUSSION MAJOR - 3 semester hours F, Sp
Continued development of technique and musicianship with application to expand repertoire, stylistic interpretation. Preparation for senior recital.

MUSI 424 SENIOR RECITAL - 3 semester hours
F, Sp
Preparation and presentation of senior recital. Senior recital Jury will be heard six weeks prior to public performance date for approval. (Performance majors only)

MUSI 499 SENIOR RECITAL - 1 semester hour
Preparation and presentation of senior recital. Senior recital Jury will be heard six weeks prior to public performance date for approval. (Education majors only)

## APPLIED STRINGS

MUSI 121 \& 122 APPLIED STRINGS MAJOR - 2 semester hours
F, Sp
Private instruction on developing fundamental technique of string instrument playing: Scales, arpeggios, sightreading, technical studies, solo and ensemble literature.

## MUSI 123 \& 124 APPLIED STRINGS MAJOR - 3 semester hours <br> F, Sp

Private instruction on developing fundamental technique of string instrument playing: Scales, arpeggios, sightreading, technical studies, solo and ensemble literature.

MUSI 223 \& 224 APPLIED STRINGS MAJOR - 3 semester hours
Application of technique to performance, tone production, bow management, finger placement covering entire tonal range in all positions, technical studies, solo and ensemble literature.

## MUSI 321 \& 322 APPLIED STRINGS MAJOR - 2 semester hours <br> F, Sp

Continuation of technical studies, expansion of repertoire and development of performance skills. Preparation for senior recital.

MUSI 323 \& 324 APPLIED STRINGS MAJOR - 3 semester hours F, Sp Continuation of technical studies, expansion of repertoire and development of performance skills. Junior recital is required in MUSI 324. A Jury will be heard six weeks before public performance date for approval.

MUSI 421 \& 422 APPLIED STRINGS MAJOR - 2 semester hours F, Sp
Advanced Technical Study, continued development of repertoire, stylistic interpretation and performance skills.

## MUSI 423 APPLIED STRINGS MAJOR - 3 semester hours

Advanced Technical Study, continued development of repertoire, stylistic interpretation and performance skills.
MUSI 424 SENIOR RECITAL - 3 semester hours $\quad$ F, Sp
Preparation and presentation of senior recital. Senior recital Jury will be heard by instrumental faculty six weeks before public performance date for approval. (Performance majors only)

MUSI 499 SENIOR RECITAL - 1 semester hour
Preparation and presentation of senior recital. Senior recital Jury will be heard by instrumental faculty six weeks before public performance date for approval. (Education majors only)

## APPLIED WOODWINDS

MUSI 121 \& 122 APPLIED WOODWINDS MAJOR - 2 semester hours F, Sp
Basic musicianship and technical studies including studies which include major, minor, and chromatic scales and arpeggios. Embouchure development, tone production. Selected technical and solo material.

MUSI 123 \& 124 APPLIED WOODWINDS MAJOR - 3 semester hours F, Sp
Basic musicianship and technical studies including studies which include major, minor, and chromatic scales and arpeggios. Embouchure development, tone production. Selected technical and solo material.

MUSI 221 \& 222 APPLIED WOODWINDS MAJOR - 2 semester hours F, Sp
Continuation of principles and techniques studied previous year including all scales, intervals, arpeggios, characteristic tone production, articulations, rhythms, sight-reading, standard technical, solo and ensemble material.

MUSI 223 \& 224 APPLIED WOODWINDS MAJOR - 3 semester hours
F, Sp
Continuation of principles and techniques studied previous year including all scales, intervals, arpeggios, characteristic tone production, articulations, rhythms, sight-reading, standard technical, solo and ensemble material.

MUSI 321 \& 322 APPLIED WOODWINDS MAJOR - 2 semester hours
F, Sp
More advanced technical study and repertoire development. Scales in thirds, fourths, and fifths, extended arpeggios, articulatory studies, range and dynamic development. Representative solo, ensemble and orchestral literature. Preparation for senior recital.

MUSI 323 \& 324 APPLIED WOODWINDS MAJOR - 3 semester hours
F, Sp
More advanced technical study and repertoire development. Scales in thirds, fourth, and fifths, extended arpeggios, articulatory studies, range and dynamic development. Representative solo ensemble and orchestral literature. Junior recital is required for MUSI 324. A Jury will be heard six weeks before public performance date for approval.

MUSI 421 \& 422 APPLIED WOODWINDS MAJOR - 2 semester hours
F, Sp
Intensive study of woodwind literature, advanced technique, stylistic interpretation and application of musical concepts to performance skills.

## MUSI 423 APPLIED WOODWINDS MAJOR - 3 semester hours <br> F, Sp

Intensive study of woodwind literature, advanced technique, stylistic interpretation and application of musical concepts to performance skills. Preparation for senior recital

MUSI 424 SENIOR RECITAL - 3 semester hours $\quad$ F, Sp
Preparation and presentation of senior recital. Senior recital Jury will be heard by instrumental faculty six weeks before public performance date for approval. (Performance majors only)

MUSI 499 SENIOR RECITAL - 1 semester hour F, Sp
Preparation and presentation of senior recital. Senior recital Jury will be heard by instrumental faculty six weeks before public performance date for approval. (Education majors only)

## APPLIED VOICE

MUSI 111 \& 112 APPLIED VOICE MAJOR -2 semester hours F, Sp
Basic fundamentals of singing: breathing, placement, agility. Several studies in Concone 50 lessons for the middle of the voice. Early Italian songs of the 16th and 17th centuries. Early English songs of John Dowland, Henry Purcell, etc.

## MUSI 113 \& 114 APPLIED VOICE MAJOR - 3 semester hours

F, Sp
Basic fundamentals of singing: breathing, placement, agility. Several studies in Concone 50 lessons for the middle of the voice. Early Italian songs of the 16th and 17th centuries. Early English songs of John Dowland, Henry Purcell, etc.

MUSI 211 \& 212 APPLIED VOICE MAJOR - 2 semester hours F, Sp
Continuation of basic fundamentals: breathing, placement, agility, diction. Scales (major and minor) Concone and Panofka. Addition of German Lieder of Schubert and Schumann. Early operatic arias in Italian.

MUSI 213 \& 214 APPLIED VOICE MAJOR - 3 semester hours
F, Sp
Continuation of basic fundamentals: breathing, placement, agility, diction. Scales (major and minor) Concone and Panofka. Addition of German lieder of Schubert and Schumann. Early operatic arias in Italian.

MUSI 311 \& 312 APPLIED VOICE MAJOR - 2 semester hours F, Sp
American art songs of John Duke, Richard Hageman, Ernest Charles and others. Continuation of Schumann and Schubert songs. Study of Mozart arias. Preparation for senior recital.

MUSI 313 \& 314 APPLIED VOICE MAJOR - 3 semester hours F, Sp
American art songs of John Duke, Richard Hageman, Ernest Charles and others. Continuation of Schumann and Schubert songs. Study of Mozart arias. In MUSI 314 a junior recital is required. A Jury will be heard six weeks before public performance date for approval.

MUSI 411 \& 412 APPLIED VOICE MAJOR - 2 semester hours F, Sp
Continuation of basic voice study. Arias from both opera and oratorio.
MUSI 413 APPLIED VOICE MAJOR - 3 semester hours
F, Sp
Continuation of basic voice study. Arias from both opera and oratorio. Preparation for senior recital.
MUSI 424 SENIOR RECITAL - 3 semester hours
Preparation and presentation of senior recital. Senior recital Jury will be heard by voice faculty six weeks before public performance date for approval. (Performance majors only)

Preparation and presentation of senior recital. Senior recital Jury will be heard by voice faculty six weeks before public performance date for approval. (Education major only)

## APPLIED MINOR

Music majors who wish to study a secondary applied area or non-music majors who wish to study an applied area may enroll in APPLIED MINOR courses with the permission of the instructor.

MUSI 141, 142 APPLIED MINOR - 1 semester hour
These courses are for applied minor instruction in the instrumental or vocal area.
Prerequisite: Permission from the applied instructor
MUSI 241, 242-1 semester hour
F, Sp
These courses continue applied minor instruction in the instrumental or vocal area.

## PERFORMANCE ENSEMBLES

The Department of Music offers varied performance organizations to all University students for one hour credit each semester.

Placement in each organization is dependent upon the results of auditions given and criteria established by the direction of the respective performance ensembles.

Participation in at least one performance ensemble is required for music majors each semester of matriculation at the University. Non-Music majors may select performance ensembles in accordance with audition results.

## Instrumental Ensembles

MUSI 161,162,261,262,361,362,461,462-
MUSI 163,164,263,264,363,364,463,464-
MUSI 165,166,265,266,365,366,465,466-
MUSI 167,168,267,268,367,368,467,468

```
BAND (MARCHING (F), CONCERT(S) ORCHESTRA(F,S)
STAGE BAND(F,S)
CHAMBER ENSEMBLE(F,S)
```


## Vocal Ensembles

MUSI 171,172,271,272,371,372,471,472
MUSI 173,174,273,274
MUSI 175,176,275,276,375,376,475,476
MUSI 177,178,277,278,377,378,477,478
CONCERT CHOIR(F,S)
MADRIGAL SINGERS(F,S)
GOSPEL CHORALE(F,S)
CHAMBER ENSEMBLE(F,S)

## MUSIC CLASSES

MUSI 105 CLASS PIANO - 1 semester hour [for Music Majors only]
F, Sp
Provides music majors (non-keyboard majors) with necessary keyboard skills to function adequately as music professionals. MUSI 105 covers: keyboard basics, major and minor five-note scales, major and minor triads, bass note harmonization and transposition of five-finger melodies, pieces learned from score, and sightreading.

MUSI 106 CLASS PIANO - 1 semester hour $\quad$ F, Sp
Provides music majors (non-keyboard majors) with necessary keyboard skills to function adequately as music professionals. MUSI 106 covers: major and minor scales, hands separately; primary chord progressions; chordal harmonization and transposition of five-finger melodies; pieces learned from score; and sightreading.

## MUSI 107 MUSIC LABORATORY - 1 semester hour

A class providing opportunities for students to observe, plan and fill different roles as teachers in a school setting prior to student teaching.

MUSI 115, 116 VOICE CLASS - 1 semester hour
F, Sp
These courses designed for the non-voice major, i.e., keyboard, band and orchestral instrumental majors. Problems in voice production, breathing, placement, diction, etc., will be discussed. Repertoire for both the college and the projected public school student will be expected.

MUSI 154 MUSIC FUNDAMENTALS - 3 semester hours F, Sp
A study of the basic elements of music needed by Elementary and Special Education teachers. Specifically taught will be key signatures, circle of fifths, all major and minor scales, clefs, keys, modes, enharmonics, intervals, triads and an introduction to four-part harmony.

MUSI 181 BASIC THEORY - 3 semester hours [for Music Majors only] F, Sp
Specifically taught will be triad inversions, dominant seventh chords, diminished seventh chords, non-harmonic tones, cadences, diatonic modulations, and four-part writing.

## MUSI 182 CHROMATIC HARMONY - 3 semester hours

F, Sp
Specifically taught will be four-part writing, secondary seventh chords and their inversions, augmented 6th, neapolitan and borrowed chords. Also taught are dominant ninths, elevenths, thirteenths, altered dominants, chromatic mediants, and chromatic modulations.

MUSI 183 SIGHT SINGING AND EAR TRAINING - 1 semester hour [for Music Majors only] F, Sp Development of basic skills in music reading and aural perception. Laboratory experience required.

## MUSI 184 SIGHT SINGING AND EAR TRAINING - 1 semester hour <br> F, Sp

Continued development in music reading and aural skills. Laboratory experience required.

MUSI 191 STRING CLASS - 1 semester hour
Special study of violin, viola, cello, double bass with an emphasis on developing the skills necessary for teaching the instruments on the elementary and intermediate levels.

## MUSI 192 PERCUSSION CLASS - 1 semester hour

Course designed to develop, through practical experiences, the skills necessary to teach instruments of the percussion family on the elementary and intermediate levels.

MUSI 199 MUSIC APPRECIATION - 3 semester hours F, Sp
A study of music designed to provide the general student with knowledge and understanding of the history, structure and style of various types of music literature.

MUSI 205 CLASS PIANO - 1 semester hour
Provides music majors (non-keyboard majors) with professionals. MUSI 205 covers: major and minor scales, hands together; primary and secondary chord progressions; harmonization and transposition (not limited to five note patterns) pieces learned from score, and sightreading. The course culminates with the Class Piano Proficiency Examination, passage of which is required prior to advancing to MUSI 206.

MUSI 206 CLASS PIANO - 1 semester hour
The course expands on the skills required for the Class Piano Proficiency Examination, especially in the area of harmonization, transposition, and reading. Also included are independent repertoire preparation and public performance experience.

## MUSI 207 MUSIC LABORATORY - 1 semester hour

A class providing opportunities for students to observe, plan and fill different roles as teachers in a school setting prior to student teaching. Taught in conjunction with MUSI 393, Elementary Methods.

MUSI 253 INSTRUMENTAL SURVEY - 1 semester hour
A course designed to acquaint Choral Music Education majors with the historical development, nomenclature, methods of tone production, transpositions, and basic instructional methods of the brass, percussion, string, and woodwind instruments.

## MUSI 258 VOCAL DICTION - 1 semester hour

A study of the International Phonetic Alphabet (IPA) and its application to singing in English and Italian. (Education majors only).

MUSI 259 VOCAL DICTION - 1 semester hour
A study of the international Phonetic Alphabet (IPA) and its application to singing in French and German. (Education majors only).

MUSI 281 FORM AND ANALYSIS - 3 semester hours
The basic skills involved in structural analysis of tonal music, with emphasis placed on the analysis of phrase structure and the ability to locate and identify the important structural principles and divisions within binary, ternary, sonata, rondo, variation, and imitative forms.

MUSI 282 TWENTIETH CENTURY THEORY - 3 semester hours
Sp
Designed to expose students to the basic concepts and analytical tools necessary for an understanding of twentiethcentury art music, including units introducing motives and set theory, non-diatonic scales, triadic extensions, modality and pitch class centers, serialism, and new approaches to rhythm, meter, orchestration, tone color and texture.

MUSI 283 SIGHT SINGING AND EAR TRAINING - 1 semester hour F
Continued development in music reading and aural skills. Laboratory experience required.

## MUSI 285 MUSIC HISTORY - 3 semester hours

A survey of the development of Western Music from Antiquity through the Baroque Period.
MUSI 286 MUSIC HISTORY - 3 semester hours
A survey of the development of Western Music from the Classical Period to the 20th Century.
Prerequisite: MUSI 181
MUSI 287 ELEMENTARY CONDUCTING - 2 semester hours
The basic principles of conducting vocal/instrumental groups. Laboratory experience with vocal and instrumental groups is required.

MUSI 288 VOCAL DICTION - 2 semester hours
F
A study of the International Phonetic Alphabet (IPA) and its application to singing in English and Italian. (Performance majors only.)

MUSI 289 VOCAL DICTION - 2 semester hours
Sp
A study of the international Phonetic Alphabet (IPA) and its application to singing in French and German. (Performance majors only.)

## MUSI 295 WOODWIND CLASS - 1 semester hour

Designed to develop, through practical experience, the skills necessary to play instruments of the woodwind family on the elementary and intermediate levels.

MUSI 296 BRASSWIND CLASS - 1 semester hour
Designed to develop, through practical experience, the skills necessary to play the instruments of the brass family on the elementary and intermediate levels.

## MUSI 307 PRACTICUM - 1 semester hour

A class providing opportunities for students to observe, plan and fill different roles as teachers in a school setting prior to student teaching.
Prerequisites: Taught in conjunction with MUSI 491 Instructional Methods or MUSI 493 Middle/High School Methods.

MUSI 354 MARCHING BAND TECHNIQUES - 2 semester hours Sp
A comprehensive study of marching band show design, drill, writing, charting techniques, marching band teaching techniques, rehearsal organization, selecting and purchase of equipment and materials, proper administrative organization, band travel planning and public relations.

## MUSI 373, 374 OPERA WORKSHOP - 1 semester hour F, Sp <br> Designed to provide experiences in the performance of opera and opera scenes. <br> MUSI 381 COUNTERPOINT - 3 semester hours <br> F, S

A course in counterpoint organized around the invention and fugue. A thorough analysis of the WELL TEMPERED CLAVIER, by J. S. Bach, is included.

MUSI 385 ART SONG - 2 semester hours
. order to develop a sense of style and application for the art of singing.

## MUSI 386 MUSIC COMPOSITION - $\mathbf{2}$ semester hours

This course is designed to develop the compositional skills of the student through practical experience, class discussion, research, composition projects, and private assistance. At the end of the course, the student will be able to write a composition for a medium selected by the instructor and complete all of the individual composition projects required for the course.
Prerequisites: MUSI 181, 182, 183, 184, 281, and 282

## MUSI 388 ADVANCED INSTRUMENTAL CONDUCTING - 2 semester hours

Conducting techniques with particular attention to interpretation, techniques of instrumental articulation, nuance, seating of instrumental groups, and the testing and auditioning of instrumentalists.

MUSI 389 ADVANCED CHORAL CONDUCTING - 2 semester hours
Conducting techniques with particular attention to interpretation, techniques of choral conducting, tempo, diction, nuance, seating of choral groups, and the testing and auditioning of vocalists.

## MUSI 393 ELEMENTARY METHODS - 2 semester hours

A functional laboratory for learning how to prepare and present meaningful musical experiences in elementary classroom settings. The present content of the course is based upon what elementary music teachers/specialists are expected to accomplish in both student teaching and subsequent professional teaching in the schools.

## MUSI 396 TWENTIETH CENTURY MUSIC - 2 semester hours

An overview of art music in the 20th Century, concentrating on the ways in which the different styles have developed and interacted throughout the century, the knowledge of major composers and their most prominent style characteristics.
Prerequisite: MUSI 285

## MUSI 397 MUSIC IN THE ROMANTIC PERIOD - 2 semester hours

F
A study of the music literature of the Romantic Period in historical perspective. Emphasis will be placed on major composers, genres, forms, styles, and performance mediums.
Prerequisite: MUSI 285

MUSI 398 MUSIC IN THE CLASSICAL PERIOD - 2 semester hours Sp
A study of the music literature of the Classical Period in historical perspective. Emphasis will be placed on major composers, genres, forms, styles, and performance mediums.
Prerequisite: MUSI 285
MUSI 399 MUSIC IN THE BAROQUE PERIOD - 2 semester hours F
A study of the music literature of the Baroque Period in historical perspective. Emphasis will be placed on major composers, genres, forms, styles, and performance mediums.
Prerequisite: MUSI 285
MUSI 473, 474 OPERA WORKSHOP - 1 semester hour F, Sp
Designed to provide experiences in the performance of opera and opera scenes.
MUSI 481 DRAMATIC MUSIC - 2 semester hours
A study of opera and oratorio in historical perspective.
MUSI 482 INSTRUMENTAL PEDAGOGY - 2 semester hours
Designed to explore current and historical pedagogical approaches to the teaching of band and orchestral instruments.

MUSI 483 VOCAL PEDAGOGY - 2 semester hours
F
Designed to explore the current and historical pedagogical approaches to the teaching of vocal music.

## MUSI 484 PIANO PEDAGOGY - 2 semester hours

An introduction to the art of teaching the piano, including surveys of individual and group beginning methods, introduction to intermediate repertoire, history of piano technique, and piano teaching as a business. Required for Piano Performance Majors. Recommended for non-majors who wish to teach piano.

MUSI 485 ORCHESTRATION - 2 semester hours
F
Arranging for small ensembles, full orchestra, and band.
MUSI 486 PIANO LITERATURE - 2 semester hours

## F

A survey of the solo and concerto literature for the piano beginning with its antecedents in the harpsichord repertoire and extending to the major trends and works of the twentieth century.

## MUSI 487 ART OF ACCOMPANIMENT - 2 semester hours

An introduction to the art of the collaborative pianist through reading, listening, and playing.
MUSI 489 SENIOR THESIS - 1 semester hour

## S, F

The concentration of this non-performance senior research project may be in Composition, Music Theory/Analysis, or Music History/Musicology. The thesis topic selection approval and its evaluation will be by a committee of three music faculty. The student and the committee will determine the scope and manner of presentation for the research project.

MUSI 491 INSTRUMENTAL METHODS - 3 semester hours
F
Techniques of organizing and developing instrumental groups; pedagogical practices, procedures, methods and materials for developing bands, orchestras, ensembles, and solo performances.

## MUSI 493 MIDDLE/HIGH SCHOOL METHODS - 3 semester hours

Philosophy, basic concepts and principles of music teaching and learning in middle and high school. Emphasis on content, techniques and materials for effective program building and implementation.

The introduction of representative solo and ensemble literature for voice.

## MUSI 496 INSTRUMENTAL LITERATURE - 2 semester hours

A course designed for the instrumental music major which introduces representative literature for the instruments of the orchestra and band.

GEMU 380 MUSIC AND ART - 3 semester hours F, Sp
This course concerned with man, the aesthetic creator, It is intended to provide a broad exposure to the Fine Arts, provoke curiosity and develop interest in the Arts and in the realm of the Aesthetic. A guide for the student in search of personal freedom through a constructive use of his leisure time by association with the Art, Music, Literature, Drama and Architecture.

GEMU 480 BLACKS IN AMERICAN MUSIC - 3 semester hours
F, Sp
A humanities course concerned with the full range of Black contributions to music from African heritage to the present day. Course content will be presented through lectures, recordings, and class discussions.

## DEPARTMENT OF MUSIC, ART AND DESIGN <br> MUSIC MAJOR <br> Instrumental Performance Concentration <br> Bachelor of Music Degree

|  | SEMESTER HOURS |  |  |
| :---: | :---: | :---: | :---: |
|  | $1^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  | Sem | Sem | Hours |

ENGL 110,111
110, 111 Composition I/Composition II
GEMA 112, 113 Basic Math

| FRST 101 | Freshman Studies | 2 | - | 2 |
| :--- | :--- | :---: | :---: | :---: |
| MUSI 105, 106 | Class Piano | 1 | 1 | 2 |
| MUSI 123, 124 | Applied Major | 3 | 3 | 6 |
| MUSI 181, 182 | Basic Theory/Chromatic Harmony | 3 | 3 | 6 |
| MUSI 183, 184 | Sight/Sing/Ear/Training | 1 | 1 | 2 |
| MUSI | Ensemble | 1 | 1 | 2 |
| GE | Technology | - | 3 | 3 |
| MUSI | Seminar | - | - | - |
|  |  | 17 | 18 | 35 |

SOPHOMORE YEAR
GE
MUSI 205, 206
Science \& Lab

MUSI 223, 224
Class Piano
$4 \quad 4 \quad 8$

MUSI 281, 282 Form \& Analysis/20 ${ }^{\text {th }}$ Century Theory
MUSI $283 \quad$ Sight/Sing/Ear Train
$1 \quad 1 \quad 2$
36

MUSI 285, 286
Music History
1
Ensemble
MUSI
HPER Wellness
Seminar

JUNIOR YEAR
GEHI 114 World Civilization
MUSI 323, 324
MUSI
MUSI 381
MUSI 287
MUSI
GE
MUSI
GE
MUSI
3
Applied Major
Music History Elective(s)
Counterpoint
336
$\begin{array}{lll}2 & 2 & 4\end{array}$

Elementary Conducting
Music Elective(s)
Social Science

- 22
3 - 3

Ensemble

| 1 | - | 3 |
| :--- | :--- | :--- |
| 1 | 2 |  |

Global Studies
Seminar

| - | 3 | 3 |
| :---: | :---: | :---: |
| - | $\overline{-}$ | $\overline{-}$ |
| 16 | 15 | 31 |


| SENIOR YEAR |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: |
| GE | Literature |  |  |  |
| GE | Social Science | - | 3 | 3 |
| GE | Humanities | 3 | - | 3 |
| MUSI 424 | Senior Recital | - | 3 | 3 |
| MUSI 423 | Applied Major | 3 | - | 3 |
| MUSI 482 | Instrumental Pedagogy | - | 2 | 2 |
| MUSI 496 | Instrumental Literature | 2 | - | 2 |
|  | Elective(s) | - | 3 | 3 |
| MUSI | Ensemble | 1 | 1 | 2 |
| MUSI | Seminar | $\overline{-}$ | $\overline{-}$ | $\overline{2}$ |
|  |  | 12 | 12 | 24 |

# DEPARTMENT OF MUSIC, ART AND DESIGN MUSIC MAJOR <br> Keyboard Performance Concentration (Piano or Organ) Bachelor of Music Degree 

|  |  | SEMESTER HOURS |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
| FRESHMAN YEAR |  |  |  |  |
| ENGL 110, 111 | Composition I/Composition II | 3 | 3 | 6 |
| GEMA 112, 113 | Basic Math | 3 | 3 | 6 |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| GE | Technology | - | 3 | 3 |
| MUSI 103, 104 | Applied Major Piano | 3 | 3 | 6 |
| MUSI 115, 116 | Voice Class | 1 | 1 | 2 |
| MUSI 181, 182 | Basic Theory/Chromatic Harmony | 3 | 3 | 6 |
| MUSI 183, 184 | Sight/Sing/Ear/Training | 1 | 1 | 2 |
| MUSI | Ensemble | 1 | 1 | 2 |
| MUSI | Seminar | - | = | $=$ |
|  |  | 17 | 18 | 35 |
| SOPHOMORE YEAR |  |  |  |  |
| GE | Science \& Lab | 4 | 4 | 8 |
| HPER | Wellness | - | 2 | 2 |
| MUSI 203, 204 | Applied Major | 3 | 3 | 6 |
| MUSI 258, 259 | Vocal Diction | 1 | 1 | 2 |
| MUSI 281, 282 | Form \& Analysis/20 ${ }^{\text {th }}$ Century Theory | 3 | 3 | 6 |
| MUSI 283 | Sight/Sing/Ear/Train | 1 | - | 1 |
| MUSI 285, 286 | Music History/Music History | 3 | 3 | 6 |
| MUSI | Ensemble | 1 | 1 | 2 |
| MUSI | Seminar | - | - | - |
|  |  | 16 | 17 | 33 |
| JUNIOR YEAR |  |  |  |  |
| GEHI 114 | World Civilization | 3 | - | 3 |
| GE | Social Science | - | 3 | 3 |
| MUSI 303, 304 | Applied Major Piano | 3 | 3 | 6 |
| GE | Literature | - | 3 | 3 |
| MUSI 381 | Counterpoint | 3 | - | 3 |
| MUSI 487 | Art of Accompaniment | 2 | - | 2 |
| MUSI 484 | Piano Pedagogy | - | 2 | 2 |
| MUSI | Music History Elective | 2 | - | 2 |
| MUSI 287 | Elem. Conducting | - | 2 | 2 |
| MUSI | Music Elective | - | 2 | 2 |
| MUSI | Ensemble | 1 | 1 | 2 |
| MUSI | Seminar | - | - | - |
|  |  | 14 | 16 | 30 |

## SENIOR YEAR

| GE | Humanities | 3 | - | 3 |
| :--- | :--- | :---: | :---: | :---: |
| MUSI | Music Elective(s) | - | 6 | 6 |
| GE | Global Studies | 3 | - | 3 |
| MUSI 424 | Senior Recital | - | 3 | 3 |
| MUSI 403 | Applied Major Piano | 3 | - | 3 |
| MUSI | Music History Elective | - | 2 | 2 |
| MUSI 486 | Piano Literature | 2 | - | 2 |
| MUSI | Ensemble | 1 | 1 | 2 |
| MUSI | Seminar |  |  |  |
|  |  | 12 | 12 | 24 |


\section*{DEPARTMENT OF MUSIC, ART AND DESIGN <br> MUSIC MAJOR <br> Vocal Performance Concentration <br> Bachelor of Music Degree <br> | SEMESTER |  |  |
| :---: | :---: | :---: |
| $\mathbf{1}^{\text {st }}$ | $2^{\text {nd }}$ | Total |
| Sem | Sem | Hours |}


| ENGL 110, 111 | Composition I/Composition II | 3 | 3 | 6 |
| :--- | :--- | :---: | :---: | :---: |
| GEMA 112, 113 | Basic Math | 3 | 3 | 6 |
| MUSI 105, 106 | Class Piano | 1 | 1 | 2 |
| MUSI 113, 114 | Applied Major Voice | 3 | 3 | 6 |
| MUSI 171, 172 | Concert Choir | 1 | 1 | 2 |
| MUSI 181, 182 | Basic Theory/Chromatic Harmony | 3 | 3 | 6 |
| MUSI 183, 184 | Sight/Sing/Ear/Training | 1 | 1 | 2 |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| GE | Technology | - | 3 | 3 |
| MUSI | Seminar | - | - | $=$ |
|  |  | 17 | 18 | 35 |

## SOPHOMORE YEAR

Fr./Ger. Lang. Elective
$\begin{array}{ll}\text { MUSI 205, } 206 & \text { Class Piano } \\ \text { MUSI 213, } 214 & \text { Applied Major Voice }\end{array}$

| 3 | 3 |
| :--- | :--- |


| MUSI 213, 214 | Applied Major Voice | 3 | 3 | 6 |
| :--- | :--- | :--- | :--- | :--- |

MUSI 271, 272 Concert Choir
MUSI 281, 282 Form \& Analysis/20 ${ }^{\text {th }}$ Century Theory
MUSI 283 Sight/Sing/Ear Train
MUSI 285, 286 Music History I/Music History II
$\begin{array}{ll}\text { MUSI 258, 259 } & \text { Vocal Diction } \\ \text { MUSI } & \text { Seminar }\end{array}$

JUNIOR YEAR

| GEHI 114 | World Civilization | 3 | - | 3 |
| :--- | :--- | :---: | :---: | :---: |
| GE | Science \& Lab | - | 4 | 4 |
| MUSI 313, 314 | Applied Major Voice | 3 | 3 | 6 |
| MUSI 371, 372 | Concert Choir | 1 | 1 | 2 |
| MUSI 373, 374 | Opera Workshop | 1 | 1 | 2 |
| MUSI 287 | Elem. Conducting | - | 2 | 2 |
| MUSI 381 | Counterpoint | 3 | - | 3 |
| MUSI 385 | Art Song | 2 | - | 2 |
| MUSI | Music Elective(s) | - | 5 | 5 |
| GE | Global Studies | 3 | - | 3 |
| MUSI | Seminar | - | - | $=$ |
|  |  | 16 | 16 | 32 |

## SENIOR YEAR

| GE | Science \& Lab | 4 | - | 4 |
| :--- | :--- | :---: | :---: | :---: |
| GE | Social Science | - | 3 | 3 |
| MUSI 413 | Applied Major Voice | 3 | - | 3 |
| MUSI 424 | Senior Recital | - | 3 | 3 |
| MUSI 471, 472 | Concert Choir | 1 | 1 | 2 |
| MUSI 473, 474 | Opera Workshop | 1 | 1 | 2 |
| MUSI 483 | Vocal Pedagogy | 2 | - | 2 |
| MUSI 481 | Dramatic Music | - | 2 | 2 |
| GE | Literature | 3 | - | 3 |
| HPER | Wellness | - | 2 | 2 |
| MUSI | Seminar | $\overline{-}$ | - | - |
|  |  | 14 | 12 | 26 |

## DEPARTMENT OF MUSIC, ART AND DESIGN <br> Instrumental Music with a Minor in Secondary Education K-12

|  |  | SEMESTER HOURS |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
| FRESHMAN YEAR |  |  |  |  |
| IDST 100, 101 | Analytical Reading, Writing and Reasoning I, II | $2^{* *}$ | $2^{* *}$ | 4 |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| ENGL 110, 111 | Composition I, II | 3 | 3 | 6 |
| MATH 112, 113 | Basic Math I, II | 3 | 3 | 6 |
| MUSI 105 | Class Piano | 2 | - | 2 |
| MUSI 121 | Applied Major Instrumental | 1 | - | 1 |
| MUSI 161 | Marching Band | 1 | - | 1 |
| MUSI 181 | Basic Theory | 3 | - | 3 |
| MUSI 183 | Sight/Sing/Ear Tr. | 1 | - | 1 |
| MUSI 191 | Strings | - | 1 | 1 |
| MUSI | Seminar | - | 0 | 0 |
| MUSI 106 | Class Piano | - | 2 | 2 |
| MUSI 122 | Applied Major Instrumental | - | 1 | 1 |
| MUSI 172 | Concert Band | - | 1 | 1 |
| MUSI 182 | Basic Theory | - | 3 | 3 |
| MUSI 184 | Sight/Sing/Ear Tr. | - | 1 | 1 |
| MUSI | Seminar | $=$ | $\underline{0}$ | $\underline{0}$ |
|  |  | 16 | 15 | 31 |
| SOPHOMORE YEAR |  |  |  |  |
| EDUC 201, 202 | Introduction to Teaching I, II | 2 | 2 | 4 |
| IDST 200 | Digital Media in Teacher Education | 3 | - | 3 |
| PSYC 212 | Human Growth \& Develop | 3 | - | 3 |
| MUSI 205 | Class Piano | 1 | - | 1 |
| MUSI 221 | Applied Major Instrumental | 1 | - | 1 |
| MUSI 261 | Marching Band | 1 | - | 1 |
| MUSI 281 | Form and Analysis | - | 3 | 3 |
| MUSI 212 | Applied Major Voice | - | 2 | 2 |
| MUSI 285 | Music History | 3 | - | 3 |
| MUSI | Seminar | - | 0 | 0 |
| MUSI 206 | Class Piano | - | 1 | 1 |
| MUSI 259 | Vocal Diction | - | 1 | 1 |
| MUSI 262 | Concert Band | - | 1 | 1 |
| MUSI 282 | $20^{\text {th }}$ Century Theory | - | 3 | 3 |
| MUSI 286 | Music History II | - | 3 | 3 |
| MUSI | Seminar | - | $\underline{0}$ | $\underline{0}$ |
|  |  | 14 | 16 | 30 |

## JUNIOR YEAR

| EDUC 315 | Data Driven Instructional Design | 3 | - | 3 |
| :--- | :--- | :--- | :--- | :--- |
| SPED 403 | Classroom Management in Educational Settings (FE) | - | 3 | 3 |
| EDUC 427 | Reading in The Subject Area | 3 | - | 3 |
| GE | Science and Lab | 4 | 4 | 8 |
| MUSI 321 | Applied Major Instrumental | 2 | - | 2 |
| MUSI 361 | Marching Band | 1 | - | 1 |
| MUSI 362 | Concert Band | - | 1 | 1 |
| GE | Health and Wellness | 2 | - | 2 |
| GEHI 114 | Global Studies | - | 3 | 3 |
| MUSI | Seminar | 0 | - | 0 |
| MUSI 287 | Elem. Conducting | - | 2 | 2 |
| MUSI 295 | Woodwinds | - | 1 | 1 |
| MUSI 322 | Applied Major Instrumental | - | 2 | 2 |
| MUSI 393 | Music for Elementary Specialist | - | 2 | 2 |
| MUSI 296 | Brass \& Winds | $\underline{1}$ | $-\overline{1}$ | $\underline{1}$ |
|  |  | 16 | 18 | 34 |

## SENIOR YEAR

EDUC 424 Critical Issues in Education $2-2$
MUSI 388 Advanced Conducting $2-2$

MUSI 485 Orchestration
$2-2$
MUSI 491 Instrumental Methods 3 - 3
MUSI 499 Senior Recital 1
MUSI 461 Marching Band 1
GE Literature $3-3$

MUSI Seminar $0 \quad-\quad 0$
MUSI 478 Student Teaching in Music

- 33

MUSI 401 Student Teaching Seminar

- 33

EDUC 402 Student Teaching

- 99
$\begin{array}{lll}14 & 15 & 29\end{array}$
${ }^{* *}$ IDST 100/101 are not counted in semester hours or toward graduation requirement


## DEPARTMENT OF MUSIC, ART AND DESIGN <br> Vocal/Choral Music with a Minor in Secondary Education K-12

|  |  | SEMESTER HOURS |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
| FRESHMAN YEAR |  |  |  |  |
| IDST 100, 101 | Analytical Reading, Writing and Reasoning I, II | $2^{* *}$ | $2^{* *}$ | 4 |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| ENGL 110, 111 | Composition I, II | 3 | 3 | 6 |
| MATH 112, 113 | Basic Math I, II | 3 | 3 | 6 |
| MUSI 105 | Class Piano | 2 | - | 2 |
| MUSI 111 | Applied Major Voice | 1 | - | 1 |
| MUSI 171 | Concert Choir | 1 | - | 1 |
| MUSI 181 | Basic Theory | 3 | - | 3 |
| MUSI 183 | Sight/Sing/Ear Tr. | 1 | - | 1 |
| MUSI | Seminar | - | 0 | 0 |
| MUSI 106 | Class Piano | - | 2 | 2 |
| MUSI 112 | Applied Major Voice | - | 1 | 1 |
| MUSI 172 | Concert Band | - | 1 | 1 |
| MUSI 182 | Basic Theory | - | 3 | 3 |
| MUSI 184 | Sight/Sing/Ear/Tr. | - | 1 | 1 |
| MUSI | Seminar | - | 0 | 0 |
| IDST 200 | Digital Media in Teacher Education | - | 3 | 3 |
|  |  | 16 | 17 | 33 |
| SOPHOMORE YEAR |  |  |  |  |
| EDUC 201, 202 | Introduction to Teaching I, II | 2 | 2 | 4 |
| MUSC 211 | Applied Major Voice | 2 | - | 2 |
| PSYC 212 | Human Growth \& Develop | 3 | - | 3 |
| MUSI 205 | Class Piano | 1 | - | 1 |
| MUSI 253 | Instr. Survey | 1 | - | 1 |
| MUSI 258 | Vocal Diction | 1 | - | 1 |
| MUSI 271 | Concert Choir | 1 | - | 1 |
| MUSI 281 | Form and Analysis | - | 3 | 3 |
| MUSI 212 | Applied Major Voice | - | 2 | 2 |
| MUSI 285 | Music History | 3 | - | 3 |
| MUSI | Seminar | - | 0 | 0 |
| MUSI 206 | Class Piano | - | 1 | 1 |
| MUSI 259 | Vocal Diction | - | 1 | 1 |
| MUSI 272 | Concert Choir | - | 1 | 1 |
| MUSI 282 | $20^{\text {th }}$ Century Theory | - | 3 | 3 |
| MUSI 286 | Music History II | - | 3 | 3 |
| MUSI | Seminar | - | $\underline{0}$ | $\underline{0}$ |
|  |  | 14 | 16 | 30 |

## JUNIOR YEAR

| EDUC 315 | Data Driven Instructional Design | 3 | - | 3 |
| :--- | :--- | :---: | :---: | :---: |
| SPED 403 | Classroom Management in Educational Settings (FE) | - | 3 | 3 |
| GE | Science \& Lab | 4 | 4 | 8 |
| MUSI 311 | Applied Maj. Voice | 2 | - | 2 |
| MUSI 371 | Concert Choir | 1 | - | 1 |
| HPER | Wellness | 2 | - | 2 |
| GEHI 114 | Global Studies | 3 | - | 3 |
| MUSI | Seminar | 0 | - | 0 |
| MUSI 287 | Elem. Conducting | - | 2 | 2 |
| MUSI 372 | Concert Choir | - | 1 | 1 |
| MUSI 312 | Applied Maj. Voice | - | 2 | 2 |
| MUSI 393 | Music for Elementary Specialist | - | 2 | 2 |
| MUSI | Seminar | - | $\underline{0}$ | $\underline{0}$ |
|  |  | 15 | 14 | 29 |

## SENIOR YEAR

EDUC 424 Critical Issues in Education $2-2$
MUSI 389 Advanced Conducting $2-2$
MUSI 471 Concert Choir 1

MUSI 493 Music for the Secondary Specialist 3 - 3
MUSI 499 Senior Recital 1
MUSI Seminar $0-0$

GE Literature $3-3$
EDUC 427 Reading in The Subject Area $3-3$
MUSI 478 Student Teaching in Music - 3
EDUC 401 Student Teaching Seminar - 3
EDUC 402 Student Teaching $=\underline{9} \quad \underline{9}$
$15 \quad 15 \quad 30$

## ${ }^{* *}$ IDST 100/101 are not counted in semester hours or toward graduation requirement

## ART AND DESIGN PROGRAM

The Art and Design program, accredited by the National Association for Schools of Art and Design, offers courses leading to a Bachelor of Fine Arts degree. Students in the program can decide from two primary career paths; Graphic Design or Fine Arts. The Graphic Design curriculum prepares students for careers as commercial artists in such areas as illustration, print and web design, and animation. The Fine Arts curriculum prepares students for traditional artistic careers in the disciplines of drawing, painting, printmaking, sculpture, and ceramics.

At Virginia State University, the Art and Design program is dedicated to producing the artists of tomorrow, one individual at a time. Our faculty is committed to the artistic development of each student as a unique individual through the process of instruction and mentorship. Our goal is to prepare students for success in whatever professional arena of art they choose by providing a solid base of artistic knowledge and technical skill, then encouraging creative exploration and stylistic development from this foundation.

The CORE program (Communication, Organization, Realization, Expression), covering the first two years, produces a strong understanding of the design fundamentals and applications of traditional art media, reinforced through their use in art history. Foundation level courses, including two-dimensional and three-dimensional design, art history surveys, color theory, drawing, and computer graphics, are designed to prepare students to begin their advanced concentration coursework by the end of the sophomore year.

In the Fine Arts program, students may choose from the traditional concentrations of advanced level drawing, painting, printmaking, and sculpture, while taking elective courses in new media, digital art techniques, and commercial applications. As they follow a concentration, students can shape their own curricula to cross traditional artistic boundaries and learn a variety of media specially designed to meet their needs and creative desires. This artistic "cross training" permits students to expand their creative horizons through the use of new media tools, techniques, and concepts, and become the artistic leaders of the $21^{\text {st }}$ century.

In the Graphic Design program, students follow a more structured curriculum that gives them all of the knowledge and skills necessary to compete in today's commercial arts marketplace. Students learn the practices of lettering, illustration, and lay-out with both traditional and computer applications, web site design, and animation. The development of applicable skills is capped by an internship during the senior year.

At the beginning of the student's senior year for both Graphic Design and Fine Arts majors, they will take a Portfolio course that will provide them with knowledge of industry practices and culminate in their production of a well-developed portfolio. Prior to graduation, all students will participate in a Thesis class, where Graphic Design students will produce a unified commercial art campaign and the Fine Arts students will participate in a senior exhibition.

Acceptance into the Art Department is contingent on:

1. acceptance into the University according to its criteria for incoming freshmen or transfer students;
2. a minimum of 2.0 GPA with good standing in the University for current VSU students;
3. display of artistic knowledge and ability through either a) the successful completion of two (2) art classes at a high school, junior college, or continuing education level, or b) submission of two (2) letters of recommendation by artists and/or art educators;
4. review of the candidate's portfolio of artwork.

Advancement to a concentration is dependent on the successful completion of all CORE courses, in proper sequence, with a minimum of a ' $C$ ' grade.

## Mission

The mission of the Art and Design Program is structured to prepare students to operate in the dynamics of a visual world in a most expeditious and creative manner. The Program's mission extends to the larger community through exhibitions, seminars, lectures, artists-in-residence programs, and extra curricular activities.

The Program periodically updates its programs as it relates to the needs of industry and education. Further, the mission is to develop the students as well-rounded human beings with knowledge, skills, and self-assurance to function as responsible citizens in society.

Moreover, the Program seeks to be responsive to the needs and aspirations of those who may otherwise not have the opportunity to develop to their fullest potential. Further, the mission involves the development and enrichment of students who do not seek careers in visual arts.

## Goals:

1. To increase awareness of the visual arts and services that artist, designers and art educators provide.
2. To aid in the liberal education of art and design majors.
3. To provide opportunities for appreciation and participation in the visual arts.
4. To preserve and enhance the art heritage for the University and the community at large.
5. To provide programs and services that are vocational as well as consumer oriented.
6. To provide an interdisciplinary approach between the arts and other areas of the curriculum that remain vital to developing a well-rounded individual.
7. To provide culturally enriched outreach opportunities at the university, community, state, and national levels.
8. To train students for careers in art.

## Course Descriptions Art and Design

ARTS 101, 102 DRAWING I \& II - 3 semester hours
Fundamentals of drawing expression introduced. Pencil, charcoal, conte, and wash media are explored. Course includes weekly critiques and discussions.

ARTS 103 TWO DIMENSIONAL DESIGN - 3 semester hours
An introduction to fundamental concepts of two dimensional design, color theory, form relationships and their function in various design situations. Contemporary and traditional concepts of design principles and elements are explored. Course includes critiques and discussions.

ARTS 104 TWO DIMENSIONAL DESIGN: COLOR THEORY - 3 semester hours
This course is a study of the interaction of color, studio experience and the manipulation of color to achieve various effects through problem solving and individual expression. Course includes critiques and discussions.

ARTS 108 COMPUTERS FOR ARTIST - 3 semester hours
An introduction course in the hardware, software, set-up, and use of computers, specifically designed for the needs of artists. Basic hardward and peripherals set-up, use of operating systems and artist-based programs for both Macintosh and PC systems.

ARTS 199 ART APPRECIATION - 3 semester hours
F, Sp
This course serves as a basic introduction to the study and understanding of the visual arts. The various methods through which humans are able to access, interpret, and interact with art will be discussed. Topics include various cultural definitions of art and its use, the elements of design, the characteristics of art media, and the interpretations of content. Emphasis is placed on the areas of painting, sculpture, and architecture, but other areas (drawing, graphics, crafts, etc.) are discussed as appropriate.

ARTS 200 ARTS AND CRAFTS - 3 semester hours
Students introduced to functional and decorative handicrafts through a variety of media.
ARTS 202 LIFE DRAWING - 3 semester hours
Continuation of drawing fundamentals and expression introduced the previous year using the human figure as the means of study. Pencil, charcoal, conte, and was media are explored. Course includes weekly critiques.

ARTS 203, 204 PRINTMAKING I \& II - 3 semester hours
Fundamentals of graphic expressions employed in woodcuts, etchings, lithography and other vehicles for graphic reproductions. Course includes critiques.

ARTS 205 BASIC ART - 3 semester hours
Course designed for the non-art majors; students are introduced to fundamentals of art theory and practice. Experiences are provided in color, design, lettering and varied art activities which are related to modern trends in art.

## ARTS 206 WATERCOLOR - 3 semester hours

An introduction to the fundamentals of transparent and opaque watercolor painting techniques.
ARTS 207 THREE DIMENSIONAL DESIGN - 3 semester hours
An introduction to functional concepts of three dimensional design, form relationships of principles and elements of design. Course includes critiques and discussions.

ARTS 301 SURVEY OF WESTERN ART - 3 semester hours F
A survey of social and political conditions as they influence the art objects of Western man. Art objects discussed span the period from prehistoric to contemporary expressions of today.

ARTS 302 SURVEY OF NON-WESTERN ART - 3 semester hours
Sp
A survey of Non-Western art objects. Emphasis is placed on the art of Africa, Asia, Oceania, and the Americas from a historical perspective.

ARTS 303 SCULPTURE I - 3 semester hours
F
An introduction to sculpture fundamentals. Direct carving in wood and plaster casting, and welding procedures are explored. Course includes weekly critiques and discussions.

## Art \& Design Majors Only Course

ARTS 304 SCULPTURE II - 3 semester hours
A continuation of sculpture fundamentals. Direct carving in wood and plaster casting, and welding procedures are explored. Course includes weekly critiques and discussions.

## Art \& Design Majors Only Course

ARTS 305 ART COMPOSITION AND PAINTING I - 3 semester hours F
Fundamentals of painting in oil or acrylics introduced. Traditional and contemporary employment of painting processes is explored. Course includes weekly critiques and discussions.
Prerequisites: Either ARTS 101, ARTS 102, ARTS 103, ARTS 104, or permission from the instructor. Art \& Design Majors Only Course.

ARTS 306 ART COMPOSITION AND PAINTING II - 3 semester hours
Fundamentals of painting in oil or acrylics introduced. Traditional and contemporary employment of painting processes is explored. Course includes weekly critiques and discussions.
Prerequisites: Either ARTS 101, ARTS 102, ARTS 103, ARTS 104, or permission from the instructor. Art \& Design Majors Only Course.

ARTS $307 \mathbf{2 0}^{\text {TH }}$ CENTURY ARTS - 3 semester hours
An examination of the historical styles and artists beginning with the $20^{\text {th }}$ Century, how they compare and relate to previous periods, and how they have been influenced by social and political conditions.
Prerequisites: Students must have junior status or special permission from the instructor.
ARTS 309 CERAMIC ARTS - 3 semester hours $\quad$ F
Students explore stoneware clay formulation; wheel-throw ware, slab, and coil methods are employed in traditional and contemporary modes of expression. Glaze formulation is used and explored. Weekly critiques and discussions included.
Art \& Design Majors Only Course
ARTS 403 SURVEY OF AFRICAN-AMERICAN ART - 3 semester hours
Sp
A survey of Art produced by African-Americans in the United States from the Colonial Period to present. This course will explore the social and political climates influencing the Art of African-Americans.

ARTS 404 PROFESSIONAL DEVELOPMENT - 3 semester hours
Sp
Students are given the opportunity to do independent study in a studio research area of their choice under minimum faculty supervision.
Art \& Design Majors Only Course
ARTS 405 SURVEY OF AFRICAN ART - 3 semester hours
F
A survey of the major forms of art and architecture produced by the various cultures of Africa. The course will examine the art forms and their places within society for pre-historic and ancient civilizations, medieval empires, and the peoples of the Colonial Period in northern, western, central, southern, and east Africa.
Prerequisites: Students must have junior status or special permission from the instructor.
ARTS 406 SENIOR THESIS PROJECT - 3 semester hours
Focuses on securing and arranging exhibitions and culminates in a one-person show at a site in the community.
Art \& Design Majors Only Course
ARTS 413 SCULPTURE III - 3 semester hours
F
An exploration of mixed media formats and techniques, to expand the technical and stylistic development of the student in sculpture.
Prerequisites: ARTS 303 and ARTS 304
Art \& Design Majors Only Course
ARTS 414 SCULPTURE IV - 3 semester hours
Sp
A continuing in-depth study of sculpture formats and techniques to begin the development of a personal style through the creation of a series of related sculptures.
Prerequisites: ARTS 413
Art \& Design Majors Only Course
ARTS 415 PAINTING III - 3 semester hours
F
An exploration of mixed media formats and techniques, to expand the technical and stylistic development of the student in painting.
Prerequisites: ARTS 305 and ARTS 306
Art \& Design Majors Only Course

ARTS 416 PAINTING IV - 3 semester hours
A continuing in-depth study of painting formats and techniques to begin the development of a personal style through the creation of a series of related paintings.
Prerequisite: ARTS 415; Art \& Design Majors Only Course
VCAD 200 GRAPHIC DESIGN HISTORY - 3 semester hours
F
A study of the evolution of graphic communication from prehistoric times to the development of modern graphic design. The uses of and styles of graphic design will be covered.
Art \& Design Majors Only Course
VCAD 201 LETTERING - 3 semester hours $\quad$ F, Sp
A study of lettering fundamentals, forms, styles, and their relationship to advertising and graphic design. Hand lettering with brush and pen is explored. Weekly critiques and discussions.

## Art \& Design Majors Only Course

VCAD 202 TYPOGRAPHY - 3 semester hours
Sp
Basic and advanced problems employing typography in advertising art layout design. Exploration and practice of various equipment and methods for using typography as a visual communication design tool.
Prerequisite: VCAD 201
Art \& Design Majors Only Course
VCAD 203 INTRODUCTION TO COMPUTER GRAPHICS - 3 semester hours F, Sp
This is an introductory and foundation course on computer graphics. This course includes the basic operation of computer graphic systems and software procedures. Written assignments and projects are included.
Prerequisites: All drawing courses and all basic design courses.
Art \& Design Majors Only Course
VCAD 204 DRAWING WITH COLOR - 3 semester hours
Fundamentals of drawing with an emphasis on color using a variety of drawing media.
Prerequisites: ARTS 101 and ARTS 103
Art \& Design Majors Only Course
VCAD 205 COMPUTER GRAPHICS - 3 semester hours
Sp
Advanced works in computer graphics with emphasis on creating graphics employing interactive techniques.
Prerequisites: ARTS 101, 102, ARTS 202, ARTS 103, ARTS 104,VCAD 201, VCAD 203, VCAD 204
Art \& Design Majors Only Course
VCAD 206 PHOTOGRAPHY AS VISUAL COMMUNICATION - 3 semester hours
F
Emphasis on designing with photography. Dark room photographic processing and digital techniques are explored.
Prerequisite: 2D Design courses
Art \& Design Majors Only Course
VCAD 300 ILLUSTRATION - 3 semester hours
F
Emphasis on fundamentals of rendering images for reproduction and preparation of composition from rough layout to camera-ready art using a variety of media.
Prerequisites: All 100 and 200 level major course
Art \& Design Majors Only Course
VCAD 301 SILKSCREEN PROCEDURES - 3 semester hours
Sp
An introduction to various silkscreen procedures employed in advertising art and design. Hand-cut stencils and photographic processes are explored.
Art \& Design Majors Only Course

VCAD 302 PRINT PRODUCTION - 3 semester hours
Exploring the print production process and techniques including electronic pre-press, printing processes and production control.
Prerequisites: All 100 and 200 level major courses.
Art \& Design Majors Only Course
VCAD 305 WEB PUBLISHING I - 3 semester hours
Introduction to html and web page design and production.
Prerequisites: All foundation courses and VCAD courses through semester 5.
Art \& Design Majors Only Course
VCAD 306 ANIMATION I - 3 semester hours
An introduction to animation techniques. Develop story boards in terms of clarity of meaning, camera motion and rendering techniques.
Prerequisites: All required 100, 200 and 300 level major courses.
Art \& Design Majors Only Course
VCAD 401 WEB PUBLISLING II - 3 semester hours
A continuation of web publishing on an advanced level with the incorporation of animation into web page design.
Prerequisites: All foundation courses and VCAD courses through semester 6.
Art \& Design Majors Only Course
VCAD 430 PORTFOLIO - 3 semester hours
Course is designed for the creation of a professional portfolio and resume with the exploration of various methodologies.
Prerequisites: All VCAD 100, 200, and 300 level major courses.
Art \& Design Majors Only Course
VCAD 431 ANIMATION II - 3 semester hours
Develop an understanding of 3D modeling for 3D animation technology.
Prerequisites: All required 100, 200, 300 level major courses, and Animation I.
Art \& Design Majors Only Course
VCAD 450 INTERNSHIP - 6 semester hours
The students have pragmatic work experience under the supervision of qualified professional practitioners.
Prerequisite: All prior VCAD courses
Art \& Design Majors Only Course
VCAD 451 SENIOR THESIS PROJECT - 3 semester hours
This is a studio course that focuses on research and experimentation in specialized media. It culminates in a formal presentation before a departmental committee.
Prerequisite: All required major and foundation courses.
Art \& Design Majors Only Course
VCAD 452 ANIMATION III - 3 semester hours
This is a course with advanced technique providing students with the opportunity to create and produce their own projects.
Prerequisites: All required 100, 200, 300 level major courses, Animation I, and Animation II.
Art \& Design Majors Only Course

## DEPARTMENT OF MUSIC, ART AND DESIGN <br> STUDIO CONCENTRATION <br> Bachelor of Fine Arts

|  |  | SEMESTER HOURS |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1{ }^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
| FRESHMAN YEAR |  |  |  |  |
| ARTS 101, 102 | Drawing I, II | 3 | 3 | 6 |
| ARTS 103, 207 | 2D Design, 3D Design | 3 | 3 | 6 |
| ENGL 110, 111 | Composition I, II | 3 | 3 | 6 |
| GEMA 112, 113 | Basic Math I, II | 3 | 3 | 6 |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| ARTS 108 | Computers for Artist | - | 3 | 3 |
| HPER 170 | Wellness/Health | $\underline{2}$ | - | $\underline{2}$ |
|  |  | 16 | 15 | 31 |
| SOPHOMORE YEAR |  |  |  |  |
| ARTS 202 | Life Drawing | 3 | - | 3 |
| ARTS 203 | Printmaking I | 3 | - | 3 |
| ARTS 206 | Watercolor | 3 | - | 3 |
| ENGL | Literature Elective | 3 | - | 3 |
| GEBI 116 | Biology \& Lab | 4 | - | 4 |
| ARTS 200 | Art Crafts | - | 3 | 3 |
| ARTS 204 | Printmaking II | - | 3 | 3 |
| VCAD 201 | Lettering | - | 3 | 3 |
| VCAD 203 | Intro Comp. Graphics | - | 3 | 3 |
| BIOL 113 or 114 | Zoology or Botany \& Lab | - | 4 | 4 |
|  |  | 16 | 16 | 32 |
| JUNIOR YEAR |  |  |  |  |
| ARTS 301 | Survey Western Art | 3 | - | 3 |
| ARTS 303, 304 | Sculpture I, II | 3 | 3 | 6 |
| ARTS 305, 306 | Painting I, II | 3 | 3 | 6 |
| ARTS 309 | Ceramics | 3 | - | 3 |
| GEHI 114, 115 | World History I, II | 3 | 3 | 6 |
| ARTS 302 | Survey Non Western Art | - | 3 | 3 |
| GE | Social Science Elective | = | $\underline{3}$ | $\underline{3}$ |
|  |  | 15 | 15 | 30 |
| SENIOR YEAR |  |  |  |  |
| ARTS | Art History Elective | 3 | - | 3 |
| VCAD 430 | Portfolio | 3 | - | 3 |
| ARTS/VCAD | Restricted Elective | 3 | - | 3 |
| ARTS/VCAD | Restricted Elective | 3 | - | 3 |
|  | Open Elective | 3 | - | 3 |
| ARTS 403 | African American Art | - | 3 | 3 |
| ARTS 406 | Senior Thesis Project | - | 3 | 3 |
| ARTS 404 | Professional Development | - | 3 | 3 |
| ARTS/VCAD | Restricted Elective | - | $\underline{3}$ | $\underline{3}$ |
|  |  | 15 | 12 | 27 |

## DEPARTMENT OF MUSIC, ART AND DESIGN <br> STUDIO CONCENTRATION <br> Bachelor of Fine Arts

|  |  | SEMESTER HOURS |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
| FRESHMAN YEAR |  |  |  |  |
| ARTS 101, 102 | Drawing I, II | 3 | 3 | 6 |
| ARTS 103, 207 | 2D Design, 3D Design | 3 | 3 | 6 |
| ENGL 110, 111 | Composition I, II | 3 | 3 | 6 |
| GEMA 112, 113 | Basic Math I, II | 3 | 3 | 6 |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| ARTS 108 | Computers for Artist | - | 3 | 3 |
| HPER 170 | Wellness/Health | 2 | - | $\underline{2}$ |
|  |  | 16 | 15 | 31 |
| SOPHOMORE YEAR |  |  |  |  |
| ARTS 202 | Life Drawing | 3 | - | 3 |
| ARTS 203 | Printmaking I, II | 3 | 3 | 6 |
| ARTS 206 | Watercolor | 3 | - | 3 |
| ENGL | Literature Elective | 3 | - | 3 |
| GEBI 116 | Biology \& Lab | 4 | - | 4 |
| ARTS 200 | Art Crafts | - | 3 | 3 |
| BIOL 113 or 114 | Zoology or Botany \& Lab | - | 4 | 4 |
| VCAD 201 | Lettering | - | 3 | 3 |
| VCAD 203 | Intro Comp. Graphics | - | 3 | 3 |
|  |  | 16 | 16 | 32 |
| JUNIOR YEAR |  |  |  |  |
| ARTS 301, 302 | Survey Western Art \& Non-Western Art | 3 | 3 | 6 |
| ARTS 303, 304 | Sculpture I, II | 3 | 3 | 6 |
| ARTS 305, 306 | Art Composition and Painting | 3 | 3 | 6 |
| ARTS 309 | Ceramics | 3 | - | 3 |
| GEHI 114, 115 | World History I, II | 3 | 3 | 6 |
| GE | Social Science Elective | - | $\underline{3}$ | $\underline{3}$ |
|  |  | 15 | 15 | 30 |
| SENIOR YEAR |  |  |  |  |
| ARTS | Art History Elective | 3 | - | 3 |
| ARTS/VCAD | Restrictive Electives | 6 | 3 | 9 |
| ARTS 404 | Professional Development | - | 3 | 3 |
| GE | Open Elective | 3 | - | 3 |
| ARTS 403 | African American Art | - | 3 | 3 |
| VCAD 403 | Portfolio | 3 | - | 3 |
| ARTS 406 | Senior Thesis Project | - | 3 | 3 |
|  |  | 15 | 12 | 27 |

# THE DEPARTMENT OF POLITICAL SCIENCE AND PUBLIC ADMINISTRATION 

Chairperson: Murel Jones, Box 9065, Room 100 Colson Hall, Phone: 524-5037<br>Professors:<br>Associate Professor:<br>Assistant Professors:<br>Murel Jones, Wallace McMichael<br>Earl McClenney<br>Gary Baker, James Phillips

## Description of the Department

The Department of Political Science and Public Administration prepares students for entry into the various careers in the public service. Faculty members promote and maintain educational quality to address the common core courses and specializations for pursuing graduate and professional education in political science, international relations, public policy and administration. Through strong senior thesis and internship programs, students participate in policy analysis of contemporary problems and hands-on challenges of public management.

Majoring in political science can lead to a career as a lawyer, diplomat, state legislator, pollster, campaign manager, research scholar, newspaper reporter, or editorial writer. Majoring in public administration can lead to a rewarding career as a public servant who designs, implements, manages, or evaluates public policies on topics as varied as health, social services, transportation, energy, education or waste management in local, state, national governments, or international agencies.

The technical competencies fostered in the department's curricula and extra-curricula activities include being able to think carefully and critically about important questions, writing and speaking well, acquiring knowledge for grounding problems in a political, social, economic, or legal context, and demonstrating the ability to collect information to analyze problems or to make a difference in the quality of people's lives. Through internships in which students are paired with professionals who prosecute cases, defend clients in court, shape environmental regulations, manage money, people and things, draft bills, or lobby for the rights of children, students become aware that working in politics or public administration is anything but boring. Through participation in the departmental clubs, honor society, and professional organizations, students work in groups and participate in community, civic life, and public affairs.

## Mission of the Department

The mission of the political science major is to offer education that emphasizes scholarship, the pursuit of knowledge through research and instruction, and the development of a critical understanding of government, both nationally and internationally. The political science faculty offer a program of study leading to the Bachelor of Arts (B.A.) degree in political science.

The mission of the public administration major is to prepare men and women for active service and employment in national, state and local agencies in the executive, legislative and judicial branches of government. The public administration faculty offer a program of study leading to the Bachelor of Science (B.S.) degree in public administration.

Public administration is the field of study and practice dealing with the art and science of managing and administering the functions of the government in the executive, legislative and judicial branches of the federal, state and local governments. The emphasis is on academic excellence in the preparation of students for entry-level positions in government employment, non-profit agencies and businesses. The department encourages all students, regardless of race, creed or color, to demand the best of themselves so that they may serve those who are less fortunate.

Students are exposed to a rigid series of structured courses in liberal arts, public budgeting and finance, intergovernmental relations, organizational theory and development, public policy, personnel administration, administrative law, land use law and environmental law. Throughout the program students are encouraged to explore and use the resources of the University and state local and federal agencies to integrate theory with practice. An intensive 192-hour executive agency internship is required.

## General Objectives of the Department are as follows:

- to help develop the critical and analytical skills to understand how political systems function, and how to make rational decisions about government policies and those who govern,
- to provide a foundation of theory and knowledge, values and skills for students who are interested in pursuing advanced study in graduate or professional school,
- to prepare students for careers in the public and private sectors by incorporating marketable skills into the general curriculum.
- to develop the critical and analytical skills which enable students to understand policy and program formulation, implementation and evaluation, decision-making and problem-solving.
- to prepare students for entry-level positions in managing and administering the human resources, budgeting and financial processes, and information systems functions of the various levels of governments and of nonprofit agencies.
- to provide opportunities for students to develop and test empirical hypotheses, use statistical research methods, and communicate results using multi-media presentations in capstone courses and internships,
- to acquaint students with the skills to enable them to act ethically and effectively in the institutions and processes for public sector agencies;


## Programs in the Department

## The Minor Program in Political Science

The Minor Program in political science is specifically designed to give the non-political science major an opportunity to complement his or her course work with a focused and structured program of study. The program will broaden student understanding of national and international issues, and increase the range of career and professional options. The Minor Program is especially recommended for majors in Management, Economics, History, International Studies, Sociology, Public Administration, and Education. The program consists of 18 credit hours; twelve credit hours in core courses, and six credit hours in political science electives at the 300 level or above.

## The Legal Studies Program

The Legal Studies Program, a joint effort with the History Department, consists of 24 credit hours of course work that is designed to help the student develop the cognitive, analytical, and logical reasoning skills necessary to cope with the challenges of a law school environment. The program gives the student the flexibility of concentrating in legal studies while at the same time pursuing a degree in a traditional discipline.

## Assessment in the Major

The Comprehensive Assessment Examination is a major component of the department's continuing commitment to academic excellence and intellectual development in the discipline. All political science majors, in their junior year of study, are required to take the Comprehensive Assessment Examination. The examination assesses a students' basic knowledge of political science concepts, principles, and facts in the areas of United States Government, State and Local Government, and Comparative Government.

## Course Descriptions

POLITICAL SCIENCE

GEPO 150 UNITED STATES GOVERNMENT - 3 semester hours
F, Sp
An introductory course in the study of the American political system.
POLI102 STATE AND LOCAL GOVERNMENT -3 semester hours
A study of the structure, operations, and functions of the state and local institutions of government.

## POLI 201 POLITICAL PHILOSOPHY - 3 semester hours

A study of the development of political thought from the Greek period through the Middle Ages.
POLI 202 CONTEMPORARY POLITICAL THOUGHT - 3 semester hours
A study of political thought from the end of the Middle Ages to the present.

## POLI 203 GOVERNMENT AND POLITICS IN RUSSIA -3 semester hours

A study of the theory, organization, and administrative processes in the Russian political system.

## POLI 204 MODERN AFRICA - 3 semester hours

A political and historical analysis of the problems of nation-states on the African continent, from 1945 to the present.

## POLI 205 GOVERNMENT AND POLITICS OF DEVELOPING COUNTRIES -

## 3 semester hours

A study of the political and economic problems of underdeveloped countries in the Third World.

## POLI 206 GOVERNMENT AND POLITICS OF CHINA - 3 semester hours

A study of the political ideologies, institutions, and decision-making processes in the People's Republic of China.

## POLI 207 INTERNATIONAL RELATIONS - 3 semester hours

A study of the political, social, and economic dynamics of the present international system.

## POLI 208 INTERNATIONAL LAW AND ORGANIZATION - 3 semester hours

A study of the origin, character, and principles of law that determine the duties and rights of nations in their relations.

## POLI 209 PUBLIC ADMINISTRATION -3 semester hours

A study of the principles of public administration; structure, organization, and management in modern government with emphasis on the bureaucratic role in public policy formation.

## POLI 210 COMPARATIVE GOVERNMENT -3 semester hours

A comparative analysis of nation-states within the contemporary international system.
POLI 301 THE SCOPE AND METHODS OF POLITICAL SCIENCE - 3 semester hours

## POLI 302 THE TECHNIQUES OF POLITICAL ANALYSIS - 3 semester hours

A study of the research methodologies and techniques used in the study of political problems.
Prerequisite: POLI 301 The Scope and Methods of Political Science
POLI 303 POLITICAL PARTIES AND PRESSURE GROUPS - 3 semester hours
A study of political parties and interest groups and their impact on public policy.

## POLI 305 SEMINAR IN BLACK POLITICS - 3 semester hours

A study of the political impact of African-Americans in local, state, and national policy issues.
POLI 306 SEMINAR IN URBAN PROBLEMS - 3 semester hours
F
A study of the political, social, and economic problems affecting metropolitan communities.

## POLI 307 AMERICAN FOREIGN POLICY - 3 semester hours

A study of the formation, implementation, and implications of American foreign policy.
POLI 308 POLIMETRICS I-3 semester hours F
A study of statistical approaches in political science research, with emphasis on survey research and data analysis using the SPSS statistical analysis program.

## Prerequisites: GEMA 112 Basic Mathematics; GEMA 113 Basic Mathematics; STAT 210 Elementary Statistics I

## POLI 309 POLIMETRICS II - 3 semester hours

A study of statistical approaches in political science research. Advance data analysis techniques, including univariate, bivariate, and mulivariate analysis, and the testing of hypotheses.

## Prerequisites: POLI 308 Polimetrics I

POLI 310 POLITICAL SCIENCE INTERNSHIP - 6 semester hours
$\mathrm{Sp}, \mathrm{Su}$
Students provided with the opportunity to experience the workings of government, through placement in internships with various legislators, and public and private agencies.
Prerequisite: Minimum sophomore status, or approval of Department Chairperson

## POLI 315 THE CIVIL RIGHTS MOVEMENT - 3 semester hours

A study of the political, social, and economic dimensions of the civil rights movement from 1954 to the present.

## POLI 400 SEMINAR IN LOCAL POLITICS - 3 semester hours

A study of the dynamics of local politics. Seminar format that would include assigned readings, field research, lecture, and discussion.

## POLI 403 SENIOR THESIS - 3 semester hours

## POLI 404 SENIOR SEMINAR - 3 semester hours

Production of final draft of senior thesis complete with faculty suggested revisions. Presentation and defense of thesis must be concluded by deadline date for submission of senior grades.

## Prerequisite: POLI 403 Senior Thesis

## POLI408 INDEPENDENT RESEARCH/STUDY - 3 semester hours

Opportunity to work on community issues, policy issues, or independent research. Work is supervised by assigned faculty member.

## Prerequisite: Approval of Department Chairperson

## POLI 409 CONSTITUTIONAL AND CIVIL LIBERTIES - 3 semester hours

Sp
A study of the role of the Constitution and the function of the courts in defining and safeguarding civil rights and civil liberties.

## POLI 410 PRESIDENTIAL POLICY-MAKING - 3 semester hours

A study of the President's role in formulating public policy through interaction with domestic and foreign political actors.

POLI 412 THE POLITICAL ECONOMY OF SOUTHERN AFRICA - 3 semester hours
A study of the political and economic forces which shape the politics of nation-states in southern Africa.

## POLI 413 THE POLITICS OF MULTINATIONAL CORPORATIONS IN THE THIRD WORLD 3 semester hours <br> A study of the impact of multinational corporations on the politics of nation-states in the Third World.

## POLI 414 MARXIST POLITICAL PHILOSOPHY - 3 semester hours

A study of the nature of the state, politics, social development, and class struggle from the writings of Karl Marx and Frederick Engels.

## PUBLIC ADMINISTRATION

PADM 101 FOUNDATIONS OF INTERGOVERNMENTAL RELATIONS - 3 semester hours F

An introductory study of the basic structure of American federalism and the intergovernment context of the work of public managers in national, state and local governments.

## PADM 103 THE ADMINISTRATION OF SUBNATIONAL GOVERNMENTS - 3 semester hours

 regional, state and local levels of government, special attention given to substate regionalism for planning and public service delivery, interstate compacts among government for functional purposes, and special purpose districts.
## PADM 207 LEGISLATIVE PROCESSES - 3 semester hours

A detailed analysis of the structure and organization of the federal Congress. A review of the ways in which public issues become legislation and the interrelationships between federal, state and local legislative processes.

## PADM 211 GOVERNMENTAL MANAGEMENT \& DECISION-MAKING - 3 semester hours <br> F

A detailed study of the management and operations of modern public agencies with emphasis on the organization of service delivery structures, decision-making theory, history, and practice.

## PADM 301 PUBLIC POLICY ANALYSIS - 3 semester hours

## Sp

A summary of policy development models with emphasis on understanding the complex interrelationships of public and private systems. A detailed analysis of specific issues is a regular part of class work, including developing critical thinking skills.

PADM 305 INTRODUCTION TO PUBLIC SECTOR BUDGETING - 3 semester hours

## PADM 307 ADMINISTRATIVE LAW - 3 semester hours

Overview of the American public law systems and lawmaking processes at each level of government. Students undertake intensive case study in the areas of due process, administrative law, regulatory law, sovereignty and judicial review.

## PADM 309 PUBLIC INSTITUTIONS \& ORGANIZATIONAL ENVIRONMENT - 3 semester hours

 and problems. Emphasis on various bureaucratic models and personal behavior within organizations.PADM 401 ENERGY AND ENVIRONMENTAL LAW AND ADMINISTRATION - 3 semester hours Sp
A study of the management of energy and environmental issues in an intergovernmental context; an analysis of the political, social and economic impact of energy and environmental policy with special emphasis given to legislative, executive, judicial, and administrative actions to establish and implement policies on natural resources and waste disposal.

## PADM 403 LAND USE LAW AND POLICY - 3 semester hours

A summary of the law and practice relative to State planning, zoning and regulatory practices. A review of federal law and national agency administration of federal lands, internal navigable waters, solid and liquid waste disposal, hazardous materials disposal and the impact upon state and local government; students must have taken PADM 307. Prerequisite: Permission of the instructor required

PADM 404 PROJECT MANAGEMENT - 3 semester hours
Detailed consideration of various work scheduling and resource management techniques with emphasis on Program Evaluation and Review Techniques (PERT). A study of various functional area models for program planning, evaluation, design, development and integration. Use of computer software programs in project management is required.

PADM 405 ADVANCED PUBLIC PERSONNEL ADMINISTRATION - 3 semester hours F
A Comprehensive review of wage and salary administration techniques, position classification, merit systems, EEO programs, training and evaluation, and labor relations in the public sector. Emphasis on understanding the role of the employee and employer in accomplishing public program goals.

PADM 406 ADVANCED PUBLIC SECTOR BUDGETING - 3 semester hours
A detailed examination of governmental revenue and expenditure systems. Emphasis will be placed on governmental accounting, reporting, productivity analysis, auditing, and the "how to" of budget preparation at the local, state, and national levels.

PADM 408 INTERN PLACEMENT - 6 semester hours
Students are assigned to a federal, state or local agency for practical on-the-job experience.
PADM 410 GRANTS MANAGEMENT - 3 semester hours
Comprensive therough study of the techiques used in manaing federal and state grant in aid programs. Emphasis will be placed upon the contracts and grants mana accounting requirements, reporting requirements, program control, and fiscal performance.

## PADM 411 SENIOR SEMINAR I - 3 semester hours

Senior students are required to select a current public policy or public administration issue, undertake a detailed and comprehensive analysis, and demonstrate a thorough integration of the courses taken and skills learned.

PADM 412 SENIOR SEMINAR II - 3 semester hours
A continuation of PADM 411 with emphasis on writing, editing and completing the senior thesis.

## DEPARTMENT OF POLITICAL SCIENCE AND PUBLIC ADMINISTRATION <br> Political Science <br> Bachelor of Arts Degree

|  |  | SEMESTER HOURS |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
| FRESHMAN YEAR |  |  |  |  |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| ENGL 110, 111 | Composition I, II | 3 | 3 | 6 |
| HIST 122, 123 | United States History I, II | 3 | 3 | 6 |
| MATH 112, 113 | Basic Math I, II | 3 | 3 | 6 |
| POLI 150 | United States Government | 3 | - | 3 |
| POLI 102 | State \& Local Government | - | 3 | 3 |
| GE | Natural Science and Lab | - | 4 | 4 |
|  |  | 14 | 16 | 30 |
| SOPHOMORE YEAR |  |  |  |  |
| PHIL 140 | Introduction to Philosophy | 3 | - | 3 |
| PSYC 124 | Introduction Psychology | 3 | - | 3 |
| HPER 170 | Wellness Course (GE Menu) | 2 | - | 2 |
| ENGL 202 | Intro African-American Literature | 3 | - | 3 |
| POLI 202 | Contemporary Political Thought | 3 | - | 3 |
| POLI 210 | Comparative Government | - | 3 | 3 |
| STAT 210 | Elementary Statistics | - | 3 | 3 |
| GE | Humanities Elective | 3 | - | 3 |
| GE | Technology Elective | - | 3 | 3 |
| GE | Natural Science and Lab | - | 4 | 4 |
|  | Unrestrictive Elective | - | 3 | 3 |
|  |  | 17 | 16 | 33 |
| JUNIOR YEAR |  |  |  |  |
| ECON 210 | Principles of Microeconomics | 3 | - | 3 |
| ECON 211 | Principles of Macroeconomics | - | 3 | 3 |
| POLI 301 | Scope \& Methods of Political Science | 3 | - | 3 |
| POLI 302 | Techniques of Political Analysis | - | 3 | 3 |
| POLI 306 | Seminar in Urban Problems | 3 | - | 3 |
| POLI 308, 309 | Polimetric I, II | 3 | 3 | 6 |
| POLI | Restrictive Elective | 3 | 3 | 6 |
| GE | Humanities Elective | $=$ | $\underline{3}$ | $\underline{3}$ |
|  |  | 15 | 15 | 30 |
| SENIOR YEAR |  |  |  |  |
| POLI 403 | Senior Thesis | 3 | - | 3 |
| POLI 404 | Senior Seminar | - | 3 | 3 |
| POLI | Restrictive Electives | 6 | 6 | 12 |
|  | Unrestrictive Electives | $\underline{6}$ | 3 | $\underline{9}$ |
|  |  | 15 | 12 | 27 |

# DEPARTMENT OF POLITICAL SCIENCE AND PUBLIC ADMINISTRATION <br> Public Administration <br> Bachelor of Science Degree 

|  |  | SEMESTER HOURS |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
| FRESHMAN YEAR |  |  |  |  |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| ENGL 110, 111 | Composition I, II | 3 | 3 | 6 |
| HIST 122 | United States History I | 3 | - | 3 |
| MATH 112, 113 | Basic Math I, II | 3 | 3 | 6 |
| HPER 170 | Health/Wellness | 2 | - | 2 |
| PADM 101 | Foundation of Intergovernmental Relations | 3 | - | 3 |
| PADM 103 | Administration of Subnational Governments | - | 3 | 3 |
| CISY 155 | Introduction Computer Science | - | 3 | 3 |
| GEPS 124 | Introduction to Psychology | - | 3 | 3 |
|  |  | 16 | 15 | 31 |
| SOPHOMORE YEAR |  |  |  |  |
| PHIL 140 | Introduction to Philosophy | 3 | - | 3 |
| PADM 211 | Governmental Management and Decision-Making | 3 | - | 3 |
| ENGL 202 | Into African-American Literature | 3 | - | 3 |
| GE | Natural Science and Lab | 4 | 4 | 8 |
| CISY | Computer Science (200 level or higher) | 3 | - | 3 |
| PADM 207 | Legislative Processes | - | 3 | 3 |
| ECON 210 | Principles of Microeconomics | - | 3 | 3 |
| PADM 301 | Policy Analysis | - | 3 | 3 |
| PADM 305 | Introduction to Public Sector Budgeting | - | 3 | $\underline{3}$ |
|  |  | 16 | 16 | 32 |
| JUNIOR YEAR |  |  |  |  |
| ECON 211 | Principles of Macroeconomics | 3 | - | 3 |
| STAT 210 | Elementary Statistics | 3 | - | 3 |
| PADM 309 | Public Institutions and Organizational Environment | 3 | - | 3 |
| GEEN 310 | Advanced Communication Skills | 3 | - | 3 |
| GE | Foreign Language GE Menu | 3 | 3 | 6 |
| PADM 307 | Administrative Law | - | 3 | 3 |
| ELECTIVE | Restrictive Elective (300-level or higher) | - | 3 | 3 |
| PADM 404 | Planning Technology/Project Management | - | $\underline{3}$ | $\underline{3}$ |
|  |  | 15 | 12 | 27 |
| SENIOR YEAR |  |  |  |  |
| PADM 405 | Advanced Public Personnel Administration | 3 | - | 3 |
| PADM 408 | Internship Placement | 6 | - | 6 |
| PADM 410 | Grants Management | 3 | - | 3 |
| PADM 411, 412 | Senior Seminar I, II | 3 | 3 | 6 |
| PADM 401 | Energy and Environmental Law Administration | - | 3 | 3 |
| PADM 403 | Land Use Law and Policy | - | 3 | 3 |
| PADM 406 | Advanced Public Sector Budgeting | - | 3 | 3 |
| ELECTIVE | Restrictive Elective (300-level or higher) | - | 3 | $\underline{3}$ |
|  |  | 15 | 15 | 30 |

# DEPARTMENT OF SOCIOLOGY, SOCIAL WORK AND CRIMINAL JUSTICE 

Chairperson:<br>Associate Professors:<br>Mokerrom Hossain, Box 9036, Room 201E Colson Hall, Phone: 524-5511/5512<br>Mokerrom Hossain, Joyce M. Edwards, James Hodgson, Jay W. Malcan, Shahid Shahidullah, Cheryl Stamply<br>Assistant Professors: Ghyasuddin Ahmed, C. Nana Derby, Zaccheus Ogunnika, Michael Sugg, Isis Walton

## Description of Department

The Department of Sociology, Social Work and Criminal Justice offers undergraduate degrees in three areas, and these areas are: Sociology, Social Work and Criminal Justice. These programs prepare students for a wide range of career options in the broad dominions of teaching, practice, and research. Majors are educated for maximum flexibility, with emphasis on developing communications, data analysis skills, and the ability to think critically.

The Sociology curriculum offers general education on different major aspects of sociological knowledge. Majors in sociology are prepared for graduate and professional schools and for direct entry into administrative positions in the major corporate and public sectors; positions in social research, social services, business, teaching, and military. Students whose objectives are law, ministry, business management, higher education, politics, government, and the military will be uniquely qualified for success in graduate and professional schools upon completion of this baccalaureate program.

This department also offers Bachelor of Science in Criminal Justice. Criminal Justice is a discipline dedicated to studying how the criminal justice system (police, courts, and corrections) utilizes social control measures in dealing with criminal behavior. A Criminal Justice major provides students with a comprehensive, broad-based liberal arts education and analysis of six major fields of criminal justice; juvenile justice, law enforcement, corrections, court procedures, forensic investigation, and criminal justice research.

Building on a generalist model of social work practice and the firm liberal arts foundation, baccalaureate social work students are specifically prepared for beginning generalist professional social work practice with individuals, groups, families and communities. These students are prepared to practice social work in many fields of practice such as gerontology, juvenile delinquency, industrial and personnel counseling, adult and juvenile corrections, mental health, federal and local planning, child welfare, social administration, research and teaching.

Currently, the Social Work Program is working toward regaining its accreditation that was lost on July 31, 2001. Normally, accreditation requires approximately two years to establish through the Council of Social Work Education. Therefore, it is hoped that the program will be able to become fully accredited within two years or less, if possible. Currently, this means that any student enrolling in social work courses would be taking non-accredited courses. However, credits earned in a non-accredited course can be recognized for graduation.

## Mission of Department

The mission of the Department is to provide students with a liberal arts education through which they acquire skill in abstract logical thinking, historical consciousness, knowledge and skills of science and scientific inquiry, knowledge of values and their relationship to a variety of life situations, knowledge of international and multicultural phenomena, and experience with in-depth study.

We endeavor to provide curricula and other types of educational experiences through which students will acquire increasingly complex knowledge, the abilities and the technological skills to apply that knowledge to a wide range of situations and conditions in careers, professions and in their personal lives.

## Objectives of Department

The objectives of the Department are to identify potential problems with basic skills and liberal arts knowledge through academic advising; include, in the major curricula, general education requirement courses which will help students acquire basic skills and liberal arts knowledge; include, across the sociology and social work course requirements, skills and liberal arts learning based teaching and assignments, as well as applied skills experiences for students; offer curricula which include prerequisite courses, as well as courses with degrees of difficulty appropriate for the numerical course designated for freshman, sophomore, junior, or senior levels; and require internship experiences for all programs within the department.

## Programs (Majors) in the Department

Bachelor of Arts Degree: Sociology
Bachelor of Arts Degree: Social Work
Bachelor of Science Degree Criminal Justice

## Other Department Information

Students can participate in the following departmental organizations: Honor Societies, Sociology Club, and Criminal Justice Club

## Course Descriptions

## SOCIOLOGY

SOCI 101 INTRODUCTION TO SOCIOLOGY - 3 semester hours
F, Sp
Students are taught the fundamental concepts and principles of sociology. Emphasis is on the empirical and theoretical bases of sociology, social structure, the variety of influences and pressures that help make individuals a part of society, the nature of social research, and the use of the sociological perspective in understanding social interaction. This course is required for all sociology majors.

SOCI 102 INTRODUCTIONTO ANTHROPOLOGY-3 semester hours
F, Sp
The study of evidence of human evolution, developing cultures, racial groupings and people in preliterate societies.
SOCI 201 SOCIAL PROBLEMS - 3 semester hours F, Sp
A survey course that deals with the problems that characterize United States society. Focus is on understanding the social forces, movements, policies, and changes in identification of and response to social problems of the society, and the theories that attempt to explain these phenomena.

SOCI 214/PSYC 214 SOCIAL PSYCHOLOGY - 3 semester hours
F, Sp
An introduction to the concepts and theories that attempt to explain the behavior of the individual in society. Major topics include culture and personality, social roles, leadership, prejudice and propaganda. Review and analysis of current concepts and experimentation in the field are also included.

SOC 302 MARRIAGE AND FAMILY - 3 semester hours
F, Sp
This course focuses on the family as a social institution, its development, functions and change in the United States and other societies. Changing values, gender roles, marital choice, socialization, and the effects of contemporary social change on the family, as we know it is studied.

SOCI 304 RACE AND ETHNIC RELATIONS - 3 semester hours
F, Sp, Su
A study of the status of the various racial, religious, and ethnic minority groups in American society. Focus is on the forces relevant to establishment and maintenance of patterns domination and subordination between racial and ethnic groups. Critical analysis is made of discrimination, segregation, exploitation, hostility, and feelings of cleavage. American race and ethnic relations will be compared with those in other major societies.

## SOCI 308 SOCIOLOGY OF THE AFRICAN AMERICAN EXPERIENCE - 3 semester hours

An examination of African Americans in the United States as a social group. Focus is on the socio-historical developments and current trends in the experiences of African Americans with equal attention given to developmental experience on the continent of Africa prior to colonization, the transportation of Africans to the "New World," enslavement, and experiences up to the $21^{\text {st }}$ century.

## Prerequisite: Junior/Senior Level

SOCI 311 SOCIAL MOVEMENTS AND SOCIAL CHANGE - 3 semester hours
F, Sp
The study of the effects of collective behavior on social structure. The factors and processes of social change are studied from the position of various theorists and theories of contemporary society.

SOCI 314 SOCIOLOGY OF RELIGION - 3 semester hours F

The study of religion in terms of belief systems, practices, and its functioning as a social institution. Major theoretical perspectives on religion in its function as an agent of social change, in maintaining the social status quo, and in the lives of individuals and societies are emphasized. The major world religions are surveyed from sociological perspectives.

## SOCI 317 METHODS OF SOCIAL RESEARCH - 3 semester hours <br> F, Sp

The logic, design and use of social research. Major emphasis is on social research techniques and procedures, the relationship between theory and research, and use of quantitative data analysis techniques. The structure and use of qualitative research techniques are also examined.

SOCI 318 SOCIOLOGICAL THEORY - 3 semester hours $\quad$ F, Sp
The study of the works of major theorists whose works constitute the foundation of the discipline of sociology. The social impact of the major theoretical perspectives in contemporary sociology and the relationship of theory to research are included.
Prerequisites: SOCI 101 and 6 additional hours of sociology courses.
SOCI 352 URBAN ISSUES - 3 semester hours
F
The factors and forces that result in development and change of and within urban environments are studied. Emphasis is on critical analysis of the types and sources of issues that characterize urban life and urban areas in the United States. Policies and group efforts armed at addressing these issues will also be examined.

SOCI 356 POPULATION ISSUES - 3 semester hours
The determinants and consequences of trends in population size and composition, distribution through fertility, mortality, and migration are examined. Theoretical perspectives on population growth and change and the consequences for nations as well as for individuals are also studied.

SOCI 362 JUVENILE DELINQUENCY - 3 semester hours
Development and change of general values, attitudes, and social policy related to children. Parenting practices, the nature and extent of juvenile delinquency, theories of childhood, delinquency and the delinquent are studied, with special emphasis on the juvenile justice system in the USA.

## SOCI 370 AFRICAN AMERICAN WOMEN IN SOCIETY - 3 semester hours

This course will examine the political, economic and social roles of African American women in the United States. Special emphasis is placed on such topics as the myths and realities of gender identity for African American women, family life and the challenges posed by black feminism, work patterns, organizational activities, and cultural production. Through these means it will explore the interrelationship between race, ethnicity, class, and gender.

SOCI 411 COMPARATIVE SOCIAL INSTITUTIONS - 3 semester hours F, Sp
The effects of industrialization, urbanization and population dynamics on the structure and functions of social institutions are studied. Major theories of social structure and the linkages between institutions are included. Special emphasis is placed on the economic, political and religious institutions and their ideologies as casual influences in the lives of individuals and in societies.
Prerequisites: 9 hours of sociology, including SOCI 318 - Sociological Theory

The study of the development, maintenance and change of institutionalized patterns of differential access to wealth, status, and power within the United States. Major social theories that attempt to explain the existence, constancy, and change of social inequality are emphasized.
Prerequisite: 9 hours of sociology, including SOCI 318 - Sociological Theory

## SOCI 414 INDUSTRIAL SOCIOLOGY - 3 semester hours

A survey course that provides intensive study of the occupational structure, occupations, labor force composition and participation, and work settings. Attention will be given to the linkages between government, business, and employee organizations. Theories that attempt to account for the structure and change of and within the occupational structure and the effects of these phenomena for individuals and groups will also be examined.
Prerequisites: Nine (9) semester hours of sociology
SOCI 420 SENIOR SEMINAR - 3 semester hours
This course provides the experiences necessary for students to integrate and synthesize the knowledge and skills gained through successful completion of the sociology program of study. Readings, discussion, and written papers incorporating both quantitative and qualitative research methods on selected problems and issues in sociology are required. Topics include the various subdivisions within sociology with particular emphasis on the relationship of theory and research, social structure and social change, and the work of African American sociologists.
Prerequisites: Second semester Senior standing, or permission of the instructor.
SOCI 422/SOSW 422 GERONTOLOGY - 3 semester hours
F, Sp
The study and analysis of the social aspects and problems of aging and the aged in American society. Focus is on the effects of a growing population of senior citizens on the institutions of the society, individual response to aging and the aged, social policy, and services for older adults.

## Course Descriptions

## SOCIAL WORK

## SOSW 115 FOUNDATIONS OF SOCIAL WORK - 3 semester hours

An introduction to social work to the history of social work as a profession and the social welfare system within the political context. The course considers a variety of political perspectives and how choices are made, how society continues to choose, and ought to choose the structure of social welfare programs and goals.

SOSW 200 SOCIAL WORK PROFESSIONAL SEMINAR -1 semester hours

SOSW 300 SOCIAL WORK PROFESSIONAL SEMINAR -1 semester hours Sp
This integrative course is designed to help students to become increasingly oriented to the social work profession. Opportunities are provided to use social work knowledge, values and skills when engaging in critical thinking and logical reasoning. Emphasis is placed upon comparing and analyzing critical issues, policy dilemmas, opposing view points and service delivery networks, and alternative responses.

SOSW 216 SOCIAL LEGISLATION AND POLICY - 3 semester hours

Using a system model and an ecological perspective this course allows the study of theories and research which describe human development and behavior. Using a lifespan approach, emphasis is placed upon the social and developmental milestones and adjustments of the respective age groups. The effects of diversity on individuals and social systems are examined with reference to the importance of social justice. This is approached within the context of normal developmental milestones as they may be impacted by social and economic forces.

## SOSW 218 HUMAN BEHAVIOR IN THE SOCIAL ENVIRONMENT II - 3 semester hours

This course is a continuation of SOSW 217. Emphasis is placed upon young adulthood and the remaining portion of the life cycle. Consideration is given to human personality in the life cycle and proceeds to consider the broadest human system, the culture and the society, as well as the social service delivery systems as they impact human development and social well being.

## SOSW 219 SOCIAL POLICY ANALYSIS - 3 semester hours

Sp
This course considers shifts and changes in society's response to human needs. The course is designed to not only study policies which have been established, but the plan is to analyze the spirit, the intent, the interpretation, and the ethical implications of the policies involved. The course seeks to help students to understand the role and influence of the social agency as well as the political environment within which the social worker practices.

## SOSW 313 INTRODUCTION TO SOCIAL WELFARE - 3 semester hours

F, Sp
The history of social welfare. The course considers the basis of the social welfare system's development. Consideration is given to comparative approaches as a means of understanding the role and the importance of social, cultural, political, economic, and geographic factors which have and continued to influence the response to human needs.

SOSW 318 COMMUNITY AGENCY EXPERIENCE - 3 semester hours F, Sp
A beginning field experience course which permits students to test their own interest and ability in the skills and practice of social work through observation and active participation in an agency.

SOSW 302 SOCIAL WORK AND THE LA W-3 semester hours
F, Sp
An overview of the laws impacting the role of the social worker in a variety of settings, consideration is given to court services, corrections, probation and parole.

SOSW 323 INTERVENTIVE METHODS I-3 semester hours
F
A study of the social needs, values, and methodology of Social Work practice. The generalist approach to Social Work practice is operationalized by using an ecological systems approach when appraising problems, and considering alternative models of action, prior to proceeding toward a solution. The Social Work generalist is trained to work with individuals, families, groups and communities.
Prerequisites: SOSW 113 Foundations of Social Work; SOSW 217 \& 218 Human Behavior I, II; SOSW 216 Social Legislation and Policy; SOSW 200 Social Work Professional Seminar

SOSW 324 INTERVENTIVE METHODS II - 3 semester hours
Sp
A continuation of SOSW 323 Interventive Methods I. The social work generalist is trained to work with individuals, families, groups, and communities. Continued attention is given to the middle phase of practice. Emphasis is placed upon the ending phase and related practice skills.

SOSW 325 HUMAN BEHAVIOR IN THE SOCIAL ENVIRONMENTI-3 semester hours F, Sp Basic techniques and skills necessary for practice in social service agencies. The course focuses upon the dynamics in the worker-client relationship, and the various uses of the interview in Social Work practice.
Prerequisites: SOSW 323 Interventive Methods I
SOSW 420 COMMUNITY MENTAL HEALTH - 3 semester hours F, Sp
The study of Social Work services provided in the area of mental health and mental retardation. The course examines the origins and needs of the expanding field of community mental health.

SOSW 421 CHILD WELFARE - 3 semester hours $\quad$ F, Sp
The study and analysis of the legislation and policy pertaining to programs and agencies which have been developed to serve children and families in poverty, adoption, foster care, custody, guardianship, teenage pregnancy, juvenile delinquency, and other problems of youth.

SOSW 422 GERONTOLOGY - 3 semester hours
F, Sp
An orientation to social and medical problems and services associated with the aging process. The course provides an overview of the factors influencing the definition and treatment of individuals needing assistance.

SOSW 425 SOCIAL WORK PRACTICE EVALUATION - 3 semester hours Sp
An integrative course designed to help the social work generalist refine practice skills with individuals, families, groups and communities. Emphasis is placed upon practice skills, practice evaluation and innovative interventive approaches.
Prerequisites: For Social Work Students:
SOSW 323 Interventive Methods I; SOSW 324 Interventive Methods II; SOSW 426 AGENCY LABORATORY INSTRU CTION \& SEMINAR

SOSW 426 AGENCY LAB. INSTRUCTION - 5 semester hours

## SOSW 426 SEMINAR -1 semester hour

An integration between classroom and field through an actual placement in an agency which provides Social Work services.
Prerequisites: SOSW 323 Interventive Methods I SOSW 324 Interventive Methods II
SOSW 426 AND 428 SEMINARS
F
Course(s) is/are designed to help students in the process of integrating theory with practice. The seminar meets once each week. It is required to be taken simultaneously with enrollment in SOSW 426.

## SOSW 427 SOCIAL WORK ADMINISTRATION \& MANAGEMENT - 3 semester hours

Sp
An examination of the social service agency as a unique type of formal organization designed to meet human needs. Administrative processes, agency purpose, structure and function are studied as they facilitate the delivery of social services. Consideration is given to the need to integrate human elements with a bottom-line management focus. Emphasis is placed upon the need for alternative, innovative, and on-traditional social agencies and service delivery networks.
Prerequisites: For Social Work students
SOSW 426 Seminar; Consent of Instructor
SOSW 495 INDEPENDENT RESEARCH - 3 semester hours
F
Using computer technology and the research proposal, students complete a research study or project with findings submitted in a final paper and presented to an audience.

## Course Descriptions

## CRIMINAL JUSTICE

CJUS 116 INTRODUCTION TO CRIMINAL JUSTICE - 3 semester hours
Sp
Provides an overview of the criminal justice system. This overview includes the history of the system and the major processes that are carried out by the different agencies of the criminal justice system. It describes the process of arrest, adjudication, corrections and release.

CJUS 210 INTRODUCTORY STATISTICS FOR CRIMINAL JUSTICE - 3 semester hours
Introduces basic statistics needed to understand contemporary criminal justice research and to conduct descriptive and inferential statistical analysis. Also students will learn measures of associations. A prerequisite for CJUS 317 Research Methods for Criminal Justice.
Prerequisites: CJUS 116; GEMA 112, 113
Corequisite: CJUS 211

CJUS 211 SPSS FOR CRIMINAL JUSTICE/LAB - 1 semester hour
Introduces basic principles of SPSS used in social science research. Must be taken in conjunction with CJUS 210 Introductory Statistics for Criminal Justice.

## Corequisite: CJUS 210

CJUS 212 AMERICAN LAW ENFORCEMENT SYSTEM AND PRACTICES - 3 semester hours F
Introduces the local, national, and federal major law enforcement agencies of the country. It includes history, overview of the functioning, and an assessment of law enforcement agencies. It covers the process of recruitment, training, promotion, and other pertinent issues related to community control and police brutality.

CJUS 217 INTRODUCTION TO THE JUVENILE JUSTICE SYSTEM - 3 semester hours F
Surveys the development, structure and functioning of the juvenile justice system. Emphasis is on the procedures employed in the apprehension, detention and handling of juveniles by the police, the courts, and other agencies in the juvenile justice system. Review of recent developments in juvenile rehabilitation is included.

CJUS 230 CRIMINAL INVESTIGATION - $\mathbf{3}$ semester hours F
Offers an introductory overview of major investigative procedures generally followed by the local, national, and federal agencies of the country. Students will know more about police detective work and FBI investigations.

CJUS 250 COURT SYSTEM AND PRACTICES - 3 semester hours
Reviews the federal and state court systems including the history of the court systems. The procedures for the appointment of justices and judges, and the actual operations and practices of the courts will be examined. Other pertinent court related issues such as plea bargaining sentence disparities and the future of the courts will be examined.

CJUS 260 DRUGS, CRIME AND THE CRIMINAL JUSTICE SYSTEM - 3 semester hours F Examines effects of illicit drug abuse in the country and examines its relationship to violence, crime, and the criminal justice system. It provides an overview of drug abuse in an historical and social context primarily in the United States.

CJUS 315 TERRORISM - 3 semester hours F
Offers the background students need to understand major issues in terrorism and offers in-depth coverage of domestic and international terrorism. It also reviews the controversial aspects of counter-terrorist policies and actions.

CJUS 317 RESEARCH METHODS FOR CRIMINAL JUSTICE - 3 semester hours F

Emphasis is on social research techniques and procedures, the relationship between theory and research, and the use of quantitative data analysis techniques. The structure and use of qualitative research techniques are also examined.
Prerequisites: SOCI 101; CJUS 116: CJUS 210
CJUS 320 PRIVATE SECURITY SYSTEM AND PRACTICES - 3 semester hours
F
Introduces the ever-growing field of private and industrial security systems emerging in the country. It includes recruitment, training, operational and administrative' practices used by different security systems. It will examine physical security arrangements, and the pros and cons of in-house and contract security systems.

CJUS 335 CONTEMPORARY PROBLEMS IN POLICING - 3 semester hours
Examines the social and political dynamics under which police personnel perform their duties. Discretionary decision-making and the legal, social and institutional contexts in which they work are also considered. Application of interpersonal theories and concepts to police problems and practices will be included.

CJUS 345 CRIMINAL LAW AND EVIDENCE - 3 semester hours
Sp
Provides an introduction to the nature and dynamics of the criminal law of the country and also provides an understanding of the importance of evidence in a criminal case. Virginia substantive law will be discussed, including classification and analysis of selected offenses.
Prerequisites: CJUS 116 and CJUS 250
CJUS 360 CRIMINOLOGY AND THEORIES OF CRIME - 3 semester hours
Sp
Examines theories of crime, criminal behavior and the social, cultural and psychological factors in crime causation, control and treatment; includes an analysis of criminal behavior.
Prerequisites: CJUS 116; CJUS 212, and CJUS 217

CJUS 361 VICTIMOLOGY - 3 semester hours
F
Explores the scope of victim issues in American society. Reviews the programs and services provided for victims of crime. The expanding roles of the courts, police, battered women shelters, victim/witness assistance programs, crisis intervention units and legislation are highlighted.

## CJUS 364 SOCIOLOGY OF CORRECTIONS - 3 semester hours

Sp
Evaluates the effectiveness of correctional institutions, their development, functioning and change. Theories that influenced the development of corrections programs and agencies are included with emphasis on current directions in law, policy, research and practice.

## CJUS 365 POLICE ORGANIZATION AND MANAGEMENT - 3 semester hours <br> Sp

Examines major concepts of organization and management as these relate to law enforcement. Formulation of policies and procedures in the optimum utilization of personnel and financial resources is considered. It shows how to apply police research and contemporary management principles to today's complex police organization.
Prerequisite: CJUS 116 Introduction to Criminal Justice
CJUS 380 CRIMINAL PROCEDURES - 3 semester hours F

Examines the court procedures generally followed in the country. It includes a survey of the exclusionary rule and probable cause; arrests, search and seizures; identification and interrogation; constitutional rights and rules during trial; and legal liabilities of law enforcement officers.

CJUS 410 CRIMINAL JUSTICE DATA MANAGEMENT - 3 semester hours
Emphasizes real world data sets and management including data analysis techniques.
Prerequisite: CJ Senior standing
CJUS 415 INTRODUCTION TO FORENSIC INVESTIGATION - $\mathbf{3}$ semester hours
Sp
Introduces forensic investigation to the students. It includes a review of the application of different forensic techniques to the resolution of criminal issues. It reviews the different aspects of forensic science, including fingerprinting, casting, document examination, and photography. The laboratory complements the lecture portion of the course.
Prerequisite: CJ Senior standing

## CJUS 415 FORENSIC INVESTIGATION LABORATORY -1 semester hour

## Corequisite for CJUS 415

CJUS 420 SENIOR SEMINAR IN CRIMINAL JUSTICE - 3 semester hours
Provides an opportunity to integrate and synthesize the knowledge and skills gained through successful completion of the criminal justice program of study. Readings, discussions, and written papers incorporating both quantitative and qualitative research methods on selected problems and issues in criminal justice required. Students will be required to write a final paper and make a formal presentation. The paper will be reviewed and accepted by the departmental Senior Seminar Paper Review Committee.
Prerequisite: CJ Senior standing

## CJUS 425 COMPARATIVE CRIMINAL JUSTICE SYSTEMS - 3 semester hours

F
Provides a worldview of cultural and legal traditions that are related to crime. This course will also discuss philosophies, practices and institutions of selected countries.

CJUS 430 CRIMINAL JUSTICE PRE- INTERNSHIP - 3 semester hours
Provides students with career preparation and prepares students for field internships. Different agency representatives will visit the class and will give lectures about their respective agency activities, their expectations, and future career possibilities. During this semester students will choose agencies for their spring internships. Students will make applications and will complete background checks, if any, so that the following semester they can start their internship without any delay. Students will learn more about criminal justice careers and learn how to present themselves professionally to prospective employers.
Prerequisite: CJ Senior standing

CJUS 431 VIOLENCE AND THE VIOLENT OFFENDER - 3 semester hours
Examines issues relating to violence in today's society as they impact the violent offender. Reviews myths about violence, victim-offender characteristics and relationships, and theories of violence. It also examines contemporary schools of thought on violence.

CJUS 432 CRIMINAL JUSTICE INTERNSHIP - 4 semester hours
Sp
Course requirements are two fold-class and agency participation. Supervised placement with one or more federal, state or local criminal justice organizations or facilities involved in the arrest, adjudication, correction or release of either juvenile or adult offenders. Enables students to gain meaningful field experience related to their future careers. Students will complete 200 hours of internship at the agency.

## Prerequisite: CJ Senior standing

CJUS 433 HIGH-TECH CRIME - 3 semester hours
Reviews the criminal issues related to the violation of Internet and web technology crimes where innocent users become victims.

## CJUS 434 ORGANIZED CRIME - 3 semester hours

Reviews the past and present of organized crime. It includes topics such as the business of organized crime, hierarchy in organized crime, organized crime in labor and global connections. Also reviews political and law enforcement responses towards organized crime.

## CJUS 436 WHITE COLLAR CRIME - 3 semester hours

Examines white-collar crimes, such as commercial fraud and embezzlement, as well as computer fraud and corporate piracy. Reviews applicable laws with special emphasis on practical aspects of investigation and prosecution of whitecollar crime.

CJUS 440 MINORITIES AND THE CRIMINAL JUSTICE SYSTEM - 3 semester hours
Provides an in-depth look at the theory and practice of criminal justice on crime, race, ethnicity, and justice. It offers insight into minority criminality and criminal victimization while addressing the less than objective criminal justice system processing of minority defendants and felony crime arrestees. It will elucidate what is fact and myth in the system controversies that surround minority criminality, criminal victimization, criminal profiling, and the criminal justice system.

## CJUS 449 INDEPENDENT STUDIES IN CRIMINAL JUSTICE - 3-6 semester hours

Requires completion of independent studies and research under faculty direction and supervision. Registration upon approval of the departmental chair.

SCHOOL OF LIBERAL ARTS AND EDUCATION
DEPARTMENT OF SOCIOLOGY, SOCIAL WORK AND CRIMINAL JUSTICE Sociology
Bachelor of Arts

|  |  | SEMESTER HOURS |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $1{ }^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem | Sem | Hours |
|  | FRESHMAN YEAR |  |  |  |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| ENGL 110, 111 | Freshman Writing I, II | 3 | 3 | 6 |
| GEMA 112, 113 | Basic Math I, II | 3 | 3 | 6 |
| GEHI 114, 115 | World History I, II | 3 | 3 | 6 |
| HPER 170 | Health/Wellness | - | 2 | 2 |
| SOCI 101 | Intro to Sociology | - | 3 | 3 |
| CISY 201 | Microcomputer Concepts I | 3 | - | 3 |
| SOCI 102 | Intro to Anthropology | = | 3 | $\underline{3}$ |
|  |  | 14 | 17 | 31 |
| SOPHOMORE YEAR |  |  |  |  |
| LANG (Foreign) | Language 200 or above | 3 | - | 3 |
| LANG (Foreign) | Language 200 or above | 3 | - | 3 |
| GLOBAL STUDIES | Elective GE Menu | 3 | - | 3 |
| LITERATURE | Elective GE Menu | 3 | - | 3 |
| SCIENCE | Elective GE Menu/Lab | 4 | - | 4 |
| SCIENCE | Elective GE Menu/Lab | - | 4 | 4 |
| STAT 210 | Elementary Statistics | - | 3 | 3 |
| SOCI 201 | Social Problems | - | 3 | 3 |
| PSYC 214 | Social Psychology | - | 3 | $\underline{3}$ |
|  |  | 16 | 13 | 29 |
| JUNIOR YEAR |  |  |  |  |
| SOCI 302 | Marriage \& Family | - | 3 | 3 |
| SOCI 304 | Race \& Ethnic Relations | - | 3 | 3 |
| SOCI 317 | Methods of Social Research | 3 | - | 3 |
| SOCI 318 | Sociological Theory | 3 | - | 3 |
| SOCI/SOSW/CJUS | Elective | - | 3 | 3 |
| HUMANITIES | Elective GE Menu | - | 3 | 3 |
| UNRESTRICTIVE | Elective | 3 | - | 3 |
| SOCI 362 | Juvenile Delinquency | 3 | - | 3 |
| SOCI/SOSW/CJUS | Elective | - | 3 | 3 |
| HUMANITIES | Elective GE Menu | - | $\underline{3}$ | $\underline{3}$ |
|  |  | 12 | 18 | 30 |

SENIOR YEAR

| SOCI 352 | Urban Issues | - | 3 | 3 |
| :--- | :--- | :---: | :---: | :---: |
| SOCI 411 | Comparative Social Institutions | - | 3 | 3 |
| SOCI 413 | Class, Status and Power | 3 | - | 3 |
| SOCI 414 | Industrial Sociology | 3 | - | 3 |
| SOCI 420 | Senior Seminar | - | 3 | 3 |
| HIST 450 | Black History | - | 3 | 3 |
| SOCI 356 | Population Issues | - | 3 | 3 |
| UNRESTRICTIVE | Elective | 3 | - | 3 |
| UNRESTRICTIVE | Elective | 3 | - | 3 |
| UNRESTRICTIVE | Elective | - | 3 | 3 |
|  |  | 12 | 18 | 30 |

DEPARTMENT OF SOCIOLOGY, SOCIAL WORK AND CRIMINAL JUSTICE Criminal Justice Bachelor of Science

## FRESHMAN YEAR

FRST 101
ENGL 110, 111
GEMA 112, 113
GEHI 114, 115
HPER 170
SOCI 101
CJUS 116
SCIENCE

LANG (Foreign)
LANG (Foreign)
CJUS 210
CJUS 211
CJUS 212
GLOBAL STUDIES
LITERATURE
CJUS 217
GECH 119
GEPS 124
CJUS 250

| SEMESTER |  |  |
| :---: | :---: | :---: |
| $1^{\text {st }}$ | $2^{\text {nd }}$ | Total |
| Sem | Sem | Hours |

Freshman Studies
Freshman Writing I, II
Basic Math I, II

| 3 | 3 | 6 |
| :--- | :--- | :--- |

World History I, II $3 \quad 3 \quad 6$

Health/Wellness $\quad-\quad 2$| 2 |
| :--- | :--- | :--- |

Intro to Sociology $\quad-\quad 3 \quad 3$

Intro to Criminal Justice 3 - 3
$\begin{array}{lclll}\text { Elective GE Menu } & \overline{-} & \underline{4} & \underline{4}\end{array}$
SOPHOMORE YEAR
Language 200 or above 3 - 3
Language 200 or above 3 - 3
Intro to Statistics for CJ 3 - 3
SPSS for Criminal Justice Lab 1

American Law Enforcement 3 - 3
Elective GE Menu/Lab 3 - 3
Elective GE Menu - 3
Juvenile Justice - 3
Chemistry \& Society \& Lab $\quad-\quad 4$
Intro to Pschology - 3
Court System \& Practice $\quad=\quad \underline{3} \quad \underline{3}$
JUNIOR YEAR

| CRIMINAL JUSTICE | Elective | 3 | - | 3 |
| :--- | :--- | :---: | :---: | :---: |
| HPER | P.E. Elective | - | 1 | 1 |
| CJUS 317 | Research Methods for CJ | 3 | - | 3 |
| Technology | Elective GE Menu | - | 3 | 3 |
| HUMANITIES | Elective GE Menu | 3 | - | 3 |
| HUMANITIES | Elective GE Menu | - | 3 | 3 |
| UNRESTRICTIVE | Elective | 3 | - | 3 |
| CJUS 364 | Criminology \& Theories of Crime | - | 3 | 3 |
| CJUS 364 | Sociology of Corrections | - | 3 | 3 |
| CRIMINAL JUSTICE | Elective | $\underline{3}$ | $\overline{-}$ | $\underline{3}$ |
|  |  | 15 | 13 | 28 |

## SENIOR YEAR

CJUS 420
CJUS 415
CRIMINAL JUSTICE
CRIMINAL JUSTICE
CRIMINAL JUSTICE
CJUS 430
CJUS 432
CJUS 499
UNRESTRICTIVE
UNRESTRICTIVE

Senior Seminar 3 - 3
Forensic Investigation \& Lab 4 - 4
Elective - 3
Elective - 3
Elective 3 - 3
Criminal Justice Pre-Internship 3 - 3
Criminal Justice Internship $\quad-\quad 3 \quad 3$
Independent Study $\quad-\quad 1 \quad 1$
Elective 3 - 3
Elective $=\underline{2} \quad \underline{2}$
$16 \quad 12 \quad 28$

# SCHOOL OF LIBERAL ARTS AND EDUCATION professional Education Programs 

Unit Head: Delores R. Greene, Box 9088; Room 101, Harris Hall; Telephone: 524.6869

Administrators: John Blackwell, Coordinator-Assessment \& Instructional Technology
Sandra Evans, Assessment Specialist
Donna Jones-Miles, Coordinator-Field Experiences \& Special Projects
John Travis, Program Transition Accountability Specialist
Harriet Wynn, Policy \& Planning Specialist/NCATE Manager

## Governance

The Professional Education Unit is housed in the School of Liberal Arts and Education. The Unit is the administrative arm that oversees the preparation of teachers and other school personnel. The programs in the Unit are approved by the Virginia Department of Education and accredited by the National Council for the Accreditation of Teacher Education (NCATE).

## Unit Conceptual Framework

The conceptual framework reflects the Unit's shared vision for preparing quality educators for work in PreK-12 schools. The overall goal of the Unit at Virginia State University, given its underlying vision, mission, and philosophy, is to facilitate the development of reflective practitioners who create positive learning environments for all students. This goal undergirds the development of successful candidates who are competent, caring, and effective. Through reflective inquiry, candidates use professional knowledge to enhance learning for all students. The following definitions are the foundation of the unit's candidate proficiencies at the initial and advanced levels:

Competent: Understanding the central concepts, tools of inquiry, and structures of the content area(s). Understanding ways to enhance the learning process and learning environment through effective use of technology. Creating learning experiences and environments that make the subject matter meaningful for learners.

Caring: Showing respect to all learners and empowering them to set achievable goals while maintaining high standards. Demonstrating a commitment to professionalism, continuous reflection, and application of research-based best practices.

Effective: Using research-based best practices and performance assessments to guide the learning process and positively impact the learning environment to ensure that all students learn.

Reflective: Reflecting upon and evaluating research and the success of past decisions in an effort to make better decisions in the future.

## Unit Mission Statement

Creating a positive learning environment for all students and using evidence-based performance standards to develop reflective practitioners are central to the Professional Education Programs Unit's mission. The Unit promotes and maintains academic programs with research-based pedagogy, technology-based learning, and reflective practices that integrate service to the community, ever mindful of the students' diverse cultural backgrounds.

Associate Dean: Delores R. Greene<br>Director: Claire Robinson<br>Faculty: John Blackwell, Assistant Professor<br>Joanne Blanchard, Assistant Professor<br>Patrice Aldridge, Assistant Professor<br>Judaea Hodge, Assistant Professor<br>Donna Jones-Miles, Assistant Professor<br>Nira Taru, Assistant Professor

The Center for Undergraduate Professional Education Programs offers initial teacher preparation programs in the following areas:

## Undergraduate Endorsement Programs Offered for Initial Teacher Preparation

| Interdisciplinary Studies Major Elementary Education Minor | Interdisciplinary Studies Major Special Education Minor | Content Area Major <br> Secondary Education Minor |
| :---: | :---: | :---: |
| - Elementary Education PreK-6 | - Special Education - Emotional Disturbance K-12 <br> - Special Education - Mental Retardation K-12 <br> - Special Education - Learning Disabilities K-12 | - Agriculture 6-12 <br> - Biology 6-12 <br> - Chemistry 6-12 <br> - English 6-12 <br> - Family and Consumer Sciences 6-12 <br> - Health and Physical Education PreK-12 <br> - History and Social Sciences 612 <br> - Mathematics 6-12 <br> - Music Education - Choral PreK-12 <br> - Music Education - Instrumental PreK-12 <br> - Physics 6-12 |

All minors in Secondary Education must complete 18 semester hours of professional education coursework, with the exception of Health and Physical Education (PreK-12).

## Program Matriculation and Admissions Requirements

Pre-candidates who indicate aspirations for careers in teaching are assigned an academic advisor who is a faculty member in the Center for Professional Undergraduate Programs. Pre-candidates who desire a minor in Secondary Education must also have an advisor in the academic major content area. Before registering for courses in

Professional Studies, pre-candidates and candidates meet with their advisors to discuss their academic and professional goals and objectives. Pre-candidates/candidates and their advisors jointly review the academic regulations of the University and the specific course requirements for endorsement. Based on the desired teaching specialization, a comprehensive four-year program of study is planned.

The Professional Education Unit has developed phases that serve as transition points for undergraduates to follow as they matriculate through the program: Pre-admission, Admission, Pre-student Teaching, Student Teaching, and Graduate Follow-up.

## Phase I: Pre-admission

Students in this phase are called pre-candidates. They have expressed an interest in becoming a teacher and the Unit begins to collect data on the potential candidate. Information will be collected during this phase to develop a profile of potential candidates. Strengths and weaknesses will be identified and addressed with pre-candidates in the development of individualized personal development plans.

During their freshman year, pre-candidates must submit the following documents (effective fall 2006):

1. Application of Intent, which will include SAT/ACT Scores and an Attitude Survey
2. Plato Scores
3. College BASE Scores
4. College GPA
5. Evidence of successful completion of IDST 100 Analytical Reading, Writing and Reasoning I (if needed)
6. Evidence of successful completion of IDST 101 Analytical Reading, Writing and Reasoning II (if needed)

## Phase II: Admission

Pre-candidates must apply to the Center for Professional Undergraduate Education Programs no later than the last semester of their sophomore year. Transfer students who have a minimum of sixty (60) credit hours are required to apply after the completion of one full semester. An applicant must meet the following criteria:

1. Submit a completed Application for Admission to the Teacher Education Program (available on the website)
2. Complete EDUC 201 Introduction to Teaching I and EDUC 202 Introduction to Teaching II with a minimum grade of "C" and begin a portfolio
3. Have a minimum cumulative grade point average of 2.5
4. Pass the Praxis I assessment, with scores of 178 in Reading, 178 in Mathematics and 176 in Writing or a composite score of 532 or submit Scholastic Aptitude Test (SAT) scores of 1100 with minimum scores of 530 verbal and 530 on mathematics
5. Complete an interview with a faculty member, during which the Admissions Dispositions Assessment is administered

The above information is then presented to the Admissions Committee for final determination of the acceptance status of program applicants. The Unit does not discriminate on the basis of race, color, religion, national origin, sex, marital status, age, disability, or veteran status in any admission related activity.

## Phase III: Pre-Student Teaching

After admission to the Center for Professional Undergraduate Education Programs, pre-candidates become candidates. Candidates begin taking the professional education courses outlined for their endorsement program and continue to participate in field experiences (see Professional Studies Course outline). Candidates continue to develop their portfolios, submit evidence of meeting program outcomes, and document completion of field experiences.

## Phase IV: Student Teaching

Candidates who have completed their academic and professional education courses and have been admitted to the Teacher Education Program must apply to Student Teaching during the first semester of their senior year. In order to be eligible for student teaching, candidates must:

1. Complete a Student Teaching Application
2. Submit documentation showing completion of the following assessments required by the Virginia Department of Education:
a. Praxis II all endorsement areas (Special Education minors must take Praxis II for Elementary Education to be considered highly qualified)
b. Passing score of 235 on the Reading and Writing sections of the Virginia Communication and Literacy Assessment or a composite score of 470 (required in December 2006)
c. Passing score of 235 on the Virginia Reading Assessment (Elementary and Special Education minors only) (required July 1, 2006)
d. Complete the Technology Skills for Instructional Personnel (TSIP's)
e. Complete the Child Abuse Recognition and Intervention Training
3. Submit documentation of completion of Professional Education course requirements (except EDUC 401 and EDUC 402) by November 15 for Spring Student Teaching placement and April 15 for a Fall placement, and
4. Complete an interview to present portfolios with the Coordinator of Field Experiences and members of the Professional Community.

Upon acceptance into Student Teaching candidates begin the transition from a Working Portfolio to a Professional Portfolio and are required to present that portfolio as a part of the Exit Presentation for the culmination of Student Teaching.

## Phase V: Graduate Follow-up

Prior to graduating, Student Teachers are required to complete all licensure documents required by the Virginia Department of Education. The Unit will submit the forms and documentation for licensure. Student teachers are required to complete a Program Evaluation prior to graduation. The Center for Professional Undergraduate Education Programs is responsible for conducting follow-up surveys and initiatives with graduates for a period of three years. Endorsement program requirements may change based on Virginia Department of Education Regulations.

## Undergraduate Initial Licensure Programs

## Academic Advisement

Upon admission to the University, pre-candidates who indicate aspirations for careers in teaching are assigned academic advisors in the Professional Education Unit. Before registering for professional education courses, precandidates/candidates meet with their advisors to discuss their academic and professional goals and objectives. Precandidates/candidates and advisors jointly review the academic regulations of the Unit and the specific course requirements for teacher licensure. Based on the pre-candidates/candidates' teaching specialization aspirations, they and their advisors plan a comprehensive four-year program of studies.

## Elementary Education (PreK-6) Minor

A minor in Elementary Education (PreK-6) is designed to satisfy the State of Virginia teaching endorsement, and licensure requirements for pre-kindergarten through intermediate grades of elementary school. Candidates are required to complete an Interdisciplinary Studies major.

The following are course requirements for a minor in Elementary Education (PreK-6):
INTERDISCIPLINARY STUDIES MAJOR

General Education Courses

| Course Number | Course Title | Semester Hours |
| :---: | :---: | :---: |
| FRST 101 | Freshman Studies | 2 |
| ENGL 110 | Composition I | 3 |
| ENGL 111 | Composition II | 3 |
| GEBI 116 | Biological Science and Lab | 4 |
| GEES 181 | Earth Science and Lab | 4 |
| HPER 170 | Health and Wellness | 2 |
| ECON 100 | Basic Economics | 3 |
| GEHI 114/115 | World History I or World History II | 3 |
| GEHI 122/123 | U.S. History I or U.S. History II | 3 |
| GEPI 140 | Philosophy | 3 |
| IDST 200 | Digital Media in Teacher Education | 3 |
| MATH 130* | Numbers and Operation | 3 |
| MATH 131* | Algebra and Functions | 3 |
| ENGL 201 or 202* | Introduction to Literature or African American Literature | 3 |
| GEEN 310* | Advanced Communication Skills | 3 |
| Total Hours |  | 45 |
| Interdisciplinary Studies (Academic Core Courses) |  |  |
| Course Number | Course Title | Semester Hours |
| Mathematics (9 Credits) |  |  |
| MATH 130* | Numbers and Operation | 3 |
| MATH 131* | Algebra and Functions | 3 |
| MATH 230 | Geometry \& Measurements | 3 |
| English/Language Arts (9 Credits) |  |  |
| ENGL 201 or 202* | Introduction to Literature or African American Literature | 3 |
| ENGL 214 or 215 | World Literature I or World Literature II | 3 |
| GEEN 310* | Advanced Communication Skills | 3 |
| Social Studies (9 Credits) |  |  |
| GEOG 210 | World Geography | 3 |
| HIST 431 | History of Virginia | 3 |
| GEPO 150 | U.S. Government | 3 |
| Science (12 Credits) |  |  |
| GEBI 116* | Biological Science and Lab | 4 |
| GEES 181* | Earth Science and Lab | 4 |
| GEPH 101 | Physical Science and Lab | 4 |
|  |  | 39 |
| * These courses also meet General Education requirements. |  |  |

## Elementary Education (PreK-6) Minor

| Course Number | Course Title | Semeste <br> Hours |
| :--- | :--- | ---: |
| Professional Studies | Courses (21 Hours) | 2 |
| EDUC 201 | Introduction to Teaching I | 2 |
| EDUC 202 | Introduction to Teaching II | 3 |
| EDUC 315 | Data Driven Instructional Design | 3 |
| ELED 328 | Curriculum and Instruction | 3 |
| ELED 429 | Language Acquisition and Reading I | 2 |
| EDUC 424 | Critical Issues in Education | 3 |
| ELED 430 | Language Acquisition and Reading II | 3 |
| EDUC 401 | Student Teaching Seminar |  |
|  |  | 9 |
| Field Experiences (FE) (12 Hours) | 3 |  |
| EDUC 402 | Student Teaching | 2 |
| SPED 403 | Classroom Management in Educational Settings FE | 2 |
| Restricted Electives (20 Hours) | 3 |  |
| IDST 100** | Analytical Reading, Writing and Reasoning I | 3 |
| IDST 101** | Analytical Reading, Writing and Reasoning II | 4 |
| PSYC 314 | Test and Measurements | 3 |
| BIOL 427 | Science Process Skills \& Lab | 3 |
| PSYC 212 | Human Growth and Development | 3 |
| STAT 210 | Elementary Statistics |  |
| SPED 325 | Survey of Exceptional Children |  |

## Total Hours

${ }^{* *}$ IDST 100/101 are not counted in semester hours or toward graduation requirement

## The Center for Undergraduate Professional Education Programs

Interdisciplinary Studies with a Minor in Elementary Education (PreK-6) (120 Hrs)

|  | Freshman Year |  |  |  |
| :--- | :--- | :---: | :---: | :---: |
| Course Number | Course Title | $\mathbf{1}^{\text {st }}$ | 2d <br> nem. | Total <br> Hours |
| IDST 100 | Analytical Reading, Writing and Reasoning I | $(2)^{* *}$ | - | $(2)$ |
| IDST 101 | Analytical Reading, Writing and Reasoning II | - | $(2)^{* *}$ | $(2)$ |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| ENGL 110 | Composition I | 3 | - | 3 |
| ENGL 111 | Composition II | - | 3 | 3 |
| MATH 130 | Numbers and Operation | 3 | - | 3 |
| MATH 131 | Algebra and Functions | - | 3 | 3 |
| GEBI 116 | Biological Science and Lab | 4 | - | 4 |
| GEES 181 | Earth Science and Lab | - | 4 | 4 |
| GEPE | Elective | 1 | - | 1 |
| HPER 170 | Health and Wellness | - | 2 | 2 |
| ECON 100 | Basic Economics | - | 3 | 3 |
|  |  | $\mathbf{1 3}$ | $\mathbf{1 5}$ | $\mathbf{2 8}$ |


| Sophomore Year |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course Number | Course Title | $1^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem. | Sem. | Hours |
| EDUC 201 | Introduction to Teaching I | 2 | - | 2 |
| EDUC 202 | Introduction to Teaching II | - | 2 | 2 |
| GEHI 114 or 115 | World History I or World History II | - | 3 | 3 |
| GEHI 122 or 123 | U.S. History I or U.S. History II | 3 | - | 3 |
| GEOG 210 | World Geography | - | 3 | 3 |
| ENGL 201 or 202 | Introduction to Literature or African Amer Lit. | 3 | - | 3 |
| IDST 200 | Digital Media in Teacher Education | 3 | - | 3 |
| GEPH 101 | Physical Science and Lab | - | 4 | 4 |
| GEPI 140 | Philosophy | 3 | - | 3 |
| PSYC 212 | Human Growth and Development | 3 | - | 3 |
| STAT 210 | Elementary Statistics | - | 3 | 3 |
| SPEE 214 | Introduction to Public Speaking | - | $\underline{3}$ | $\underline{3}$ |
|  |  | 17 | 18 | 35 |
| Junior Year |  |  |  |  |
| Course Number | Course Title | $1^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem. | Sem. | Hours |
| ENGL 214 or 215 | World Literature I or II | 3 | - | 3 |
| EDUC 315 | Data Driven Instructional Design | 3 | - | 3 |
| ELED 328 | Curriculum and Instruction | - | 3 | 3 |
| ELED 429 | Language Acquisition and Reading I | - | 3 | 3 |
| GEEN 310 | Advanced Communication Skills | - | 3 | 3 |
| PSYC 314 | Test and Measurements | 3 | - | 3 |
| GEPO 150 | U.S. Government | 3 | - | 3 |
| BIOL 427 | Science Process Skills \& Lab | - | 4 | 4 |
| MATH 230 | Geometry \& Measurements | 3 | - | 3 |
| GEMU 380 | Music and Art | - | 3 | 3 |
|  |  | 15 | 16 | 31 |
| Senior Year |  |  |  |  |
| Course Number | Course Title | $1^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem. | Sem. | Hours |
| EDUC 424 | Critical Issues in Education | 2 | - | 2 |
| HIST 431 | History of Virginia | 3 | - | 3 |
| SPED 403 | Classroom management in Educational Settings (FE) | 3 | - | 3 |
| ELED 430 | Language Acquisition and Reading II | 3 | - | 3 |
| SPED 325 | Survey of Exceptional Children | 3 | - | 3 |
| EDUC 401 | Student Teaching Seminar | - | 3 | 3 |
| EDUC 402 | Student Teaching | - | $\underline{9}$ | $\underline{9}$ |
|  |  | 14 | 12 | 26 |

## ${ }^{* *}$ IDST 100/101 are not counted in semester hours or toward graduation requirement

## Special Education (K-12) Minor

A minor in Special Education (K-12) is designed to satisfy the State of Virginia teaching endorsement, and licensure requirements for kindergarten through the twelfth grade. Candidates are prepared to work with students with emotional disturbance, learning disabilities and mental retardation. Candidates are required to complete an Interdisciplinary Studies major.

The following are course requirements for a minor in Special Education (K-12):

## Special Education (K-12) Minor

| Course Number | Course Title | Semester Hours |
| :---: | :---: | :---: |
| Professional Studies Courses (24 Hours) |  |  |
| EDUC 201 | Introduction to Teaching I | 2 |
| EDUC 315 | Data Driven Instructional Design | 3 |
| SPED 328 | Reading and Language Development for Exceptional Learners | 3 |
| SPED 323 | Survey of Exceptional Children | 3 |
| EDUC 424 | Critical Issues in Education | 2 |
| SPED 425 | Transitional Education for Students with Disabilities | 2 |
| SPED 402 | Diagnosis of Educational Needs |  |
| ELED 429 | Language Acquisition and Reading I | 3 |
| EDUC 401 | Student Teaching Seminar | 3 |
| PSYC 212 | Human Growth and Development | 3 |
| Field Experiences (FE) (21 Hours) |  |  |
| SPED 423 | Curriculum and Instruction for Exceptional Learners FE | 3 |
| SPED 442 | Communicating and Collaborating w/ Educators and Parents FE | 3 |
| SPED 403 | Classroom Management in Educational Settings FE | 3 |
| SPED 325 | Characteristics of Exceptional Learners FE | 3 |
| EDUC 402 | Student Teaching FE | 9 |
| ${ }_{*}^{*}$ Restricted Electives (4 hours) |  |  |
| ${ }^{* *}$ IDST 100 | Analytical Reading, Writing and Reasoning I | 2 |
| **IDST 101 | Analytical Reading, Writing and Reasoning II | 2 |
| GEMU 380 | Music and Art | 3 |

## All Professional Studies Courses will require Field Experiences

## ${ }^{* *}$ IDST 100/101 are not counted in semester hours or toward graduation requirement.

## The Center for Undergraduate Professional Education Programs

Interdisciplinary Studies with a Minor in Special Education (K-12) (123 Hrs)

| Freshman Year |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course Number | Course Title | $1{ }^{\text {st }}$ | $2^{\text {nd }}$ | Total |
| IDST 100 | Analytical Reading, Writing and Reasoning I | Sem. <br> (2) ${ }^{* *}$ | Sem. | Hours (2) ${ }^{* *}$ |
| IDST 101 | Analytical Reading, Writing and Reasoning II | - | (2)** | (2) ${ }^{* *}$ |
| FRST 101 | Freshman Studies | 2 | - | 2 |
| ENGL 110 | Composition I | 3 | - | 3 |
| ENGL 111 | Composition II | - | 3 | 3 |
| MATH 130 | Numbers and Operation | 3 | - | 3 |
| MATH 131 | Algebra and Functions | - | 3 | 3 |
| GEBI 116 | Biological Science and Lab | 4 | - | 4 |
| GEES 181 | Earth Science and Lab | - | 4 | 4 |
| HPER 170 | Health and Wellness | - | 2 | 2 |
| ECON 100 | Basic Economics | - | 3 | 3 |
| GEPE | Elective | 1 | - | 1 |
|  |  | 13 | 15 | 28 |
| Sophomore Year |  |  |  |  |
| Course Number | Course Title | $1^{\text {st }}$ | $2^{\text {nd }}$ | Total |
|  |  | Sem. | Sem. | Hours |
| EDUC 201 | Introduction to Teaching I | 2 | - | 2 |
| SPED 323 | Survey of Exceptional Children (FE) | 3 | - | 3 |
| GEHI 122 or 123 | U.S. History I or II | 3 | - | 3 |
| GEOG 210 | World Geography | - | 3 | 3 |
| GEHI 114 or 115 | World History I or II | - | 3 | 3 |
| LANG ELECTIVE | 100 or above | - | 3 | 3 |
| GEPH 101 | Physical Science and Lab | - | 4 | 4 |
| IDST 200 | Digital Media in Teacher Education | 3 | - | 3 |
| ENGL 214 or 215 | World Literature I or II | - | 3 | 3 |
| GEPI 140 | Philosophy | 3 | - | 3 |
| PSYC 212 | Human Growth and Development | 3 | - | 3 |
|  |  | 17 | 16 | 33 |

## Junior Year

| Course Number | Course Title | $\mathbf{1}^{\text {st }}$ <br> Sem. | $\mathbf{2}^{\text {nd }}$ <br> Sem. | Total <br> Hours |
| :--- | :--- | :---: | :---: | :---: |
| EDUC 315 | Data Driven Instructional Design | 3 | - | 3 |
| ELED 429 | Language Acquisition and Reading I | - | 3 | 3 |
| SPED 328 | Reading and Language Development for Exceptional | 3 | - | 3 |
|  | Learners |  |  |  |
| SPED 323 | Characteristics of Exceptional Children (FE) | - | 3 | 3 |
| SPED 403 | Classroom Management in Educational Settings (FE) | - | 3 | 3 |
| SPED 425 | Transitional Education for Exceptional Learners | 2 | - | 2 |
| SPED 402 | Diagnosis of Educational Needs | - | 3 | 3 |
| ENGL 201 or 202 | Introduction to Literature or African American Lit | 3 | - | 3 |
| GEMU 380 | Music and Art | - | 3 | 3 |
| GEEN 310 | Advanced Communication Skills | - | 3 | 3 |
| MATH 230 | Geometry \& Measurements | 3 | - | 3 |
|  |  | $\mathbf{1 4}$ | $\mathbf{1 8}$ | $\mathbf{3 2}$ |

## Senior Year

| Course Number | Course Title | $\mathbf{1}^{\text {st }}$ <br> 2d | Total <br> Sem. | Hours |
| :--- | :--- | :---: | :---: | :---: |
| EDUC 424 | Critical Issues in Education | 2 | - | 2 |
| HIST 431 | History of Virginia | 3 | - | 3 |
| GEPO 150 | U.S. Government | 3 | - | 3 |
| SPED 442 | Communicating and Collaborating (FE) | 2 | - | 2 |
| SPED 423 | Curriculum and Instruction for Exceptional Learners (FE) | 3 | - | 3 |
| EDUC 401 | Student Teaching Seminar | - | 3 | 3 |
| EDUC 402 | Student Teaching (FE) | - | $\underline{9}$ | $\underline{9}$ |
|  |  | $\mathbf{1 3}$ | $\mathbf{1 2}$ | $\mathbf{2 5}$ |

[^6]
## Secondary Education (6-12 and PreK-12) Minor

A minor in Secondary Education (6-12 and PreK-12) is designed to satisfy the State of Virginia teaching endorsement, and licensure requirements for 6-12 and Pre-kindergarten through the twelfth grade. Candidates are required to complete a major in the content area they wish to teach.

The following are Professional Studies and field experiences course requirements for a Minor in Secondary Education (6-12 and PreK-12):

## SECONDARY EDUCATION (6-12 AND PREK-12) MINOR

| Course Number | Course Title | Semester <br> Hours |
| :--- | :--- | :---: |
| Professional Studies Course Requirements (18 Hours) |  |  |
| EDUC 201 | Introduction to Teaching Part I | 2 |
| EDUC 202 | Introduction to Teaching Part II | 2 |
| EDUC 315 | Data-Driven Instructional Design | 3 |
| EDUC 427 | Reading in the Subject Area | 3 |
| EDUC 424 | Critical Issues in Education | 2 |
| EDUC 401 | Student Teaching Seminar | 3 |
|  | Content Area Professional Studies Course | 3 |
| Field Experiences (FE) | (12 Hours) |  |
| EDUC 402 | Student Teaching | 9 |
| SPED 403 | Classroom Management in Educational Settings FE | 3 |
| Restricted Electives (4 Hours) |  |  |
| IDST 100** | Analytical Reading, Writing and Reasoning I | 2 |
| IDST 101** | Analytical Reading, Writing and Reasoning II | 2 |
| Total Hours |  | $\mathbf{3 1}$ |

The following curriculum sheets describe the course requirements for each secondary endorsement area.
${ }^{* *}$ IDST 100/101 are not counted in semester hours or toward graduation requirement

The following are course descriptions for elementary, secondary and special education minors, as well as professional studies courses. Course descriptions for content area majors may be found in the Virginia State University Undergraduate Catalog.

## Course Descriptions

## IDST 100 ANALYTICAL READING AND REASONING PART I - 2 Semester Hours F, Sp

This course seeks to aid pre-candidates in the refinement and enhancement of learning strategies related to the Praxis I skills assessment. Reading, Writing and Mathematics instruction will focus on strategies to decode information from multiple disciplines. Reading activities include literature taken from Humanities, Social Sciences, Science and Technology. Writing activities are focused on responding to a variety of prompts from multiple disciplines and construction of appropriate essays. Mathematics activities will focus on problem solving and applying critical thinking skills. Students who are successful in passing Praxis I will not be required to take IDST 101.

## IDST 101 ANALYTICAL READING AND REASONING PART II - 2 Semester Hours

F, Sp
This course is a continuation of IDST 100. Pre-candidates will continue to focus on skill development related to passing Praxis I. Instruction will be divided by assessment components and will utilize small group and individualized instruction to provide a more focused experience to improve test taking and time management skills related to standardized testing.

## EDUC 201 INTRODUCTION TO TEACHING I - 2 Semester Hours

F, SP
This course is designed to provide a snapshot of teaching as a profession. It will focus on historical and contemporary topics relevant to an understanding of the knowledge, skills and dispositions required of classroom teachers. Pre-candidates will have the opportunity to reflect on professional practice in preK-12 classroom settings and in alternative educational program sites. This course will also provide the opportunity for pre-candidates to begin the development of a working portfolio. Pre-candidates will be required to complete a field experience requirement of 15 hours as a part of this course.

## EDUC 202 INTRODUCTION TO TEACHING II - 2 Semester Hours

F, SP
This course is a continuation of EDUC 201 Introduction to Teaching and is designed to provide a snapshot of teaching as a profession. The course will extend the focus on historical and contemporary topics relevant to an understanding of the knowledge, skills and dispositions required of classroom teachers. Pre-candidates will have the opportunity to research and reflect on professional practices in preK-12 classroom settings and in alternative educational program sites. This course will also provide the opportunity for pre-candidates to continue the development of a working portfolio. Pre-candidates will be required to complete a field experience requirement of 15 hours as a part of this course.

## Prerequisites: EDUC 201 Introduction to Teaching I

EDUC 315 DATA DRIVEN INSTRUCTIONAL DESIGN - 3 Semester Hours F, Sp
This course is designed to address the skills that contribute to an understanding of the relationship among assessment, instruction and monitoring student progress. Assessments include student performance measures in grading practices and the ability to construct and interpret valid assessments using a variety of formats. In order to measure student attainment of essential skills in a standards-based environment, assessment data will be used to make decisions about how to improve instruction and student performance. Pre-candidates will be required to complete a field experience requirement of 15 hours as a part of this course.
Prerequisites: EDUC 201 Introduction to Teaching I; EDUC 202 Introduction to Teaching II* * Elementary and Secondary Education Minors Only

EDUC 401 STUDENT TEACHING SEMINAR - 3 Semester Hours
F, Sp
This course is aligned with EDUC 402 Student Teaching. Candidates reflect on the knowledge, skills, and dispositions implemented in the classroom experience. In this course, candidates prepare for the final performance assessment of competencies acquired in the Professional Education Program.
Prerequisites: Completion of all coursework and state assessments
Corequisites: EDUC 402 Student Teaching
Content Area Student Teaching
EDUC 402 STUDENT TEACHING FE - 9 Semester Hours F, Sp
This course is the capstone experience for prospective teachers and emphasizes learning through application, analyses, synthesis, evaluation, and reflection. It provides the opportunity for student teachers to demonstrate acquired knowledge of the Standards of Learning, skills, and dispositions, in supervised classrooms. Emphasis will be placed on planning, implementing, and assessing instruction which meets the needs of students in these classrooms. Additional participation in appropriate school activities is required.
Prerequisites: Completion of all curriculum courses and state assessments
Corequisite: EDUC 401 Student Teaching Seminar
Content Area Student Teaching

EDUC 424 CRITICAL ISSUES IN EDUCATION - 2 Semester Hours
F, Sp
This course will cover critical issues in educational reform that include applying multicultural curricula (such as, race ethnicity, gender, socioeconomic status, exceptionalities, language, and geographical locations of all students) and integrating school staff in acknowledging the importance of families and family language, as it relates to current educational issues. Candidates will be required to complete a Field experience requirement of 15 hours as a part of this course.

Prerequisites: Admission to the Teacher Education Program EDUC 315 Data Driven Instructional Design<br>ELED 429 Language Acquisition and Reading I*<br>ELED 430 Language Acquisition and Reading II*<br>EDUC 427 Reading in the Subject Areas**<br>* Elementary and Special Education Minors Only<br>** Secondary Education Minors Only

## EDUC 427 READING IN THE SUBJECT AREA - 3 Semester Hours

F, Sp
This course provides pre-service teachers with the competencies necessary to teach reading in the subject areas. Emphasis is placed on the commonalities of reading skills as related to specific content. The application of knowledge gained, skills developed, techniques acquired, and materials used for teaching the content and specific disciplines are considered. Special attention is given to techniques and materials for student assessment and for meeting instructional needs.

## ELED 328 CURRICULUM AND INSTRUCTION - 3 Semester Hours F, Sp

This course is designed to address the skills that contribute to an understanding of the principles of learning; the application of skills in discipline-specific methodology; communication processes; selection and use of materials, including media computers; and evaluation of pupil performance. It will also address teaching methods appropriate for exceptional students, including second language learners, gifted and talented and those with disabling conditions. Teaching methods shall be tailored to promote student academic progress and effective preparation for the Standards of Learning assessments. Methods of improving communication between schools and families and ways of increasing family involvement in student learning shall be included. Demonstrated proficiency in the use of educational technology for instruction also shall be included. Candidates will be required to complete a field experience requirement of 15 hours as a part of this course.

## Prerequisites: Admission to the Teacher Education Program <br> EDUC 315 Data Driven Instructional Design

ELED 429 LANGUAGE ACQUISITION AND READING I - 3 Semester Hours F, Sp This course provides preparation for beginning reading instruction, including the body of research on emergent literacy, language acquisition, schema theory, and phonemic awareness. Emphasis will be placed on the nature of reading and the development of decoding and comprehension skills and strategies. Decoding skills and strategies will include language development, phonemic awareness, explicit phonics instruction, and other word recognition skills. Literature-based instruction and formal and informal diagnostic and assessment procedures will be included. Reading instruction for all children, including children with learning disabilities will be provided. Candidates will be required to complete a field experience requirement of 15 hours as a part of this course.

## ELED 430 LANGUAGE ACQUISITION AND READING II - 3 Semester Hours

F, SP
This course is designed to be a continuation of Language Acquisition and Reading I. This course enhances beginning reading skills and emphasizes comprehension skills in content. Special attention is given to the assessment of reading skills and how assessment results drive instruction. Implementation of literature-based instruction is further explored to enhance reading comprehension skills for students. Candidates will be required to complete a field experience requirement of 15 hours as a part of this course.

## SPED 323 CHARACTERISTICS OF EXCEPTION LEARNERS FE - 3 Semester Hours

F, Sp
This course is designed to provide students with in-depth knowledge of the theories, characteristics, etiology, and educational implications of students with exceptional learning needs. These include: related disabilities such as attention deficit disorders; specific age-span and developmental issues; cognitive functioning including intelligence, perception, neurobiology, linguistics, memory and thinking; levels of severity; multi-cultural influences; and medical aspects including medication, nutrition, genetics, and neurology. The course will describe deficits in academic, cognitive, socio-emotional behaviors; educational, technological, and medical interventions; placement options; curriculum design and current research on instructional approaches, and technology use.
Prerequisites: EDUC 315 Data Driven Instructional Design
SPED 325 SURVEY OF EXCEPTION CHILDREN - 3 Semester Hours
F, Sp
This course provides an introduction to the philosophical, historical, and legal foundations of special education Learning Disability, Mental Retardation, and Emotional Disturb (LD, MR, ED). The course highlights the characteristics of children and youth with disabilities relative to age and severity levels; medically related etiological perspectives of various disabilities; special education laws, etc. Developmental differences manifested in cognitive, linguistic, physical, psychomotor, social, or emotional functioning are addressed. An understanding of ethical issues and the practice of accepted standards of professional behavior is also addressed. Current regulations governing alternatives placements/programs in schools are highlighted. Strategies to promote successful integration of students with disabilities with their non-disabled peers will be taught. The structure and organization of general education classrooms and other instructional settings representing the continuum of special education will be addressed. An overview of continuum of services, assessment procedures, curriculum planning, and instructional strategies are provided. Candidates will be required to complete a field experience requirement of 15 hours as part of this course.
Prerequisite: EDUC 201 Introduction to Teaching I
*EDUC 202 Introduction to Teaching II

## SPED 328 READING AND LANGUAGE DEVELOPMENT FOR EXCEPTIONAL LEARNERS -

 3 Semester HoursF, SP
This course is designed to address the skills to impart a thorough understanding of the complex nature of language acquisition and reading, including: phonemic awareness, an understanding of sound/symbol relationships, explicit phonics instruction, syllables, concepts of print, phonics, fluency, vocabulary development, and comprehension strategies. Additional skills shall include proficiency in writing strategies, as well as, the ability to foster an appreciation of a variety of literature and independent reading. Candidates will be required to complete a field experience requirement of 15 hours.
Prerequisite: EDUC 201 Introduction to Teaching I
SPED 402 DIAGNOSIS OF EDUCATIONAL NEEDS - 3 Semester Hours
F, SP
This course is designed to provide an understanding and application of the foundations of assessment and evaluation related to best educational practices such as legal provisions, regulations, and guidelines regarding assessment of individuals with disabilities. The impact of culture, linguistics and other variables on assessment findings and placement decisions will be addressed. Pre-candidates will select, administer, score and interpret various formal and informal individual and group instruments, and summarize findings for eligibility, placement and instructional decisions. Candidates will have experience with norm-reference, criterion reference, and curriculum-based measures, as well as, task analysis and portfolio assessments. Candidates will be required to complete a field experience requirement of 15 hours as a part of this course.
Prerequisite: EDUC 315 Data Driven Instructional Design
SPED 403 CLASSROOM MANAGEMENT IN EDUCATIONAL SETTINGS FE - 3 Semester Hours F, SP This course is designed to address the skills that contribute to an understanding and application of classroom management techniques and individual interventions, including techniques that promote emotional well being and teach and maintain behavior conduct and skills consistent with norms standards, and rules of the educational environment. This course shall address diverse approaches based upon behavioral, cognitive, affective, social, and ecological theory and practice in a classroom setting.

## SPED 423 CURRICULUM AND INSTRUCTION FOR EXCEPTIONAL LEARNERS FE -

 3 Semester HoursF, SP
This course, offered in a field-based setting, conveys knowledge of a wide range of assessment procedures for students with exceptional learning needs to assist in instruction and life-planning. These include: use of assessment procedures to identify individual instructional needs in areas including reading, receptive and expressive language, written language and mathematics; ability to interpret educational assessment results to parents, students and other professionals. This course makes use of assessment, evaluation, and other information to develop and implement individualized educational programs (IEP) and group instruction for individuals with exceptional learning needs within the continuum of services. These services include: pragmatic language and social skills; providing explicit instruction of reading and spelling in a systematic and cumulative manner based upon understanding the structure and development of the English language and its components; use of multi-sensory approaches, cognitive learning strategies, study skills, accommodations for diverse learning styles, and technology; and designing alternative ways to teach content, including adaptations and modifications of curricula, and the selection of specialized instructional materials appropriate to the needs of the student with exceptional learning needs.

SPED 425 TRANSITIONAL EDUCATION FOR STUDENTS WITH DISABILITIES - 2 Semester Hours F, SP This course is designed to prepare candidates to work with families to promote successful student transitions throughout the educational experience, including post-secondary training, employment, and independent living. This course addresses an understanding of long-term planning, career development, life skills, community experiences and resources, self-advocacy and self-determination, guardianship, and legal considerations.
Prerequisite: EDUC 315 Data Driven Instructional Design

## SPED 442 COMMUNICATING AND COLLABORATING WITH EDUCATORS AND PARENTS FE 3 Semester Hours F, SP

This course will prepare students to acquire knowledge and skills in authentic consultation, collaboration and case management. The course will provide opportunities to discuss approaches, demonstrate methods, and utilize activities that aim at involving parents in educational and multidisciplinary conferences, working with paraprofessionals, community agencies, service providers, etc. Team approaches and collaborative work environments will be utilized.

## Financial

## Tuition and Fee Charges

Payment of tuition, fees, and other charges owed to Virginia State University is the responsibility of the student. Failure to pay tuition and fees could result in administrative withdrawal from the university. The university will hold transcripts and block registration for students who fail to pay fees, fines, damages. Collection agencies also may be used by the university to collect unpaid fees or fines.

## In-State Tuition Eligibility

All applicants who desire to qualify for in-state tuition rates under Section 23-7.4 of the Code of Virginia, must complete the domicile eligibility form which may be obtained from the Office of Student Activities.

## Library

Located in the center of campus, Johnston Memorial Library houses primary and secondary materials needed to support the academic and research programs of the University. It provides a full complement of research and information services to the University community. The Library contains approximately 280,200 monographs, approximately 1,200 periodicals and newspapers, 704,983 microform pieces, 81,153 audiovisual pieces including government publication and musical scores.

The Library participates in a statewide electronic resource sharing consortium, the Virtual Library of Virginia (VIVA). The Library provides local and remote access to 180 databases, over 8,800 full text journals and newspapers, nearly 10,000 full text works of poetry and verse drama, and over 300,000 additional full text materials, including statistical reports and pamphlets. In-house and remote access to the book and serial collections is provided by the VTLS Online Public Access Catalog (OPAC) with special services for the visually impaired. The library management systems have been in operation since 1989 and supports cataloging, serials, circulation, reserved materials and provides access to the online public access catalog.

The Instructional Materials Lab houses videos, laserdisk, audiotapes and other media. A wheel chair accessible multimedia workstation is available for use.

The Library has seating capacity for 600 students and shelving capacity for approximately 300,000 books. Facilities include exhibit areas, conference and study rooms, and individual study carrels. Selected study rooms are equipped for computer access. The Library also has two Internet search labs and a bibliographic instruction lab with over 50 computers for research use.

Full reference service is available to the entire University community. The Reference Department provides interlibrary loan services through cooperative lending agreements. The Special Collections Department, with a fulltime archivist, contains historical documents, memorabilia, and artifacts, which are available to both the campus community and other researchers. The Library has a separate Instructional Materials Laboratory, containing films, slides cassettes, CD ROMs, laser disks, and videos which faculty and students can use for presentations. A full multimedia workstation is also available for wheel chair accessibility. In addition, the Library has a Kurzweil machine and large print software for the visually impaired.

The Library is a selective depository for United States and Virginia government publications. The collection of more than 197,079 federal and state documents offers a wealth of information.

Johnston Memorial Library is handicapped accessible.

## Student Services

In support of the academic mission of the University, Student Affairs efforts are directed toward creating an environment in which students' personal and professional goals are actualized. In that there is a generally acceptable knowledge that students' physical, psychological, intellectual, and social needs are developing simultaneously, all programs and services are aimed at assisting the student develop as a complete individual, capable of functioning responsibly within their academic environment and in the society in which he/she will ultimately live.

## Career Planning and Placement

The Career Planning and Placement Center is a vital part of the educational and student development process at Virginia State University. It provides career planning and placement assistance to students and graduates. The Center serves as a vehicle in interpreting the University's programs and promoting the attributes of its graduates to business, industry and government. The major aim of the Center is to assist students in obtaining the most benefits possible from their college education through satisfying career placement upon graduation.

The objectives of the Center are achieve through a well-rounded program which provides students with a resource library containing video and printed materials, automated resume' preparation and a job referral system, oncampus interview, workshops and seminars on job search skills, and interviewing techniques.

## Federal Programs

Through federal grants, the University provides special academic and counseling support services to eligible university students, high school students, and dropouts from the community. These services are available through the University's Educational Talent Search, Upward Bound, and Student Support Services Program. For more information about these programs, contact the specific program area.

## Immunizations

Virginia State University requires a physical examination for all first-time enrollees (freshmen transfer and graduate students) as well as a health history and immunization record to be submitted to Student Health Service prior to registration for classes. Any student who cannot produce an up-to-date immunization record must be reimmunized at his/her expense. Registration cannot be completed until the Student Health Service Health Evaluation Form is completed.

## Insurance

Health and accident insurance is strongly encouraged for full-time students. Students who have no coverage, may enroll in the University Plan. Students who wish to supplement their existing coverage, may enroll in the University-sponsored insurance plan. The plan is honored worldwide and is valid twenty-four (24) hours a day.

## National Student Exchange

The National Student Exchange provides students with the opportunity to study up to one year at one of 176 colleges and universities and three (3) U.S. territories without having to pay the high cost of out-of-state tuition. Payment of tuition is made in one of two ways. Using Plan A, students pay their tuition and fees to the host institution. Using Plan B, students pay their tuition and fees to Virginia State University. Room and board fees are the responsibility of the students and are paid directly to the host institution. Virginia State University only uses Plan B.

Virginia State University students who participate in the NSE program remain as degree-seeking, registered students at Virginia State University. Any financial aid that is normally available can be applied to the exchange obligations. Because NSE is an officially approved program of the University, all courses with their respective credit hours and earned grades will be recorded on the Virginia State University transcript and be calculated into the GPA.

## Academic Support Center

The Academic Support Center (ASC) provides services and programs that support the successful completion of undergraduate programs of study for all students enrolled at the University. These include comprehensive advisement services for Undeclared Majors, International Students, and Veteran Students. A component of the ASC is the New Student Orientation Program for freshmen and other students new to the University. Another component is the Stay in Step Intergenerational Program which provides tutors and mentors for individual and small group assistance in writing, mathematics, science, history, study skills, test taking skills, time management, and preparation for the PRAXIS I examinations. ASC services also include general counseling, absentee notification from class for student emergencies, and assistance with the withdrawal process for students who desire to discontinue studies at the University. The Academic Support Center offers services that include general counseling and advisement, New Student

Orientation, undeclared majors advisement, National Student Exchange, veteran advisement, international student advisement, tutorial and mentoring services.

## New Student Orientation Program

The New Student Orientation Program (NSOP) is designed to introduce incoming freshmen and other new students to the University to academic and other support resources and to general expectations, all designed to promote a good early start and to increase each student's potential for academic success.

University-wide collaboration for academic advisement, registration, and a comprehensive introduction to campus life are main components of the program. Students are informed about facilities, resources, and support services available at the University.

All new freshmen who have received official notification of acceptance to the University are required to participate in the New Student Orientation Program. NSOP sessions are scheduled for each academic year.

## Stay in Step Intergenerational Program

The Academic Support Center's Stay In Step Intergenerational Program (SISIP) tutors and mentors provide one-on-one and small group service to any VSU student for improving their academic performance in writing, math, science, history, study skills, test taking, and time management. The tutors and mentors also help students in the Teacher Education Program who are preparing to take the PRAXIS I examination.

## ASC Computer Lab

The ASC Computer Lab is available for use by students who are being served by the SISIP tutors and mentors.

## Undeclared Major Advisement Program

The Undeclared Major Advisement Program is located in the ASC and provides counseling and advisement for students who are undecided about choosing an academic major. The program assists undecided students in investigating careers and the academic majors associated with those careers. Students receive individual counseling from caring counselors, are exposed to career assessment inventories, visit different major departments on campus, and attend workshops designed to help them make informed decisions about careers and choosing a major field of study.

## Special Student Advisement

The Academic Support Center provides general advisement and informational and referral services for students.

## International Student Advisement

The International Student Advisement service assists all international students and exchange visitors with the submission of forms as needed according to the U. S. Department of Justice, Immigration and Naturalization Service. The office also sponsors field trips and campus activities to afford students the opportunity to become better acquainted with American culture and the VSU campus community.

## Veteran Students Advisement

The Veterans Affairs Office seeks to serve veterans and dependents by keeping them abreast of their allowances, awards, rights, privileges and responsibilities in accordance with the codes of the contract made between the University, the Veterans Administration and the U. S. Department of Education.

## Withdrawals and General Counseling

The staff of the Academic Support Center cannot excuse absences; but it does provide absentee notification to instructors for any student encountering an emergency that requires an absence of 3 or more days. Students wishing to discontinue studies at the University will start the withdrawal process at the ASC with counselors who are understanding and will help students through the withdrawal process while ensuring that all possible options are considered for remaining at VSU.

For services, please contact the Academic Support Center at Virginia State University, P.O. Box 9034 Petersburg, Virginia 23806, phone (804) 524-6755.

## Counseling Services

Counseling Services provides services to the student body in individual counseling, group counseling and crisis intervention. Counseling Services is located in Room 412 Memorial Hall. All services are provided by appointment and are strictly confidential.

## Public Safety

The Department of Police and Public Safety is charged with and dedicated to the task of protecting life and property on the campus of the University. The ultimate objective of the department is the establishment and maintenance of an environment on the campus which is safe, sane, secure and conducive to high quality human endeavor.

## Residence Life

Virginia State University recognizes and emphasizes the housing of students as a vital part of the total experience of higher education. To this end, the University's residence hall program strives for the development of socially effective citizens in a democratic society. Social and educational programs within the residence halls are designed not only to enrich and enhance development, but to act as a catalyst to maximize self control, self discipline, and acceptance of responsibility for one's behavior. The residence hall staff members are selected individuals dedicated to making the residence halls the best possible places to live. Students are encouraged to go the them to get acquainted and to receive assistance, advice, and guidance.

## Student Commuter Services

The Office of Commuter Services assists students with housing, transportation, and consumer needs which are coordinated by the Director of Student Activities. The Commuter Services lounge is located on the second floor of Foster Hall. To participate one must be a full-time student in good standing with the University socially, financially, and academically with a grade point average of at least 2.5 . February 15 is the application deadline. For more information, call the Office of Student Activities.

## Student Government Association

Through membership in the Student Government Association (SGA), all regularly enrolled students participate in the government of the University. The purpose of the SGA is to develop a spirit of cooperation in the activities of the University; develop self-expression, self-control and leadership; encourage initiative; and create an intermediary between the administration and the students in matters of general welfare. The SGA shall be the official student governing body in all matters pertaining to the common interests of the student body.

## Student Health Service

The Student Health Service delivers acute medical care to all VSU students. The Health Service exists to provide, in a welcoming environment, comprehensive and confidential medical care responsive to the needs of each student and consistent with the highest standards of acceptable medical practice. The focus of Virginia State University is on the promotion of good health through counseling, education and prevention of illness.

The Student Health Service is part of a multidimensional network of community health resources and makes specialty referrals for medical cases beyond its capacity.

## Student Identification Card

Currently enrolled students must possess a valid Student Identification Card. This card is good for four-years upon revalidation at registration. Students use this care for health service, attendance at athletic events, dining hall, special activities and other related events.

## Substance Abuse and Sexual Assault Prevention

The Office of Substance Abuse and Sexual Assault Prevention provides the University community with educational programming and facts about the negative effects associated with substance abuse and sexual assault. Programs and information are designed to educate students about the risks and consequences linked to alcohol and other drugs and the impact of sexual assault. Information is intended to enable students to make more informed and responsible choices and decisions. The office also publicizes information about the University Alcohol and Drug policy and Sexual Misconduct policy. Awareness events and risk-reduction programs are planned throughout the year and cosponsored with other departments and student organizations to elicit campus-wide support in helping prevent substance abuse and sexual assault on campus. Assistance and counseling are offered to students with substance abuse or sexual assault related problems.

## INSTRUCTIONAL FACULTY

## INSTRUCTIONAL FACULTY

## * Year Entered Service

Abraham, Arthur (1999)*
Professor, History and Philosophy. B.A., Durham University; M.A., University of Sierra Leone; Ph.D., Birmingham University.

Adeyemi, Cheryl M. (2004)*...............................................Assistant Professor, Mathematics and Computer Science. B.S., The Ohio State University; M.A., The Ohio State University; M.S. Illinois State University; Ph.D., Illinois State University.

Adekoya, Adeyemi A. (1992)*
Associate Professor, Computer Information Systems. B.S., University of Lagos; M.S., Ph.D., Syracuse University.

Adom, Kwame (1989)*.....................................................................................................................................Instructor,
Engineering and Technology,. B.S., Kumasi University; M.S., University of Illinois.
Agrawal, Krishan Murari (1969)* ......................................................................................... Professor, Mathematics and Computer Science. B.S., M.S., University of Agra; M.S., Ph.D., University of Windsor.

Ahmed, Ghyasuddin (2002)*................................................................. Assistant Professor, Sociology, Social Work and Criminal Justice. M.A. Pakistan, M.A. University of Chicago, Ph.D. Sociology, University of Georgia.

Ahuja, Sandeep (2002)*
Assistant Professor, Engineering and Technology. B.S., Regional Engineering College, Warangal, India; M.S. and Ph.D., Drexel University.

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Alkebulan, Paul (2003)*
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                                    Assistant Professor, History and Philosophy.
    B.A., University of California, Berkeley; M.A., California State University, Hayward; Ph.D., University
    of London.
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Akbar, Shahzad (2002)* $\qquad$ Assistant Professor, Computer Engineering B.S., Lafayette College, M.S. Massachusetts Institute of Technology, Ph.D. Cornell University.

Amaram, Donatus Iheukwumere (1984)* $\qquad$ Professor, Management and Marketing. B.A., Howard University; M.B.A., University of Missouri; Ph.D., Ohio State University.

Amini, Majid (2003)* $\qquad$ Associate Professor, History and Philosophy. B.S., and Ph.D., University of London.

Amr, Salame (2002)* $\qquad$ . Assistant Professor, Engineering and Technology B.S., University of Science and Technology; M.S., West Coast University; Ph.D., New Mexico State University.

Ansari, Ali A. (1991)* $\qquad$ Associate Professor, Engineering, and Technology. BSEE, MSEE, Ph.D., University of Texas at Arlington.

Ansari, Jahangir (2002)* $\qquad$ Assistant Professor, Engineering and Technology, B.S., Iran University of Science and Technology, M.S. and Ph.D., Seoul National University.

Atalay, Asmare (1997)* ..............................................................................................................Associate Professor, Agriculture Research Station. B.S., State University of New York at New Paltz; M.S., Ph.D., University of Missouri.

Baecker, Diann L. (2000)* ..........................................................................................................Assistant Professor, Languages and Literature. B.A., M.A., Ph.D., University of North Carolina at Greensboro.

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Bai, Xue (1999)*
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``` Associate Professor, Computer Information Systems. B.S. Northeastern University, P. R. China; M.S. USTB, P.R. China; M.S., Ph.D. Clemson University.
Bailey, Aishia (2002)*
``` \(\qquad\)
``` Assistant Professor, Languages and Literature. B.A., Virginia State University; M.A., Indiana University of Pennsylvania.
Bailey, Lillie E. (1989)*
``` \(\qquad\)
``` Assistant Professor, Languages and Literature. B.A., Millsaps College; M.A., Virginia State University.
Baker, Gary (1977)*
``` \(\qquad\)
``` Assistant Professor, Political Science and Public Administration. B.A., M.S., Ohio State University.
Bakhshi, V. Sagar (1968)*..................................................................................................... Professor, Mathematics and Computer Science. (Hons), B.A., M.A., Delhi University; Ph.D., Oregon State University.
Bates-Brown, Valery Yvonne Rose (1981)*
``` \(\qquad\)
``` Professor, Music, Art and Design. B.F.A., M.F.A., Virginia Commonwealth University; Ph.D., Howard University.
Bawuah, Kwadwo (1984)*
``` \(\qquad\)
``` Professor, Economics. B.A. Bethany College; M.B.A., Eastern Illinois University; Ph.D., Virginia Polytechnic Institute and State University.
Bernard, Kenneth J. (2003)*............................................... Associate Professor, Mathematics and Computer Science. B.S. Niagara University, M.A., Ed.D., University of Rochester.
Bey, Leon Wright (1978)*
``` \(\qquad\)
``` .Associate Professor, Health, Physical Education, Recreation and Dance. B.S., Virginia State University; M.S., Indiana University; Ed.D., Temple University.
Bhardwaj, Harbans L. (1991)* ............................................................................... Associate Professor, Agriculture and Human Ecology. B.S., M.S., Punjab University; Ph.D., Kansas State University.
Bique, Stephen F. (2006)*
``` \(\qquad\)
``` Associate Professor, Mathematics and Computer Science. B.A., B.S.G.E., M.S., University of North Dakota; M.S., Ph.Lic., Ph.D. University of Joensuu, Finland.
Blouet, Olywn M. (1992)*................................................................................... Professor, History and Philosophy. B.A., University of Sheffield; M.A., University of Nebraska; Ph.D., University of Nebraska.
Boyd-Starke, Kimberly P. (2005)
Assistant Professor, Psychology B.A., Spelman College; M.A., Georgia School of Professional Psychology; M.S., Ph.D., Virginia Commonwealth University
Boese, Alan Ervin (1971)* ................................................................................... Assistant Professor, Economics. B.A., Ohio Wesleyan University; M.A., Southern Illinois University.
Brown, Beverly (2005)
Assistant Professor, Nursing. AASN, John Tyler Community College; BSN Virginia Commonwealth University, MSN/FNP, Old Dominion University. Certifications: Advance Practice Registered Nurse and Certified in Critical Care.
Brown, Benita (1999)*
``` \(\qquad\)
``` Associate Professor, Health, Physical Education, Recreation and Dance. B.A., M.Ed., Ed.D., Temple University.
Brown-Cobb, Renia E. (1999)
Assistant Professor, Psychology
B.S., Virginia Commonwealth University; M.Ed., Psy.D., James Madison University.
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Brown, Henry Otis (1975)*
Associate Professor, Management and Marketing. B.S., Virginia State University; M.S., Central Michigan University; J.D., North Carolina Central University.

Brown, Larry Clifford (1974)* .................................................................................................... Professor, Biology. B.A., Olivet Nazarene University; M.S., Ed.D., Ball State University.

Brown- Reaves, Taniesha (2000)* $\qquad$ Assistant Professor, Political Science and Public Administration. B.S., Virginia State University; M.S., Syracuse University; J.D., Syracuse University.

Bryant, Bradley (2002)*
Assistant Professor, Agriculture and Human Ecology. B.S., M.S., Ph.D., Virginia Polytechnic Institute and State University.

Burton, Gerald Lee (1978)* $\qquad$ Professor, Mathematics and Computer Science. B.S., Livingston College; M.S., Ohio State University; Ph.D., Virginia Commonwealth University.

Carson, Bernice L. (1990)* $\qquad$ Instructor, Psychology. B.S., Norfolk State University; M.S., Virginia State University.

Chappell, Beverly T. (2001) * $\qquad$ Assistant Professor, Educational Leadership. B.S., Virginia Commonwealth University; M.Ed., Virginia Commonwealth University., Ph.D. The College of William \& Mary.

Clark, Vernessa R. (2002)* ............................................................................................................... B.S., Virginia State University, M.S., Ph.D., Howard University.

Clarke, Winfrey S. (1976)* .Professor, Agriculture Research Station. B.S., Virginia State University; M.S., Ph.D., University of Minnesota.

Crawford, Donna (1998)* $\qquad$ Associate Professor, Languages and Literature. B.A. University of Oregon; M.A., University of Washington; Ph.D., University of California at Riverside.

Crosby, David (1992)* $\qquad$ Assistant Professor, Cooperative Extension. B.S., University of Georgia; M.S., West Georgia College; Ph.D., Auburn.

Couch, Delores (2006). $\qquad$ Assistant Professor, Nursing. AAS, New York University; BSN, Long Island University; MA, New York University.

Daniel, Lorraine (1997)* $\qquad$ Assistant Professor, Psychology. B.S.,University of Iowa; M.S., Virginia State University; Psy.D., Wright State University.

Deane, Harold Alexander (1969)*. $\qquad$ Assistant Professor, Health, Physical Education, Recreation and Dance. B.S., Virginia State University; M.A., Howard University.

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Dimkpah, Young (2003)* ..................................................................................... Assistant Professor, Economics. B.A., Eastern Kentucky University, M.A., Central Missouri State University, Ph.D., Howard University.
d'Orgeix, Stephen Christian (2001)* $\qquad$ Associate Professor, Biology. B.A., Sonoma State University; M.A., California State University, Fullerton; Ph.D. Virginia Tech.

Dort, Shirley B. (1991)* $\qquad$ Assistant Professor, Music, Art and Design. B.A., Texas A \& I University; M.F.A., Old Dominion University/Norfolk State University.

Doss, Rodger L. (1994)*
Associate Professor, Languages and Literature. B.A., Bridgewater College; M.A., Virginia State University; Ph.D., Virginia Commonwealth University.

Dussere, David Philip (1973)* .................................................................................................... Associate Professor, Languages and Literature. B.A., Concordia College; M.A., Catholic University; M.A., Ph.D., University of Arkansas.

Edmonds, Johnnella Lucas (1971)* Assistant Professor, Music, Art and Design. B.M.E., Howard University; M.M., Catholic University.

Edwards, Carlton (2002)* $\qquad$ Assistant Professor, Languages and Literature. B.A., University of Pittsburgh; M.A., Regent University.

Edwards, Joyce M. (1999)* Associate Professor, Sociology, Social Work, and Criminal Justice. B.S., Southern University, M.A., Ph.D., Sociology, Howard University.

Edwards-Burrs, Lisa (2002)* Instructor, Music, Art and Design. B.M., M.M., Virginia Commonwealth University.

Eseonu, Maxwell Obioma (1982)* Associate Professor, Economics. B.A., East Stroudsburg State College; M.B.A., University of Baltimore; Ph.D., Howard University.

Essel, Albert (1992)* $\qquad$ Associate Professor, Cooperative Extension. B.S., University Science \& Technology-Ahana; Ph.D., Iowa State University.

Eyob, Ephrem (1984)* $\qquad$ Professor, Computer Information Systems. B.S., Langston University; M.Ed., M.A., Ph.D., University of Oklahoma.

Faison, Karen (2005) $\qquad$ Associate Professor, Nursing BSN, Hampton University; MSN/FNP-The University of North Carolina at Chapel Hill; Certificate in Health Administration, Old Dominion University; Ph.D., Virginia Commonwealth University/Medical College of Virginia. Certifications: Advance Practice Registered Nurse and Certified Nurse Educator.

Faison, Milton Omar (2004) $\qquad$ Assistant Professor, Biology. B.A., Hampton University; Ph.D., University of Virginia.

Fletcher, Raymond (1997)* $\qquad$ Associate Professor, Mathematics and Computer Science, B.A. University of Maine at Orono; M.A., M.S., SUNY at New Paltz; Ph.D., Emory University.

Fox, Barry W. (1981)* $\qquad$ Assistant Professor, Cooperative Extension. B.S., Old Dominion University; M.S. Virginia Commonwealth University.

Garrott, Carl L. (1998)* $\qquad$ Professor, Languages and Literature. B.A., Kentucky State University; M.A., Tennessee State University; Ed.S. Western Kentucky University; Ed.D. University of Kentucky.

Gatrone, Ralph C. (2002)*. $\qquad$ Associate Professor, Chemistry and Physics. B.S., Wilkes College, Ph.D., University at Buffalo.

Ghariban, Nasser (2002)* $\qquad$ Assistant Professor,Engineering and Technology.
B.S., Sharif University of Technology; M.S., Ph.D., University of Texas at Arlington.

Gilliam, Conrad Murphy (1975)* $\qquad$ Professor, Agriculture and Human Ecology. B.S., M.S., Virginia State University; Ed.D., Virginia Polytechnic Institute and State University.

Gipson, Gilbert W. (1999)*................................................................................................Assistant Professor, Health, Physical Education, Recreation and Dance. B.A., Lee College M. Ed., Ed.D., University of Tennessee, Knoxville.

Goodwyn, Deborah (1997)* $\qquad$ Associate Professor, Languages and Literature. B.A., North Carolina Central University; M.A.T., Duke University; Ph.D., Indiana University of Pennsylvania.

Greenberg, Byron E. (2006) $\qquad$ Assistant Professor, Psychology B.S., Virginia Commonwealth University; M.S., Johns Hopkins University; M.P.H., Ph.D., Loma Linda University.

Griffin, Raymond (1994)* $\qquad$ Associate Professor, Educational Leadership. A.B., Shaw University; M.Ed., Virginia State University; C.A.G.S., College of William and Mary; Ed.D., Washington State University.

Guerinoi, Fabio (1997)* $\qquad$ .Assistant Professor, Mathematics and Computer Science. B.S., University of Costa Rica; M.S., Ph.D., Rensselaer Polytechnic Institute.

Haile, Dawit (1997)*
Associate Professor, Mathematics and Computer Science. B.S., M.S., Addis Ababa University, Ethiopia; M.S., Virginia Commonwealth University; Ph.D., Southern Illinois University at Carbondale.

Hall, Giles G. (1989)* ..................................................................... Associate Professor, Languages and Literature. B.A., Emory University; M.A., Ph.D., University of Georgia.

Han, Seonkoo (2005)* $\qquad$ .Assistant Professor, Mathematics and Computer Science. B.A., M.A., DonGguk University, Korea; M.A., University of California, Santa Barbara; Ph.D., University of California Santa Barbara.

Hankins, Anthony G. (1987)* $\qquad$ Assistant Professor, Cooperative Extension. B.S., Bearea College; M.S., Virginia Polytechnic Institute and State University.

Harrelson, Peggy O. (1995)* $\qquad$ Assistant Professor, Cooperative Extension. B.S., \& M.Ed., University of North Carolina-Greensboro; Ph.D., Virginia Commonwealth University.

Harris, Glenn (2005). Assistant Professor, Biology
B.S., University of Oregon; Ph.D. Northwestern University.

Harris, Toni S. (2006) $\qquad$ Assistant Professor, Psychology B.S. University of Virginia; Ph.D., Virginia Commonwealth University.

Haughton, Ethel N. (1994)*. $\qquad$ Associate Professor, Music, Art and Design. B.M., East Carolina University; M.A., The Ohio State University; Ph.D., The Ohio State University.

Hawthorne, Lawrence (2002)*
Instructor, Music,
Art and Design. B.F.A., M.F.A., Virginia Commonwealth University.
Heath, Kay (2000) $\qquad$ Assistant Professor, Languages and Literature. B.A., University of Texas at Austin; M.A., University of Houston; Ph.D., Rice University.

Hill, Renee A. (1994)* $\qquad$ Associate Professor, History and Philosophy. B.A., University of Michigan; M.A., E. Michigan University; M.A., University of Michigan; Ph.D., University of Virginia.

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Hill, Oliver W. (1981)
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$\qquad$
B.A., Howard University; M.A., Ph.D., University of Michigan.
Hodgson, James F. (2006)
Associate Professor, Sociology
Social Work and Criminal Justice, B.A., M.A., Ph.D., York University.
Hogan, Wesley (2003)* .................................................................................ssistant Professor, History and Philosophy.
B.A., University of Pennsylvania; M.A., Ph.D., Duke University.
Holden, James, Jr. (1984)*
Instructor, Music,
Art and Design. B.M.E., M.M.E., Jackson State University.
Holmes, John R. (1997)* .......................................................... Associate Professor, Languages and Literature.
B.A., M.A., University of Southwestern Louisiana; Ph.D., University of Colorado.
Hopkins, Reginald (1994)*
Associate Professor, Psychology.
B.S., M.S., Florida A \& M University; Ph.D., Howard University.
Hossain, Mokerrom (1997)*

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                            Associate Professor, Sociology,
                            Social Work and Criminal Justice. B.A., M.A. Sociology, Dhaka, Bangladesh, M.A., Ph.D. Sociology, University
    of California, Riverside.
    Hunter, James Edward (1975)*
Professor, Health,
Physical Education, Recreation and Dance. A.B., Shaw University; M.S., Ph.D., University of Illinois.

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    B.A., Hankuk University of Foreign Studies; M.A., Ph.D., University of Alabama.
    Inserra, Paula (2005)
Assistant Professor, Dietetics.
B.S., State University of New York at Stony Brook; M.S., New York University, Ph.D., University of Arizona,
Tucson.
Irvin, William (1994)*

```
\(\qquad\)
``` Assistant Professor, Cooperative Extension. B.S., University of Tennessee; M.S., Ph.D., Virginia Polytechnic Institute and State University.
Jagannadham, Gollakota (1970)*
``` \(\qquad\)
``` Associate Professor, Agriculture and Human Ecology. B.S., M.Tech., Sugar University, India; M.S., Ph.D., University of North Carolina.
Javaheri, Amir (2002)*
``` \(\qquad\)
``` Assistant Professor, Engineering and Technology M.S. Case Western Reserve University; Ph.D. University of Cincinnati.
Javidi, Giti (2004)*
Assistant Professor, Mathematics and Computer Science. B.S., University of Central Oklahoma; M.S., University of South Florida; Ph.D., University of South Florida.
Johnson, Elijah (1969)*
Assistant Professor, Health, Physical Education, Recreation and Dance. B.S., Arkansas A.M.\& N. University of Arkansas; M.Ed., University of Arkansas; M.S., Indiana University.
Johnson, Paulette Walker (1974)*
``` \(\qquad\)
``` Associate Professor, Health, Physical Education, Recreation and Dance. B.S., Morgan State College; M.Ed., Springfield College; Ed.D., Virginia Polytechnic Institute and State University.
Johnson, Ross (2004)
Assistant Professor, Biology
B.S., Pennsylvania State University; M.S., University of Michigan, Ph.D., University of Pennsylvania.
```

Jones, Enid (2003)* $\qquad$ Professor, Educational Leadership. B.Sc., University of West Indies, Jamaica, M.B.A., New York University, Ed.D.,University of Florida.

Jones, Isabel (2003)* $\qquad$ Associate Professor, Agriculture and Human Ecology. B.S., Fort Valley State University, M.S., University of Missouri, Ph.D., Michigan State University.

Jones, Murel Matthew, Jr., (1976)* $\qquad$ Professor, Political Science and Public Administration. B.A., David Lipscomb College; Ph.D., Howard University.

Joyner, Alice (1998)* $\qquad$ Assistant Professor, Agriculture and Human Ecology. B.S., M.S., Virginia State University.

Kabia, Mohamed Saidu (1998)* $\qquad$ Associate Professor, Languages and Literature. Licence de lettres modernes, Maîtrise de lettres modernes, Dîplome d'Etudes Approfondies, and Doctorat de 3eme Cycle, Université de Nantes (France).

Kamarah, Sheikh K. (1999)* ................................................................Assistant Professor, Languages and Literature. B.A., University of Sierra Leone; M.A., Leeds University; Ph.D., University of Wisconsin.

Kanu, Andrew (1997)*
Assistant Professor, Health, Physical Education, Recreation and Dance. B.S., MPH, HSD, Indiana University.

Kaseloo, Paul (2003)* .................................................................................................. Assistant Professor, Biology. B.S., M.Sc, University of Toronto; Ph.D., University of Wyoming.

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[^0]:    *The University reserves the right to accept and review complaints that are filed later than 30 days from the date of the alleged harassment if, upon preliminary review by the Human Resources Manager (EEO), the President or his designee determines that there is just cause for the delay in reporting the matter, or that it is in the best interest of the University to review the matter.

[^1]:    ${ }^{* *}$ IDST 100/101 are not counted in semester hours or toward graduation requirement

[^2]:    *Accounting Majors pursuing CPA certification should take MGMT 271 - Business Law.

[^3]:    ${ }^{(1)}$ may select two from among identified GEPE courses in the catalog.
    ${ }^{(2)}$ fulfills humanities elective.

[^4]:    ${ }^{1}$ recommend Spanish, one fulfills Humanities elective and one fulfills Global Studies elective.

[^5]:    ${ }^{1} 1$ class from English Literature (ENGL 210, ENGL 211), 1 from American Literature (ENGL 212, ENGL 213), 1 from World Literature (ENGL

[^6]:    **IDST 100/101 are not counted in semester hours or toward graduation requirement

