



**GRADUATE CATALOG
2008-2010**

Virginia State University (VSU) 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.

The Graduate Studies Office

The Graduate School Office (Office of the Dean, School of Graduate Studies, Research and Outreach) is located at 20716 Fourth Avenue and is open daily for students from 8:00 a.m. to 5:00 p.m., Monday through Friday. Students who desire conferences should schedule an appointment.

General Policy Statement

The provisions of this Catalog do not constitute a contract, expressed or implied, between any applicant, student, or faculty member and Virginia State University. Virginia State University reserves the right to withdraw courses at any time, to change fees, calendars, curricula, graduation procedures, and any other requirements affecting students. Changes will become effective whenever the proper authorities so determine and will apply both to prospective students and to those already enrolled.

While every effort is made to assure accuracy, Virginia State University does not assume responsibility for any misrepresentation which might arise through error in the preparation of this or any other of its catalogs, or through failure to give notice of changes in its requirements, policies, tuition and fees, course offerings, and other matters affecting students.

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ADMINISTRATION OF GRADUATE PROGRAMS

The Dean of the School of Graduate Studies, Research and Outreach and Graduate Coordinators exercise general responsibility for administration of graduate study and for university-wide policies, requirements, procedures and standards of graduate study. However, within this framework, the development, promotion, and delivery of instruction are the primary responsibility of graduate faculty members in individual program areas.

Much of the work of the Graduate Coordinators is accomplished through four subcommittees: (1) Policies and Petitions, (2) Graduate Curriculum, (3) Graduate Professional Education, and (4) Graduate Record Examination. The Policies and Petitions Committee has responsibility for decisions on written appeals from students seeking exceptions to policy, recommendations for suggested policy changes, and nominations to membership on the Graduate Faculty. The Graduate Curriculum Committee is responsible for approval of graduate curriculum changes and curriculum proposals. The Graduate Professional Education Committee serves as the principal unit for articulation and evaluation of all aspects of advanced-level professional education programs. The Graduate Record Examination Review Committee reviews policy, makes recommendations for exceptions, and designs procedures for the Graduate Record Examination.

Graduate programs follow a general and flexible pattern which emphasizes an area of specialization. In keeping with the policy of individualizing programs, each student will pursue a program consistent with his/her previous preparation and experience and directed toward his/her personal and professional objectives. Programs leading to the doctorate degree, master's degree or to the certificate of advanced graduate study may be completed during the regular sessions in all fields of study. They may be completed also during the summer sessions or, in many fields, through study in the evenings, in the late afternoons, and on Saturday mornings. Military, school, and industrial personnel find the scheduling flexible. No distinction is made among regular day courses, evening or Saturday offerings, or summer session courses. The standards and academic requirements are the same.

GENERAL INFORMATION

History and Philosophy of Graduate Study at Virginia State University

During the summer of 1937, Virginia State offered graduate courses for the first time in two fields—elementary education and secondary education in English, history and social sciences. In 1939, most departments of the institution offered one or more graduate courses, and the Division of Graduate Studies was established. As a result of continued growth and expansion, the Board of Visitors raised the status of the advanced studies areas to the Graduate School in September 1968.

Prior to September 1968, the Graduate Faculty was assigned all responsibilities related to graduate studies; the programs were coordinated by the Director of the Division of Graduate Studies and Research. The first director, J. McNeile Hunter, was later appointed Dean of the College and served in both capacities thereafter, until his retirement from administration in 1966. In September 1966, the second director was appointed, and the Graduate Faculty established a Graduate Committee and three sub-committees to provide leadership for, recommend policy to, and execute policies of the Graduate Faculty. In September 1968, a Graduate Council was established and made responsible to the Educational Council of the College. The duties of the Council were assigned in 1969 to the Education Committee of the Graduate Faculty.

The School of Graduate Studies and the School of Continuing Education were merged in July 1993 to form the School of Graduate Studies and Continuing Education. The School changed its name in September 2001 to the School of Graduate Studies, Research and Outreach. It is one of five schools headed by a Dean. The School of Graduate Studies, Research and Outreach does not have a separate faculty. The members of the Graduate Faculty are highly qualified persons who may also teach undergraduate courses. They are nominated by the graduate faculty of affected program areas, and are approved by the Policies and Petitions Committee of the Graduate Council.

The philosophy central to all graduate programs in the University includes the following views. First, graduate programs take as a principal purpose the development and extension of significant specialization in a major academic discipline, interdisciplinary area or profession. Second, each program has sufficient breadth to include essential study in supporting areas and disciplines. As a corollary, programs in the professions include study in the basic academic disciplines from which they are derivative or on which they rest and, in addition, include essential study in supporting areas and disciplines. Third, each program takes as an objective the development of habits of scholarship and understanding and competence in research consistent with the level and nature of the program. Fourth, each program in the professions takes as an objective the development of skills and competencies essential to responsible practice.

Graduate education is centered in academic program areas. The primary purpose of the graduate program is to offer capable students an opportunity and facilities for advanced study and research in their fields of specialization, and one of its aims is to assist students in achieving an advanced level of understanding and competence necessary for successful professional careers.

Accreditation 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, a certificate of advanced graduate study, and a doctorate degree.

The graduate professional and professional education programs are fully accredited by the National Council for Accreditation of Teacher Education and the Virginia State Board of Education. The University is a member of the American Association of Colleges for Teacher Education as well as the American Council on Education. In addition to numerous other professional organizations related to the various academic programs, the University has membership in the following:

- American Association of University Women
- American College Health Association
- Association of American Colleges
- Association of Continuing Higher Education

Association of Virginia Colleges
Conference of Southern Graduate Schools
Council of Cooperative College Projects
Council of Graduate Schools of the United States
National Association of Schools of Music
National Association of State Universities and Land Grant Colleges
National Commission of Accrediting
National University Continuing Education Association
Oak Ridge Associated Universities
Southern Universities Research Association

Careers and Graduate Study

In general, all graduate programs provide preparation or continued preparation for a number of careers ordinarily associated with the various fields of study which they represent. For example, students interested in one of the sciences or mathematics should study in one of those fields; historians should concentrate in history or combine it with political science offerings if cooperatively advised by major professors. Similarly, students interested in careers in education should enter some aspect of the teaching curricula either as majors in the academic area only or as majors who combine studies in the discipline with other studies in human development, research, measurement or learning theory.

More information about majors and careers may be found in the descriptions of the individual programs given in later sections of the catalog.

Student Services and Facilities

The University offers a variety of extra-curricular programs of a cultural, educational, social, and recreational nature. These programs supplement and enhance the academic program. In addition, numerous supporting services are provided to meet specific student needs. Graduate students are invited to participate in the total University program and to take advantage of available student services.

The Vice President for Academic and Student Affairs bears direct responsibility for the coordination of these programs and services, which are administered through the following offices: Alumni, Athletics, Counseling Services, Financial Aid, Placement Services, Resident Student Activities, Health Services, and Veterans Affairs.

Several services and programs are available to graduate students through the Graduate School Office. An orientation program is offered each year in cooperation with this office to acquaint new graduate students with services and facilities.

Alumni Office

All graduates are members of the Alumni Association. The Association offers a continuing opportunity for the Alumni to serve the University and to maintain a strong sense of identity with their Alma Mater. Interested friends of the University may be granted associate membership. A nominal membership fee secures all membership privileges. The Association publishes the quarterly *Alumni Newsletter*, which is distributed to all active alumni on its roster.

Athletics and Recreation

All University students are encouraged to participate regularly in athletic activities of their choice. The physical education facilities, the track, swimming pool, and tennis courts are available for students' use.

Financial Aid

Qualified students demonstrating need for financial assistance may apply for loans, scholarships, grants, and part-time employment through this office. Brief descriptions of the various aid programs may be found in the "Expenses and Financial Aid" section of this catalog.

Additional information and application forms may be obtained from the Financial Aid Office, Carter G. Woodson Avenue. All requests for application forms and additional information regarding graduate fellowships should be directed to the School of Graduate Studies, Research and Outreach.

International Education

The Dr. George H. Bennett Office for International Education assists graduate students in identifying opportunities for research, teaching, and study abroad. Scholarships are available to currently enrolled students who have been accepted into an education abroad program for which they will receive credit toward their degree program.

Library Facilities

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 250,200 monographs, approximately 1,255 periodicals and newspapers, 746,333 microform pieces, 27,144 audio-visual pieces including government publications 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 200 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. The book and serial collections, along with a wealth of online databases are accessible through the Library's webpage and through TROY, the Online Public Access Catalog (OPAC) with special services for the visually impaired. The Library provides local and remote access to Interlibrary loan, online reserves and self help information literacy activities. Visit the website at <http://library.vsu.edu>

The Media Center houses videos, CDs, DVDs, audiotapes and other media. It also has a full array of multimedia services and provides wheel chair accessible multimedia services. The Center provides large screen text enhancements, talking books and other media for students with disabilities. The renovated library contains a 24-hour computer lab, cyber café and 24-hour study area to accommodate the University's diverse student population.

The Library has a seating capacity for 600 students and shelving capacity for approximately 300,000 books. Facilities include 21 private study rooms with hardware and wireless capability and 4 group conference rooms with smart boards for leading edge presentations. There are numerous individual carrels. The Library has a 40 seat electronic classroom to train students in information literacy.

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 full-time archivist, contains historical documents, memorabilia, and artifacts, which are available to both the campus community and other researchers.

The Library is a selective depository for United States and Virginia government publications. The collection of more than 200,079 federal and state documents offer a wealth of information.

Johnston Memorial Library is handicapped accessible.

Placement Services

The Career Planning and Placement Service aids students and alumni in locating positions after graduation. It also assists students in locating on-campus employment opportunities.

For better service to graduates, students should register with the Placement Office during the last year of enrollment for the degree. The office attempts to maintain files of current vacancies. Alumni are encouraged to inform the office of their desire for position changes.

Housing

Accommodations for a limited number of graduate students are available in University residence units. Mostly double accommodations are available, but a few single units are available. Requests for University residence accommodations are honored as completed application materials are received. Inquiries about housing should be addressed to the Director, Residence Life and Housing, Virginia State University. Payments must be made as requested in order to effect the reservation of rooms. Assistance in locating off-campus housing also may be secured from this office.

Campus Parking

Parking permits are required of all persons affiliated with the University who plan to park vehicles on campus for an extended period. At the time of registration, interested students should obtain a brochure outlining current parking policy and purchase a parking permit (decal) if needed. The following general policies regarding parking apply to faculty, staff, and students:

All vehicles, with two exceptions, parked on the campus grounds must display a valid parking permit. The first exception is for vehicles operated by individuals who have been issued a "Handicapped" permit by the Commonwealth of Virginia. Vehicles displaying the "Handicapped" permit must park in spaces provided throughout the campus which are specifically marked for handicapped vehicles. All parking lots have at least one "handicapped" space and are strategically located to ease movement by drivers or passengers of the vehicle. The second exception is for short term visitors to the campus who are parked in the Honor Parking Lot No. 7, located at the corner of Jackson Place and University Avenue.

Visitors to the campus who are not eligible for a visitor's permit must park in the lot designated as "Honors Parking" (Lot No. 7) and pay the posted parking fee. A space in the Honor Parking lot has no specific time limit during any given day. An individual who removes a vehicle from the lot forfeits all rights to the space in which the vehicle was parked. The Honor Parking Lot is the only lot on campus in which a vehicle may be parked without a decal or permit. Fees for the Honor Parking lot are required at all times between the hours of 7:00 a.m. and 7:00 p.m.

Student Parking

Any vehicle with a University Student decal may park in a lot designated as "Student Parking."

Restricted Faculty/Staff Parking

Restricted Faculty/Staff Parking lots are marked with signs at the entrance to each parking lot. These lots are used by faculty/staff whose vehicles display the University Faculty/Staff parking decal. Unauthorized vehicles parked in these spaces will be ticketed and/or towed.

Questions regarding parking should be directed to the Department of Police and Public Safety at 524-5360.

Student Activities

The campus center, Foster Hall, serves as a social, cultural, educational and recreational center for all student groups. This center contains a snack bar and cafeteria, meeting rooms, information desk, television areas, music lounges, billiards and game areas, assembly hall, rooms for dancing, and art display space. The Foster Hall center serves as a focal point for campus hospitality.

Student Identification Card

Each currently enrolled student must possess a valid student Identification (ID), which may be revalidated for up to four (4) years. The Identification Card is used for health service, athletics, dining hall, library, special activities and other related services. The student is responsible for the use and misuse of the assigned ID card. A charge will be made for replacement of a lost or mutilated card.

Student Health Services

Memorial Hospital, named in honor of the loyal sons and daughters of the University who sacrificed their lives in World War I and II, is a health center with a dispensary and temporary facilities for bed-patients. Students may secure treatment by presenting the usual identification.

Health and accident insurance is required for full-time students. Students must demonstrate that they have full health and accident insurance. If students do not have insurance coverage, the University has several arrangements with private companies offering student health insurance policies. Information and applications relative to health insurance may be obtained at the Student Affairs Office.

Prior to enrollment, all full-time students enrolling for the first time at VSU are required to furnish a health history, to include proof of up-to-date immunizations against the following diseases: measles, rubella, polio, diphtheria, and tetanus. If a full-time student has not provided the University with this information, he/she will not be allowed to enroll or remain enrolled.

Computer Laboratories

The University operates a number of computer laboratories for student use. Several of the laboratories are specialized to meet the needs of specific discipline areas: mathematics, computer science, and career and technical studies. Others are provided for general student use.

Testing Services

Students may arrange to have standardized aptitude and achievement tests administered through the Graduate School Office. Information concerning these tests may be obtained from this office or from the Office of Institutional Planning and Assessment.

Veterans Affairs and Military Personnel

Service personnel on active duty and veterans of the U.S. Armed Forces who intend to study under the Federal Acts should consult the Veterans Affairs Counselor, who is associated with the Office of Student Affairs.

Veterans desiring advanced pay should register with the Veterans Counselor at least 60 days prior to the beginning of the semester.

Public Law 87-815

Veterans studying under this law should receive clearance from the Veterans Counselor to register. The Veterans Administration pays the cost of tuition, fees, books, and supplies.

FINANCIAL INFORMATION**TUITION AND FEES**

For information, see the 2006 – 2008 Student Guide for tuition, fees, and other financial information 2006-2008.

Graduate Tuition

Any student who already holds a bachelor's degree is considered a graduate student for purposes of assessing tuition fees. For any course, undergraduate or graduate, taken by a student who has graduated from college with a bachelor's degree, the fee charged is the graduate tuition fee.

Auditing Fees

Students approved to audit a course will be charged at the same rate as for credited semester hours.

Admission Fee

Every application must be accompanied by a fee of \$25. This fee is non-refundable, non-transferable to another session, and non-deductible from the fees charged for tuition, room, board, etc.

Transcript Fee

The Registrar's Office is the source for all University transcripts. A fee of \$2 is charged for each transcript requested.

Comprehensive Examination Fee

The comprehensive examination fee will be charged when a student enrolls in the comprehensive exam course and is not enrolled in any other courses.

Thesis Fee

This fee will be charged when the student enrolls in Thesis in Absentia (no credit hours) during any semester.

Late Registration Fee

Registration dates for the first and second semesters are provided in the University Calendar and Course Schedule Bulletins. A late fee is assessed after the open registration period ends.

Graduation Fee

Students are required to file for graduation and pay the applicable administrative fee for processing the master's diploma. Additional fees are assessed for keepsake cap, gown, and hood necessary for University graduation ceremonies.

FINANCIAL ASSISTANCE

Qualified students requiring financial assistance can apply for loans, scholarships, grants and part-time employment through VSU's Office of Financial Aid, which you can contact at: (804) 524-5990 **or** (800) 823-7214. Find more information on the VSU Web site.

Graduate Assistantships/Fellowship

Virginia State University awards graduate assistantships annually to students who have demonstrated exceptional promise and achievement. These assistantships provide a stipend of \$4,500 to in-state students, and \$10,000 to out-of-state students per year. Graduate assistants may be required to work 15 hours per week.

Qualified students interested in applying for graduate assistantships should contact the department chairperson of the program area they wish to pursue.

Guaranteed Loans

Federal guaranteed loans are available to graduate student, whether they have full-time jobs or not. The maximum loan (currently \$8,500 a year for two years) is available to full-time students. Half the amount is available to part-time graduate students who are carrying at least six hours per semester.

Application for Fellowships, Assistantships, Loan

The Application for Graduate Fellowship/Assistantship is available in the Graduate Office. Guaranteed Student Loan Applications are obtained from the Financial Aid Office. The Financial Aid Form (FAF), also obtained from the Financial Aid Office, must be filed each year to establish eligibility for loans and work-study assistantships.

Veteran's Assistance

Virginia State University has been approved under the provisions of Public Law 550, Public Law 634, and Public Law 89-358. Veterans eligible under Public Law 550 receive a monthly allowance paid directly to them while in attendance at the University. It is intended to cover the costs of fees, books, and basic living expenses. Individuals who are children of deceased veterans are eligible for certain educational benefits under Public Law 634. Veterans with more than 180 days of active duty, any part of which occurred on or after February 1, 1955, are eligible for one month of college, vocational or similar education for each month or fraction of a month on active duty. A veteran who wishes to receive the benefits of Public Law 550 and Public Law 89-358 should contact the Office of Veterans Affairs to initiate paperwork for benefits.

Other Aid

Sponsored research programs offer assistantships to graduate students whose interests correlate with the goals of research projects. Applicants should consult with the chief investigator.

Several positions as resident hall counselors are open to graduate students. Applications for these positions should be made to the Director of Residence Life and Housing.

Occasionally, graduate students may be selected for part-time jobs by offices and other non-teaching departments of the University to which graduate assistant funds do not apply. Graduate students may consult the Director of Financial Aid and/or the Director of Career Planning and Placement. Sometimes graduate students may find part-time jobs in the local community.

ADMISSIONS AND OTHER ACADEMIC REGULATIONS FOR A MASTER'S DEGREE

Admissions Requirements

An applicant for graduate study is expected to hold the bachelor's degree from a college of recognized standing. The applicant's preparation must be appropriate to the desired program, and must meet the requirements of the specific degree program pursued.

Each prospective graduate student must submit an application to the Graduate School and receive a letter of admission before registering for courses.

A senior at Virginia State University who has a superior scholastic record and is within six hours of qualifying for the bachelor's degree may be admitted to graduate studies; but work applied toward the bachelor's degree may not be used as credit for the master's degree. Enrollment in graduate courses must be approved by the departmental chairman and the Dean of the School of Graduate Studies, Research and Outreach.

Admission requirements for the Doctor of Education degree in Educational Administration and Supervision are described in the section entitled, "Doctor of Education Degree Program."

Application Procedures

All prospective graduate students apply for admission either (1) to a program leading to a degree or (2) to a non-degree program for certification, in service training, or for professional or personal improvement. *Each student applying for admission should specify on the application the program to which he/she is applying and make sure that he/she is meeting the specific program criteria as determine by the respective program.*

All applications are expected to be made on the official graduate application form of Virginia State University, which may be obtained from the Graduate School Office. The completed application should be returned to the Graduate School Office. All supporting credentials, scores, and references should be mailed directly from the original source to the Graduate School Office. *Final admission determination will be made by the program to which the student has applied.*

The application *deadline* for admission to graduate study is May 1 for the Fall semester, and by November 1 for the Spring Semester. The University will make every effort to process applications received after these dates, but the student's registration may be delayed, late fees may result, or consideration for the desired term may not be assured.

Application Procedures for Student Seeking a Degree

1. Submit a completed application form with the fee of \$25 (cashier's check or money order made payable to Virginia State University) to the Graduate School Office. **Students who apply electronically must use the University's web site to pay the \$25.00 fee.**
2. Have two official transcripts from each collegiate institution attended sent to the School of Graduate Studies, Research and Outreach. To be considered official, a transcript must be received DIRECTLY from the institution concerned. Graduates of Virginia State must comply with this requirement.
3. An applicant has to have taken the GRE by the time she/he applies. GRE requirements differ by program. Applicants who do not meet GRE program requirements can be admitted on a conditional basis (for one semester only). Students admitted on a conditional basis can only take a total of six credit hours of course work until they have met the GRE requirements of their respective program. After the first semester, the student needs to have met the specific GRE program requirements.
4. Requests for transfer credit for graduate courses already completed must be submitted to the student's major professor with evidence that it is a graduate level course; a catalog description for the course is necessary to determine its equivalency to offerings at this University.
5. Applicants whose native language is not English are required to present a minimum score of 500 on the Test of English as a Foreign Language (TOEFL). Exceptions are made for transfer students from other U.S. colleges who have completed at least one semester of course work with a grade point average of "C" or better.
6. Applicants applying for a graduate fellowship should be sure that the Application for a Graduate Fellowship is filled out and returned with their Application for Admission.

Application Procedures for Non-Degree Study

1. Submit a completed application form with a fee of \$25 (cashier's check or money order made payable to Virginia State University) to the Graduate School Office. **Students who apply electronically must use the University's web site to pay the \$25 fee.**
2. Attach a statement of study objectives.

3. Have two official transcripts of the record leading to the most advanced degree attained sent to the Graduate School Office. To be considered official, a transcript must be received **directly** from the institution. Graduates of Virginia State must comply with this requirement (with the exception that only one transcript is needed).
4. An applicant who is a candidate for a degree at another institution should also submit a statement from an appropriate official certifying such status and authorizing study here.

Types of Admission

Admission to the School of Graduate Studies, Research and Outreach as a graduate student is of three types—unconditional, conditional, and special. In addition to the general admission requirements for graduate study at Virginia State University, academic program requirements must be satisfied. The specific requirements for each program are found under the description of the program.

Unconditional Admission

1. Graduates of a regionally accredited college, with a minimum grade-point average of 2.6 (on a 4-point scale) may be granted unconditional admission provided all other prerequisites have been met. The grade-point average is based on either the last two years of college or the entire undergraduate record, whichever is better, except that the grade-point average of a student who attended more than one college is based on the entire record. **Applicants who have not taken the GRE or do not have GRE scores available may apply for conditional admission.**
2. Applicants must meet the requirements for admission to the program of their proposed majors. (See program descriptions.)

Conditional Admission

Three classes of graduate students are granted conditional admission to Graduate School:

1. A graduate of an institution approved as a four-year college by the State Department of Education in the state where it is located, but not accredited by its regional accrediting agency, may be admitted conditionally; however, he/she must have an undergraduate average of at least 2.5.
2. An applicant who is a graduate of a college fully accredited by its regional accrediting agency, but whose academic average is lower than 2.6 will only be considered on an individual basis.
3. Applicants who have met the general admission requirements of the Graduate School but who have not cleared program area admissions requirements may be admitted conditionally, pending program area action.

Removal of Conditional Status

The student must remove his/her conditional status and attain unconditional status by (1) earning an average of 3.0 in the first 12 hours of courses in an approved program of study; (2) meeting all program area requirements for unconditional admission; and (3) earning an average of 3.0 in all undergraduate prerequisites listed in the approved program of study.

Special Admission for Non-Matriculating Students

Students who possess baccalaureate degrees and wish to study for their own personal growth may be allowed to take course work as non-matriculating "special" students.

Students admitted to resident workshops and institutes and to approved off-campus graduate courses, but who are not pursuing a program of study, will be considered special students.

A visiting student pursuing graduate work at another institution may, with the approval of the appropriate official(s) of that institution, take courses at Virginia State University for credit to be transferred to the graduate school in which the student is enrolled. Such a student has special status at Virginia State University.

Transfer to a Degree Program

A special student who wishes to become a degree-seeking student may have his/her classification changed by presenting his/her request to the Dean of the School of Graduate Studies, Research and Outreach and submitting all required credentials. Not more than nine (9) semester hours of credit earned by a special student may be credited toward the master's degree.

Offer of Admission to Graduate Study

A written offer of admission is made by the Dean of the School of Graduate Studies, Research and Outreach to an applicant who has been admitted. The offer specifies the effective date of admission (which normally coincides with the semester requested

on the application), the category of admission being offered and the name of the faculty advisor assigned to the applicant. The offer of admission is good for one year.

A written acceptance or rejection of the offer of admission should be sent to the Graduate Office as soon as a decision on graduate study has been made by the student.

A student who enrolls at another institution is considered to have rejected the University's offer of admission. An individual whose offer of admission has lapsed must submit a new application and fee to be reconsidered for admission at a later date.

Re-Application

Students who are accepted but do not enroll within a one-year period from the semester date for which they were accepted must obtain new application forms from the Graduate School, initiate the application process the same as new students, and pay all fees as required in the application process.

Reactivation

Records of students who have enrolled previously but have taken no course work during a two-year interval will be deactivated. Once records are deactivated, a student must reapply to the Graduate School, submitting a new application form with required application fees, to continue with graduate studies. Transcripts of any course work taken during the two-year interval from any other college or university will also be required.

Registration

Dates of registration are listed in the University Calendar. Registration is done via the VSU Banner website. Prior to registration, graduate students who are already enrolled in a program should consult with their advisors and work out programs for the ensuing term. For this purpose, the students should bring with them their Student Program and Data card and copies of their most recent grade reports.

Graduate faculty from program areas and the Dean of the School of Graduate Studies, Research and Outreach are available in their office during registration to assist students. A late registration fee is charged after the date specified in the University Calendar. The amount charged is listed under *Special Fees*. Registration is not completed until all financial obligations pertaining to it are met.

Other Academic Requirements

Academic Credit

The semester hour is the unit of academic credit and represents one hour of lecture or recitation or a minimum of two hours of laboratory work each week for one semester or the equivalent.

Academic Standards

A graduate student who is a candidate for a degree must earn an average of 3.0 or higher in all courses applicable to his/her degree and receive grades of "S" where grades of "S," "U," or "P" are awarded. Only courses with grades of "A," "B," "C," "S," or "P" may be applied to semester-hour requirements for the degree.

Grades of "C" may constitute no more than 20% of the credits offered for graduation, or a maximum of two "C"s in two four-hour courses on the graduate level, whichever is greater. Semester hours with "C" grades in excess of this percentage or the allotted eight hours will not count toward the degree but will be figured in the total cumulative average.

A prerequisite undergraduate course taken in conjunction with a graduate program must be completed with a grade of "C" or better, except that the cumulative average for undergraduate prerequisites must be no less than "B."

Graduate students in non-degree programs are expected to meet and maintain the same academic standards as students in degree programs.

Although Virginia State University encourages a maximum of student responsibility, with a minimum of administrative regulation, it expects each student to maintain appropriate standards in his/her academic program. The University reserves the right to terminate the registration of any student who does not meet acceptable standards. Academically, a student whose record falls below standard or otherwise indicates a lack of ability or effort needed to succeed in graduate study will be denied permission for further study.

Admission to Candidacy

Admission to graduate study does not imply admission to candidacy for a degree. Students initially admitted into a program leading to a degree are evaluated later for advancement to degree candidacy. A student is eligible to apply for candidacy after he/she has completed a minimum of 12 semester hours of course work at this university in his/her approved program of study. He/she must, however, attain candidacy no later than the semester before he/she expects to graduate. In order to become a candidate for the master's degree, a student must satisfy the following requirements:

1. Satisfactory completion of all requirements for unconditional admission to the School of Graduate Studies, Research and Outreach and to the academic program, including satisfactory scores on the Graduate Record Examination.
2. Satisfactory completion of the foreign language requirement, where applicable.
3. A minimum of 12 semester hours of graduate-level courses in an approved program of study with a minimum grade-point average of B (3.00).
4. Evidence of proficiency in the use of the English language.
5. Approval of the major professor and of the minor professor where applicable.

The application for admission to candidacy should be filed in duplicate. Application forms are obtained from the Graduate Office and, upon their completion, must be returned to the Graduate Office. No student may enroll for Research and Thesis, Thesis in Absentia, Master's Project, or the Comprehensive Examination before he/she has been admitted to candidacy.

Application for Graduation

A candidate for the graduate degree or Certificate of Advanced Graduate Studies must file an Application for Graduation by dates published in the official academic year calendar prior to the appropriate Commencement Exercise.

Attendance

Responsibility for regular class attendance rests with the student. Regulations concerning attendance in a particular course are at the discretion of the instructor and are announced in the opening class session. The University reserves the right to exclude from a graduate program, course, or final examination a student whose attendance in classes is unsatisfactory to the instructor of the class.

Auditing Courses

A student enrolled in a full program of studies, or its equivalent, may audit a course which contributes to his/her program provided his/her advisor approves and the instructor of the course agrees. Credit or grades are not assigned for auditing. Audit courses are not accepted in seminars, practica, research courses, field courses, clinical courses, workshops, or similar courses. (See auditing fees under "Special Fees.")

Certifying Hours and Completion of Requirements

The Dean will certify the completion of degree requirements to an employer upon written request from the student. The request should include the full name, title, address, and zip code of the persons to whom the student wants such certification made. No more than 12 semester hours of course work toward the degree may be certified to any employer by the Dean of Graduate Studies prior to attaining candidacy.

Only the Dean of Graduate Studies, Research and Outreach is authorized to certify the number of hours completed and the completion of degree requirements to an employer.

Change of Degree Program

Admission to the Graduate School in one program does not entitle a student to transfer to another program without applying for and being accepted by the new program as a new student. Any student wishing to change from one program to another must complete a Change of Major form (which requires a number of signatures including those of the original advisor and the chairperson of the department to which the student wishes to transfer). The forms are available in the Graduate Office.

Concurrent Enrollment

When the need exists, a student enrolled as a degree student may take graduate courses at another accredited institution. Prior approval of the advisor, department head and the Dean of the School of Graduate School, Research and Outreach is necessary.

It is the student's responsibility to request credit for such courses and upon completion have an official transcript submitted to the Graduate Office. Permission is not ordinarily given for a student to take a course elsewhere for transfer credit during the semester in which the degree is to be awarded.

Continuing Education Credit

The CNED prefix, and the 90 to 99 endings denote the off-campus education courses. Degree seeking students can take CNED courses if they are included on their approved program card. Courses taken for credit through continuing education programs of other institutions must have prior approval of the major professor, the Dean of the School of Graduate Studies, Research and Outreach and the Chair of Graduate Professional Education Programs.

Course Load

The normal load for a full-time graduate student enrolled during a semester is twelve (12) semester hours; a maximum class load is seventeen (17) semester hours. To be considered in full-time study the student must be registered for not less than 12 semester hours of work.

The academic load of a graduate student cannot always be measured in terms of formal courses. Frequently, his assignment will consist largely or entirely of research. The Dean of the School of Graduate Studies, Research and Outreach will determine the extent to which these assignments are the equivalent of a full academic load.

Part-time graduate students, in-service teachers, and other employed personnel are advised not to carry a load in excess of two graduate courses, except by special permission of the Dean of the School of Graduate Studies, Research and Outreach on recommendation of the major advisor. Without special permission, the course load for part-time students may not exceed 11 credit hours.

During summer school, graduate students can carry 6 semester hours during both four and a half week sessions. Thus, a student may earn nine semester hours of credit by attending a three-week and a six-week session.

Course Numbers

Two levels of courses are open to graduate students. Courses numbered at the 400 level are open to advanced undergraduate and graduate students but must be approved for graduate credit by the major advisor prior to the students' enrolling in the same.

Courses numbered at the 500 and 600 levels are open to graduate students only. A graduate student's program of study must show at least fifty per cent (50%) of the courses offered for the degree in the 500-level series.

Degree Requirements

Graduate programs lead to the Doctor of Education (Ed.D.) in Educational Administration and Supervision, Master of Arts, Master of Science or Master of Education degree. The M.A. degree is conferred when the major is in Economics, English, or History. The M.S. degree is conferred in all other majors that also include the preparation of a thesis. The M.Ed. degree is conferred in those professional teacher education programs that do not include Research and Thesis in the degree requirements. Candidates for the master's degree may elect a major in the fields of concentration listed below.

Biology
Career and Technical Studies
 Project Management Concentration
Counselor Education
Criminal Justice
Economics
Education
Educational Administration and Supervision
English
Counselor Education
History
Mathematics
Physics
Plant Science
Psychology
Sport Management

Master of Arts and Master of Science

General requirements for the Master of Arts and the Master of Science degree are a minimum of 30 hours, which include 24-27 hours of course work plus a thesis (formal research study) of 3-6 hours. Additionally, a 36 to 39 hour non-thesis option is available in selected disciplines.

Master of Education

The Master of Education degree may be granted upon fulfillment of any of the following minimum requirements or options:

- a. Thirty semester hours of courses plus an internship or practicum of 3-6 hours.
- b. Thirty semester hours of courses plus a project (including action research or other applied techniques).
- c. Minimum of 36 semester hours of courses. (Some programs require more than 36 semester hours.)

Certificate of Advanced Graduate Study

The Certificate of Advanced Graduate Study (CAGS) is designed to provide advanced graduate specialization by completing a prescribed program of study. A minimum of 30 semester hours beyond the master's degree will be required to complete the program. Persons entering the program must hold a master's degree. However, the bachelor's degree or the master's degree must be in an occupational area.

Duplicate Credit

Any course used as credit toward another degree (a bachelor's degree or earlier master's degree at VSU or elsewhere) will not be used again as credit in a master's degree program at Virginia State University. A course may be used only once; no duplicate credit is allowed. This applies also to master's degrees being pursued simultaneously at VSU and another institution.

Faculty Advisors

Each student admitted to graduate study in a specific program is assigned a faculty advisor by the Chair of the student's major program area. Special students may also be assigned faculty advisors by the Dean. The advisor of the degree-seeking student is the major professor whose responsibilities are to (1) aid the student in planning a program of study, (2) advise the student regarding his/her progress toward the degree or certificate, (3) advise on student petitions, and (4) aid the Dean in observance of the University policies on graduate study.

Final Examinations

In addition to the regularly scheduled course examinations, a candidate for the master's degree must pass satisfactorily a formal examination arranged by the chairman of his /her committee. This examination may be oral or written or both, and will cover the field of the student's major and minor work as well as the specialized area of the student's thesis if his/her program includes one. The student's special committee will report the results of his /her performance on the examination to the Graduate Office within twenty-four hours.

A student who fails his/her final examination for the master's degree may, at the discretion of the Examining Committee, be allowed another examination not earlier than one semester after his/her failure. The Examining Committee, however, may recommend that the student take a course or courses before he/she is allowed a reexamination.

General Student Appeals

A student who considers any of the regulations of the School of Graduate Studies, Research and Outreach to have adverse effect upon his/her academic progress may request relief by addressing a written petition setting forth the particulars of the situation with approval of his /her advisor. The request should be addressed to the Policies and Petitions Committee in care of the Dean of the School of Graduate Studies, Research and Outreach. The Committee is composed of six graduate faculty members, plus the graduate dean.

Grade Appeal

The appeal procedure for a student in the case of a complaint about perceived inaccurate or unfair grading begins with contacting the faculty member, and further contact with the instructor's department chairperson, and then the Dean of the School of Graduate Studies, Research and Outreach if necessary.

If the appeal is not resolved at any of the above levels, the student may submit a written request for review of the situation by the Policies and Petitions Committee. The chair of this committee is the Graduate School Dean.

Grading System

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

Grade	Definition	Quality Points
A	Superior Performance	4
B	Good Performance	3
C	Average Performance	2
D	Below Average Performance	1
F	Failure	0

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

Grade Symbol

Definition

I	The student, otherwise passing, has for good reason failed to complete all requirements. It must be removed in one year or be changed to F.
P	The Pass/Fail grade is used for the Comprehensive Examination.
S	The student who registers for the research and thesis course or the master's project course and has demonstrated satisfactory progress at the end of the semester or summer session, but has not completed the thesis or project, will receive an S. After the work has been completed, a final grade will be given.
U	The student has not demonstrated satisfactory progress in Research and Thesis.
AU	Audit
W	Withdrawn
NG	No grade given.

All grades earned are included in the determination of the cumulative average.

Release of Records

The University reserves the right to withhold transcripts, certificates, registration materials, or any other information about a student whose record for financial obligations has not been cleared by appropriate University officials.

Classroom Conduct

Each instructor is responsible for maintaining a classroom environment that facilitates effective teaching and learning. The classroom environment should be such that it prepares students for behavior that is expected in a civil society.

Disruptive and disrespectful behavior on the part of any student should not be tolerated by the instructor. Instructors may evict students who disrupt the class, and, when students are consistently disruptive, instructors may recommend to the chair that the student be dropped from the course. The instructor should always be in charge and has the right to determine appropriate standards of behavior in the classroom as long as the requirement does not infringe upon the individual's rights. Appropriate classroom decorum should be described in the course syllabus.

Course Syllabus

Faculty members must provide students with a current course syllabus by the second meeting of class. The course syllabus must be comprehensive and shall include, but not be limited to, the following:

- instructor's first and last name;
- semester and year the course is being offered;
- office location and hours the instructor will be available to students;
- description of course content;

course objectives;
special assignments and examination schedule;
current bibliography, as appropriate;
classroom decorum and attendance policies; and
grading system and other pertinent information.

Graduate Instruction

Graduate instruction is given by (1) members of the graduate faculty; (2) other members of the program faculty whose level of training can provide the student expert guidance in specific areas in which such instructors possess special competence; (3) certain instructors, not members of the regular Virginia State University faculty, who have been approved to teach specific courses on the basis of preparation comparable to that of the graduate faculty.

In general, approval to teach specific graduate courses is given instructors holding a doctoral degree and possessing experience and competence in the courses to be taught.

Graduate Record Examination (GRE)

At Virginia State University, all individuals seeking master's or post-master's degrees must submit test scores from the Graduate Record Examination (GRE). The GRE scores must be no more than six (6) years old when the student is admitted to the Graduate School. If the GRE was taken earlier, the student must take it again and submit new scores. The GRE is to be taken prior to enrollment or during the first semester of enrollment.

Application and Administration

A computer-based administration of the GRE is given at many locations throughout the state and the country on a year-round basis. The GRE Information and Registration Bulletin is available in the Graduate Office. Students must take the General Test.

Required Standard

GRE scores vary by program. Refer to your program curriculum for the GRE requirement.

Review Courses

For validation purposes, two courses, ENGL 516 (English Writing Proficiency) and MATH 499 (Mathematics Review), are offered each semester and summer for students who have not met the GRE score requirements.

Independent Study

An advanced graduate student may be allowed to pursue a course through independent study with the approval of his or her advisor, the instructor of the course, and the Dean of the School of Graduate Studies, Research and Outreach. Approval will not be given when the regular course is available or when the regular course has been unsuccessfully attempted. An outline of course requirements including proposed time schedule and number of credit hours to be assigned must be submitted to the graduate dean over the signature of the student, the advisor, and the instructor.

Language Requirements

Candidates for the Master of Arts or Master of Science degree must offer a minimum of two years of a modern foreign language in their undergraduate programs, or they must pass a reading examination of the language administered by a professor at VSU. French, German, and Russian are approved languages for science majors. For non-science majors, French, German, Russian, Italian, and Spanish are the approved languages, and may vary depending on the program of studies pursued. English is considered a tool language for all students, and may not be substituted as a foreign language for any student, domestic or foreign.

For students who have completed two years of a modern foreign language in high school, one year of foreign language in college will satisfy this requirement.

The language requirement is waived for majors in professional education programs or professional education program sequences, e.g., mathematics education. There is also no language requirement for the program, in economics, career and technical studies, and Psychology.

Probation/Dismissal

Graduate students must maintain a "B" average (3.00) in the courses taken in their approved graduate programs. A student who falls below 3.00 is put on probation with or without written notice from the Dean of the School of Graduate Studies, Research and Outreach. If the cumulative average is not raised to 3.00 in the following semester, students will be notified by the Dean, in writing, that they have been discontinued from the program.

Program Area Requirements

In addition to the general requirements of the Graduate School listed, specific requirements of individual programs are listed under Programs of Study, where applicable. Where no discipline-specific requirements are indicated, the general admission requirements pertain.

Program Cards

A student's program of studies is not official until approved by the Dean of the School of Graduate Studies, Research and Outreach. The official program of courses for the master's degree must include a minimum of 50 per cent of the total program in major area courses.

Reinstatement

Graduate students suspended for academic reasons are never automatically reinstated. A student may appeal to the Policies and Petitions Committee to be given a chance to gain reinstatement. If the Committee approves, the student is allowed to enroll for one semester only to repeat the course or courses that pulled the average below 3.00 and caused the student to be dropped; no new course work may be taken while the student is seeking to be reinstated. If the student succeeds that semester in raising the average to 3.00, the student must then appeal to the committee for full reinstatement. If, after reinstatement, the grade-point average falls below 3.00 again, the student will not be permitted to continue graduate study at Virginia State University.

Residence Requirements

A minimum of 21 semester hours in a 30-hour program or 24 semester hours in a 36-hour program must be completed through the offerings at Virginia State University. Although full-time study is desirable, it is not required and many of the programs can be completed through part-time study. Some programs have special stipulations concerning part-time study, which should be carefully followed.

Retention

To be retained in an approved program of studies, a student is expected to maintain a minimum cumulative average of B. If the cumulative average in the approved program of studies falls below B, with or without candidacy, the student must bring the cumulative average up to B during the next period of enrollment in the approved program of studies. A student who fails to bring his/her average up to B, or whose average falls below B on a second occasion, will be dropped from the program in which he/she is enrolled.

For the purposes of retention, cumulative averages are to be computed on the basis of hours completed within a student's approved program of studies.

Schedule Changes

Schedule changes must have the approval of the student's advisor. With the approval of the advisor and the instructor of the class, a course may be added prior to the close of the second day of classes. A course may be dropped with a grade of "W" (withdrawn, no penalty) up to two weeks after mid-semester.

Second Master's Degree

A student with a master's degree from Virginia State University who pursues a second master's degree at the University is exempted from the GRE requirements. Students with master's degrees from other schools who have not taken the GRE must take and pass the GRE. VSU courses that apply to both master's degree programs do not have to be repeated, at the advisor's discretion, but the student must take electives to count toward the total semester-hour requirement of the program: 30, 33, 36, or other. Courses used for one degree can not be used for another degree whether taken at VSU or elsewhere.

Summary Procedures for the Master's Degree

1. Submit application (with fee) to the Graduate Office.
2. Have two official copies of transcripts from previous undergraduate and graduate study submitted by colleges/universities sent directly to the Graduate Office. Graduates of Virginia State need only one copy of their transcript.
3. Have recent scores on the Graduate Record Examination sent to the Graduate Office by the Educational Testing Service, prior to registration; or obtain application from the Graduate Office and register for the GRE during the first semester of enrollment. Foreign students must submit TOEFL scores, in addition to the above, prior to admission.
4. After receiving notice of admission from program administrator and Dean of the Graduate School, obtain three copies of the Student Program and Data Card from the Graduate Office. Plan program with advisor and return all three copies to the Graduate Office for approval by the Dean of the School of Graduate Studies, Research and Outreach. Upon approval from the Dean, the advisor will receive a copy, the student will receive a copy, and one copy will be retained in the student's file. Until the student completes this process, he or she is not considered to be in a degree or certificate program.
5. Apply for admission to candidacy after completion of a minimum of 12 semester hours of graduate work at VSU in the approved program. A student must attain candidacy no later than the semester before he or she expects to graduate. A cumulative B average, unconditional admission status, and completion of program requirements for candidacy are required for advancement to candidacy.
6. Candidates for the Master of Arts or Master of Science degree, where applicable, will file a thesis title card approved by the advisor at least six months before the candidate expects to complete all requirements for the degree. Candidates for the Master of Education degree will apply to defend the master's project (if accepting that option) or apply for the oral/written comprehensive at the beginning of the last term of study.
7. Comply with Schedule of Important Dates to Remember (available at the Graduate School Office) for the last semester of study. File application for the degree for the appropriate commencement by the deadline set in the University Calendar.

Thesis and Project Standards

Standards for the thesis and project have been adopted by the Graduate Council. The bulletin which includes these regulations may be obtained from the Graduate Office. The thesis must be satisfactory to the student's Examining Committee in both scholarship and literary quality.

The subject of the thesis approved by the major advisor of the student must be filed with the Dean of the School of Graduate Studies, Research and Outreach at least six months before the candidate expects to complete all requirements for the degree for which he/she is a candidate.

The thesis advisor for every graduate student is his/her major professor unless the major professor approves the student to develop a thesis under another professor.

The maximum credit assigned under Research and Thesis is three semester hours for all candidates who have credit in a formal research course such as EDUC 513, Educational Research; and ENGL 517, Problems and Methods of Research. Students in departments which do not require a formal course in research techniques may receive a maximum of six semester hours for research and thesis. Each program offering a major for the master's degree has an assigned number for Research and Thesis. Those programs which offer the option of a project have a similarly assigned number.

Students must register for the Research and Thesis course every semester or term until the thesis is completed. Those who progress satisfactorily will receive the grade of "S" at the end of each semester or term. After the thesis has been completed and approved, the student will receive a final grade for his/her work. A student who registers in Research and Thesis and whose performance is deemed unsatisfactory by the major professor will receive the grade of "U" at the end of the semester or term.

Two typewritten copies of the thesis, accompanied by an abstract of not over 1,500 words, approved by the major professor, must be deposited in the Graduate Office for submission to the library.

Project standards will vary according to program requirements and the nature of the project. Students will be guided very closely by their advisors in the preparation of the projects and are expected to adhere to program requirements. The student must

also register in the master's project course every semester or term until the project is completed. The grade of "s" will be given at the end of each semester or term if satisfactory progress is made. The student will receive a formal grade for his/her work once the project has been completed and approved.

Time Limit for the Completion of Degree Requirements

All requirements for the master's degree must be completed within six years from the date of initial registration in the graduate program; excluding periods of military service. Students who encounter unique problems which prevent compliance with this regulation may address an appeal to the Chairman, Policies and Petitions Committee, in care of the School of Graduate Studies, Research and Outreach.

Under compelling circumstances, students may be awarded extensions, totaling not more than two years, to the present limit of six years. This provision restricts the period for completion of the degree to a maximum of eight years.

All transfer credit for the degree must have occurred within the designated period (six years) prior to the date of graduation. Transfer courses are not eligible for an extension of time. Test scores submitted in support of applications for admission must also be within the six-year period.

Transfer Credit from Another Institution

In a 30-hour program, nine semester hours earned at another accredited graduate school may be accepted toward the master's degree at Virginia State University. In a 36-semester hour program, 12 semester hours may be accepted. In any case, transfer credit from another institution must be approved by the department and must be of "B" quality or higher. Transfer of credit in the core courses is not permitted. The core courses are Foundations of Education, Statistical Procedures in PSYCOlogy and Education, and Educational Research.

All transfer credit will be applied after the student's application for an advancement to candidacy. Transfer credit cannot be over six years old by the date of graduation; this limit can not be extended.

Withdrawal from Graduate Study

Students who withdraw officially from the University will receive grades of "W" in the courses in which they are registered.

Students who withdraw without following official withdrawal procedures are subject to receiving the grade of record (F) on the final instructor's grade report.

**GRADUATE PROGRAMS AND
COURSE DESCRIPTIONS**

Graduate programs of study lead to the following degrees:

- * **Master of Education**
Counselor Education
Educational Administration and Supervision
Education
- * **Master of Arts**
Economics
English
History
- * **Master of Science**
Biology
Career and Technical Studies
 Project Management Concentration
Criminal Justice
Mathematics
Plant Science
Psychology
Sport Management
- * **Master of Interdisciplinary Studies**
Interdisciplinary Studies
- * **Certificate Programs**
Certificate of Advanced Graduate Studies in Career and Technical Studies
Certificate of Graduate Studies in Project Management
Certificate Program in Nutrition and Dietetics
- * **Doctor of Education**
Educational Administration and Supervision

Biology

Graduate study in Biology is designed to prepare students for careers in teaching and research in state, federal, and private institutions, including colleges, universities, and research laboratories or for further study and teaching. Graduate study in Biology leads to the Master of Science (M.S.) degree. Students with undergraduate majors in other science areas are also encouraged to pursue graduate work in Biology. Additional work may be required of students whose undergraduate program in biology, chemistry, mathematics, or physics was too narrow or limited. The amount of work will be determined by the graduate committee of the department. A student might complete the degree requirements in a two-year program. However, the duration to complete the program may vary based on the individual student's experience and progress in research and course work. It is recommended that the interested graduate student contact the department for information about research and other departmental activities related to the graduate program. The program is dynamic due to lower student-faculty ratio and greater opportunity for faculty advising, counseling, research supervision, and utilization of research facilities.

Admission Requirements

For admission, the student must have the appropriate GRE Score as determined by the department. For information about the GRE score in different areas, applicant must contact the Department of Biology. All applicants must have in their undergraduate program a minimum of thirty two (32) semester hours of biology. Additionally, a minimum of eight semester hours of general chemistry and four semester hours of organic chemistry is required for this program. Six semester hours of mathematics is also

required. Applicants not possessing the above requirements may be admitted to the program upon the review and approval of the graduate committee of the department. The graduate student is expected to make up deficiencies identified by the graduate committee.

Program Requirements

To complete the program, a minimum of 30 semester hours including the thesis is required for the M.S. degree. Each student, with a faculty advisor, plans a tentative graduate program early in the first semester. Students are encouraged to begin their independent research in the second semester of their first year. Every effort is made to plan the graduate program around the needs and interests of the students.

A non-thesis option is also available. Each student enrolled in the non-thesis option must complete a minimum of thirty six semester hours and the Licensure Regulations by the Virginia Department of Education to become endorsed to teach biology. The candidate must also pass a written and/or oral comprehensive examination.

Course Descriptions

BIOL 508 BIOLOGY AND HUMAN AFFAIRS - 3 semester hours

F, even years

A seminar designed to inquire into the impact and potential of biology and society. Topics discussed might include such things as population control, the biological meaning of race, the ecological crises, biological nuclear and chemical toxicants, control of fertility and aging.

BIOL 509 PARASITOLOGY - 3 semester hours, lecture

Sp, even years

The life processes of parasite helminthes with their effects on the host, and with the reactions of the hosts to their presence. Considerable time is devoted to life cycles, classification and morphology of parasitic worms, epidemiological factors, interrelations of parasite and host, and underlying principles of prevention and treatment.

Prerequisite: BIOL 411 Protozoology or BIOL 412 Invertebrate Zoology

BIOL 510 HUMAN GENETICS - 3 semester hours, lecture; 1 semester hour, laboratory

F

Theory and methods of analyses of genetic traits in individuals, families, and populations. Techniques include pedigree analysis, cytogenetics, tissue culture, and probability determination.

Prerequisite: General Genetics or permission of the instructor.

BIOL 511 TOPICS IN MODERN BIOLOGY - 3 semester hours

Sp, even years

Explores the recent developments in the field of biology on a chemical-physical basis. Includes discussions on the nature of science, evidence and trends in evolution; metabolism photosynthesis, nutrition and respiration; and the biological events in cell division growth, genetics, enzyme activity and the treatment of disease. Lectures, demonstrations, and discussions.

Prerequisites: Two semesters each of mathematics, biology, and physics; three semesters of chemistry; permission of the department to register.

BIOL 512 ADVANCED PROTOZOOLOGY - 3 semester hours; lecture; 1 semester hour, lab

F, odd years

Concerned with protozoological research techniques and a general consideration of recent research studies. Also reading and preparation of technical manuscripts for publication will be emphasized. Topics are adapted to the needs and interests of the students enrolled.

Prerequisite: BIOL 411 Protozoology

BIOL 513 SEMINAR - 1 semester hour each registration

F, Sp

A one and one-half hour seminar is held each week. The first nine weeks of the seminar are devoted to topics such as: approaches to teaching biology, level(s) at which biology should be taught, teaching biology courses. Approximately six guest speakers will address the seminar during the year.

BIOL 514 ENDOCRINOLOGY - 3 semester hours

Sp

The study of hormonal integration of life activity of animals. Along with a survey of glands of internal secretions, consideration is given to the concepts of self-regulation through "servo" or "feed-back" mechanisms. Some consideration is given to the mechanism of hormone action at the molecular level. The neuroendocrine system as a functional entity is discussed. Attention is given to the role of internal secretions in metabolism, in growth and development, and in reproduction.

Prerequisite: BIOL 417 General Physiology

BIOL 514 ENDOCRINOLOGY LABORATORY (Optional) -1 semester hour **Sp**

BIOL 515 ADVANCED INVERTEBRATE ZOOLOGY - 3 semester hours **F, even years**

An intensive study of the classification, morphology, development, physiology and life histories of the invertebrates exclusive of insects.

Prerequisite: BIOL 313 General Zoology

BIOL 516 PHYCOLOGY - 3 semester hours lecture - 1 semester hour, laboratory **Sp, odd years**

A study of the divisions of the algae; emphasis is placed on those forms found in the fresh water of the local area. Studies of the structure, life histories, and evolution are made of representatives of the various division. Frequent field trips are made to collect and study the ecology of specimens which are later preserved and their morphology studied and classified. Consideration is given to certain aspects of the metabolism of algae such as nitrogen fixation, photosynthesis and ion-uptake, and also their economic importance.

Prerequisites: BIOL 310 Plant Morphology; BIOL 313 General Zoology

BIOL 517 MYCOLOGY - 3 semester hours, lecture; 1 semester hour, laboratory **F, odd years**

A study of the biology of fungi emphasizing a systematic treatment of various groups. Introduction to their development, morphology, physiology, ecology, and phylogeny.

Prerequisites: BIOL 310 Plant Morphology

BIOL 518 ADVANCED PLANT PHYSIOLOGY - 3 semester hours **F, even years**

Primarily a reading course designed for advanced undergraduates and graduate students to cover such topics as photosynthesis, plant nutrition and metabolism, and other topics not treated in the plant physiology program.

BIOL 520 CYTOLOGY - 3 semester hours, lecture; 1 semester hour, laboratory **Sp, odd years**

A study of cell structures and cytological techniques with emphasis on the morphologic, physiologic, and genetic aspects of modern cytology. Attention is given to the chemical and ultrastructural aspects of cytology. Consideration is given to the instruments employed in studying the sub microscopic structures of the cell.

Prerequisite: Twelve semester hours of biological science or the permission of the instructor

BIOL 521 PLANT MORPHOGENESIS - 3 semester hours, lecture; 1 semester hour, laboratory **F, odd years**

A study of growth in general, the cellular basis of growth, and meristems; the phenomena of morphogenesis correlation, polarity, symmetry, differentiation, regeneration, tissue mixtures, and abnormal growth; morphogenic factors-light, water temperature, various physical factors of mechanical nature; chemical factors, types and influences of growth substances. The laboratory work includes: a study of representatives of the plant kingdom which show various stages of development of tissues and organs; the influence of the environment and chemicals upon the development of various plant structures; isolation of cells, tissue transplant, and tissue cultures.

Prerequisites: BIOL 310 Plant Morphology

BIOL 522 INVESTIGATIONS IN BIOLOGY - 1 to 3 semester hours each semester **F, Sp, Su**

The department has facilities to enable qualified students to undertake studies of an investigative nature. The work is divided into four parts: Part A--Investigation and research in botany and ecology; Part B --Investigation and research in zoology; Part C-- Investigation and research in molecular biology; Part D--Investigation and research in genetics and developmental biology.

Prerequisite: Permission of the professor concerned

BIOL 524 RESEARCH AND THESIS - 2 to 6 semester hours **F, Sp, Su**

Students conduct research and write theses under the supervision of thesis or research professors.

Prerequisite: Admission to candidacy for the master's degree and permission of thesis professor.

BIOL 525 TEACHING AN ADVANCED GENERAL BIOLOGY COURSE - 4 semester hours **F, Sp, Su**

Designed for in-service teachers interested in obtaining experience in the teaching of an advanced biology course. This course is closely associated with Biological Science 116, a semester course for non-biology majors. Persons who enroll in Biology 525 will attend the biological science lectures, observe and participate in a two-hour organization and planning session each week and teach a laboratory course during the semester.

BIOL 526 EXPERIMENTAL EMBRYOLOGY - 3 semester hours; lecture; 1 semester hour lab **F, odd years**

Experimental morphology of growth and development: Fertilization, organ differentiation, and regeneration. The first part of the course will deal with classical experiments and concepts.

BIOL 533 INTRODUCTION TO NEUROSCIENCE – 3 semester hours**Sp**

This course is a general introduction to the field of neuroscience. The course provides a foundation in the basic operating principles of neural tissue. The course moves from a focus on the basic element of nervous systems, the neuron, to studying how simple sensory, motor, and learning capacities arise from the operations of neural networks.

BIOL 537 ORAL AND/OR WRITTEN COMPREHENSIVE EXAM - 0 semester hours**F, Sp, Su**

A requirement of the non-thesis M.S. option to be taken during the last semester. A candidate for the Master's of Science degree must pass satisfactorily an examination arranged by his/her chairperson or committee. This examination may be oral or written or both, and will cover the biology major and minor areas of study.

BIOL 542 MICROBIAL BIOCHEMISTRY - 3 semester hours**Sp**

A study of the principal types of biochemical activities of the microorganisms: (1) respiration, fermentation, photosynthesis and different types of phosphorylation, (2) metabolism of proteins, nucleic acids and general properties and activities of enzymes, and (3) physical and chemical factors affecting biochemical activities.

Prerequisite: BIOL 241 Introduction to Microbiology or consent of the instructor.

BIOL 546.ADVANCED IMMUNOBIOLOGY - 3 semester hours**Sp, odd years**

An advanced treatment of current theory and its application to various aspects of immunobiology; antibody specificity, antigen antibody reactions, immediate and delayed hypersensitivity, immunological tolerance and autoimmunization are among the topics covered.

Prerequisite: BIOL 443 Immunology and Serology, BIOL 443 Immunology and Serology Laboratory and a course in biochemistry or the equivalent

BIOL 548 MOLECULAR BIOLOGY - 3 semester hours**F**

A study of the principles of biological organization and activities on the molecular level. Analysis of the important events in terms of established principles of physics and chemistry. Basics structures and functions of important classes of biological molecules such as proteins, enzymes, RNA and DNA will be emphasized.

Prerequisites: One semester of genetics

Career and Technical Studies

The Career and Technical Studies (CTST) program is an interdisciplinary curriculum designed to provide post baccalaureate preparation in two concentrations: *Occupational Studies* and *Project Management*. Curricula in CTST lead to the Master of Science with a concentration in Occupational Studies, Master of Science with a concentration in Project Management, the Graduate Certificate in Project Management, and the Certificate of Advanced Graduate Study in Occupational Studies.

Occupational Studies Concentration. The program will meet the personal and **continuing** professional needs of community college teachers, cooperative extension agents, supervisors in education, business, and industry, and others associated with the career and technical studies enterprise. Students may specialize in agriculture subjects, business subjects, administrative systems management, industrial technology, family and consumer sciences, and general career and technical studies. The certificate of advanced graduate study is offered in general career and technical studies.

Project Management Concentration. The program leads to the Master of Science (M.S.) degree in Career and Technical Studies (CTST) with *concentration* in project management. The demand for professionals who can integrate and manage a company's project has created an emerging field in project management technology. The program is designed to provide the tools, techniques, and skills needed to effectively manage projects through appropriate learning activities and products. The curriculum covers the knowledge areas and industrial standards and integrates business and industry courses with the theory and practice of project management. This program will assist you to better manage your project(s) from planning and team-building through quality and cost management.

Master of Science: The Master of Science degree in Project Management (Concentration) requires a minimum of 30 semester hours which will include a three-semester hour of Master's Thesis (CTST 539) dealing with issues in project management or a minimum of 33 semester hours for the Non-thesis option. The non-thesis option will include CTST 525: Contract and Procurement Management and CTST 570: Integrated Project Management (the CAPM Certification). Candidates may take either the GRE or the GMAT and obtain an acceptable score to qualify for candidacy.

Admission: In addition to the general requirements for admission to the Graduate Division of the School of Graduate Studies, Research and Outreach, a minimum of 21 semester hours of undergraduate preparation in an occupational program or related area is required. Undergraduate majors in the following areas will be considered: agriculture, industrial technology, industrial education, family and consumer sciences, business management, computer and information systems, administrative systems management, human ecology, sociology, health occupations, business education, and associated fields.

Continuation Requirements: Continuation requirements for a degree in Career and Technical Studies adhere to the general requirements for the Graduate Division of the School of Graduate Studies, Research and Outreach.

Concentrations and Specialty Tracks: Two concentrations are offered in the Career and Technical Studies program. *Occupational Studies* and *Project Management*.

Occupational Studies. Students who elect the *Occupational Studies* concentration may receive the master of science with a specialization in agriculture subjects, business subjects, administrative systems management, industrial technology, family and consumer sciences, and general career and technical studies. The certificate of advanced graduate study is offered in general career and technical studies.

Project Management. Students who elect the *Project Management* concentration may received the master of science degree with a concentration in project management, or the graduate certificate in project management (a non-degree program) which requires 18 semester hours of coursework.

Master of Science, Occupational Studies Concentration (Thesis Option): Candidates for the Master of Science degree must complete a minimum of 30 semester hours, which include 24-27 semester hours of courses *plus* a thesis of three to six semester hours. The degree will not be granted without a thesis.

Master of Science, Occupational Studies Concentration (Non-Thesis Option): Candidates for the *non-thesis* option must complete *one* of the following:

- a. Thirty semester hours of courses *and* an internship or practicum of three to six semester hours.
- b. Thirty semester hours of courses *plus* a project (action research or other applied techniques).
- c. Thirty-six semester hours of course work.

Master of Science, Project Management Concentration (Non-Thesis Option): Candidates for this option must complete thirty-three semester hours of course work which includes three semester hours in CTST 570, Integrated Project Management or CTST 578, Master's Project in *Project Management*.

Master of Science, Project Management Concentration (Thesis Option): Candidates for this option must complete a minimum of 30 semester hours which will include a 3-semester hour of thesis, dealing with issues in project management.

Exit Requirements: All requirements for the master's degree must be completed within *six years* from the date of initial registration in the graduate program, excluding periods of military service. Extensions of no more than *two years* may be granted following a successful appeal to the Committee on Policies and Petitions of the School of Graduate Studies, Research and Outreach. All students must satisfactorily complete a comprehensive examination (oral, written, or both) which will cover the field of the student's major and minor work as well as the specialized area of the thesis if the program includes one.

Summary Requirements

M.S. Degree in CTST, Occupational Studies Concentration (Thesis Option)

General Core:

STAT 510 Statistical Procedures in Education and PSYCology.....	3
EDUC 513 Educational Research.....	3
EDUC 501 Foundations of Education.....	3

Career and Technical Studies Core:

CTST 502 History and Philosophy of CTST	3
CTST 504 Curriculum Development in CTST	3
CTST 508 Micro-computer Applications in CTST *OR CTST 505 Technology and Society.....	3

Electives:

Career and Technical Studies Electives.....	9
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Research and Thesis

Research and Thesis (CTST 539)	3-6
Total.....	30-33

*Students who successfully complete a proficiency exam in Microcomputer Application should take Technology and Society (CTST 505) as a *core course*.

Summary Requirements

M. S. Degree in CTST, Occupational Studies Concentration (Non-Thesis)

General Core.....	9
Career and Technical Studies (Education) Core	9
Career and Technical Studies Electives	9
Electives	9
Comprehensive Examination.....	0
Total	36

Course Descriptions

CTST 502 HISTORY AND PHILOSOPHY OF CAREER AND TECHNICAL STUDIES - 3 semester hours

A study of the historical development of career and technical studies in the United States with emphasis on factors influencing present day philosophical thought in Career and Technical Studies.

CTST 503 CONFERENCE PLANNING AND DESIGN - 3 semester hours

Strategies for planning Career and Technical Studies conferences, including the development of techniques for productive results in solving problems through group action.

CTST 504 CURRICULUM DEVELOPMENT IN CAREER AND TECHNICAL STUDIES - 3 semester hours

Emphasis is placed on social-cultural foundations of Career and Technical Studies, social-psychological needs of learners, and the influences of educational philosophy on curriculum planning. Opportunity is given for students to apply principles of curriculum planning as they relate to training and development.

CTST 505 TECHNOLOGY AND SOCIETY - 3 semester hours

An examination of the influence of science and technology on modern cultures, including the idea of humanity itself. Exploration of the development of the American notion of progress and its connections with technological advance. The impact of technology on individuals and society through critical analysis of selected modern topics.

CTST 506 ADMINISTRATION AND SUPERVISION OF CAREERS AND TECHNICAL STUDIES - 3 semester hours

Study of administrative principles and practices of career-technical programs at the proprietary and post secondary school levels as they relate to institutional structure, curriculum development, personnel selection and development, finance, student development services, program evaluation, and physical plant management.

CTST 508 MICROCOMPUTER APPLICATIONS IN CAREER AND TECHNICAL STUDIES - 3 semester hours

Presents information processing applications as used in career and technical studies occupations and in instructional situations. Emphasis on skill development, methods, and materials of microcomputing instruction.

CTST 510 SEMINAR IN CAREER AND TECHNICAL STUDIES – 3 semester hours

Critical analysis of current issues in Career and Technical Studies. Topics for discussions and lectures are based on current issues, trends, and problems identified by student practitioners.

CTST 512 EXTERNSHIP/INTERNSHIP IN CAREER AND TECHNICAL STUDIES – 3 semesters hours

A planned field experience of advanced clinical/teaching practice or a planned administrative or supervisory experience providing supervised exposure and training at a site in a career and technical studies setting.

CTST 513 MEASUREMENTS IN CAREER AND TECHNICAL STUDIES – 3 semester hours

Techniques in evaluation of instruction: standardized and other tests according to types for appraising student performance are studied. Methods and practices in constructing, administering, interpreting, and using test items and measuring instruments in industrial laboratories and related courses are stressed.

CTST 514 CAREER AND TECHNICAL STUDIES IN POST-SECONDARY SCHOOLS – 3 semester hours

Administrative and curriculum practices and problems in Career and Technical Studies programs in community and junior colleges, proprietary schools, and four-year colleges.

CTST 516 INSTRUCTIONAL SYSTEMS IN CAREER AND TECHNICAL STUDIES – 3 semester hours

Systematic development of criterion-referenced training programs and courses. Emphasis on methods of teaching career and technical subjects categorized in the cognitive, affective, and PSYComotor domains.

CTST 518 ORGANIZATION AND ADMINISTRATION OF CAREER AND TECHNICAL STUDIES - 3 semester hours

Study of the legislation, laws, and administrative systems (federal, state, and local) affecting career and technical studies. Emphasis on principles, policies, organizational concepts, administrative structures, programs, fiscal and physical planning, management, personnel, public relations, evaluation, and accountability in occupational fields.

CTST 526 READINGS IN CAREER AND TECHNICAL STUDIES - 3 semester hours

Supervised reading in selected subjects. Review and critical analysis of textbooks, research, periodicals, and other literature in Career and Technical Studies.

CTST 535 SEMINAR: RESEARCH IN CAREER AND TECHNICAL STUDIES - 3 semester hours

Study of research methods, findings, and techniques in the field of Career and Technical Studies. Emphasis on reading and interpreting research; using research findings in solving instructional problems; uncovering potential topics for future research. Each student prepares a *research proposal*.

CTST 537 ORAL AND/OR WRITTEN COMPREHENSIVE EXAMINATION - 0 semester hour

Prerequisites: Student has been admitted to candidacy and is enrolled in or has completed last remaining courses as shown on program card.

CTST 538 MASTER'S PROJECT - 3 semester hours

The project is designed for students pursuing the Master of Science (M.S.) non-thesis option. Students are expected to design and conduct action research relevant to problem solutions in their discipline. A written document of the project is required and an oral examination will be given at the end of the experience.

Prerequisite: Admission to candidacy by the Graduate School

CTST 539 RESEARCH AND THESIS - 3 to 6 semester hours

Application of logical and scientific methods to issues in career and technical studies, e.g., surveys, field studies, experimental/historical methods of research. Opportunity is provided to conduct needed research in career and technical studies and to plan and conduct formal research study. The course is designed for students pursuing the Masters of Science (M.S.) degree. An oral defense of the written report is required.

Prerequisite: Admission to Candidacy by the Graduate School

CTST 540 THEORIES OF CAREER AND TECHNICAL STUDIES -3 semester hours

Foundations of career and technical studies, including conceptual, theoretical, and philosophical bases of career and technical studies.

CTST 549 SPECIAL TOPICS IN CAREER AND TECHNICAL STUDIES - 3 to 6 semester hours

Independent study of problems related to Career and Technical Studies, to include focus on one or two topics per semester enrolled: (1) evaluation of local programs; (2) organization, operation, and financing programs of CTST; and (3) recent technology-related developments in CTST which have implications for career and technical studies programs.

CTST 550 PROGRAM DEVELOPMENT, IMPLEMENTATION, AND EVALUATION IN EXTENSION SERVICES - 3 semester hours

Study of the various aspects of diagnosing, planning, implementing, supervising, and evaluating extension service programs. Students will be provided opportunities to observe, analyze, and plan extension service programs.

CTST 551 PRINCIPLES AND ORGANIZATION OF ADULT EDUCATION PROGRAMS - 3 semester hours

Characteristics of the adult student as learner, including exploration of the history, principles, and techniques of adult education. Student plan, conduct, and evaluate learning activities for developing leadership abilities in adults.

CTST 559 IMPROVING INSTRUCTION IN OFFICE SYSTEMS - 3 semester hours

Designed for persons interested in the study and research relating to instructional and training elements of office systems. Development of performance goals, units of instruction, and instructional materials required by the expansion of curriculum areas and student population. Attention is given to methods of individualizing instruction and to innovations in teaching-learning tasks, as well as to work with the educationally handicapped individual(s).

CTST 560 IMPROVING INSTRUCTION IN BASIC BUSINESS SUBJECTS - 3 semester hours

Designed for persons interested in the study of effective instructional technology and problems in basic business subjects. The course will include a review of sources of supplementary material and organization of units of instruction and projects.

CTST 571 INFORMATION PROCESSING: MULTI-MEDIA LITERACY - 3 semester hours

Designed for experienced business teachers. The course focuses on study of multimedia, how it is used, the impact it is having on society, what equipment is necessary, and how to use multimedia to help students become more productive, competitive, and successful. Participants develop skill in using major multimedia software programs.

CTST 572 SEMINAR: TOPICS IN INFORMATION PROCESSING - 3 semester hours

Exploration and examination of selected and contemporary issues in office and information technology, Spread Sheet Applications and Methods, or Database Management. Includes individual, group, and integrated approaches to problem solving.

CTST 573 SPREADSHEET APPLICATIONS AND METHODS - 3 semester hours

Intensive study of and skill development in the use of current spreadsheet software. Includes hands-on instruction using current databases software.

CTST 574 DATABASE MANAGEMENT - 3 semester hours

Principles of database management, usage, applications, and teaching suggestions. Students will use currently established software applications used by businesses.

CTST 575 CYBERSPACE, INTERNET, AND WEB PUBLISHING - 3 semester hours

Study of procedures, organization, and methods of desktop publishing as used in office occupations. Skill development in elements of desktop publishing using current publishing software and other components of page layout, composition, and graphics software.

**MASTER OF SCIENCE DEGREE: CAREER AND TECHNICAL STUDIES
PROJECT MANAGEMENT (CONCENTRATION)**

The program in Project Management leads to the Master of Science (M.S.) degree in Career and Technical Studies (CSTS) with *concentration* in project management. The demand for professionals who can integrate and manage a company's project has created an emerging field in project management technology. The program is designed to provide the tools, techniques, and skills needed to effectively manage projects through appropriate learning activities and products. The curriculum covers the knowledge areas, industrial standards, and integrates business and industry courses with the theory and practice of project management. This program will assist you to better manage your project(s) from planning and team-building through quality and cost management.

Master of Science: The Master of Science degree in Project Management (Concentration) requires a minimum of 30 semester hours which will include a three-semester hour of Master's Thesis (CTST 539) dealing with issues in project management or a minimum of 33 semester hours for the Non-thesis option. The non-thesis option will include CTST 525: Contract and Procurement Management and CTST 570: Integrated Project Management (the CAPM Certification). Candidates may take either the GRE or the GMAT and obtain an acceptable score to qualify for candidacy.

**Summary Requirements
Master of Science Degree**

Required Courses	Sem. Hrs.
CTST 509 Project Management Systems.....	3
CTST 511 Quality Management.....	3
CTST 519 Project Planning & Scheduling.....	3
CTST 520 Project Communications	3
CTST 521 Project Cost Management.....	3
CTST 527 Project Leadership.....	3
CTST 532 Risk Management and Analysis	3
Elective (in Project Management).....	<u>3</u>
Total	24
 Requirement for the Thesis Option	
CTST 536 Research Methodology.....	3
CTST 539 Master's Thesis	3

Requirement for the Non-thesis Option

CTST 515 Quantitative Methods and Analysis.....	3
CTST 525 Contract and Procurement Management.....	3
CTST 570 Integrated Project Management (CAPM Certification)	3

Course Descriptions**CTST 509 PROJECT MANAGEMENT SYSTEMS – 3 semester hours**

Fundamental elements of project management including project planning, organizing, team building, and effective control mechanisms. Critical factors for project success, organizational support systems; appropriate application of project management software to project planning and control. The project management body of knowledge including professional and social responsibility.

CTST 511 QUALITY MANAGEMENT – 3 semester hours

Investigation of emerging principles of industrial quality and its implementation. Emphasis on the quality function, implementation, cost, and management in construction, manufacturing, and service industries. The course provides students with a set of quality concepts, tools, and knowledge required for their application in quality planning, quality improvement, and quality control.

CTST 515 QUANTITATIVE METHODS & ANALYSIS – 3 semester hours

The statistical analysis of data for professional applications and/or research with emphasis on quantitative methodologies. Populations, sample selection, descriptive and inferential statistics, significance, correlation, Chi Square, and ANOVA. Regression and concepts of reliability, validity, and levels of measurement.

Prerequisite: Introductory Statistics

CTST 519 PROJECT PLANNING AND SCHEDULING – 3 semester hours

Project management skills needed to define, plan, monitor, and complete projects as well as to identify the tools and techniques to resolve problems. Scheduling fundamentals and the different methods of scheduling; network schedules and diagram; scheduling calculations and the critical path.

Prerequisite: CTST 509

CTST 520 PROJECT COMMUNICATIONS – 3 semester hours

The processes associated with project communications management—communications planning, information distribution, performance reporting, and administrative closure to ensure “timely and appropriate generation, collection, dissemination, storage, and ultimate disposition of project information” (PMBOK).

CTST 521 CONTRACT AND PROCUREMENT MANAGEMENT – 3 semester hours

Various processes utilized to acquire and/or purchase products, services or results needed from outside the project team to perform the activities/work. Tools and techniques for purchases and acquisitions; contract management, administration, and closure. Seller selection and responses. The legal rules/regulations pertaining to effective operation of projects.

CTST 525 PROJECT ESTIMATING AND COST MANAGEMENT – 3 semester hours

Using project scope statement, historical data and personal expertise to predict resource expenditure, total cost and duration of a project. Identification of constituent physical elements and related activities necessary to meet project objectives. Computation of elemental project cost; establishing project budget on the basis of the project estimate.

Prerequisite: CTST 519

CTST 527 PROJECT LEADERSHIP – 3 semester hours

The human side of project leadership; motivating, organizing, and managing project teams; communication and conflict management issues. Emphasis on experiential skill development, its purpose in helping students to understand, analyze, and develop effectiveness in leading and managing others in project-based activities.

Prerequisite: CTST 521

CTST 532 RISK MANAGEMENT AND ANALYSIS – 3 semester hours

Typology of risk exposures. Inputs to risk management and identification. Risk management stages in the project life cycle. Quantitative and qualitative risk analyses; risk response planning; risk monitoring and control. Organizing for risk management.

CTST 535 CHANGE MANAGEMENT

Theories, principles, and forces of change. Perspectives on change—behavioral, psychodynamic, cognitive, and humanistic-psychology approaches; change management approach, tools, techniques, process, strategy, and activities. The leadership of change and making change happen.

CTST 536 RESEARCH METHODOLOGY – 3 semester hours

Hypothesis formulation and verification examined in areas of research interest. A research proposal will be presented to the program's graduate committee.

Prerequisite: STAT 510

CTST 565 ADVANCED PROJECT MANAGEMENT SYSTEMS – 3 semester hours

The alignment of corporate, industrial, organizational, and operational strategies into a project strategy as a means of achieving competitive advantage or adding value through projects. Project success, generic/value chain strategies; the diffusion of project innovation. Case studies and analysis of best practices.

Prerequisite: CTST 509, CTS 532

CTST 570 INTEGRATED PROJECT MANAGEMENT – 3 semester hours

This course must be taken in the student's final semester and will focus on integrating project management body of knowledge, skills and tools developed in previous courses. Emphasis on analysis, synthesis, and evaluation of theories and application of project management strategies. The CAPM credentialing is recommended.

CTST 578 MASTERS PROJECT – 3 semester hours

Students are expected to design and conduct action research relevant to problem solution(s) in project management. A written document of the project is required and an oral exam will be given at the end of the experience. A professional exam (Certified Associate Project Manager) of the Project Management Institute may be required in lieu of the action research. A faculty member is required to supervise the project or review the exam.

CTST 579 THESIS – 3 semester hours

The candidates for Masters Thesis will be required to form their Graduate Committee of three faculty members, chaired by a full member of the graduate faculty.

Criminal Justice

The Master of Science in Criminal Justice program will provide opportunities for advanced graduate work and scholarship in criminal justice. The program is designed to: 1) provide entry into leadership positions in criminal justice professions; 2) provide advanced professional educational opportunities for those who already work in the field of criminal justice, and 3) produce a new generation of academics capable of pursuing doctoral studies and leading the profession of criminal justice in the 21st century. The students graduating with a Master of Science degree in Criminal Justice will: 1) demonstrate a thorough understanding of the field of criminal justice; 2) acquire theoretical knowledge of crime and criminal behavior; 3) have improved skills for conducting scientific research in criminal justice; 4) develop improved competence in criminal justice administration and leadership; and 5) attain academic competence to pursue doctoral studies in criminal justice.

Course Descriptions

Core Courses (18 credit hours required of all students)**CJUS 501 THEORIES OF CRIME AND CRIMINOLOGY - 3 semester hours**

Survey of the contemporary theories of crime and criminality. Study of the biological, psychological, and sociological perspectives on crime and deviance, and assessment of theoretical advances including integration and general theories of crime. Understanding of relations between theories and crime policy.

CJUS 502 CONTEMPORARY CRIMINAL JUSTICE - 3 semester hours

This course will examine the evolving nature of the contemporary criminal justice system in the United States. The students will gain knowledge about the evolution of the Bill of Rights, competing interpretations of the constitution, Supreme Court cases, and other laws and institutions unique to the American Criminal Justice System.

CJUS 503 RESEARCH METHODS IN CRIMINAL JUSTICE - 3 semester hours

Introduction to research design as applied to problems in crime and criminal justice. Logic, design analysis and ethical principles in criminal justice research. Design and preparation of Master's Thesis proposal.

CJUS 504 STATISTICS AND DATA ANALYSIS IN CRIMINAL JUSTICE - 3 semester hours

The study of descriptive and inferential statistics in analyzing criminal justice data from such agencies as the Bureau of Justice Statistics, UCR system of the FBI, National Incidence Based Reporting System, and National Archives of Criminal Justice Data. Students will learn to use of SPSS and SAS in relation to data entry and data analysis, and the use and modification of secondary data sets.

CJUS 505 POLICY ANALYSIS IN CRIMINAL JUSTICE - 3 semester hours

The course will examine the federalization of crime policy, key actors in crime policy-making, enactment of different crime legislations by federal and state government, and public attitudes towards crime and terrorism. Students will learn how crime policy is made, who make them, and how crime policy-making impacts on crime control and punishment.

CJUS 506 ETHICS IN CRIMINAL JUSTICE - 3 semester hours

This course will examine the standards and codes of responsibility in criminal justice professions, such as the Law Enforcement Code of Ethics, ABA Standards of Professional Responsibility, American Jail Association Code of Ethics, and the American Correctional Code of Ethics. The students will also obtain knowledge about different systems of ethical thoughts and morality related to criminal justice.

CONCENTRATION COURSES (12 credit hours)**Concentration 1: Domestic and International Security Issues****CJUS 511 INTRODUCTION TO HOMELAND SECURITY - 3 semester hours**

This course will introduce students to the history, structure and the development of the institutions of homeland security in America. The course will particularly focus on the various aspect of Homeland Security as outlined in the Office of Homeland Security's publication "National Strategy for Homeland Security". Through the use of case-based instructions, students will learn how different federal, state, and local agencies collectively work for homeland security in a highly complex environment.

CJUS 512 NATIONAL SECURITY AND INTERNATIONAL TERRORISM – 3 semester hours

This course will examine the rise of global terrorism and its impact on national security in America. The students will obtain knowledge about the Weapons of Mass, Destruction, bioterrorism, and cyber terrorism, and the threats they pose to America's homeland security, and the challenges they bring to America's criminal justice system.

CJUS 513 CYBER TERRORISM - 3 semester hours

This course will introduce students to the nature of cyber terrorism - a new digital weapon that poses serious threats to our financial system, transportation, communications, and emergency services and public safety. The course will examine the detection, prevention, and response to this emerging threat.

CJUS 514 TRANSNATIONAL ORGANIZED CRIME - 3 semester hours

In recent years, there has been an explosive growth of organized criminal groups who are engaged in transnational money laundering, drug trafficking, trafficking of women and children for sex, and illegal human trafficking. This course will examine the impact of these organized crime cartels on the institutions of the criminal justice system in America and other major industrialized countries.

CJUS 515 COMPARATIVE CRIMINAL JUSTICE - 3 semester hours

This course will examine the nature and the philosophy of the American Criminal Justice System by comparing and contrasting it with those of other industrialized countries such as the United Kingdom, Canada, Germany, China, and Japan. The course will particularly focus on how these different countries are responding to global terrorism, and restructuring their domestic security institutions.

CJUS 516 CIVIL RIGHTS AND CIVIL LIBERTIES IN CRIMINAL JUSTICE - 3 semester hours

This course will examine the impact of various recent legislations related to Homeland Security, such as the USA Patriot Act of 2001 and the National Homeland Security Act of 2003, on individual rights and civil liberties in America. The students will gain insights about the problem of balance between security and individual liberty in the context of the evolving problem of globalization and global terrorism.

CJUS 517 CRIME POLICY IN AMERICA - 3 semester hours

This course will examine the recent growth in legislations and policy related to domestic security and global terrorism in America and other major industrialized countries. The students will also obtain knowledge about the development of various security agencies and their broader impact on the criminal justice system.

CJUS 518 SECURITY AND EMERGENCY PREPAREDNESS - 3 semester hours

This course will examine the various recent federal and state legislations and policy initiatives related to emergency management and preparedness. The students will develop an understanding of the changing environment of domestic security in the context of global terrorism, and develop expertise to work in the areas of criminal justice related to emergency preparedness, both nationally and locally.

Concentration 2: Correctional Administration**CJUS 559 INTRODUCTION TO CORRECTIONS - 3 semester hours**

Nature of correctional work, aims and objectives of correctional administration, probation and practices, and the evolution of modern correctional institutions and practices.

CJUS 560 PRINCIPLES OF CORRECTIONAL OPERATIONS - 3 semester hours

Applying modern management methods and principles in correctional administration. Theoretical approaches for understanding modern correctional problems.

CJUS 561 MAJOR CLASSICS ON CORRECTIONS - 3 semester hours

Seminal works in the birth and evolution of modern prison and correctional institutions. The course will expose students to the classics of correctional thought and philosophy.

CJUS 562 INSTITUTIONAL TREATMENT AND THE OFFENDERS - 3 semester hours

This course will examine the modern philosophy and methods in the treatment of adult offenders and juvenile delinquents in correctional institutions. The students will learn the impact of institutional treatments on recidivism, and gain knowledge about the differences between institutional and community-based treatments.

CJUS 563 CORRECTIONS: REHABILITATION OF THE OFFENDERS – 3 semester hours

Analyzes the growth and evolution of the rehabilitative ideal and its application in correctional settings. The impact and evolution of different rehabilitative methods, including community-based interventions, faith-based interventions, counseling, self-help program, diversion, community services, and probation will be discussed. The future of the rehabilitative ideal in the context of the rise of new penology will be examined.

CJUS 564 CORRECTIONS: DRUG USE AND ABUSE - 3 semester hours

Nature and extent of drug abuse by inmates and probationers. Relations between drug abuse and recidivism. Prison-based drug addiction treatment and counseling program.

CJUS 565 PRISON DESIGN AND PRISON VIOLENCE - 3 semester hours

Relations between prison design and inmate behavior, violence, and rehabilitation. Study of the different models of prison design, including linear International Surveillance model, the Popular Remote Surveillance model, and Popular Direct Surveillance model.

CJUS 566 HEALTH CARE AND MENTAL HEALTH IN PRISON - 3 semester hours

Study of health care delivery systems in federal and state prisons. Explores the effects of long-term imprisonment on health care cost and other management consequences.

CJUS 567 ETHICS IN CORRECTIONAL MANAGEMENT - 3 semester hours

An overview of ethical issues related to corrections and correctional management. Understanding of contemporary correctional issues and their broader ethical contexts and significance.

Concentration 3: Criminal Justice Administration and Management**CJUS 550 SEMINAR IN ORGANIZATION AND ADMINISTRATION - 3 semester hours**

This course will provide a comprehensive overview of criminal justice administration and management with an emphasis on organizational theories. Different theories of organization and organizational behavior will be examined and their relevance to the administration of criminal justice agencies will be explored.

CJUS 551 HUMAN RESOURCE DEVELOPMENT - 3 semester hours

This course will introduce the theories and principles of human resource management as tools for management in criminal justice agencies. The students will also learn the impact of various federal and state laws on human resource management in criminal justice agencies including hiring and promotion, reward system, gender equality, issues of cultural diversity, and dispute resolutions.

CJUS 552 RESEARCH METHODS AND PLANNING RESOURCES - 3 semester hours

This course will examine the different theories of strategic planning as they relate to criminal justice organizations. The students will learn to synthesize research-based knowledge for effective management of criminal justice agencies.

CJUS 553 COMMUNITY THEORIES AND CRIMINAL JUSTICE - 3 semester hours

Surveys and analyzes literature on relations between crime and communities. Examines the theories of relations between crime, demography, and ecology, and assess their impact on justice administration. Different models of community crime preventive strategies and their administrative implications are examined.

CJUS 554 SEMINAR IN LEADERSHIP AND MANAGEMENT - 3 semester hours

Explores the theories of leadership and their relevance to criminal justice management: The students will learn the art and the principles of strategic leadership and their use in effective and innovative management of criminal justice organizations.

CJUS 555 LAW AND CRIMINAL JUSTICE MANAGEMENT - 3 semester hours

Examination of the legal issues commonly facing managers in justice agencies related particularly to personnel management, human resource management, labor laws, and intra-agency dispute resolution. Both state and federal statutory and case laws are examined.

CJUS 556 COMPUTER AND CRIMINAL JUSTICE MANAGEMENT – 3 semester hours

The course is designed to teach the applications of computer in matters of storage, processing, and dissemination of criminal justice data and information. The students will gain understanding of contemporary federal and state criminal justice information networks systems and programs.

CJUS 557 PROGRAM EVALUATION IN CRIMINAL JUSTICE MANAGEMENT - 3 semester hours

Principles and techniques of program evaluation as they relate to crime and justice programs. Understanding of the different models of program evaluation, and their relative significance in criminal justice management.

CJUS 558 BUDGETARY ASPECTS OF CRIMINAL JUSTICE MANAGEMENT - 3 semester hours

Study of criminal justice management from the perspectives of the different models of budgeting. Understanding of state and federal budgetary principles and allocations in justice programs.

Concentration 4: Minorities and the Criminal Justice System**CJUS 530 MINORITIES & CRIME - 3 semester hours**

Interdisciplinary theories introduced to facilitate understanding of particular groups affected by the criminal justice system, including definitions and characteristics of behaviors as well as management, control, and prevention relative to these groups.

CJUS 531 THE POLICE & INNER CITY PROBLEMS - 3 semester hours

Role of the police officer in relation to the customs and problems of urban inner city communities. Comparative analysis of techniques used by law enforcement agencies to deal with crime specifically in inner cities.

CJUS 532 PROBLEMS OF THE AFRICAN-AMERICAN COMMUNITY AND THE CRIMINAL JUSTICE SYSTEM - 3 semester hours

Review of advanced research on crime and African-American communities with special attention to different aspects and role players in criminal justice system. Brings historical perspective in understanding the relationship that exists currently between the members of African-American community and the members of criminal justice agencies.

CJUS 533 AFRICAN-AMERICANS & CRIMINOLOGICAL THOUGHT – 3 semester hours

The role of new pedagogical thought in examining crime issues relative to society. Focuses on African-American criminology and its importance to the field of criminology.

CJUS 534 CRIMINAL JUSTICE IN A MULTICULTURAL SOCIETY 3 - semester hours

Society in a global economy tends to be multicultural and diverse. Maintaining law and order in a highly diverse environment requires special emphasis on the cultural dimensions of different ethnic, racial and religious groups. This course identifies issues surrounding offenders of different ethnic and religious groups and provides research based methods about how to deal with them.

CJUS 535 WOMEN AND CRIMINAL JUSTICE - 3 semester hours

Identifies issues surrounding women as offenders, victims, and criminal justice professionals. Investigates explanations for the involvement of women in illegal activities. Functions, powers, procedures, and limitations germane to women, with particular emphasis on those operating in the criminal justice field. Reviews the participation of women in law enforcement, judicial proceedings, corrections, and law making.

CJUS 536 COMPARATIVE PERSPECTIVES ON CRIME - 3 semester hours

Explores crimes from a global perspective and finds the involvement of foreign elements with the domestic law and order situation. Compares and contrasts law enforcement in the United States with police system in selected countries. Identifies similarities and differences in administration, organization, principal functions and objectives.

CJUS 537 CRIME, SEX, LAW AND ORDER - 3 semester hours

Explores the global ties that exist between the international trafficking of sex workers and local criminal interest groups. With the rise of global economy and internet connections, pornography has become a lucrative business enterprise for many members of organized crimes. The course examines the globalization of sex crimes and the issues of illegal trafficking of women and children.

CJUS 538 POLICE AND THE GHETTOIZATION OF COMMUNITIES - 3 semester hours

Examines the various perspectives on the nature of police roles in urban ghettos, particularly in African-American communities. Understanding of the perceptions of police in urban ghettos as law enforcement agents and as preservers of social order.

Criminal Justice Elective Courses**CJUS 570 ADVANCE DATA ANALYSIS AND USE OF SPSS - 3 semester hours**

Study of the use of statistical data and models in the development and management of criminal justice projects. Will focus on discussing issues in crime analysis and crime mapping.

CJUS 571 USE OF SECONDARY DATA SOURCES IN CRIMINAL JUSTICE - 3 semester hours

Application of advanced statistical models and computer methodologies in the use and analysis of secondary data sources from the National Institute of Justice and other federal agencies. Will focus on learning the art of research synthesis using statistical and computer models.

CJUS 572 JUVENILE JUSTICE SYSTEM -3 semester hours

Reviews the history and philosophy of the juvenile justice system in America. Study of federal and state statutes and court decisions related to juvenile justice. Also provides comparative overview of juvenile justice practices in major industrialized countries.

CJUS 574. THEORIES OF JUVENILE DELINQUENCY - 3 semester hours

Examines the major medical, psychological, and sociological theories of juvenile delinquency and the recent efforts for theoretical integration in juvenile delinquency studies and research.

CJUS 575 PRISON AND PENOLOGY - 3 semester hours

Reviews the history of punishment with emphasis on the changing role of penitentiary in the criminal justice system. The goal of punishment, including deterrence, incapacitation, and rehabilitation are discussed and examine.

CJUS 576. COMMUNITY-ORIENTED POLICING - 3 semester hours

The nature, philosophy, and the evolution of community policing as a model for law enforcement. Organization, strategies, and the role of community-policing in crime control and prevention strategies.

CJUS 577 CONSTITUTIONAL LAW AND THE CRIMINAL JUSTICE SYSTEM - 3 semester hours

Analyzes the role of the U.S. Constitution and the Bill of Rights in shaping the American criminal justice system. Landmark decision of the U.S. Supreme Court related to substantive and procedural criminal justice issues.

CJUS 579 JUSTICE THEORIES - 3 semester hours

The nature of different justice theories: retributive justice, therapeutic justice, restorative justice, and community justice. How different justice theories define crime and punishment and interpret the balance between individual liberty and public order.

CJUS 580 VICTIMOLOGY - 3 semester hours

Study of the victim's experience with the criminal justice system. Topics in this course will include psychological impacts of crime, the process and impacts of victimization, legal approaches to victims, services provided to victims, restorative justice and emerging understandings of the victim.

CJUS 590 MASTER'S PROJECT - 3 semester hours

This course is designed for candidates who select Plan B toward fulfilling the requirements for the Master of Science in Criminal Justice. Students taking this option will complete a Policy Paper under the guidance of a criminal justice faculty member.

CJUS 599 RESEARCH AND MASTER'S THESIS - 6 semester hours

The candidates for Master's Thesis will be assigned a Graduate Committee of three faculties to supervise the completion of the thesis project. The Thesis must be defended in an oral defense.

Economics

The Department of Economics offers a program of graduate study in economics leading to the Master of Arts (M.A.) degree. This program provides for the thesis and non-thesis options. Both program options provide analytical and decision-making tools appropriate for a broad range of professional careers. A core in microeconomic theory, macroeconomic theory, and quantitative methods provides students with the foundation necessary to make sound decisions in different environments. These principles are further developed and reinforced in a variety of elective courses appropriate for many applied areas.

These program options can be completed over periods of as little as one year of full-time study or two years part-time. Late afternoon and evening classes permit the employed individual to pursue a degree without altering current employment status.

The M.A. program offers a concentration in Public Administration. The concentration is structured to integrate broad principles of decision-making criteria, cost-benefit analysis, and planning functions with problems pertinent to Public Administration. The courses in this concentration are designed to permit an overall view of both policy and applications of economic principles to the functional requirements of public administrators. Public Administration Theory is a requirement for the concentration. Possible courses in the Public Administration concentration include:

Economic Problems and Public Policy	Management Economics
Personnel Administration	Organizational Behavior
Public Administration Theory (required)	Population Economics
Public Policy Process and Evaluation	Public Finance
Public Sector Budgeting	Economics of Regulation
Internship in Public Administration	

Unconditional Admission

(a) An applicant is admitted unconditionally if the student has met all the general requirements of the Graduate School. b) has taken and passed the following courses: principles of microeconomics, principles of macroeconomics, and college algebra (or calculus). In addition, the Department requires Graduate Record Examination (GRE) with scores of 400 each in Verbal and Quantitative respectively.

Conditional Admission

An applicant is admitted on conditional status if the applicant has not met any of the requirements above but shows promise of being able to do the work. Once admitted, the student must complete all the deficiencies within the first semester of entrance to the program.

Program Requirement

A minimum of 30 semester hours of credit are required for completion of the M.A. degree program. Up to 9 of the 30 hours may be taken in related fields outside of Economics, in 400-level courses, or transfer graduate credits subject to the approval of the graduate advisor in Economics and the Graduate School. The core curriculum, which all majors are required to complete, includes the following courses:

ECON 510-ADVANCED MICROECONOMICS
 ECON 520-ADVANCED MACROECONOMICS
 ECON 530-QUANTITATIVE METHODS
 ECON 590-RESEARCH METHODOLOGY

Course Descriptions**ECON 500 GRADUATE PRINCIPLES OF ECONOMICS -3 semester hours**

Survey of Principles of Economics, including essential elements of microeconomics and macroeconomics. This course is only for graduate students who need exposure in Economics and may be used in the graduate education curriculum. It may not be used for credit toward the graduate degree Program in Economics.

ECON 510 ADVANCED MICROECONOMICS -3 semester hours

Foundations of price theory. A rigorous study of the allocating function of prices in our economy. Models and case studies of consumer behavior, product demand, production, costs, the firm in various market structures, factor employment, and factor income distribution. Welfare implications of the theory are examined.

Prerequisite: ECON 210 Principles of Microeconomics

ECON 511 INDUSTRIAL ORGANIZATION -3 semester hours

Study of the structure and operation of American industry. Topics covered: pricing and output decisions of firms under different market structures; determinants of market structure; theories of oligopoly and monopolistic competition. Empirical findings on structure and performance of markets examined.

Prerequisite: ECON 210

ECON 512 ECONOMICS OF REGULATION -3 semester hours

A systematic and critical analysis of the impact of the regulatory process upon the transportation and public utility industries with special attention to capital requirements, resource utilization, and pricing processes.

Prerequisite: ECON 210

ECON 513 MANAGERIAL ECONOMICS -3 semester hours

Applications of economics method to planning and decision-making of the firm. Topics include methods of maximizing profits, costs, market structure, forecasting, and pricing. Case studies used.

Prerequisite: Intermediate Microeconomics or permission of instructor

ECON 520 ADVANCED MACROECONOMICS -3 semester hours

Foundations of aggregate income determination. Labor and product-market structures and monetary and fiscal policies are examined as to their impact on aggregate output, the price level, and interest rates.

Prerequisites: ECON 210, ECON 211 or ECON 500.

ECON 521 MONETARY ECONOMICS -3 semester hours

Monetary theory, policy, and banking institutions examined. Effectiveness and channels of monetary policy assessed along with implications for bank lending policies.

Prerequisites: ECON 210, ECON 211 or ECON 500

ECON 523 PUBLIC FINANCE -3 semester hours

Study of government receipts and expenditures. Emphasis is placed on methods of evaluation (benefit-cost), administration (bureaucracy control), and organization (centralization vs. decentralization) of the public sector with special reference to their application in practice.

Prerequisite: ECON 510 or consent of instructor

ECON 524 PUBLIC ECONOMIC ADMINISTRATION THEORY -3 semester hours

Presents the basic principles, concepts and scope of the Public Administration professional field. It examines the basic contemporary literature, administrative models, intellectual approaches, and pragmatic developments within the field of Public Administration. These are considered in the light of the important issues and problems related to management, decision making, organizational structure and implementation of public policy.

ECON 525 PERSONNEL ADMINISTRATION -3 semester hours

Examination of the concepts, principles, and techniques applied by professional practitioners in the public sector. Applications of the behavioral sciences to personnel management in both the private and public sectors are analyzed. Opportunities are afforded to explore developments in employee relations and unionism in the public sector.

ECON 526 PUBLIC POLICY PROCESS AND EVALUATION -3 semester hours

The course examines the public policy process and provides a theoretical and practical rationale of the rigorous evaluations of socioeconomic problems. Topics to be discussed will include experimental and quasi-experimental design, research designs, internal and external validity, utilization of evaluation policy-making, and the political and environmental context of evaluation.

ECON 530 QUANTITATIVE METHODS -3 semester hours

Application of statistical and mathematical methods to the estimation of economic relations. Regression analysis is developed as a framework for hypothesis testing, economic forecasts, and econometric simulations. Use of statistical computer software is presented in the course.

Prerequisite: 3 semester hours of Introductory Statistics.

ECON 531 ADVANCED ECONOMETRICS -3 semester hours

Study of advanced econometric methods, problems, and models.

Prerequisite: ECON 530 or consent of instructor

ECON 535 ORGANIZATIONAL BEHAVIOR -3 semester hours

An examination of human behavior in public organizations with a focus on the manager's role and strategies used for administering more effectively. Topics studied include individual behavior and motivation, interpersonal and group behavior, leadership and power, and organizational change and development.

Prerequisite: ECON 510 or Instructor's Consent

ECON 536 PUBLIC SECTOR BUDGETING -3 semester hours

An analysis of how governments obtain and utilize financial resources. Issues discussed will include budget cycles, budgetary theories, and concepts such as efficiency, equity, and accountability, as well as political, economic and social influences on the budgetary process.

ECON 538 FINANCIAL ECONOMICS -3 semester hours

Study of concepts, practices, and problems in managing financial decision making of firms. Attention is given to working capital management, capital budgeting, capital structure planning, and dividend policy. Concepts related to the topics include risk management, time value of money, stock and bond valuation, efficient markets, exchange rate theory, agency problems, and ethical dilemmas.

Prerequisite: ECON 520

ECON 540 LABOR ECONOMICS -3 semester hours

An analysis of the supply and demand for labor, the allocation of labor resources, the structure of employment and the determination of wages. The development of the American labor movement and the process of collective bargaining are studied as they affect employment and earnings.

Prerequisite: ECON 510 or Instructor's Consent

ECON 542 POPULATION ECONOMICS -3 semester hours

Economic determinants and effects of population growth and age structure from developed and less developed countries. Special attention is given to the implication of population growth for economic development and public policy.

Prerequisite: Prior or concurrent enrollment in ECON 520 or consent of instructor

ECON 550 DEVELOPMENT ECONOMICS -3 semester hours

Theories, programs, and strategies of economic development as applied to economies that are preindustrial or in early stages of industrialization. Analysis of factors deterring economic expansion and of policies for continuous growth. Theories of economic underdevelopment are studied and tested wherever possible.

Prerequisite: Prior or concurrent enrollment in ECON 520 or consent of instructor

ECON 551 INTERNATIONAL ECONOMICS -3 semester hours

The theory of international values, comparative advantage, and the gains from trade; alternative routes to adjustment in the balance of payments, capital movements.

Prerequisite: ECON or consent of instructor

ECON 570 HISTORY OF ECONOMIC THOUGHT -3 semester hours

Surveys historical contributions to the advancement of economic analysis, knowledge, and thought including the Physiocratic, Classical, Marginalist, Socialist, Neoclassical, Institutional, and contemporary schools of thought.

Prerequisite: ECON 210

ECON 580 READINGS IN ECONOMICS -3 semester hours

Independent supervised study in areas of particular interest to supplement course requirements.

Prerequisite: ECON 210

ECON 581 SPECIAL TOPICS IN ECONOMICS -3 semester hours

A course allowing students to study topics of special interest which are not available as regular courses. The special topic is selected by the instructor and will be reported on the student's transcript.

Prerequisite: ECON 210

ECON 582 SEMINAR IN PUBLIC ADMINISTRATION -3 semester hours

A seminar designed to study the development and process of policy making at the local, state, and national level. The emphasis in this course is on problem solving an individual research. Each student is required to identify a problem area and prepare a research paper for class discussion in which a solution to the problem is proposed and analyzed.

Prerequisite: Consent of instructor

ECON 585 INTERNSHIP IN PUBLIC ADMINISTRATION -3 semester hours

Provides an opportunity for a supervised internship placement at a government or service agency. The purpose is to provide practical experience, test academic models, participate in intergroup experiences, and to develop professional management skills. This course is designed to provide students with operational perspectives relating to agency functions in the delivery of human services.

Prerequisite: Consent of instructor

ECON 590. RESEARCH METHODOLOGY -3 semester hours

Hypothesis formulation and verification examined in areas of research interest. A proposal is presented.

Prerequisites: ECON 510, ECON 530

ECON 598. COMPREHENSIVE EXAMINATION -0 semester hours

This course is to be taken by students in the Master of Economics program during the semester that they are eligible and plan to take the required comprehensive examination.

Prerequisites: (a) admission to candidacy by the Graduate School, (b) 30 semester hours of complete approved coursework including ECON 510, 520, 530, and 590, and enrollment in remaining course work, and (c) approval by the candidate's faculty advisor to apply for the examination.

ECON 599. THESIS -3 semester hours

Research of a scholarly nature in the student's area of interest. The thesis must include a survey of existing literature as well as the student's own findings. The thesis is designed to teach organization of research in the application of research and the application of economic principles to economic problems.

Prerequisite: Admission to candidacy by the Graduate School and completion of ECON 590.

English

The Department of Languages and Literature offers two program options leading to a Master of Arts degree with specialization in English.

Master of Arts Degree – Thesis Option

Admission Requirements

An applicant must meet the general requirements of the graduate division of the School of Graduate Studies, Research and Outreach and hold a bachelor's degree with a major in English, English Education, comparative literature, or some area of the Humanities with a minimum of 18 semester hours of undergraduate English courses beyond the freshman level. (Students who have not fulfilled these specific course requirements may complete them while pursuing the M.A.)

Program Requirements

The student will completed 36 semester hours in English studies. This total must include a minimum of 18 semester hours of coursework within the Department in the study of literature, including ENGL 555, Intensive Study of an Author (3 semester hours). Students must also take a course in methods of research, such as ENGL 517, Problems and Methods of Research. Students may take up to nine semester hours in related fields outside the Department with the approval of student's advisor. Additional coursework may come from the areas of linguistics, English education, or other Departmental offerings. To demonstrate their knowledge of the field, students will complete this program by taking ENGL 570, Comprehensive Examination.

Students are expected to have completed the equivalent of two years of college credit (12 semester hours) in a modern foreign language, such as French, German, or Spanish.

Program Summary – Thesis Option

Literature Studies	18 semester hours
Research Methods (e.g., ENGL 517)	3 semester hours
Elective (may include 9 semester hours outside the Department)	15 semester hours
Comprehensive Examinations (ENGL 570).....	0 semester hours
Total	36 semester hours

Master of Arts Degree – Non-Thesis Option**Admission Requirements**

An applicant must meet the general requirements of the graduate division of the School of Graduate Studies, Research and Outreach and hold a bachelor's degree with a major in English, English Education, comparative literature, or some area of the humanities with a minimum of 18 semester hours of undergraduate English courses beyond the freshman level. (Students who have not fulfilled these specific course requirements may complete them while pursuing the M.A.)

Program Requirements

Students will be required to complete a minimum of 18 semester hours of course work within the Department in the study of literature. Additional course work may come from the areas of linguistics, English Education, or other departmental offerings. Students may take three semester hours in a related field outside the Department with the approval of the student's advisor. No specific courses are required: students may choose from the complete Department offerings and should consult with their advisor as to the current courses which best meet their interests.

Students are expected to have completed the equivalent of two years of college credit (12 semester hours) in a modern foreign language, such as French, German, or Spanish.

Program Summary – Non-Thesis Option

Literature Studies (including ENGL 555).....	18 semester hours
Research Methods (e.g., ENGL 517)	3 semester hours
Elective (may include 6 semester hours outside the Department)	15 semester hours
Comprehensive Examination (ENGL 570)	0 semester hours
Total	36 semester hours

Course Descriptions**ENED 531. METHODS AND MATERIALS FOR THE ENGLISH CLASS - 3 semester hours**

Concentration in theoretical bases, organization, and management of different types of classes; aims of teachers and ways to create environments which will most likely promote these goals; relationships between students and teachers, students and students.

ENED 532. LINGUISTICS AND LANGUAGE INSTRUCTION - 3 semester hours

Study of significant linguistic research in the areas of modern grammatical theory, geographical and socio-cultural dialectology, language learning, and writing instruction; the implications of research findings for the English and language arts teacher.

ENED 533. PRACTICUM - 6 semester hours

A supervised graduate level field experience. The particular type of experience to be determined by the student's educational needs and interests in consultation with the student's graduate advisor. Designed to meet the student teaching requirement for those who have not yet done so.

ENED 534 WRITING WORKSHOP - 3 or 6 semester hours

A group of classes (scheduled during the summer session) designed to provide intensive training for teachers in developing strategies, techniques, and materials concerning the writer's craft. To provide opportunities for students to study past and current research in the field and to write papers in various modes and from different points of view.

ENGL 501 CHAUCER- 3 semester hours

Study of the Canterbury Tales, Troilus and Criseyde, and/or selected minor poems. Graduate course offered concurrently with ENGL 401.

ENGL 502 MILTON - 3 semester hours

Study of the chief poems and prose works of Milton. Some emphasis on Milton's religious and political ideas. Graduate course offered concurrently with ENGL 402.

ENGL 503 SHAKESPEARE I - 3 semester hours

Survey of Shakespeare's early work, with reading of selected plays and their study against the background of Jacobean social, racial, critical, and theatrical ideas. Emphasis on comedies and histories. Graduate course offered concurrently with ENGL 403.

ENGL 504 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, racial, critical, and theatrical ideas. Emphasis on tragedies and romances. Graduate course offered concurrently with ENGL 404.

ENGL 505 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. Graduate course offered concurrently with ENGL 405.

ENGL 506 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. Graduate course offered concurrently with ENGL 406.

ENGL 507 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. Graduate course offered concurrently with ENGL 407.

ENGL 508 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. Graduate course offered concurrently with ENGL 408.

ENGL 509 READINGS IN ENGLISH STUDIES - 1-3 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. Graduate course offered concurrently with ENGL 409.

ENGL 510 READINGS IN AFRICAN AMERICAN LITERATURE - 3 semester hours

Variable content. Intensive study of a major issue, movement, form, theme, or writer in African American literature and culture. May be repeated once for credit with different topic, with consent of department. Graduate course offered concurrently with ENGL 410.

ENGL 511 READINGS IN AFRICAN LITERATURES 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. Graduate course offered concurrently with ENGL 411.

ENGL 512 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 cultures from which it springs. Graduate course offered concurrently with ENGL 412.

ENGL 516 ENGLISH WRITING PROFICIENCY - 3 semester hours

A course to enhance writing skills of graduate students with a need for improved verbal skills. Focuses on writing and verbal skills which will be helpful in a graduate program. Not to be counted as credit as part of a graduate program.

ENGL 517 PROBLEMS AND METHODS OF RESEARCH - 3 semester hours

Primarily for graduate students working for a higher degree or its equivalent. Techniques of research in English studies.

ENGL 520 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 521 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. Graduate course offered concurrently with ENGL 421.

ENGL 531 SEMINAR IN ENGLISH LITERATURE, 450-1660 -3 semester hours

Variable content. An examination of issues, themes, and/or genres in British literature of the Middle Ages and/or Renaissance. May be repeated for credit with different topic, with consent of department.

ENGL 532 SEMINAR IN ENGLISH LITERATURE, 1660-1837 - 3 semester hours

Variable content. An examination of issues, themes, and/or genres in British literature of the Restoration, Neoclassical, and/or Romantic periods. May be repeated for credit with different topic, with consent of department.

ENGL 533 SEMINAR IN ENGLISH LITERATURE, 1837-PRESENT - 3 semester hours

Variable content. An examination of issues, themes, and/or genres in British literature of the Victorian, Modern and Contemporary periods. May be repeated for credit with different topic, with consent of department.

ENGL 534 SEMINAR IN AMERICAN LITERATURE BEFORE 1800 - 3 semester hours

Variable content. An examination of issues, themes, and/or genres in American literature up to 1800. May be repeated for credit with different topic, with consent of department.

ENGL 535. SEMINAR IN NINETEENTH CENTURY AMERICAN LITERATURE - 3 semester hours

Variable content. An examination of issues, themes, and/or genres in American literature from 1800-1900. May be repeated for credit with different topic, with consent of department.

ENGL 536 SEMINAR IN TWENTIETH/TWENTY-FIRST CENTURY AMERICAN LITERATURE - 3 semester hours

Variable content. An examination of issues, themes, and/or genres in American literature from 1900 to the present. May be repeated for credit with different topic, with consent of department.

ENGL 537 SEMINAR IN AFRICAN-AMERICAN LITERATURE - 3 semester hours

Variable content. An examination of issues, themes, and/or genres in African-American literature. May be repeated for credit with different topic, with consent of department.

ENGL 538 SEMINAR IN WOMEN'S LITERATURE - 3 semester hours

An in-depth study of writings by women, examining major influential works from a variety of historical, social, and cross-cultural contexts, along with various critical theories constructed about women's literature.

ENGL 539 SEMINAR IN WORLD LITERATURE - 3 semester hours

Variable content. An examination of issues, themes, and/or genres in world literature. May be repeated for credit with different topic, with consent of department.

ENGL 540 SEMINAR IN LINGUISTICS AND LANGUAGE - 3 semester hours

Variable content. An examination of issues and problems in one or more of the major fields of linguistics study: phonology, morphology, syntax, semantics. May be repeated for credit with different topic, with consent of department.

ENGL 547 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.

Prerequisite: Permission of the instructor

ENGL 550 STUDIES IN POETRY - 3 semester hours

Variable content. An examination of poetry as a genre. May be repeated for credit with different topic, with consent of department.

ENGL 551 STUDIES IN DRAMA - 3 semester hours

Variable content. An examination of drama as a genre. May be repeated for credit with different topic, with consent of department.

ENGL 552 STUDIES IN FICTION - 3 semester hours

Variable content. An examination of fiction as a genre. May be repeated for credit with different topic, with consent of department.

ENGL 553 STUDIES IN NON-FICTION - 3 semester hours

Variable content. An examination of non-fiction as a genre. May be repeated for credit with different topic, with consent of department.

ENGL 554 STUDIES IN YOUNG ADULT LITERATURE - 3 semester hours

Study of literature for and about adolescents/young adults. Students will analyze recent young adult literature and significant earlier texts. Some consideration of curricular and pedagogical issues.

ENGL 555 INTENSIVE STUDY OF AN AUTHOR - 3 semester hours

Variable content. An intensive and extensive study of a writer. Consideration of style, dominant ideas, influence, development, criticism of the writer. May be repeated for credit once with different writer, with consent of the department.

ENGL 556 CRITICAL APPROACHES TO LITERARY TEXTS - 3 semester hours

An introduction to literary criticism and to the theoretical approaches that inform it.

ENGL 560 RESEARCH AND THESIS - semester hours**ENGL 570 COMPREHENSIVE EXAMINATION - 0 semester hour**

An oral and written examination to assess the candidates' overall knowledge of course work pursued in the graduate program and their ability to apply this knowledge to designated sets of circumstances.

Graduate Professional Education Programs

Governance

The Graduate Professional Education Programs are housed within the Professional Education Unit. 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.

THE DEPARTMENT OF GRADUATE PROFESSIONAL EDUCATION PROGRAMS

The following programs are offered for the preparation of teachers and other school personnel:

Master of Education (M.Ed.)	Master of Science (M.S.)	Doctor of Education (Ed.D)
<ul style="list-style-type: none"> • Education with concentrations in: <ul style="list-style-type: none"> ○ Elementary Education (PreK-6)* ○ Special Education (K-12)* • Counselor Education (PreK-12) • Educational Administration and Supervision PreK-12) 	<ul style="list-style-type: none"> • Counselor Education (PreK-12) • Community Counseling (Non-School setting) • Educational Administration And Supervision (PreK-12) • Educational Administration and Supervision (Non-school Setting) • Media and Technology (Non-School setting) 	<ul style="list-style-type: none"> • Educational Administration and Supervision (PreK- 12)

*Initial Teacher Preparation Programs

Admission Process

All applicants for the Graduate Professional Education Programs are required to submit the following documents to the School of Graduate Studies, Research and Outreach for initial screening:

1. Completed application to program with the \$25.00 fee
2. Two official transcripts from each collegiate institution attended (GP A of 2.5 or higher is required)
3. Proof of Graduate Record Examination (date taken and scores within the last five years)

Application Deadline

- May 1st for Fall admission
- November 1st for Spring admission

Upon initial screening the applications are forwarded to the Department Chair where they are given to each program coordinator for processing by the Admissions Committee. The committee reviews the applications based on the established program admissions criteria. These criteria can be found in the pages to follow. Applicants are notified of the committee's decision in writing by the Unit Head and the Dean of Graduate Studies, Research and Outreach. In addition to admissions standards, each program has established specific transition points for the candidates to meet once they enter the program.

Elementary Education (PreK-6)

Initial Licensure Program Description

The graduate program in Elementary Education offers a program of study that leads to a Master of Education degree. The program has been aligned with the Unit's Conceptual Framework proficiencies to support the development of competent, caring, effective, and reflective professional educators who are committed to addressing the challenges of educating all students for multicultural and global learning communities. As competent educators, candidates will understand the central knowledge, concepts, skills, and dispositions necessary in the field of teaching. As caring educators, candidates will show respect for all learners in the educational setting and empower them to set achievable goals while maintaining high ethical standards. As effective educators, candidates will use research-supported instructional methods and best practices and performance-based assessments to guide the learning of the PreK-6 students. Finally, as reflective educators, candidates will critically examine all aspects of the teaching/learning process including essential dispositions to create a safe and positive classroom and school culture.

The Professional Education Program has developed phases that serve as transition points for graduates to follow as they matriculate through the program: Admission, Midpoint - Advance to Candidacy, Candidacy, Program completion, and Graduate Follow-up.

Program Requirements and Transition Points

Phase I: Admission

Candidates must:

1. Have a grade point average of 2.7 or better (cumulative at the end of the final semester of undergraduate work)
2. Have taken the GRE (Graduate Record Examination), the score must be no more than 5 years old at the time of admission to the Graduate Elementary Education Program. The candidate has to score no less than 400 on the verbal and no less than 400 on the quantitative portions of the GRE.
3. 3. Submit official transcripts to verify core content areas for Elementary Education
4. Have a Scholastic Aptitude Test (SAT) score of 1100 with minimum scores of 530 verbal and 530 on mathematics or, pass the Praxis I assessment, with scores of 178 in Reading, 178 in Mathematics and 176 Writing or a composite score of 532.
5. Submit the following documentation showing completion of assessments required by the Virginia Department of Education:
 - a. Passing Praxis II scores for Elementary Education
 - 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)

The Program Admissions Committee reviews applications for admission and makes recommendations to the Graduate Admissions Committee.

Phase II: Midpoint - Advance to Candidacy

Candidates must

1. Complete a minimum of 12 hours of coursework
2. Maintain a 3.0 GPA at the graduate level in order to remain in the program. If candidates fail to maintain the 3.0 GPA, they will be placed on probation until this criterion is met.
3. Submit an application for candidacy

Phase III: Candidacy

Candidates must

1. Complete all Graduate Elementary Education Core courses
2. Passing score of 235 on the Virginia Reading Assessment (required July 2006)
3. Participate in full-time Internship
4. Receive a clinical site supervisor evaluation
5. Receive a university supervisor evaluation

Phase IV: Program Completion

Candidates must

1. Complete a Master's Project: Action Research Project
2. Validate Technology Skills for Instructional Personnel (TSIP's)
3. Complete the Child Abuse Recognition and Intervention Training
4. Complete the Candidate Exit Survey

Prior to graduating, candidates are required to complete all licensure documents required by the Virginia Department of Education. The Unit will submit the forms and documentation for licensure.

Phase V: Graduate Follow-up

1. Participate in a graduate and employer follow-up survey

All requirements for the master's degree program must be completed within 6 years from the initial admission into the graduate program, excluding periods of military service.

Curriculum Requirements

The Graduate Professional Education Programs in Elementary Education include the following course requirements:

3 semester hours	Restricted Course
9 semester hours	Common Core Courses
18 semester hours	Professional Courses

3 semester hours	Internship
3 semester hours	Master's Project: Action Research

Course Number	Course Title	Semester Hours
<i>Restricted Course</i>		
PSYC 512	Human Growth and Development	3
<i>Core Courses</i>		
EDUC 501	Foundation of Education	3
EDUC 513	Educational Research	3
STAT 510	Statistical Procedures in Education	3
<i>Professional Courses</i>		
EDUC 530	Curriculum and Instruction in the Elementary School	3
EDUC 531	Language Acquisition and Literacy in Elementary School	3
EDUC 532	Mathematics and Science Instruction in Elementary School	3
EDUC 533	Social Studies and the Creative Arts in the Elementary School	3
EDUC 538	Reading in the Content Areas	3
EDUC 541	Behavior Management in Educational Settings	3
<i>Internships and Seminar</i>		
EDUC 536	Internship in Elementary Education	3
<i>Master's Project: Action Research</i>		
EDUC 580	Master's Project: Action Research	3

Course Descriptions

EDUC 501 FOUNDATIONS OF EDUCATION - 3 semester hours

This course is designed to provide students with a sound basis for interpretation and evaluation of present day educational theories and practices by tracing the influence of historical, sociological, philosophical, and religious views upon the development of the education process.

EDUC 513 EDUCATIONAL RESEARCH - 3 semester hours

This course is oriented to the methodology of research and investigation in education. The candidates develop, with guidance, a research outline (and a pilot study) with emphasis on the following: (1) statement of problem, (2) related studies, (3) rationale of the proposed study, (4) hypothesis writing, and (5) procedures to be used in collection and evaluation of data. The course will include some examination of significant studies in the field of education and their significance for educational practice. This course is a core course, required of all Masters candidates and should be taken after STAT 510.

Prerequisite: STAT 510 Statistical Procedures in Education

EDUC 530 CURRICULUM AND INSTRUCTIONAL MATERIALS IN THE ELEMENTARY SCHOOL - 3 semester hours

This course focuses on curriculum development and instructional procedures in the elementary school. Attention is given to research, theory, practice, current issues and trends applicable to teaching and learning in the elementary classroom. Emphasis is placed on the roles of the teacher, classroom learning environments, curriculum integration, and instructional planning and teaching models. The utilization of current and emerging technologies in the educational process is emphasized as is the impact of curriculum design and implementation on the education of students with special needs.

EDUC 531 LANGUAGE ACQUISITION AND LITERACY IN THE ELEMENTARY SCHOOL - 3 semester hours

This course focuses on the research, issues, trends, theory and practice relative to instruction in reading and the other language arts in the elementary school. Attention is given to instructional approaches, methods, materials, and resources for planning, implementing, and evaluating learning. The utilization of current and emerging technologies in the educational process is emphasized as well as the education of students with special needs in the areas of language instruction and literacy.

EDUC 532 Mathematics and Science Instruction in the Elementary School - 3 semester hours

This course focuses on the research, issues, trends, theory and practice relative to instruction in mathematics and science in the elementary school. Attention is given to instructional approaches to identify methods, materials, and resources for planning, implementing, and evaluating learning. The utilization of current and emerging technologies in the educational process is emphasized as well as the education of students with special needs in the areas of mathematics and science.

EDUC 533 SOCIAL STUDIES AND THE CREATIVE ARTS IN THE ELEMENTARY SCHOOL - 3 semester hours

This course focuses on the study of research, issues, trends, theory and practice relative to instruction in the social studies and creative arts in the elementary school. This course emphasizes the role and importance of social studies and the creative arts; curriculum integration; unit planning; and resources for the instruction, implementation, and evaluation of learning. The utilization of current and emerging technologies in the educational process is emphasized as well as the education of students with special needs in the areas of social studies and the creative arts.

EDUC 536 INTERNSHIP IN ELEMENTARY EDUCATION - 3 semester hours

This course provides opportunities for in-service teachers and administrators to work directly with elementary-age children and their parents. Experiences include observation and participation in schools and the community as well as planning for guiding and evaluating technology and learning.

EDUC 538 READING IN THE CONTENT AREAS - 3 semester hours

This course is designed for elementary and secondary teachers to develop competencies in the teaching of reading in the elementary school. Emphasis is placed on the commonalities of reading skills as they relate 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 pupil assessment and for meeting instructional needs.

EDUC 541 BEHAVIOR MANAGEMENT IN EDUCATIONAL SETTINGS - 3 semester hours

This course explores individual and group behavior management techniques that address the management of student behavior, remediation of inappropriate social skills, and the development of appropriate social behavior. It includes the development of understandings relevant to those PSYCosocial aspects that affect self-esteem, behavior, and academic progress. The utilization of current and emerging technologies in the educational process is emphasized with special reference to elementary and special education settings.

EDUC 580 MASTER'S PROJECT - 3 semester hours

The Master's project requires students to plan, design, and implement an action research project that relates to problems and issues in one of the areas of concentration. A written document submitted in triplicate is required. The student must defend his/her project in an oral presentation before a faculty committee.

PSYC 512 HUMAN GROWTH AND DEVELOPMENT - 3 semester hours

This course focuses on the study of the principles of physical, mental, emotional and social growth of the individual and their implications for the learning process.

STAT 510 STATISTICAL PROCEDURES IN EDUCATION - 3 semester hours

This is a general terminal course designed primarily for graduate students enrolled in professional education research, PSYCOlogy, guidance, or other behavior sciences. It is defined as an applications approach to methodology of modern research. This course will help prepare individuals to comprehend, interpret, and report statistical results for use in educational research, thesis presentation, and publication in research journals. Elementary and advanced statistical methods will be discussed. Statistical software will be used to analyze and interpret large databases occurring in real life situations.

Note: EDUC 580 Master's Project: Action Research is required of all candidates enrolled in the Master of Education degree program. Also, concentrated courses and restrictive courses may have field experiences embedded in the course requirements.

Degree in Special Education (K-12)**Program Description**

The graduate program in Special Education offers a program of study that leads to a Master of Education degree with a concentration in Special Education for candidates who seek an endorsement in Learning Disabilities, Mental Retardation, and/or Emotional Disturbance. The program has been aligned with the Unit's Conceptual Framework outcomes to support the development of competent, caring, effective, and reflective professional educators who are committed to addressing the challenges of educating all students for multicultural and global learning communities. As competent educators, candidates will understand the central knowledge, concepts, skills, and dispositions necessary in the field of teaching. As caring educators, candidates will show respect for ailleamers in the educational setting and empower them to set achievable goals while

maintaining high ethical standards. As effective educators, candidates will use research-supported instructional methods and best practices and performance-based assessments to guide the learning of the K-12 students with exceptional learning needs. Finally, as reflective educators, candidates will critically examine all aspects of the teaching/learning process including essential dispositions to create a safe and positive classroom and school culture.

The Professional Education Program has developed phases that serve as transition points for graduates to follow as they matriculate through the program: Admission, Midpoint - Advance to Candidacy, Candidacy, Program Completion, and Graduate Follow-up.

Program Requirements and Transition Points

Phase I: Admission

Candidate must

1. Have a grade point average of 2.7 or better (cumulative at the end of the final semester of undergraduate work)
2. Have taken the GRE (Graduate Record Examination), the score must be no more than 5 years old at the time of admission to the Graduate Special Education Program. The candidate has to score no less than 400 on the verbal and no less than 400 on the quantitative portions of the GRE.
3. Submit official transcripts to verify core content areas for Special Education endorsement.
4. Have a Scholastic Aptitude Test (SAT) score of 1100 with minimum scores of 530 verbal and 530 on mathematics or, pass the Praxis I assessment, with scores of 178 in Reading, 178 in Mathematics and 176 Writing or a composite score of 532.
5. Submit the following documentation showing completion of assessments required by the Virginia Department of Education:
 - a. Passing Praxis II scores for Elementary Education is required to be considered highly qualified
 - b. A 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)

Program Area Admissions Committee reviews applications for admission and makes recommendations to the Graduate Admissions Committee.

Phase II: Midpoint-Advance to Candidacy

Candidates must

1. Complete a minimum of 12 hours of coursework
2. Maintain a 3.0 GP A at the graduate level in order to remain in the program. If candidates fail to maintain the 3.0 GP A, they will be placed on probation until this criterion is met.
3. Submit an application for candidacy

Phase III: Candidacy

Candidate must

1. Complete all Graduate Special Education core courses
2. Passing score of 235 on the Virginia Reading Assessment (required July 2006)
3. Participate in full-time Internship
4. Receive a clinical/site supervisor evaluation
5. Receive a university supervisor evaluation

Phase IV: Program Completion

Candidate must

1. Complete Master's Project: Action Research
2. Validate Technology Skills for Instructional Personnel (TSIP's)
3. Complete the Child Abuse Recognition and Intervention Training
4. Complete candidate exit survey

Prior to graduating, Candidates are required to complete all licensure documents required by the Virginia Department of Education. The Unit will submit the forms and documentation for licensure.

Phase V: Graduate Follow-up

Candidate must

1. Participate in a graduate and employer follow-up survey

All requirements for the master's degree program must be completed within 6 years from the initial admission into the graduate program, excluding periods of military service.

Curriculum Requirements

The Graduate Professional Education Programs in Special Education include the following course requirements:

3 semester hours	Restricted Course
9 semester hours	Common Core Courses
18 semester hours	Professional Courses
6 semester hours	Endorsement Area Courses (LD, MR, or ED)
3 semester hours	Internship
3 semester hours	Master's Project/Action Research

Course Number	Course Title	Semester Hours
<i>Restricted Course</i>		
PSYC 512	Human Growth and Development	3
<i>Core Courses</i>		
EDUC 501	Foundation of Education	3
EDUC 513	Educational Research	3
STAT 510	Statistical Procedures in Education and PSYCology	3
<i>Professional Courses</i>		
EDUC 502	Communication and Collaboration in Education	3
EDUC 503	Legal and Ethical Issues in Special and Inclusive Education	3
EDUC 540	Diagnosis of Learning and Behavioral Problems	3
EDUC 541	Behavior Management in Educational Settings	3
EDUC 542	Transition Education for Students with Disabilities	3
EDUC 543	Speech and Language Development: Disability and Intervention	3
EDUC 550	Developing Language and Reading Skills of Exceptional Learner	3
<i>Endorsement Area Courses</i>		
Learning Disabilities		
EDUC 544	Learning Disabilities in Children and Youth	3
EDUC 547	Students with Learning in Disabilities: Curriculum and Instructional Methods	3
Mental Retardation (MR)		
EDUC 545	Mental Retardation in Children and Youth	3
EDUC 548	Students with Mental Retardation: Curriculum and Instructional Methods	3
Emotional Disturbance (ED)		
EDUC 546	Emotional Disturbance in Children and Youth	3
EDUC 549	Students with Emotional Disturbance: Curriculum and Instructional Methods	3
<i>Internship</i>		
EDUC 553	Internship in Special Education	3
<i>Master's Project/Comprehensive Written and Oral Examination</i>		
EDUC 580	Master's Project/Action Research	3

Course Descriptions

EDUC 501 FOUNDATIONS OF EDUCATION - 3 semester hours

This course is designed to provide students with a sound basis for interpretation and evaluation of present day educational theories and practices by tracing the influence of historical, sociological, philosophical, and religious views upon the development of the education process.

EDUC 502 COMMUNICATION AND COLLABORATION IN EDUCATION - 3 semester hours

This core education course presents an overview of strategies and technologies appropriate to the development of effective communication with students, parents and other family members, school personnel, members of relevant professional disciplines, and the general community pertinent to the quality education of students in regular education, special education, and inclusive settings. The use of technology to enhance effective functioning in the roles of consultant and collaborator is explored with specific competencies identified and developed. Emphasis is also given to the use of technology in increasing competency in the management of instruction and behavior by professionals involved in collaboration.

EDUC 503 LEGAL AND ETHICAL ISSUES IN SPECIAL AND INCLUSIVE EDUCATION - 3 semester hours

This course provides a critical appraisal of the current nature, scope, and dimensions of contemporary and traditional education, special education, and inclusive education at the local, state, and national levels. Special emphasis is placed on the roles of both regular and special educators as collaborative teachers in inclusive settings. In addition, theoretical, legal, and practical issues and recent research and program development and evaluation concerned with the treatment, education, and rehabilitation of exceptional individuals are extensively reviewed. The utilization of current and emerging technologies in the educational process is emphasized.

EDUC 513 EDUCATIONAL RESEARCH - 3 semester hours

This course is oriented to the methodology of research and investigation in education. The candidates develop, with guidance, a research outline (and a pilot study) with emphasis on the following: (1) statement of problem, (2) related studies, (3) rationale of the proposed study, (4) hypothesis writing, and (5) procedures to be used in collection and evaluation of data. The course will include some examination of significant studies in the field of education and their significance for educational practice. This course is a core course, required of all Masters candidates and should be taken after STAT 510.

Prerequisite: STAT 510 Statistical Procedures in Education

EDUC 540 DIAGNOSIS OF LEARNING AND BEHAVIOR PROBLEMS - 3 semester hours

This course is designed to provide knowledge of current research and issues in the assessment of exceptional individuals. This course focuses on techniques and procedures for assessing, diagnosing, and remediating learning and behavioral problems. An increase in skill in administering and scoring assessment instruments and interpreting test data is expected. Candidates are expected to demonstrate competence in implementing the diagnostic-prescriptive process as related to special education populations. The utilization of current and emerging technologies in the educational process and diagnostic procedures appropriate to elementary-age students is emphasized.

EDUC 541 BEHAVIOR MANAGEMENT IN EDUCATIONAL SETTINGS - 3 semester hours

This course explores individual and group behavior management techniques that address the management of student behavior, remediation of inappropriate social skills, and the development of appropriate social behavior. It includes the development of understandings relevant to those psychosocial aspects that affect self-esteem, behavior, and academic progress. The utilization of current and emerging technologies in the educational process is emphasized with special reference to elementary and special education settings.

EDUC 542 TRANSITION EDUCATION FOR STUDENTS WITH DISABILITIES - 3 semester hours

This course focuses on the study of curriculum models appropriate to educating students with disabilities. Emphasis is placed on the development of pertinent knowledge, skills, and values in career, vocational, leisure and social skill development. Experiences include career, transition, vocational exploration and programming. The utilization of current and emerging technologies in the educational process is emphasized in the development of career, leisure, and social skills for students with special needs.

EDUC 543 SPEECH AND LANGUAGE DEVELOPMENT, DISABILITY AND INTERVENTION - 3 semester hours

This course explores language development and speech and language deficits associated with articulation disorders, voice production, fluency, and hearing loss. Educational interventions to address learner deficits are introduced. Emphasis is given to teaching reading skills to students with language and learning difficulties.

EDUC 544 LEARNING DISABILITIES IN CHILDREN AND YOUTH - 3 semester hours

This course presents the characteristics and educational and related needs in terms of theoretical underpinnings and specific age-span/development issues related to cognitive functioning, multicultural influences, emotional adjustment, social development, medical interventions, and the effective delivery of instruction to learners with specific learning disabilities.

EDUC 545 MENTAL RETARDATION IN CHILDREN AND YOUTH - 3 semester hours

This course explores the etiology of mental retardation with special attention to the implications for instructional programming and the provision of special education and related services by the public schools and other agencies. Definitions, classification systems, characteristics, incidence, sociocultural aspects, and the effects of diverse sociocultural influences are studied.

EDUC 546 EMOTIONAL DISTURBANCE IN CHILDREN AND YOUTH - 3 semester hours

This course provides students with knowledge of the most commonly used definitions, classification systems, characteristics, incidence and prevalence, diagnosis, and etiology of behavioral and emotional problems of children and youth. Theoretical constructs of emotional disturbance provide the context for interventions that are introduced. The candidate is made knowledgeable about the implications of educational research, the application of educational technology, as well as issues and trends, including mainstreaming, inclusion, collaborative teaching, and P. L. 101-476 (Individuals with Disabilities Education Act).

EDUC 547 STUDENTS WITH LEARNING DISABILITIES: CURRICULUM AND INSTRUCTIONAL METHODS - 3 semester hours

This course explores instructional programming, and student and program evaluation appropriate to learners with specific learning disabilities with the goal of facilitating their integration in the educational mainstream. Included are methods for remediating oral and written language learning disabilities and social emotional and nonverbal disabilities. The utilization of current and emerging technologies in the educational process is emphasized.

EDUC 548 Students with Mental Retardation: Curriculum and Instructional Methods - 3 semester hours

A course surveys methods and materials as well as curricular approaches, modifications, and models, especially those that facilitate the integration of students with mental retardation into the continuum of educational programs and services. The utilization of current and emerging technologies in the educational process is emphasized.

EDUC 549 Students with Emotional Disturbance: Curriculum and Instructional Methods - 3 semester hours

This course is designed to acquaint the student with the major theoretical models and instructional programming techniques appropriate to the education of students with emotional disturbance. Emphasis is also placed on strategies for managing the physical and instructional environment; the academic, behavioral, and affective development of students from diverse sociocultural backgrounds; the inclusion of these students in the educational mainstream; and relevant research related to instructional modifications and curriculum development. The utilization of current and emerging technologies in the educational process is emphasized.

EDUC 550 DEVELOPING LANGUAGE AND READING SKILLS OF EXCEPTIONAL LEARNERS - 3 semester hours

This course provides the candidates with a strong knowledge base and requires demonstration of the skills needed to: (a) assess and develop the language and reading skills of exceptional learners from Pre-K through adolescence, (b) distinguish between the influence of cultural difference and disability in the acquisition and development of skills, (c) develop IEPs based on appropriate use of the general education curriculum and SOLs, (d) design, select, implement, and evaluate reading and language programs, and (e) use technology in language and reading instruction. Current related research, trends, and issues are examined.

EDUC 553 INTERNSHIP IN SPECIAL EDUCATION - 3 semester hours

This supervised field experience provides the graduate candidate with an opportunity to use and develop skills, attitudes, and competencies necessary to be successful in managing and instructing exceptional individuals with diverse needs and backgrounds. The candidate will apply strategies and competencies gained from related courses to the assigned educational setting(s).

EDUC 580 MASTER'S PROJECT - 3 semester hours

The Master's project requires students to plan, design, and implement an action research project that relates to problems and issues in one of the areas of concentration. A written document submitted in triplicate is required. The student must defend his/her project in an oral presentation before a faculty committee.

PSYC 512 HUMAN GROWTH AND DEVELOPMENT - 3 semester hours

This course focuses on the study of the principles of physical, mental, emotional and social growth of the individual and their implications for the learning process.

STAT 510 STATISTICAL PROCEDURES IN EDUCATION - 3 semester hours

This is a general terminal course designed primarily for graduate students enrolled in professional education research, psychology, guidance, or other behavior sciences. It is defined as an applications approach to methodology of modern research. This course will help prepare individuals to comprehend, interpret, and report statistical results for use in educational research, thesis presentation, and publication in research journals. Elementary and advanced statistical methods will be discussed. Statistical software will be used to analyze and interpret large databases occurring in real life situations.

Counselor Education

The Department of Professional Education Program offers a program in Counselor Education, which leads to the Master of Science or Master of Education degree. The Counselor Education program also offers an option which leads to the Pupil Personnel Services Endorsement. This course of study professionally trains and prepares those who wish to pursue careers in school counseling (PreK-12) in elementary, middle/junior high or high school settings. In accordance with the Professional Education Program Unit's Conceptual Framework, the Counselor Education program prepares competent, effective, caring, and reflective counselors who create positive educational environments for all students. The Counselor Education program also offers an option for those who possess a Master Degree and seek endorsement in Pupil Personnel Services to be a School Counselor. As competent counselors, candidates will understand the knowledge, concepts and skills necessary to address the challenges and needs of all students. As caring counselors, candidates will be committed to and demonstrate high ethical and professional

standards. As effective counselors, candidates will develop counseling programs based upon the knowledge of learning, teaching and student development and will use multiple sources of information and data to facilitate the counseling process. Finally, as reflective counselors, candidates will examine their personal values, beliefs, and goals, as well as, integrate ethical and professional standards to become an effective practitioner who facilitates a positive environment for all students.

The Professional Education Unit has developed phases that serve as transition points for graduates to follow as they matriculate through the program: Admission, Midpoint - Advance to Candidacy, Candidacy, Program Completion, and Graduate Follow-up.

Program Requirements and Transition Points

Phase I: Admission

Candidates must:

1. Have minimum undergraduate academic grade point of 2.8
2. Submit a personal statement describing personal characteristics, personal development reasons for seeking this degree, personal and professional experiences that influenced you to pursue counseling, and attributes you possess which contribute to your effectiveness as a counselor
3. Submit 3 Professional Recommendations (addressing character, academic promise, suitability for the counseling profession)
4. Submit a resume of work experience and education
5. Submit 2 official transcripts
6. Present a competitive GRE score, less than 5 years old.

A personal interview with the program faculty admissions committee may be requested. Under certain conditions, a student may be admitted provisionally.

Pupil Personnel Services Endorsement Criteria for Program Admission

1. Must hold a Master's degree
2. Personal statement describing personal characteristics, personal development reasons for seeking this endorsement, personal and professional experiences that influenced you to pursue counseling, and attributes you possess which contribute to your effectiveness as a counselor
3. Submit 3 Professional Recommendations (addressing character, academic promise, suitability for the counseling profession)
4. Submit a resume of work experience and education
5. Submit 2 official transcripts
6. A personal interview with the program faculty admissions committee may be requested.

Transfer Students

Students transferring into the Counselor Education graduate program will have to adhere to the same program admission criteria.

Phase II: Midpoint - Admission to Candidacy

Candidates must

1. Complete a minimum of 12 hours of course work
2. Maintain a B average or above in all content and core course
3. Submit an application for candidacy

Phase III: Candidacy

Candidates must

1. Advance to candidacy
2. Complete all required coursework
3. Participate in a 200 hour practicum PreK-6
4. Participate in a 200 hour practicum 6-12
5. Receive an on-site supervisor evaluation
6. Receive an university supervisor evaluation
7. Submit counseling practicum portfolio

Phase IV: Program Completion

Candidates must

1. Successfully complete the oral and written comprehensive exam
2. Complete a candidate exit survey

Prior to graduating, Candidates are required to complete all licensure documents required by the Virginia Department of Education. The Unit will submit the forms and documentation for licensure.

Phase V: Graduate Follow-up

Candidate must

1. Participate in a graduate and employer follow-up survey

All requirements for the master's degree program must be completed within 6 years from the initial admission into the graduate program, excluding periods of military service.

Counselor Education (PreK-12)

The Master of Education degree program requires a minimum of 48 semester hours of academic credit (no more than 6 of which may be transferred from another university) and a written/oral comprehensive examination. This includes three (3) core courses, ten (10) program courses, three (3) specialization courses, and one (1) advisor-approved elective course.

Core Courses (9 semester hours)

COUN 528	Analysis of Individual Growth and Development
EDUC 513	Educational Research
COUN 526	Measurement and Evaluation in Counseling

Program Course Number	Course Title	Semester Hours
EDUC 513	Educational Research	3
COUN 523	School Counseling (PreK-12)	3
COUN 524	Ethics in Counseling	3
COUN 525	Principles of Counseling	3
COUN 526	Measurement and Evaluation of Counseling	3
COUN 527	Career Development and Counseling	3
COUN 528	Analysis of Individual Growth and Development	3
COUN 529	Theories of Counseling	3
COUN 530	Techniques of Counseling	3
COUN 531	Group Procedures in Counseling	3
COUN 532	Counseling for Special Needs	3
COUN 537	Practicum	3
COUN 541	Counseling Children	3
COUN 549	Internship	3
COUN 553	Multicultural Counseling	3
COUN 599	Oral/Written Comprehensive Examination	0

Specialized Course Number	Specialized Course Titles	Semester Hours
COUN 523	School Counseling (PreK-12)	3
COUN 532	Counseling Strategies for Special Needs	3
COUN 541	Counseling Children	3
	Elective Courses (3 semester hours – not an exhaustive list)	
COUN 533	Problems and Adjustment	3
COUN 554	Diagnosis and Treatment	3
COUN 555	Family System	3
EDUC 203	Seminar in Education	3
EDUC 220	Educational Technologies	3
PSYC 513	Educational PSYCology	3

Counselor Education (PreK-12)

The Master of Science degree program in Counselor Education (PreK-12) requires a minimum of 54 semester hours of academic credit (no more than 6 of which may be transferred from another university). The M.S. places greater emphasis on research and evaluation. Candidates are required to complete a quantitatively based research thesis. This program includes three (4) core courses, ten (9) program courses, three (3) specialization courses, and one (1) research course.

Core Courses (9 semester hours)

COUN 526	Measurement and Evaluation in Counseling
COUN 528	Analysis of Individual Growth and Development
EDUC 513	Educational Research

Program Course Numbers	Program Course Titles	Semester Hours
STAT 510	Statistical Procedures in Education	
COUN 524	Ethics in Counseling	3
COUN 525	Principles of Counseling	3
COUN 527	Career Development and Counseling	3
COUN 529	Theories of Counseling	3
COUN 530	Techniques of Counseling	3
COUN 531	Group Procedures in Counseling	3
COUN 537	Practicum	
COUN 549	Internship	3
COUN 553	Multicultural Counseling	3
Specialized Course Numbers	Specialized Course Titles	
COUN 523	School Counseling (PreK-12)	3
COUN 532	Counseling for Special Needs	3
COUN 541	Counseling Children	3
Course Number	Thesis	
COUN 539	Research and Thesis	3

Pupil Personnel Services Endorsement

This program is designed to allow candidates to meet the Commonwealth of Virginia certification requirements for an endorsement in school counseling. Candidates must currently possess a M.Ed., M.S. or M.A. degree. This program requires a minimum of 39 semester hours of academic credit (no more than 6 of which may be transferred from another university) and a written comprehensive examination. This includes ten (10) program courses and three (3) specialization courses.

Program Course Numbers	Program Course Titles	Semester Hours
COUN 524	Ethics in Counseling	3
COUN 525	Principles of Counseling	3
COUN 526	Measurement and Evaluation in Counseling	3
COUN 527	Career Development and Counseling	3
COUN 528	Analysis of the Individual Growth and Development	3
COUN 529	Theories of Counseling	3
COUN 530	Techniques of Counseling	3
COUN 531	Group Procedures in Counseling	3
COUN 537	Practicum	3
COUN 599	Oral/Writing Comprehensive Examination	0
Specialized Course Number	Specialized Course Title	Semester Hours
COUN 523	School Counseling Seminar	30

M.S. Community Counseling (Non-school setting)

This program is designed for candidates interested in working in a community agency and/or non-school setting. Master of Science degree program requires a minimum of 54 semester hours of academic credit (no more than 6 of which may be transferred from another university). The M.S. places greater emphasis on research and evaluation. Candidates are required to complete a quantitatively based research thesis. This program includes four (4) core courses, nine (9) program courses, three (3) specialization courses, and one (1) research course.

Core Courses (9 semester hours)

COUN 526	Measurement and Evaluation in Counseling
COUN 528	Analysis of Individual Growth and Development
EDUC 513	Educational Research
STAT 510	Statistical Procedures in Education

Program Course Numbers	Program Course Titles	Semester Hours
COUN 524	Ethnics in Counseling	3
COUN 525	Principles of Counseling	3
COUN 527	Career Development and Counseling	3
COUN 529	Theories of Counseling	3
COUN 530	Techniques of Counseling	3
COUN 531	Group Procedures in Counseling	3
COUN 537	Practicum	3
COUN 549	Internship	3
COUN 553	Multicultural Counseling	3
Specialized Course Numbers	Specialized Course Titles	
COUN 536	Community/Agency Counseling	3
COUN 554	Diagnosis and Treatment	3
COUN 555	Family System	3
Research Course Number	Research Course Title	
COUN 539	Thesis	3

Course Descriptions

COUN 523 SCHOOL COUNSELING (PreK-12) - 3 semester hours

The developmental role of the school counselor is examined from prekindergarten through 12th grade of high school. Characteristics of learners, skills and processes, program planning and evaluation, coordination, counseling and staffing patterns all will be considered at each school level.

Prerequisites: COUN 526 Measurements and Evaluation in Counseling
COUN 531 Group Procedures and Counseling

COUN 524 ETHICS IN COUNSELING - 3 semester hours

This course is designed to acquaint students with the ethical, legal, and professional issues in counseling. Current trends in the venues and practice of counseling will be covered.

COUN 525 PRINCIPLES OF COUNSELING - 3 semester hours

This course provides comprehensive survey of the counseling field, stressing philosophy, principles, and the need for counseling in schools, the community, and higher education.

COUN 526 MEASUREMENT AND EVALUATION IN COUNSELING - 3 semester hours

This is an advanced course in group testing, organized to acquaint counselors and other school personnel with the various types of standardized tests, with emphasis on scoring, computations, and interpretation procedures.

COUN 527 CAREER DEVELOPMENT AND COUNSELING - 3 semester hours

This course explores the scope and purpose of the career development process, with special attention given to the theories and research related to career counseling. Occupational, education, and personal-social information resources are reviewed, with a variety of field visits arranged. The course emphasizes the integration of career development concepts in counseling programs for all ages.

COUN 528 ANALYSIS OF INDIVIDUAL GROWTH AND DEVELOPMENT - 3 semester hours

This course is designed to assist counselors in studying individuals and their problems, helping pupils understand themselves, and assisting pupils to plan realistic courses of action toward solving their problems and developing their potential.

Prerequisites: COUN 525 Principles of Counseling; COUN 526 Measurement and Evaluation

COUN 529 THEORIES OF COUNSELING - 3 semester hours

This course is designed for the candidate to critically analyze the major theories of counseling. Emphasis is placed upon the rationale underlying counseling and theoretical approaches.

Prerequisites: COUN 524 Ethics in Counseling; COUN 525 Principles of Counseling

COUN 530 TECHNIQUES OF COUNSELING - 3 semester hours

This course focuses on the concepts, strategies, and techniques of the counseling process. Attention is given to relationship building and practical application of the major counseling theories.

Prerequisite: COUN 529 Theories of Counseling

COUN 531 GROUP PROCEDURES IN COUNSELING - 3 semester hours

This course is designed to help counselors learn how to organize and lead effective groups in various settings. Candidates will study group dynamics and group procedures with an emphasis on the developmental needs of all ages.

Prerequisites: COUN 529 Theories of Counseling; COUN 530 Techniques of Counseling

COUN 532 COUNSELING FOR SPECIAL NEEDS - 3 semester hours

This course is designed to help counselors identify and gain an in-depth understanding of individuals with special needs and develop counseling skills to assist such individuals.

Prerequisites: COUN 525 Principles of Counseling; COUN 529 Theories of Counseling;
COUN 530 Techniques of Counseling

COUN 533 PROBLEMS AND ADJUSTMENT - 3 semester hours

This course focuses on the nature and causes of adjustment problems and of the various techniques utilized by individuals to cope with such problems. The role of motivation in behavior and adjustment is examined along with the evidence of adjustment and maladjustment. Attention is also given to counseling interventions that can assist individuals in learning to cope effectively with adjustment problems.

COUN 536 COMMUNITY/AGENCY COUNSELING - 3 semester hours

This course provides a study of human services in such settings as mental health, social service, religious, penal, rehabilitation and employment agencies. It focuses on the counseling and consulting skills that prepare counselors to provide effective client assistance and to work collaboratively in the community.

COUN 537 PRACTICUM - 3 semester hours

This course provides supervised practice of at least 200 hours in a counseling setting similar to the setting in which the candidate may work. Skills and practice build on previous practicum experiences.

Prerequisites: Degree candidacy
Completion of at least 40 semester hours towards degree
Faculty endorsement

COUN 538 Integrative Seminar - 3 semester hours

This seminar is designed for master's degree candidates in their final semester of course work. Students will demonstrate their competencies in integrating knowledge and skill acquired through training and experience..

Prerequisites: COUN 529 Theories of Counseling; COUN 530 Techniques of Counseling;
COUN 531 Group Procedures and Counseling

COUN 539 Thesis - 3 semester hours

This course provides the opportunity for a formal and directed quantitative research investigation into counseling topics, issues, problems and/or outcomes.

Prerequisites: Degree candidacy
Completion of at least 40 semester hours towards degree
Faculty endorsement

COUN 541 COUNSELING CHILDREN - 3 semester hours

This course will present theories, techniques, and strategies for working with children and adolescents and their families. Explores counseling issues related to this population. Provides practice of techniques and strategies with emphasis on supervised practice sessions.

COUN 548 SEMINAR IN TOPICAL ISSUES - 3 semester hours

This seminar focuses on topical issues and problems of special interest in counseling.

COUN 549 INTERNSHIP - 3 semester hours

Provides supervised practice of at least 200 hours in a counseling setting similar to the setting in which the Candidate may work. Skills and practice build on previous practicum experiences.

Prerequisite: Faculty endorsement

COUN 553 MULTICULTURAL COUNSELING - 3 semester hours

This course is designed to covers the issues, characteristics, and needs relevant to diverse populations as they relate to counseling. Candidates explore counseling from a multicultural perspective.

COUN 554 DIAGNOSIS AND TREATMENT - 3 semester hours

This course is designed to assist counselors in the study of the principles of diagnosis and use of current diagnostic tools, including the current edition of the Diagnostic and Statistical Manual. Emphasis is placed on principles and models of biopsychosocial assessments, case conceptualization, concepts of normalcy and psychopathology leading to diagnoses and appropriate counseling plans.

Prerequisites: COUN 529 Theories of Counseling; COUN 530 Techniques of Counseling;
COUN 536 Seminar in Community Services

COUN 555 FAMILY SYSTEMS - 3 semester hours

This course is designed to assist counselors in the study of family systems and dynamics by critically analyzing counseling theories and techniques. Emphasis is placed on family structure, dynamics, strategies and techniques employed in family counseling.

Prerequisites: COUN 529 Theories of Counseling; COUN 530 Techniques of Counseling
COUN 536 Seminar in Community Services

COUN 599 ORAL AND WRITTEN COMPREHENSIVE EXAMINATION - 0 Semester Hours

Candidates take an oral and written examination designed to assess their overall knowledge of course work completed in the program and their ability to apply this knowledge to designated sets of situations. This examination allows candidates to demonstrate their skill of integration of theory and course work with practical application. It must be taken during one of the last/final two (2) semesters of enrollment in the program. This course is required of all students seeking M.Ed. in Counseling.

Prerequisites: Degree candidacy must be met a minimum of one (1) semester prior to course Registration
Completion of at least 42 semester hours towards degree
Faculty endorsement

EDUC 513 EDUCATIONAL RESEARCH - 3 semester hours

This course is oriented to the methodology of research and investigation in education. The candidates develop, with guidance, a research outline (and a pilot study) with emphasis on the following: (1) statement of problem, (2) related studies, (3) rationale of the proposed study, (4) hypothesis writing, and (5) procedures to be used in collection and evaluation of data. The course will include some examination of significant studies in the field of education and their significance for educational practice. This course is a core course, required of all Masters candidates and should be taken after STAT 510.

Prerequisite: STAT 510 Statistical Procedures in Education

STAT 510 STATISTICAL PROCEDURES FOR EDUCATION AND PSYCHOLOGY - 3 semester hours

This is a general terminal course designed primarily for graduate students enrolled in professional education research, psychology, guidance, or other behavior sciences. It is defined as an applications approach to methodology of modern research. This course will help prepare individuals to comprehend, interpret, and report statistical results for use in educational research, thesis presentation, and publication in research journals. Elementary and advanced statistical methods will be discussed. Statistical software will be used to analyze and interpret large databases occurring in real life situations.

Educational Administration and Supervision

The program in Educational Administration and Supervision, offers a program of study that leads to the M.S., M.Ed., or Ed.D. in Educational Administration and Supervision for candidates who seek an endorsement as a school or district level administrator. The outcomes of the programs have been aligned with the unit's conceptual framework outcomes to support the development of competent, caring, effective and reflective professional administrators who are committed as leaders to addressing the challenges of educating all students for multicultural and global learning communities. As competent leaders, candidates will understand the central knowledge, concepts and skills necessary in the administrative field. As caring leaders, educational leadership candidates will show respect for all stakeholders in the educational setting and empower them to set achievable goals while maintaining high standards. As effective leaders, candidates will use research-based instructional methods and best practices and performance assessments to guide the implementation of the instructional process. Finally, as reflective leaders, candidates will step back from themselves and the situation to examine all aspects of the teaching/learning/administrative process, including essential dispositions to create a positive school culture and learning environment.

**MASTER OF SCIENCE AND MASTER OF EDUCATION IN
EDUCATIONAL ADMINISTRATION AND SUPERVISION (PREK-12)***

The course of study in this major leads to a Master of Science or Master of Education degree. All candidates who are admitted to the program are working toward an endorsement as a school administrator. The Master of Science degree requires completion of stated required courses and a thesis. The Master of Education degree requires 45 hours of courses, including an internship and an oral and written comprehensive examination.

Completion of the School Leadership Licensure Assessment, with a minimum score of 165, is required by the state of Virginia for licensure.

***Endorsement only option (non-degree program):** Candidates holding a Masters degree in appropriate educational areas may meet endorsement requires after completing required content courses to include an internship. All graduate school and program requirements must be met prior to admission.

Requirements and Transition Points

Phase I: Admission

Candidates must:

1. Hold a professional, five-year renewable teaching license.
2. Have at least 3 years of successful experiences as a teacher by the date the program is completed. A candidate may not enter the last 6 hours of course work until successful professional teaching experience has been satisfied.
3. Present a competitive GRE score, less than 5 years old. Under certain conditions, candidate may be admitted provisionally for one semester or 6 hours of coursework prior to submission of GRE scores.
4. Provide a reflective personal essay describing educational leadership aspirations.
5. Have an undergraduate GP A of not less than 2.8 on a 4.0 scale.
6. Maintain a 3.0 GPA at the graduate level in order to be retained in graduate school.
7. Have three letters of recommendation from individuals familiar with applicants experience as an educational professional and potential as an educational leader.
8. Submit 2 original transcripts of all undergraduate and graduate credits.

Phase II: Midpoint - Admission to Candidacy

Candidates must

1. Complete a minimum of 12 hours of course work
2. Maintain a B average or above in all content and core course
3. Submit an application for candidacy
4. Complete the Professional Education Program Leadership Assessment (required completion of minimum of half of content courses prior to the assessment)

Phase III: Candidacy

Candidates must

1. Advance to candidacy
2. Complete all required coursework
3. Participate in a full-time internship
4. Receive a clinical/site supervisor evaluation
5. Receive a university supervisor evaluation

Phase IV: Program Completion

Candidates must

1. Successfully complete three years teaching experience
2. Successfully complete oral and written comprehensive exam
3. Complete candidate exit survey

Prior to graduating, Candidates are required to complete all licensure documents required by the Virginia Department of Education. The Unit will submit the forms and documentation for licensure.

Phase V: Graduate Follow-up

Candidates have an option to

1. Participate in a graduate and employer follow-up survey
2. Submit School Leadership Licensure Assessment Data

All requirements for the master's degree program must be completed within 6 years from the initial admission into the graduate program, excluding periods of military service.

Curriculum Requirements

Course Number	Course Title	Semester Hours
EDUC 501	Foundation of Education	3
EDUC 513	Educational Research	3
STAT 510	Statistical Procedures in Education and PSYCology	3
EDAS 581	Supervision of Instruction	3
EDAS 582	Organization and Administration	3
EDAS 583	Public School Law	3
EDAS 584	Curriculum Development	3
EDAS 585	Personnel Administration	3
EDAS 586	Evaluation of Instruction	3
EDAS 587	School Plant Management	3
EDAS 588	School Finance	3
EDAS 589	School Community Relations	3
EDAS 679	Internship/Seminar	3
EDUC 520	Technologies of Media	3
PSYC 512/515	Human Growth and Development/Learning Theory	3
*EDAS 597	Oral and Written Comprehensive Exam	0
**EDAS 599	Research and Thesis	0

Endorsement Only (non-degree program)

Course Number	Course Title	Semester Hours
EDUC 581	Supervision of Instruction	3
EDUC 582	Organization and Administration	3
EDUC 583	Public School Law	3
EDUC 584	Curriculum Development	3
EDUC 585	Personnel Administration	3
EDUC 586	Evaluation of Instruction	3
EDUC 587	School Plant Management	3
EDUC 588	School Finance	3
EDUC 589	School Community	3
EDUC 679	Internship/Seminar	3
EDUC 520	Technologies of Media	3
PSYC 512/515	Human Growth and Development/ Learning Theory	3
EDAS 597	Oral and Written Comprehensive Exam	0

Educational Administration and Supervision

(Non-Endorsed)

A program of study is offered which leads to the Master of Science degree in Educational Leadership for students wishing to pursue Educational Leadership/Management careers in public or non-public settings related to education. This degree program will not lead to endorsement as a public school administrator. Rather, the program concentrates on such duties as educational training of developers or managers in industry, government and businesses related to the educational field. This is a 39 semester credit hour program. The applicant should be presently in a military, industrial, managerial or other supervisory position.

Course Requirements

Core Courses (9 semester hours)

EDUC 501	Foundations of Education
EDUC 513	Educational Research
STAT 510	Statistical Procedures in Education and PSYCology

The candidate and faculty advisor agree on a program of study to include not less than five EDAS courses and four cognate courses in the area of leadership concentration plus one elective.

Suggested EDAS Content Courses (15 semester hours)

EDAS 581 - Supervision of Instruction
EDAS 583 - Public School Law
EDAS 589 - School-Community Relations
EDAS 678 - Comprehensive Seminar
EDAS 512 - Strategies for Implementing Multi-Cultural Education
EDUC 520 - Technologies of Media

Cognate Courses (15 semester hours)

Of the 15 semester hours required in cognate courses, 12 must be in leadership courses

Course Descriptions**EDAS 581 SUPERVISION OF INSTRUCTION - 3 semester hours**

This course addresses principles, methods and techniques used to improve educational programs in all schools. Consideration is given to classroom supervision and various methods for the education of teachers in service.

EDAS 582 ORGANIZATION AND ADMINISTRATION - 3 semester hours

This course focuses on modern practices in organizing and administering schools and other educational agencies; types of agencies and schools, selection and assignment of personnel, programs of study, records, management of physical facilities, pupil personnel guidance, retention and improvement of staff communication within the school and the public.

EDAS 583 PUBLIC SCHOOL LAW - 3 semester hours

This course is an introduction to school law that deals primarily with laws relating to elementary and secondary public schools in the United States and addresses non-public schools only inasmuch as they are affected by general status. The course is flexible and may meet the needs of students of educational administration, public school administrators, teachers or laymen who are concerned with current readings and implications of school law.

EDAS 584 CURRICULUM DEVELOPMENT – 3 semester hours

This course provides a study of the fundamental aspects of school curriculum development and the basic issues underlying curriculum planning. Four significant aspects are educational directions, ordering potential experiences, patterns of curriculum organization, and the determination of principles and procedures by which change in the curriculum can be made, evaluated and sustained.

EDAS 585 PERSONNEL ADMINISTRATION - 3 semester hours

This course is designed to equip leaders in education with background knowledge in the organization and administration of personnel programs and services for educational institutions. Special attention is given to basic philosophies, principles, responsibilities and functions of personnel administration. It also explores and analyzes the rules, regulations, staff organization and utilization, and professional assessments and negotiations.

EDAS 586 EVALUATION OF INSTRUCTION - 3 semester hours

This course is organized to promote an understanding of evaluation as it is related to the instructional process, and to greater facilitate the use of recognized evaluation procedures. Students will take a critical look at current instructional practices, performance based teacher education, performance contracting, contracts for learning, interaction analysis, and the roles of various participants who provide an effective teaching-learning situation.

EDAS 587 SCHOOL PLANT MANAGEMENT - 3 semester hours

This course provides a study of educational facility sites and the design of buildings to assure maximum accommodation of modern education programs. The course will focus on educational specifications, building, planning, constructing, school plant management and maintenance. Current regulations pertaining to the ingress and egress of the handicapped will be considered.

EDAS 588 SCHOOL FINANCE - 3 semester hours

This course provides theoretical and contemporary bases for the acquisition and distribution of local, state and federal funds for the support of education. Problems and issues of financial support for schools will be analyzed in terms of developing alternatives for obtaining resources.

EDAS 589 SCHOOL COMMUNITY RELATIONS - 3 semester hours

This course provides for the study of the place and function of the school in American social life and investigation of community agencies and institutions, including those concerned with drugs and behaviors, which may be utilized in the interpretation of the school to the community.

EDAS 679 PRACTICUM/INTERNSHIP - 3 semester hours

This course consists of laboratory experiences designed to acquaint educational leaders with the mechanics of leadership, as well as their role in helping other personnel under their leadership to function effectively in today's educational climate.

EDAS 599 RESEARCH AND THESIS/PROJECT - 3 semester hours

This course is designed for formal research study in the candidate's major field. Approval of major professor required

EDUC 501 FOUNDATIONS OF EDUCATION - 3 semester hours

A one-semester course designed to provide students with sound basis for interpretation and evaluation of present day educational theories and practices by tracing the influence of historical, sociological, philosophical, and religious views upon the development of the education process.

EDUC 513 EDUCATIONAL RESEARCH - 3 semester hours

This course is oriented to the methodology of research and investigation in education. The candidates develop, with guidance, a research outline (and a pilot study) with emphasis on the following: (1) statement of problem, (2) related studies, (3) rationale of the proposed study, (4) hypothesis writing, and (5) procedures to be used in collection and evaluation of data. The course will include some examination of significant studies in the field of education and their significance for educational practice. This course is a core course, required of all Masters candidates and should be taken after STAT 510.

Prerequisite: STAT 510 Statistical Procedures in Education

EDUC 520 TECHNOLOGIES OF MEDIA - 3 semester hours

This two-semester course emphasizes the utilization of current and emerging technologies of media and their integration with other components of a learning system. The various electronic and computer assisted technologies are stressed as well as software support for use in community colleges, public agencies, and business settings.

PSYC 512/515 HUMAN GROWTH AND DEVELOPMENT/LEARNING THEORY - 3 semester hours

This course is the study of the principles of physical, mental, emotional and social growth of the individual and their implications for the learning process.

STAT 510 Statistical Procedures in Education - 3 semester hours

This is a general terminal course designed primarily for graduate students enrolled in professional education research, PSYCOlogy, guidance, or other behavior sciences. It is defined as an applications approach to methodology of modern research. This course will help prepare individuals to comprehend, interpret, and report statistical results for use in educational research, thesis presentation, and publication in research journals. Elementary and advanced statistical methods will be discussed. Statistical software will be used to analyze and interpret large databases occurring in real life situations.

Media and Technology (Non-Endorsed)

The Master of Science (M.S.) program in Media and Technology at Virginia State University prepares students to design effective learning experiences and environments that incorporate media and technology competencies to engage learners and improve learning. This is a non-endorsed program that does not lead to licensure. The Master of Science degree program requires a minimum of 36 hours.

Program Core Courses

The University pattern for programs that have a base in professional education fields includes a requirement of nine semester hours in a common core. The program required core courses include:

Course Number	Course Title	Semester Hours
EDUC 501	Foundation of Education	3
EDUC 513	Education Research	3
STAT 510	Statistical Procedures in Education & PSYCOlogy	3

Students enrolled in this program will be required to complete nine hours in the education core. The nine semester hours of the education core are designed to strengthen learning experiences to enhance the achievement of specialized learning outcomes. The courses include the following:

EDUC 502	Communication and Collaboration	3
EDUC 503	Legal and Ethical Issues in Special and Inclusive Education	3

Media and Technology Course Requirements

Students are required to complete the following courses:

EDUC 520	Technologies of Media	6
EDUC 521	Design of Media and Technologies	3
EDUC 522	Information Processing: Cyberspace, Internet, and WEB Publishing	3
EDUC 523	Internship	3
EDUC 524	Seminar in Media and Technology	3
EDUC 546	Special Topics	3
EDUC 560	Oral and Written Comprehensive Examination	0

Course Descriptions

EDUC 501 FOUNDATIONS OF EDUCATION - 3 semester hours

This course is designed to provide students with a sound basis for interpretation and evaluation of present day educational theories and practices by tracing the influence of historical, sociological, philosophical, and religious views upon the development of the education process.

EDUC 502 COMMUNICATION AND COLLABORATION IN EDUCATION - 3 semester hours

This core education course presents an overview of strategies and technologies appropriate to the development of effective communication with students, parents and other family members, school personnel, members of relevant professional disciplines, and the general community pertinent to the quality education of students in regular education, special education, and inclusive settings. The use of technology to enhance effective functioning in the roles of consultant and collaborator is explored with specific competencies identified and developed. Emphasis is also given to the use of technology in increasing competency in the management of instruction and behavior by professionals involved in collaboration.

EDUC 503 LEGAL AND ETHICAL ISSUES IN SPECIAL AND INCLUSIVE EDUCATION - 3 semester hours

This course provides a critical appraisal of the current nature, scope, and dimensions of contemporary and traditional education, special education, and inclusive education at the local, state, and national levels. Special emphasis is placed on the roles of both regular and special educators as collaborative teachers in inclusive settings. In addition, theoretical, legal, and practical issues and recent research and program development and evaluation concerned with the treatment, education, and rehabilitation of exceptional individuals are extensively reviewed. The utilization of current and emerging technologies in the educational process is emphasized.

EDUC 513 EDUCATIONAL RESEARCH - 3 semester hours

This course is oriented to the methodology of research and investigation in education. The candidates develop, with guidance, a research outline (and a pilot study) with emphasis on the following: (1) statement of problem, (2) related studies, (3) rationale of the proposed study, (4) hypothesis writing, and (5) procedures to be used in collection and evaluation of data. The course will include some examination of significant studies in the field of education and their significance for educational practice. This course is a core course, required of all Masters candidates and should be taken after STAT 510.

Prerequisite: STAT 510 Statistical Procedures in Education

EDUC 520 TECHNOLOGIES OF MEDIA - 3 semester hours

This two-semester course emphasizes the utilization of current and emerging technologies of media and their integration with other components of a learning system. The various electronic and computer assisted technologies are stressed as well as software support for use in community colleges, public agencies, and business settings.

EDUC 521 DESIGN OF MEDIA TECHNOLOGIES - 3 semester hours

This course engages students in consideration of design principles and strategies that facilitate the integration of media and technology. Attention is given to a variety of design principles, with emphasis on recent contribution from cognitive science and related fields for use in community colleges, public agencies and in business settings.

EDUC 522 INFORMATION PROCESSING: CYBERSPACE, INTERNET, AND WEB PUBLISHING - 3 semester hours

This course is designed to study procedures, organizations, and methods of teaching desk-top publishing. Skills are developed in elements of desktop publishing using current software and other components of page layout, composition, and graphics software.

EDUC 523 INTERNSHIP IN MEDIA AND TECHNOLOGY - 3 semester hours

This internship provides the student with an in-depth experience regarding the role, function, and scope of media technology.

EDUC 524 SEMINAR IN MEDIA AND TECHNOLOGY - 3 semester hours

This seminar provides an in-depth exploration of the current state of the art and future directions in the field of media and technology. It focuses on, reading, researching, and discussing the philosophy, principles, and strategies underlying media and technology.

EDUC 546 SPECIAL TOPICS - 3 semester hours

This course is designed for students to pursue current topics of special interest in media and technology. Topics may be studied and researched through related professional conference participation, discussion groups, assigned readings and reports, and/or in-depth investigative papers.

STAT 510 STATISTICAL PROCEDURES IN EDUCATION - 3 semester hours

This is a general terminal course designed primarily for graduate students enrolled in professional education research, PSYCOlogy, guidance, or other behavior sciences. It is defined as an applications approach to methodology of modern research. This course will help prepare individuals to comprehend, interpret, and report statistical results for use in educational research, thesis presentation, and publication in research journals. Elementary and advanced statistical methods will be discussed. Statistical software will be used to analyze and interpret large databases occurring in real life situations.

Doctor of Education – Educational Administration and Supervision

The Doctor of Education degree in Educational Administration and Supervision is to provide a professional doctoral program opportunity for leaders who will be called upon to meet the education challenges of a changing society, and to provide candidates with the knowledge and skills necessary to promote the success of all students in the region, state, and nation. The program is designed specifically for individuals who seek to serve as educational leaders in PreK-12 public school settings.

Requirements and Transition Points**Phase I: Admission**

Candidates must

1. Have earned a Master's degree from a regionally accredited institution;
2. Have (3) years of administrative experience in a certified position in a public/private school or have equivalent leadership experience
3. Have a grade point average of at least 3.3 in all graduate work previously attempted;
4. Have three letters of reference from individuals familiar with the applicant's potential for advanced professional studies; one letter must be from an employer and one letter must be from a professor who has known the applicant as a student;
5. Submission official transcripts of all previous undergraduate and graduate credits;
6. Have competitive scores on the Graduate Record Examination (GRE), within five (5) years;
7. Submit a writing sample.

Application Deadlines:

March 1st for fall admission

Phase II: Coursework

1. Completion of coursework totaling 54 credit hours
2. Maintenance of GPA = 3.3 for 2 years of coursework
3. Pass Comprehensive Examination

Phase III: Candidacy

Candidates must

1. Advance to candidacy
2. Complete 54 credit hours (including 6 credit hours of internship)
3. Earn a passing grade on the Comprehensive Examination

Phase IV: Program Completion

Candidates must

1. Candidate must complete six (6) credit hours for dissertation
2. Complete Dissertation Defense

Phase V: Graduate Follow-up

Candidates have an option to:

1. Participate in a graduate and employer follow-up survey

Course Number	Course Title	Semester Hours
EDAS 700	Historical and Philosophical Foundation of Education	3
EDAS 701	Multicultural Education	3
EDAS 703	Advanced Seminar: Planning and Management of Finance	3
EDAS 704	Advanced Seminar: Human Resources Management	3
EDAS 705	Advanced Seminar: School law and Policy Studies	3
EDAS 706	Advanced Seminar: School Community and Public Relations in Education	3
EDAS 707	Advanced Seminar: Administrative and Instructional Leadership	3
EDAS 720	Educational Statistics	3
EDAS 721	Research, Design, and Evaluation Methodology	3
EDAS 722	Qualitative Research	3
EDAS 723	Quantitative Research	3
EDAS 730	Leadership Internship	6
EDAS 739	Research Seminar in Education	3
EDAS 740	Dissertation	6

Areas of Academic Concentration (AAC)*

- Counselor Education
- Special Education
- Elementary Education
- Media and Technology

*The purpose of this requirement is to provide opportunities for candidates to develop their knowledge and skills in areas related to Educational Leadership. Typically, candidates will enroll in 12 hours of coursework in one area. With the permission of the Doctoral Committee, variations may be approved. In no case will fewer than 6 hours in each of two areas be approved.

Note: Additional semester hours may be necessary for candidates whose background and experience need enrichment prior to being formally admitted into the doctoral program.

Course Descriptions

EDAS 700 HISTORICAL AND PHILOSOPHICAL FOUNDATIONS OF EDUCATION - 3 semester hours

This course guides inquiry into the historical, philosophical, cultural, educational and social context of schools in our diverse society. It also provides candidates with a broad, interdisciplinary prospectus on educational and social issues to guide reflective, professional practice.

EDAS 701 MULTICULTURAL EDUCATION - 3 semester hours

This course addresses the origin, concepts, principles, and trends of multicultural education, equity, and the conceptual framework of cultural diversity in relation to education. Topics will include concepts that facilitators of learning will need in order to skillfully and effectively teach in a multicultural setting. Discussions will focus on explication of the concepts and development of strategies for conflict resolution and situational leadership, thus enabling candidates to become better decision makers and change agents.

EDAS 703 ADVANCED SEMINAR: PLANNING AND MANAGEMENT FINANCE - 3 semester hours

This course provides a study of historical development, design, and management of systems of financing public education. Topics studied include fiscal planning, sources of revenue, state and local systems of school [mance, building level financial management, budget development, and administration and federal participation in educational funding. Special emphasis is given to the Virginia system of funding public education and to contemporary issues in school finance.

EDAS 704 ADVANCED SEMINAR: HUMAN RESOURCES MANAGEMENT - 3 semester hours

This course provides a study of personnel services for educational and public agency administrators. Selected personnel functions including planning, recruitment, retention, selection, induction, compensation, and evaluation are discussed.

EDAS 705 ADVANCED SEMINAR: SCHOOL LAW AND POLICY STUDIES - 3 semester hours

This course provides an in-depth examination of the theoretical and conceptual bases of politics and public policy in education and their relationship to the successful practice of educational administration. This course will also focus on legal issues and professional ethics of particular concern to education policy makers and central office school administrators. Federal and Virginia school law will be included with attention given both to theoretical and practical concerns.

EDAS 706 ADVANCED SEMINAR: SCHOOL COMMUNITY AND PUBLIC RELATIONS IN EDUCATION - 3 semester hours

This course focuses on the principles, knowledge, and skills related to effective interpersonal and public relations in educational organizations. Special emphasis is given to the study of communication theory and practice, the social ecology of organizations, conflict and crisis management, community relations, strategic marketing in educational organizations, and legal and ethical considerations.

EDAS 707 ADVANCED SEMINAR: ADMINISTRATIVE AND INSTRUCTIONAL LEADERSHIP - 3 semester hours

This course is designed to analyze the relationship between administrative theory and practice by utilizing the literature and organizational theory and administrative behavior, and by applying the concept to administrative practice in educational settings. This course also focuses on curriculum and instruction, master theories, design implementation, and evaluation. Case studies and simulations that enhance change will be included. Equal emphasis will be placed on personal assessment and evaluation of leadership competencies. Provisions will be made for skill development and improvement.

EDAS 720 EDUCATIONAL STATISTICS - 3 semester hours

This course will canvass the application of basic statistical procedures to the decision-making process. There will be an emphasis on the most often employed statistical procedures and the ways these procedures support administrative decision-making and organizational change processes. Also, emphasis will be on research conducted in schools, presenting methods that are appropriate for school-based research. Candidates will be able to evaluate, design and conduct educational research specific to the school improvement process.

EDAS 721 RESEARCH, DESIGN, AND EVALUATION METHODOLOGY - 3 semester hours

This course is designed to teach the student how to match the research design to the substantive problem in education without further distorting the problem. The first half of the course will cover the basics of research design. The second half will cover program evaluation.

EDAS 722 QUALITATIVE RESEARCH - 3 semester hours

This course is designed to study qualitative research from different theoretical and methodological approaches. It is designed to assist the educational leader in becoming a more effective facilitator of learning through knowing how to conduct research without formal hypotheses, allowing the hypotheses to evolve over time as events unfold. The researcher begins without preconceived ideas about what will be observed and describes behavior that seems important.

EDAS 723 QUANTITATIVE RESEARCH - 3 semester hours

This course provides administrators with the knowledge of the methods and analytical approaches in educational research that will aid in dealing with school restructuring. Measurement, design, and analysis procedures that are the most useful for dealing with a changing school system will be presented. An integrated approach to statistics and educational research will provide the student with an awareness of the interrelations and interdependencies among the statistics and research procedures presented.

EDAS 730 LEADERSHIP INTERNSHIP - 6 semester hours

The leadership internship/seminar is designed to provide in-depth experiences with senior and experienced school administrators at the superintendent's level. A mentor relationship will be developed to assist the potential leader in analyzing complex practices and procedures related to school system-wide functions. Monthly seminar sessions will be held at various school systems or the University in order to provide an opportunity for students placed in different educational environments to discuss identified problems, practices and procedures. This course is limited to doctoral students. The advanced educational leadership internship will be a year-long educational experience that will provide an opportunity for students to engage in a series of clinical experiences. An individualized plan will be developed as a team by the student, the faculty advisor, and the supervisor in the participating school division. These experiences will be based on the experiences, background, needs, and professional goals of the student.

EDAS 739 DISSERTATION SEMINAR – 3 semester hours

This is an introduction to research in educational leadership that is designed to help students to think like researchers and analysts, to effectively search all relevant information sources (both print and non-print), to read and critique research, and to provide opportunities for “hands-on” research practice. This seminar offers students a collaborative setting for exploring a topic area, refining their research questions and beginning the process of constructing a coherent research proposal. Special attention will be paid to contemporary issues in American education, as well as those issues specific to schools within Virginia State University's service area.

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EDAS 740 DISSERTATION IN EDUCATIONAL ADMINISTRATION AND SUPERVISION - 6 Semester Hours

This is a formal research investigation related to current educational problems that will allow the researcher to build upon the body of established knowledge reflected in the literature. The dissertation process serves to bring together all of the experiences in which students have engaged during the entire program. The dissertation culminates the theoretical and practical research experiences of the candidates. The applications of theory and research to solve, inform, or suggest changes in problems and dilemmas facing educational leaders should be reflected in an original, sophisticated, and high quality document. To facilitate the dissertation process, candidates will participate in regularly scheduled seminars designed to keep them on task and provide ongoing constructive faculty feedback. The end result will be a final dissertation and a successful defense. Classes are held mainly in the evenings and on Saturdays.

History

Admission Requirements

For admission into the history graduate program, the department admissions committee usually bases its evaluation on a broad set of criteria which include coursework, grades, test scores, statement of purpose or a writing sample, letters of recommendation, and other evidence of academic accomplishment and promise.

Undergraduate qualification

BA in History, or BA in another field with 18 credit hours in undergraduate History. Students with less than 18 hours of undergraduate History courses may enter the program provided they register simultaneously in undergraduate courses to meet the 18-hour requirement. Such undergraduate course credits earned will not count towards the graduate degree.

Transfer of credit

Up to nine semester hours earned at either another accredited graduate school or with another graduate program at Virginia State University may be transferred towards the Master's degree with the approval of the Coordinator(s) of the Graduate Program in History and the Department Chair. In all cases, an approximate grade of 'B' in the courses taken is required.

Graduate Record Examination (GRE)

Satisfactory scores on the Graduate Record Examination (GRE) General Test are required. In exceptional cases, a student may be allowed to fulfill the requirements by passing ENGL 516 (Advanced Writing) and/or MATH 499 (Mathematics Review).

Foreign Language

Graduate students in History are required to demonstrate intermediate level proficiency in a modern foreign language.

Application Procedure

In addition to the requirements set by the School of Graduate Studies, applicants to the history graduate program should submit a statement of purpose or a writing sample of about 1,000 words, as well as two letters of recommendation.

Program Coordinators

Students entering the History Graduate Program should consult with the Program Coordinators who will review their undergraduate records, determine their academic needs, provide them with faculty profiles, and advise on possibilities for graduate student assistantship. Program coordinators also advise the chair in the selection of a faculty advisor for the student. In collaboration with the Program Coordinators, faculty advisors are responsible for maintaining student records and periodically meeting with students to review their academic progress.

Advisors

The Department Chair will assign each student entering the program a *Faculty Advisor* who will be the student's *Major Professor*. Students in the thesis option may select a *Thesis Advisor* from among the Graduate Faculty in the department or have one assigned to them. The list of faculty profiles will assist the student in making the choice. The faculty advisor may be the same as the thesis advisor or a Program Coordinator. Students may change advisors if and when necessary.

Program Cards

The Program Card shows the list of possible courses to be taken in various categories from which a schedule for the student is derived. Students should therefore meet with their advisors to complete the Program Card, which will then be sent to the Graduate School for approval.

Course Requirements

Thesis Option

Required Courses:

- HIST 509: The Philosophy and Theory of History 3 credit hours
- HIST 510: Historiography 3 credit hours
- HIST 554: Historical Research Methods 3 credit hours
- HIST 555: Thesis 3 credit hours

American History Courses Minimum of 6 credit hours

World History Courses Minimum of 3 credit hours

The student would then choose additional electives to complete the total requirement of 30 hours for the M.A. degree. These electives must be either graduate courses offered in the Department of History and Philosophy, graduate courses offered at another accredited graduate school, or graduate courses offered by another graduate program at Virginia State University. No more than nine semester hours earned at either another accredited graduate school or with another graduate program at Virginia State University may be transferred towards the Master's degree in History. All transfers of credit must meet with the approval of the Coordinator(s) of the Graduate Program in History and department Chair.

Non-Thesis Option

Required Courses:

- HIST 509: The Philosophy and Theory of History 3 credit hours
- HIST 510: Historiography 3 credit hours
- HIST 536: Comprehensive Examination 0 credit hours

American History Courses

Minimum of 6 credit hours

World History Courses

Minimum of 3 credit hours

The student would then choose additional electives to complete the total requirement of 30 hours for the M.A. degree. These electives must be either graduate courses offered in the Department of History and Philosophy, graduate courses offered at another accredited graduate school, or graduate courses offered by another graduate program at Virginia State University. No more than nine semester hours earned at either another accredited graduate school or with another graduate program at Virginia State University may be transferred towards the Master's degree in History. All transfers of credit must meet with the approval of the Coordinator(s) of the Graduate Program in History and department Chair.

Courses by Category**Required Courses for All Graduate Students****HIST 509: The Philosophy and Theory of History (3.00 credit hours; Fall semester)****Prerequisite: None**

The course explores the philosophy and theory of history, including the roles of ethics, politics, and cultural identity in historical interpretation, the variety of connections that exist between the past, present, and future, and how these connections can be expressed in terms of historical consciousness and interpretation. The course then focuses on various specific theories of historical interpretation, and how these theories connect with other disciplines.

*HIST 510: Historiography (3 semester hours, Spring semester)***Prerequisite: HIST 509**

The course provides an intensive reading colloquium on the literature of history paying special attention to how and why different schools of historical thought have provided competing interpretations of the same events. Readings will focus on the history of America and the Atlantic World from the Colonial period to the contemporary era, though specific topics will vary depending on the instructor.

Additional Required Course for the Non-Thesis Option**HIST 536: Comprehensive Examination (0 semester hours; Fall and Spring semesters)**

Prerequisite: Approval of Faculty Advisor and Department Chair. Approval will only be granted on the assumption that the student will have completed a minimum of 30 credit hours for the M.A. degree during the semester in which the student registers for HIST 536.

A requirement of the Non-Thesis Option, the comprehensive examination is intended to demonstrate the student's competency in history at the Master's Degree level. The student's Master's Defense Committee is responsible for determining the exact form and content to be covered in the student's comprehensive examination, which will, in any case, include both a written and an oral component.

Additional Required Courses for the Thesis Option**HIST 554: Historical Research Methods (3 semester hours, Spring semester)****Prerequisite: HIST 509**

A pre-requisite for HIST 555 (Thesis), this course is intended to let students become acquainted with and gain experience doing historical research, including interpretation of primary sources, using archival materials, compiling annotated bibliographies, and citing historical sources. Special attention will be paid to improving students' skills and abilities in writing historical essays. During this course, students will initiate serious research and data collection for the M.A. Thesis.

HIST 555: Thesis (3 semester hours; Fall and Spring semesters)**Prerequisite: HIST 554**

A requirement for the Thesis option, the thesis produced must follow the guidelines set by the Department of History and Philosophy as well as those of the School of Graduate Studies for the M.A. Thesis. The final draft of the thesis must be approved by all members of the student's Master's Thesis Defense Committee.

Course List: American History

HIST 501—The Colonial Era in American History

HIST 506—Native Americans in Early American History

HIST 511—Special Topics in United States History

HIST 513—The Revolutionary Era in American History, 1763-1812
 HIST 514—Seminar in Southern History
 HIST 515—Antebellum and Civil War America
 HIST 517—Seminar in Reconstruction
 HIST 518—Industrialization, Expansion, and the Rise of the American Empire, 1850s to 1945
 HIST 520—Seminar in American History After World War II
 HIST 537—Economic and Business History of the United States
 HIST 539—A History of the Constitution of the United States
 HIST 540—From Freedom to Slavery: The Black Experience in North America to 1865
 HIST 541—From Slavery to Freedom: The Black Experience Since 1865
 HIST 543—History of Race Relations in the U.S.
 HIST 545—Women's History
 HIST 546—Modern American Social History
 HIST 547—Oral History
 HIST 551—Independent Study in American History
 HIST 553—History of Black Education in the United States
 HIST 559—A History of Black Religious Experiences in America
 HIST 592—Coming to America: A History of Immigration to the Americas

Course List: World History

HIST 512—Special Topics in World History
 HIST 525—Latin American History
 HIST 542—History of Slavery in National and International Perspective
 HIST 561—Africa to 1800
 HIST 562—Africa Since 1800
 HIST 563—The Atlantic World During Colonialism and Slavery
 HIST 564—The Atlantic World in the Post-Colonial Era

Academic Performance

A graduate student whose GPA falls below 3.0 will be placed on probation. Failure to raise the GPA to 3.0 within a semester will lead to dismissal from the program. Students suspended for academic reasons may appeal to the Graduate Policies and Petitions sub-Committee of the Curriculum and Academic Issues Committee for reinstatement.

Special Topics Courses

A student can take up to two Special Topics courses (HIST 511 and HIST 512) as long as they do not duplicate courses taken or being taken.

Independent Study Courses

A student can take one Independent Study course (HIST 551) to further his/her special historical interest after a semester of study as long as it does not duplicate a course taken or being taken.

Completion of Graduate Program Requirements

All degree requirements must be completed within six years. Extensions of up to two years may be granted by the Graduate Policies and Petitions Sub-Committee.

Candidacy

A student will only be eligible for advancement to candidacy after completing a minimum of 12 semester hours with a 'B' average in the approved program of study and removing all conditions on admission. The student must have approval from his/her faculty advisor and the Program Coordinators to apply for admission to candidacy. Admission to candidacy must be completed no later than the preceding semester in which the student expects to graduate.

Thesis Option

At any point during the course of study, a student who has completed between 12 and 24 graduate semester hours can submit for review and approval, a thesis proposal to the Master's Defense Committee the student selects. The committee should consist of three graduate faculty, two of whom must be from the History Department (including the student's advisor).

Proposal: The thesis proposal must include:

- a thesis statement;
- an annotated bibliography;
- a plan of research.

Thesis Title Card: Candidates for the Master of Arts degree will file the Thesis Title Card approved by the advisor in the semester before the candidate expects to complete all requirements for the degree.

Thesis: The completed thesis must comply with the guidelines set by the Department of History and Philosophy as well as those of the School of Graduate Studies.

Review and Defense: Drafts of the thesis should be forwarded to the Master's Defense Committee for review and comments. The final draft of the thesis must be submitted to all members of the committee at least ten days prior to the scheduled defense date, which should not be later than the last day of classes during the semester in which the student intends to graduate. In certain cases, the student's work may be approved conditionally, pending certain changes as recommended by the committee.

Non-Thesis Option

At any point during the course of study, a student who has completed between 12 and 24 graduate semester hours can select a Master's Defense Committee. The committee should consist of three graduate faculty, two of whom must be from the History Department (including the student's advisor). The committee will determine the form of the final written and oral examinations.

Comprehensive Examination: The student must file with the Graduate School, a completed **Application for Comprehensive Examination** Form during the final semester of study or after he/she has completed all course work. The student, in consultation with the Master's Defense Committee, is responsible for scheduling the final written and oral exams at the end of the last semester of the student's course work.

Course Descriptions

HIST 501 THE COLONIAL ERA IN AMERICAN HISTORY – 3 semester hours

An in-depth survey of North American history from the early beginnings to the American Revolution, including the interactions between native Americans, Europeans, and Africans.

HIST 506 NATIVE AMERICANS IN EARLY AMERICA – 3 semester hours

A study of Native Americans in North America through the early nineteenth century, including the earliest migrations to North America, the development of the early agricultural societies, the rise and fall of the Pre-Columbian civilizations, the evolution of Plains and Eastern Woodland cultures in the centuries immediately preceding the arrival of Europeans, the effects of European contact and encounters, and the impact of the formation of the United States on Native American societies.

HIST 509 THE PHILOSOPHY AND THEORY OF HISTORY - 3 semester hours

The course explores the philosophy and theory of history, including the roles of ethics, politics, and cultural identity in historical interpretation, the variety of connections that exist between the past, present, and future, and how these connections can be expressed in terms of historical consciousness and interpretation. The course then focuses on various specific theories of historical interpretation, and how these theories connect with other disciplines.

HIST 510 HISTORIOGRAPHY - 3 semester hours

The course provides an intensive reading colloquium on the literature of history paying special attention to how and why different schools of historical thought have provided competing interpretations of the same events. Readings will focus on the history of America and the Atlantic World from the Colonial period to the contemporary era, though specific topics will vary depending on the instructor.

Prerequisite: HIST 509

HIST 511 SPECIAL TOPICS IN UNITED STATES HISTORY - 3 semester hours

A reading and writing intensive seminar dealing with various topics in American History, based on particular interests, research fields, or topics.

HIST 512 SPECIAL TOPICS IN WORLD HISTORY - 3 semester hours

The course provides students the opportunity to read and research in various topics of periods related to African, Asian, European or later American history.

HIST 513 THE REVOLUTIONARY ERA IN AMERICAN HISTORY, 1763-1812 - 3 semester hours

A critical investigation into the social, economic, and political developments inside colonial America that led to the American Revolution, followed by an examination of the revolution itself, successes and possible failures, and longer-term political, social, and economic results of the revolution.

HIST 514 SEMINAR IN SOUTHERN HISTORY - 3 semester hours

A reading, writing, and research intensive seminar on aspects of Southern History.

HIST 515 ANTEBELLUM AND CIVIL WAR AMERICA - 3 semester hours

This course concentrates upon the regional transformation of the United States in the early Nineteenth Century and its tragic outcome, the Civil War. Drawing upon political, economic, social, and regional themes, the course presents a comprehensive view of why the Civil War occurred and how the conflict transformed America.

HIST 517 SEMINAR IN RECONSTRUCTION -Second Semester - 3 semester hours

Intensive study of various historical interpretations of Reconstruction (1865-1877) -- a reading, writing, and discussion intensive graduate seminar.

HIST 518 INDUSTRIALIZATION, EXPANSION, AND THE RISE OF THE AMERICAN EMPIRE, 1850s TO 1945 - 3 semester hours

A critical historical investigation into a seminal period in American history, with an emphasis on the social and economic forces that brought about the unprecedented changes that led to the formation of American economic and military superiority. Both short and long-term consequences will be evaluated, and students will research different aspects of the costs and benefits of industrialization, expansion, and the rise of the American empire.

HIST 520 SEMINAR IN AMERICA AFTER WORLD WAR II - 3 semester hours

Students will study the forces that changed America after World War II.

HIST 536 COMPREHENSIVE EXAMINATION - 0 semester hours

A requirement of the Non-Thesis Option, the comprehensive examination is intended to demonstrate the student's competency in history at the Master's Degree level. The student's Master's Defense Committee is responsible for determining the exact form and content to be covered in the student's comprehensive examination, which will, in any case, include both a written and an oral component.

Prerequisite: Approval of Faculty Advisor and Department Chair. Approval will only be granted on the assumption that the student will have completed a minimum of 30 credit hours for the M.A. degree during the semester in which the student registers for HIST 536.

HIST 537 ECONOMIC AND BUSINESS HISTORY OF THE UNITED STATES - 3 semester hours

The Graduate track of HIST 437, offered at the same time under the same title. 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 539 A HISTORY OF THE CONSTITUTION OF THE UNITED STATES - 3 semester hours

The Graduate track of HIST 439, offered at the same time under the same title. An investigation into the historical formation, interpretations over time, and changes of the U.S. Constitution.

HIST 540 FROM FREEDOM TO SLAVERY: THE BLACK EXPERIENCE IN AMERICA TO 1865 - 3 semester hours

A comprehensive historical investigation into the social and economic forces that led to European colonialism, the trans-Atlantic slave trade, various forms of bondage and slavery in North America, black cultural, intellectual, and institutional development within the confines of slavery and racism, the continuous, multi-faceted struggle for freedom, and the significance of blacks in the shaping of American history. While the course emphasizes the black experience, other racial and ethnic groups who were affected by European expansion and slavery will also be investigated.

HIST 541 FROM SLAVERY TO FREEDOM: THE BLACK EXPERIENCE SINCE 1865 - 3 semester hours

An intensive exploration of the experiences of blacks in America from the end of slavery to the present. Key topics of investigation include: the promises and failures of Reconstruction; comparing the experiences of blacks in the era of segregation based on variables such as region, occupation, and gender; the roots of the civil rights movement in the actions of earlier generations; the civil rights movement; and the successes, failures, and unexpected consequences of desegregation. While the course emphasizes the black experience, other social groups who were either significantly involved and/or affected in the course of the black experience in the U.S. since slavery will also be investigated.

HIST 542 HISTORY OF SLAVERY IN NATIONAL AND INTERNATIONAL PERSPECTIVE - 3 semester hours

A critical in-depth examination into the causes, significance, and consequences of slavery in the United States. U.S. slavery will be juxtaposed to other known forms of slavery in America and around the world, evaluated in its consequences on slave populations and their resistance to slavery, and studied in its impact on the social realities of race, class, and power in American society.

HIST 543 HISTORY OF RACE RELATIONS IN THE U.S.- 3 semester hours

An intensive critical analysis of the role of race in American history, with an emphasis on race as a social and historical construct. The seminar will investigate the historical formations of racial identities, changing patterns of race relations over time, forms of racism and white supremacy, as well as the continued significance of race in the social reality of modern American society. All students will be required to engage in research.

HIST 545 AMERICAN WOMEN'S HISTORY - 3 semester hours

The Graduate track of HIST 445, offered at the same time under the same title. 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 546 MODERN AMERICAN SOCIAL HISTORY - 3 semester hours

A critical study of the work of an increasingly significant sub-field of American history. Depending on instructor and semester, changing investigative emphasis will be placed on such classical fields of American Social History as Women's History, Labor History, Social Movements, and Civil Rights. A writing and discussion intensive seminar.

HIST 547 ORAL HISTORY - 3 semester hours

An intensive theoretical and practical study of oral history research methodologies. Students will gain practical experiences in the field of oral history.

HIST 551 INDEPENDENT STUDY IN AMERICAN HISTORY - 3 semester hours

This course allows graduate students to pursue specialized topics of research and historical training in American History under the supervision of one of the History Department graduate faculty. Students will meet with their instructor on a mutually agreed upon schedule, and will be expected to do a substantial amount of reading, research, and writing.

Prerequisite: One semester of studying the program or at least 6 hours of graduate history courses.

HIST 553 HISTORY OF BLACK EDUCATION IN THE UNITED STATES - 3 semester hours

The Graduate track of HIST 453, offered at the same time under the same title. An investigation into the ideologies, methods, and struggles involved in the education of blacks in the United States across time and regions.

HIST 554 HISTORICAL RESEARCH METHODS - 3 semester hours

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A pre-requisite for HIST 555 (Thesis), this course is intended to let students become acquainted with and gain experience doing historical research, including interpretation of primary sources, using archival materials, compiling annotated bibliographies, and citing historical sources. Special attention will be paid to improving students' skills and abilities in writing historical essays. During this course, students will initiate serious research and data collection for the M.A. Thesis.

Prerequisite: HIST 509

HIST 555: THESIS - 3 semester hours

F, S

A requirement for the Thesis option, the thesis produced must follow the guidelines set by the Department of History and Philosophy as well as those of the School of Graduate Studies for the M.A. Thesis. The final draft of the thesis must be approved by all members of the student's Master's Thesis Defense Committee.

Prerequisite: HIST 554

HIST 559 A HISTORY OF BLACK RELIGIOUS EXPERIENCES IN AMERICA – 3 semester hours

The Graduate track of HIST 459, offered at the same time under the same title. 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 561 AFRICA TO 1800 – 3 semester hours

The Graduate track of HIST 461, offered at the same time under the same title. This course covers the history of Africa from the earliest times, through the period of early state formation until the end of the eighteenth century.

HIST 562 AFRICA SINCE 1800 – 3 semester hours

The Graduate track of HIST 462, offered at the same time under the same title. This course traces the history of Africa since the early nineteenth century. The course includes the Islamic revolutions, the increasing European influence, and African resistance, ending with the development of independent nations.

HIST 563 THE ATLANTIC WORLD DURING COLONIALISM AND SLAVERY – 3 semester hours

A study of the social, economic and political developments in Europe, West Africa and the New World, which gave rise to the 'Atlantic System' and the triangular trade. Emphasis will be placed on the origin, conduct, and consequences of the trans-Atlantic slave trade, the rise of New World slavery/slave communities as well as the development of African states.

HIST 564 THE ATLANTIC WORLD IN THE POST-COLONIAL ERA – 3 semester hours

A study of the social, economic and political developments in Europe, West Africa and the New World, which resulted in the British-led efforts to end the trans-Atlantic slave trade. Emphasis will be placed on the termination of the slave trade and slavery and their consequences on both sides of the Atlantic.

HIST 592 COMING TO AMERICA: A HISTORY OF IMMIGRATION TO THE AMERICAS - 3 semester hours

The Graduate track of HIST 492, offered at the same time under the same title. A history of immigration to the Americas--both North and South America. Focus on the changing patterns of immigrations, such as source areas, and destinations. Impact of immigration on economy and culture of host areas. Reception of immigrants in host regions. Contemporary issues involving new and old immigrants.

Interdisciplinary Studies

Interdisciplinary Studies is a 36-semester-hour consortium program, involving Virginia State University and Virginia Commonwealth University. The program of studies leads to the Master of Interdisciplinary Studies (M.I.S.) degree. The program requires completion of courses in at least three departments: 15-21 semester hours in one, 9-15 in the second, and 3-12 in the third. A minimum of 18 semester hours must be taken at Virginia State University, a minimum of nine semester hours may be completed at either or both schools. The Master of Interdisciplinary Studies degree program is administered directly by the graduate division of the School of Graduate Studies, Research and Outreach.

Mathematics & Computer Science

The areas of study available in the Mathematics & Computer Science Department lead to the Master of Science in Computer Science or Mathematics.

Computer Science

Admission Requirements

In addition to the Graduate Office admission requirements, criteria for non-conditional admission to the program will be set by the Departmental Computer Science Graduate Committee. Any student failing to maintain a 3.0 cumulative grade point average (GPA) in a 4.0 scale will be on academic probation for one semester. If the student's cumulative average does not return to 3.0 at the end of the probation semester, the student will be required to leave the program.

Program Requirements

The Master of Science degree requires 30 graduate credit hours of course work including a thesis or 33 graduate credit hours of course work including a project. The program is intended to satisfy the need to train professionals with expertise using modern computing tools and cutting-edge technology as well as practical knowledge of theoretical computer science. Students will focus on such areas as data mining, scientific computing, data visualization, or state-of-the-art graphics and animation technologies. Undergraduates are prepared to learn to use the latest advanced applications, while graduates are highly-trained professionals ready to begin work using such applications.

There are two options for completing the Master's Degree in Computer Science. Each course work (core or elective) is a three-credit hour course.

The Thesis Option:

- Twenty four (24) credit hours of course work (4 core courses and any 4 courses from set of predetermine electives); and
- Six credit hours of thesis work:

4 Core Courses	-	12 credit hours
4 Electives Courses -		12 credit hours
Thesis	-	<u>6</u> credit hours
Total		30

The Non-thesis Option:

- Twenty seven credit hours of course work (4 core courses and any 5 courses from set of predetermine electives)
- Two graduate seminars (CSCI 690 (1 credit hour): Graduate Seminars I & CSCI 691 (1 credit hour): Graduate Seminar II) and
- A Master's project (CSCI 640 (4 credit hours): Master's Project)

4 Core Courses	-	12 credit hours
5 Electives Courses -		15 credit hours
2 Seminar Courses -		2 credit hours
Project	-	<u>4</u> credit hours
Total		33

Core courses: Each core course is a 3-credit hour course. All students must take the following four courses: Advanced Systems Architecture (CSCI 588)

Advanced Algorithms (CSCI 692)

Embedded Systems (CSCI 560)

Advanced Data Communications (CSCI 545)

Electives: Each of the elective courses is a 3-credit hour course.

Elective Courses				
Area	Course ID	Course Title	Hrs	Prerequisite
Algorithms	CSCI 693	Parallel Algorithms	3	CSCI 692
	CSCI 694	Algorithms for VLSI	3	CSCI 388
Architecture	CSCI 694	Algorithms for VLSI	3	CSCI 388
Artificial Intelligence	CSCI 602	Advanced Artificial Intelligence	3	CSCI 402
Computer Modeling and Simulation	CSCI 682	Computer Modeling and Animation	3	CSCI 480
	CSCI 770	Computer Simulation	3	CSCI 388
Cryptography	CSCI 670	Computer Security	3	CSCI 445
Database Systems	CSCI 556	Advanced Database Applications	3	CSCI 356
	CSCI 695	Data Mining	3	CSCI 692 CSCI 356
Graphics	CSCI 680	Algorithmic Graph Theory	3	MATH 490
	CSCI 682	Computer Modeling and Animation	3	CSCI 480
Language Theory	CSCI 660	Automata and Formal languages	3	CSCI 460
			3	
Networks	CSCI 647	Wireless Network and Mobile Computing	3	CSCI 645
	CSCI 670	Computer Security	3	CSCI 445
Numerical Computation	CSCI/MATH 560	Algebraic & Numerical Computation	3	CSCI 452
Software Engineering	CSCI 685	Software Engineering	3	CSCI 487
	CSCI 687	Advanced Software System Development	3	CSCI 487
	CSCI 689	Software Quality Assurance	3	CSCI 685

Mathematics

Admission Requirements

In addition to the requirements for admission to the Graduate School, applicants who wish to pursue degree programs in the Department of Mathematics must meet the following requirements:

For admission to a program leading to the Master of Science degree in Mathematics, the applicant must have an undergraduate degree in mathematics or at least 20 semester hours of college mathematics at the level of Calculus or above.

Program Requirements

The Master of Science in Mathematics has two areas of specialty: Pure Mathematics and Applied Mathematics. The Pure Mathematics includes the areas of Algebra, Analysis and Combinatorics. The Applied Mathematics specialty includes the areas of Computational Mathematics and Statistics.

In order to qualify for a Master of Science Degree in Mathematics:

1. The candidate must successfully complete 12 semester hours of core course works in Real Analysis I (MATH 530), Algebra I (MATH 520), Numerical Analysis (MATH 540), and Discrete Mathematics (MATH 510).
2. The candidates must successfully complete the requirements in either a non-thesis option or thesis option track.

- (a) Non-thesis option: In addition to the four core courses, candidates in the non-thesis option track must successfully complete six elective courses (see list below) and pass a comprehensive examination. The comprehensive examination will be based on the material covered under the four core courses.
- (b) Thesis option: In addition to the four core courses, candidates in the thesis option track must successfully complete four elective courses (see list below) and must complete two semesters of MATH 599 – Research and Thesis course in accordance with the policy stated in the University’s graduate catalog by writing a master’s thesis on research topic chosen by the candidate and approved by the candidate’s advisor.

Computer Science Course Descriptions

Core Courses:

CSCI 545 ADVANCED DATA COMMUNICATIONS - 3 semester hours **F, Sp**

Topics include classification of data communication systems, developments in communication technologies, routing models and algorithms, performance analysis in data networks, and modeling and simulation of large-scale networks.

Prerequisite: CSCI 445 or its equivalent.

CSCI 488/588 ADVANCED SYSTEMS ARCHITECTURE - 3 semester hours **F, Sp**

A study of computer architecture with an emphasis on a quantitative approach to cost/performance design tradeoffs, including the fundamentals of uniprocessors and multiprocessors, scheduling, speculation, and multithreading.

Prerequisite: CSCI 388 or its equivalent.

CSCI 560 EMBEDDED SYSTEMS - 3 semester hours **Sp**

An introduction to embedded systems with emphasis on applications. Students will program a microcontroller using a complete development system.

Prerequisite: CSCI 388 or its equivalent.

CSCI 570 COMPUTER SIMULATION - 3 semester hours **Alternate Sp**

Advanced applications of discrete and continuous simulation modeling.

Prerequisite: CSCI 387 or its equivalent; STAT 340 or its equivalent.

CSCI 592 ADVANCED ALGORITHMS - 3 semester hours **F, Sp**

An investigation of the classification of algorithms with emphasis on design and analysis of complexity. Topics include approximation, sorting, searching, optimization, randomize algorithms, and NP completeness.

Prerequisite: CSCI 492 or its equivalent.

Elective Courses:

CSCI 456/556 ADVANCED DATABASE APPLICATIONS - 3 semester hours **F**

Applications of advanced database systems. Students will work on a series of projects using industry standard software.

Prerequisite: CSCI 356 or its equivalent.

CSCI 602 ADVANCED ARTIFICIAL INTELLIGENCE – 3 semester hours **F, Sp**

Topics include Machine Learning, Knowledge Representation and Discovery, Neural and Evolutionary Computation, and Intelligent Agents and Multi-Agent Systems.

Prerequisite: CSCI 402 or its equivalent

CSCI 647 WIRELESS NETWORKS AND MOBILE COMPUTING - 3 semester hours **Alternate F**

Fundamentals of wireless networks and mobile computing, protocols, quality of service in wireless networks, and applications in wireless and mobile networks including distributed applications, middleware, mobile transactions, mobile multimedia, and remote execution.

Prerequisite: CSCI 445 or its equivalent; CSCI 645

CSCI 660 AUTOMATA AND FORMAL LANGUAGE – 3 semester hours **Sp**

The study of three mutually related topics: Languages, machines, and computability. Key topics include regular languages, finite automata, determinism and non-determinism I finite automata, pattern matching, context-free languages, push-down automata, Turing machines, resource-bounded computation.

CSCI 670 COMPUTER SECURITY - 3 semester hours **Alternate Sp**

Key concepts and algorithms involved in cryptography and computer security. Includes intrusion detection, firewalls, and digital signatures.

Prerequisite: CSCI 445 or its equivalent.

CSCI 680 ALGORITHMIC GRAPH THEORY - 3 semester hours**Alternate F**

Investigate a variety of graph algorithms, both sequential and parallel, known to have applications to such areas as scheduling, robotics, computational geometry, VLSI design, and pattern recognition. The students will learn graph algorithms both sequential and parallel in a hybrid.

Prerequisite: MATH 490 or its equivalent; CSCI 480 or its equivalent.

CSCI 682 COMPUTER MODELING AND ANIMATION - 3 semester hours**Alternate F**

Applications of 3D computer graphics including modeling, transformations, and animation. Students will work on a series of projects using industry standard software.

Prerequisite: CSCI 480 or its equivalent

CSCI 685 SOFTWARE ENGINEERING - 3 semester hours**Alternate Sp**

This course covers software engineering tools, models/methodologies, use case analysis, user interface design, estimation and scheduling, and software maintenance. It also covers software requirements analysis and specification, software design, software testing, software post-delivery maintenance, software verification, validation, and documentation.

Prerequisite: CSCI 487 or its equivalent.

CSCI 687 ADVANCED SOFTWARE DEVELOPMENT - 3 semester hours**F, Sp**

The purpose of this course is to provide a basic concepts and principles of the software life cycle with emphasis on software design, development, and implementation. It also examines current issues in software development, software architectures, requirements specification, Quality control and metrics, and software project management. Some of the industry life-cycle models are presented, with examples of their use.

Prerequisite: CSCI 487 or its equivalent.

CSCI 689 SOFTWARE QUALITY ASSURANCE - 3 semester hours**Alternate Sp**

This course covers a variety of topics related to software quality assurance including: activities performed by external participants, activities to project schedules and budget control, risk management, and costs associated with SQA. It also focuses on the methods and techniques in software testing and quality assurance.

Prerequisite: CSCI 685

CSCI 693 PARALLEL ALGORITHMS - 3 semester hours**F**

An introduction to parallel programming with emphasis on models and algorithms. Topics include communication complexity, tree balancing, partitioning and tree contraction, parallel version of graph, parallel sorting and searching, Omega and Batcher networks. Students are expected to be able to solve problems using different programming paradigms.

Prerequisite: CSCI 692.

CSCI 695 DATA MINING - 3 semester hours**Sp**

A study of knowledge discovery from data with emphasis on theory and application. Topics include data mining techniques such as clustering, classification and association rules, applications such as decision support and failure analysis, and case studies from domains such as engineering.

Prerequisite: CSCI 692 and CSCI 356 or its equivalent

CSCI 694 ALGORITHMS FOR VLSI - 3 semester hours**Alternate Sp**

Design and analysis of algorithms for design of VLSI circuits, VLSI test and simulation.

Prerequisite: CSCI 388 or its equivalent.

CSCI 600 THESIS I - 3 semester hours**F, Sp**

Research on a thesis that represents an original contribution with publishable results. *Prerequisite:* approval of graduate committee.

CSCI 601 THESIS II - 3 semester hours**F, Sp**

Research on a thesis that represents an original contribution with publishable results. A student shall not receive credit for CSCI 601 until the graduate committee approves the draft copy of the thesis.

Prerequisite: CSCI 600.

CSCI 605 MASTER PROJECT - 4 semester hours**F, Sp**

A master's project should include the introduction of new software tools, a novel capability using existing technology, or a novel survey of an area, or require substantial scientific computation. A report must be submitted and approved by the graduate committee.

Prerequisite: Approval of graduate committee.

CSCI 610 GRADUATE SEMINAR I - 1 semester hour **F, Sp**
 Students present their work for their master's project or thesis.
Prerequisite: 12 credits at in computer science at the 500 level (or higher) or permission of Chair of graduate committee.

CSCI 611 GRADUATE SEMINAR II - 1 semester hour **F, Sp**
 Students present their work for their master's project or thesis.
Prerequisite: CSCI 610.

CSCI 639 INDEPENDENT STUDY IN COMPUTER SCIENCE - 3 semester hours

CSCI 640, 641, 642, 643 Special topics in Computer Science - 3 semester hours **Alternate F**
 An introduction to a special topic with applications. Students will work on a series of projects using current technology. This course may be repeated for additional credit provided the topic is substantially different than any prior course including transferred credit.
Prerequisite: Permission of instructor.

Mathematics Course Descriptions

Core courses:

MATH 510 DISCRETE MATHEMATICS - 3 semester hours **F, Sp**
 Counting techniques; Pigeon-hole principle; Binominal coefficients; Principle of inclusion-exclusion; generating functions; Stirling and Catalan numbers; permutations and graphs.
Prerequisites: Admission to the program

MATH 520 ALGEBRA I - 3 semester hours **F, Sp**
 Group; subgroups; Lagrange's Theorem; normal subgroups; quotient groups; homomorphisms; direct products; fundamental Theorem of finite abelian groups; group actions; Cayley's Theorem; conjugacy classes and the class equation; Sylow Theorems; isomorphism theorems.
Prerequisites: MATH 425 or equivalent

MATH 530 REAL ANALYSIS I - 3 semester hours **F, Sp**
 Functions of bounded variation; Lebesgue measure; differentiation and integration; L_p spaces; introduction to Banach and Hilbert spaces.
Prerequisite: Math 401 or equivalent

MATH 540 NUMERICAL ANALYSIS - 3 semester hours **F, Sp**
 Approximations and interpolation; propagation of errors; numerical differentiation and integration; solutions of equations; Newton's method; solutions of differential equations and initial value problems; Runge-Kutta and predictor-corrector methods.
Prerequisites: MATH 452 or equivalent

Elective Courses:

MATH 501 GEOMETRY - 3 semester hours **F, Sp**
 Points and lines connected with a triangle; circle properties; collinearity and concurrence; Menelaus' Theorem; Ceva's Theorem; Pappus' Theorem; Desargues Theorem; transformations; introduction to inversive and projective geometry.
Prerequisites: Admission to program

MATH 511 CODING THEORY - 3 semester hours **F, Sp**
 Linear codes; non-linear codes; B.C.H. codes; dual codes and their weight distributions; perfect codes and cyclic codes; additional topics drawn from Reed-Solomon codes; Justessen codes; M.D.S. codes; Reed-Muller codes; Golay codes; self-dual codes and invariant theory.
Prerequisites: MATH 325 or equivalent

MATH 512 CRYPTOGRAPHY AND COMPUTER SECURITY - 3 semester hours **F, Sp**
 Public key cryptography; classical applications of finite fields and number theory; classical cryptography and cryptanalysis; monoalphabetic and polyalphabetic ciphers; Shannon's theory of secrecy; modern private-key cryptosystems such as DES, and public-key cryptosystems such as RSA. (Cross listed as CSCI 580).
Prerequisite: MATH 325 or equivalent

MATH 519 SPECIAL TOPICS IN MATHEMATICS - 3 semester hours

Prerequisites: Instructor's permission.

MATH 521 ALGEBRA II - 3 semester hours**Sp**

Rings; integral domains; introduction to fields; ring homomorphisms; ideals; polynomial rings; Euclidean domains; unique factorization domains; field Theory; geometric constructions; Galois theory.

Prerequisites: MATH 520

MATH 525 LINEAR ALGEBRA - 3 semester hours**F, Sp**

Linear transformations; solving linear equations; LU decomposition; determinants and relation to solving linear equations; eigen values and eigen vectors; Jordan canonical form; Schur form; special classes of matrices: normal; symmetric; Hermitian; orthogonal; unitary; Jacobi; Special properties of these matrices; spectral theory for normal matrices; positive matrices; inner product spaces; orthogonality.

Prerequisites: MATH 325 or equivalent

MATH 529 TOPICS IN ALGEBRA - 3 semester hours

Content varies and will be selected by the instructor and the department. The course may be repeated for credit with different topics.

Prerequisites: MATH 521 or instructor's permission.

MATH 531 REAL ANALYSIS II – 3 semester hours**Sp**

Abstract measures; mappings of measure spaces; integration sets and products spaces; the Fubini, Torelli and Radon-Nikodyn theorems; the Riesz-Fischer representation theorem; Haar measures on locally compact groups.

Prerequisite: Math 530

MATH 532 COMPLEX ANALYSIS – 3 semester hours**Sp**

Linear fractional transformations; conformal mapping; holomorphic functions; Cauchy's theorem; properties of holomorphic functions; argument principle; residues; power series; Laurent series; meromorphic functions; Riemann mapping theorem; Mittag-Leffler's theorem; Weierstrass' theorem.

Prerequisite: Math 432 or equivalent.

MATH 533 FUNCTIONAL ANALYSIS - 3 semester hours**Sp**

Banach spaces; Hilbert spaces; fundamental theorems for Banach and Hilbert spaces; dual spaces; bounded inverse theorems; uniform boundedness principle and its applications; strong and weak convergence; spectral theory of linear operators in normed spaces; compact linear operator on normed spaces and their spectrum.

Prerequisite: MATH 530

MATH 539 TOPICS IN ANALYSIS - 3 semester hours

Content varies and will be selected by the instructor and the department. The course may be repeated for credit with different topics.

Prerequisites: MATH 531 or instructor's permission.

MATH 545 GENERAL TOPOLOGY - 3 semester hours**F, Sp**

Foundations and fundamental concepts of point-set topology; topological spaces; convergence; connected sets; compactness; product spaces; quotient spaces; function spaces; separation properties; metrization theorems; mappings and compactifications; Homotopy and fundamental groups.

Prerequisite: MATH 445 or equivalent

MATH 546 DIFFERENCE EQUATIONS AND APPLICATIONS - 3 semester hours**F, Sp**

Topics include difference calculus; linear difference equations; autonomous systems of difference equations; linear periodic systems; stability analysis and Liapunov method; Z-transform; asymptotic behavior of difference equations.

Prerequisite: Math 301 or equivalent. Math 325 or equivalent

MATH 548 DIFFERENTIAL EQUATIONS - 3 semester hours**F, Sp**

Existence and uniqueness for systems; linear systems; fundamental matrix solutions; matrix exponential; nonlinear systems; plane autonomous systems and introduction to stability; Poincare-Bendixson theorem.

Prerequisite: MATH 350, or equivalent

MATH 549 TOPICS IN DIFFERENTIAL EQUATIONS - 3 semester hours

Content varies and will be selected by the instructor and the department. The course may be repeated for credit with different topics.

Prerequisites: MATH 548 or instructor's permission.

MATH 552 PARTIAL DIFFERENTIAL EQUATIONS - 3 semester hours**F, Sp**

Preliminaries from ODE and Calculus; methods of solution of partial differential equations of the first order; classification of partial differential equations; elliptic, hyperbolic, and parabolic equations; Sturm-Liouville problems; non-homogeneous equations; potential theory; techniques of solving various partial differential equations; Cauchy problem; Dirichlet and Neumann problems; Green's function; Solutions by eigenfunction expansion method; Applications.

Prerequisites: MATH 350 and MATH 301

MATH 554 MATHEMATICAL MODELING IN LIFE SCIENCES - 3 semester hours**Sp**

Study of a variety of mathematical and computational methods used to describe and understand natural phenomena and their dynamics in biological systems; topics include difference equations; ordinary and partial differential equations; stochastic processes; and computer simulation with computer algebra systems.

Prerequisite: Math 548 or Math 546

MATH 559 TOPICS IN GEOMETRY - 3 semester hours

Content varies and will be selected by the instructor and the department. The course may be repeated for credit with different topics.

Prerequisites: MATH 501

MATH 560 ALGEBRAIC AND NUMERICAL COMPUTATIONS - 3 semester hours**F, Sp**

Basic techniques of algorithm design; fundamental computations with polynomials; Fast Fourier transform; polynomial evaluation and interpolation; power series manipulation; fundamental computations with general and special structured matrices and correlation to polynomials; fast algorithms and correlation between algebraic and numerical computations in algorithm design.

Prerequisites: MATH 325 and Math 300

MATH 562 MATHEMATICAL STATISTICS - 3 semester hours**F, Sp**

Univariate and multivariate distribution theory; generating function; inequalities in statistics; order statistics; estimation theory; likelihood; sufficiency; efficiency; maximum likelihood testing hypotheses; likelihood ratio; confidence and prediction interval; Bayesian estimation and testing; basic decision theory.

Prerequisites: MATH 300 or equivalent

MATH 569 TOPICS IN GRAPH THEORY - 3 semester hours

Content varies and will be selected by the instructor and the department. The course may be repeated for credit with different topics.

Prerequisites: MATH 490 or instructor's permission.

MATH 570 NUMBER THEORY - 3 semester hours**F, Sp**

Arithmetic functions; divisibility and prime factorization; residue classes; congruences; the prime number theorem; primes in arithmetic progression; quadratic reciprocity law; the arithmetic of quadratic fields; Diophantine equations; continued fractions, approximations and sieves.

Prerequisites: MATH 425 or equivalent

MATH 578 TOPICS IN COMPUTATIONAL MATHEMATICS - 3 semester hours

Content varies and will be selected by the instructor and the department. The course may be repeated for credit with different topics.

Prerequisites: MATH 560 or instructor's permission.

MATH 588 DIFFERENTIAL GEOMETRY - 3 semester hours**F, Sp**

Differential manifolds; tensors; affine connections; and Riemannian manifolds; submanifolds; variation of the length integral; the Morse index theorem.

Prerequisites: MATH 445, MATH 401, or equivalent

MATH 590 GRAPH THEORY - 3 semester hours**F, Sp**

Basic concepts of graphs and digraphs; Eulerian and Hamiltonian graphs; trees and distances; matchings and factors; connectivity; colorings; planar graphs; flows and networks; extremal graph theory.

Prerequisites: MATH 490 or equivalent

MATH 592 OPTIMIZATION THEORY - 3 semester hours**F, Sp**

Convexity; duality; quadratic forms and matrix factorization; theory of optimization with and without constraints; Lagrange functions; Kuhn-Tucker theory; methods of optimization without constraints; line search; descent methods; Newton methods; conjugate directions; non-linear least squares; methods of optimization with constraints: linear optimization; the simplex and other methods; active sets; quadratic programming; optimization with linear constraints; general non-linear optimization.

Prerequisites: MATH 392 or equivalent

MATH 599 RESEARCH AND THESIS - 3 semester hours

Students must successfully complete two semesters of this course in accordance with the policy stated in the University's graduate catalog by writing a master's thesis on research topic chosen by the candidate and approved by the candidate's advisor.

Math Education Course Descriptions**MAED 571 GEOMETRY FOR TEACHERS - 3 semester hours****Sp, Su**

Standard topics from Euclidean geometry and of non-Euclidean geometries. Course will emphasize informal, inquiry based and proof approaches to geometry and make use of appropriate technology. Course is designed to make connections between advanced geometry topics and the teaching of geometry in elementary, middle and high school.

MAED 575 CALCULUS FOR TEACHERS I - 3 semester hours**F, Su**

Functions and their graphs, limits and rates of change, continuity, difference quotient, rules of differentiation, inverse functions, derivatives of trigonometric, exponential and logarithmic functions, curve fitting and applications of derivatives and an introduction to the techniques and applications of integration. Course is designed to make connections between calculus topics and the teaching of pre-calculus and AP calculus.

MAED 576 CALCULUS FOR TEACHERS II - 3 semester hours**Sp**

Integration techniques, polynomial approximation and series, polar coordinates, conics, multivariate calculus, parametric equations, and vectors. Course is designed to make connections between advanced calculus topics and the teaching of AP calculus

Prerequisite: MAED 575

MAED 577 DISCRETE MATHEMATICS FOR TEACHERS - 3 semester hours**F, Su**

The terminology, concepts, and techniques of some areas of discrete mathematics applicable to middle and high school teaching. Logic, proof techniques, recursion, set theory and enumeration, relations and functions, an introduction to code and graph theory. Course is designed to make connections between discrete mathematics topics and the teaching of discrete mathematics in middle and high school.

MAED 578 STATISTICS FOR TEACHERS - 3 semester hours**S, Su**

Exploring data, planning a study, anticipating patterns and statistical inference. Course is designed to make connections between statistics topics and the teaching of statistics in elementary, middle and high school. This course does not satisfy the requirements of STAT 520.

Statistics – Course Descriptions**STAT 510 STATISTICAL PROCEDURES IN EDUCATION AND PSYCHOLOGY - 3 semester hours****F, Sp, Su**

General terminal course for graduate students enrolled in professional educational research, psychology and guidance, covering descriptive and inferential statistics including one-way analysis of variance.

Prerequisites: Enrollment in Graduate School

STAT 511 BIOMETRY - 3 semester hours**F, Sp, Su**

The main techniques of statistical analysis as applied in the biological sciences are discussed. This course is of interest to students in social sciences as well. Probability, Binomial, Poisson and normal distributions, estimation and hypothesis testing, Analysis of variance, regression and analysis of covariance.

Prerequisites: STAT 480 or equivalent

STAT 520 ADVANCED STATISTICAL METHODS IN EDUCATIONAL RESEARCH - 3 semester hours**F**

Only for students in Mathematics Education or Science Education. Descriptive statistics, normal, binomial, t, Chi-square and F distributions. Estimation and hypothesis testing, Parametric and nonparametric tests: z-test, t-test, one-way and two-way analysis of variance, analysis of covariance, chi-square tests of goodness-of-fit and independence for categorical data, linear correlation and regression, multiple regression. Statistical results from mathematics education research journals will be studied and real data from educational sources will be analyzed using statistical software.

Prerequisites: STAT 330 or equivalent

STAT 562 MATHEMATICAL STATISTICS IV - 3 semester hours**Sp**

Univariate and multivariate distribution theory; moment generating function; inequalities in statistics; order statistics; estimation theory; likelihood; sufficiency; efficiency; maximum likelihood; testing hypotheses; likelihood ratio; confidence and prediction interval; Bayesian estimation and testing; basic decision theory.

Prerequisites: MATH 300, STAT 480 or equivalent

- STAT 565 NONPARAMETRIC STATISTICS II - 3 semester hours** **F**
Rank correlations, linear and monotonic regression, several related samples, balanced incomplete block design, randomization, rank transformation and goodness-of-fit tests.
Prerequisites: STAT 481 or equivalent
- STAT 568 DESIGN OF EXPERIMENTS - 3 semester hours** **Sp**
General linear model; fixed, random and mixed effects models; randomized block, incomplete block and Latin square designs; factorial designs; analysis of covariance.
Prerequisites: STAT 480 or equivalent
- STAT 570 STOCHASTIC PROCESSES - 3 semester hours** **Sp**
Random walks; Markov chains; Poisson processes; Wiener processes; queuing and inventory analysis; reliability theory.
Prerequisites: STAT 480, STAT 490 or equivalent
- STAT 572 CATEGORICAL DATA ANALYSIS - 3 semester hours** **F**
Two-way and three-way contingency tables; measures of association; log-linear, logit and hierarchical models; inferences based on multinomial, Poisson and Chi-Square distributions and residual analysis.
Prerequisites: STAT 480 or equivalent
- STAT 575 REGRESSION ANALYSIS - 3 semester hours** **F**
Linear and multiple regression; analysis of residuals; variable and model selection including stepwise regression; transformations, weighting and diagnostics to correct model inadequacies.
Prerequisites: STAT 480 or equivalent
- STAT 578 MULTIVARIATE ANALYSIS - 3 semester hours** **Sp**
Statistical theory associated with multivariate normal distribution; Wishart and related distributions; partial and multiple correlations; Hotelling's T^2 statistic; multivariate linear models; classification and discriminant analysis; principal components..
Prerequisites: MATH 325, STAT 480 or equivalent
- STAT 580 DESIGN OF SURVEYS IN RESEARCH - 3 semester hours** **Sp**
Methods of constructing and analyzing designs for experimental investigations; simple random, stratified and multistage sampling designs; and questionnaire construction.
Prerequisite: STAT 480 Probability and Statistics
- STAT 581 DESIGNS OF EXPERIMENTS IN RESEARCH - 3 semester hours** **F**
Methods of constructing and analyzing designs for experimental investigations; Latin square, split-plot, simple factorial designs; incomplete block designs.
Prerequisite: STAT 480 Probability and Statistics
- STAT 582 SPECIAL TOPICS IN STATISTICS - 3 semester hours** **Sp**
A study of some selected topics not included in formal classes for example, nonparametric (distribution-free) methods, sequential methods, the study of power and efficiency of statistical methods, computer programming and canned programs applied to growth curve and multivariate analysis or Monte Carlo techniques.
Prerequisite: STAT 480 Probability and Statistics
- STAT 583 SAMPLING THEORY II – 3 semester hours**
Estimation, relative precision, optimum allocation and stratum sizes in stratified random sampling; quota sampling; ratio and regression estimates; systematic and cluster sampling.
Prerequisites: STAT 382 or equivalent
- STAT 595. RESEARCH METHODOLOGY - 3 semester hours** **F**
Nature of and limitations in applied research methodology with emphasis on formulation of statistical models and hypotheses and empirical tests of hypotheses especially relevant to social and behavioral science disciplines.
Prerequisite: STAT 480 Probability and Statistics
- STAT 599 RESEARCH AND THESIS**
General linear model; fixed, random and mixed effects models; randomized block, incomplete block and Latin square designs; factorial designs; analysis of covariance.
Prerequisites: Graduate courses in Statistics and Instructor's permission.

Physics

The Department of Chemistry and Physics offers a program of studies leading to the Master of Science degree in Physics. Current research specialties include computer modeling of antiviral materials, fabrication, characterization of thin film growth; computer simulation of nanocrystalline materials, the nonlinear optical materials; non-intrusive optical measurements; solid-state laser material development, laser spectroscopy; inter alia, theoretical analyses of single molecule micromechanics experiments, computer simulations of stochastic search techniques employed in vivo by proteins seeking out target binding sites on nucleic acid substrates, and theoretical studies and computer modeling of the robustness of biological regulatory networks.

The VSU physics program has close relationships with a number of research laboratories, including the NASA Langley (Hampton, VA) and Goddard (Maryland) facilities. Students may pursue either experimental or theoretical research programs. There are advanced laboratories, computers, and major instrumentation for use by the students and faculty for the pursuit of their research objectives.

Virginia State University is one of the three founding members of the Southeastern Universities Research Association (SURA), which has grown to include 41 universities from across the Southeast. SURA operates the Thomas Jefferson National Accelerator Facility, located in Newport News, Virginia, for the Department of Energy.

Requirements for the Master of Science degree in physics include 30 semester hours of course work (15 of which must be in 500-level physics lecture courses), an original research thesis, plus school-wide requirements.

Course Descriptions

PHYS 510 EXPERIMENTAL PHYSICS I - 2 semester hours **F, Sp, Su**

Methods of experimental physics, training in the use of selected physics equipment. Subject matter areas related to research interests of staff members.

Prerequisites: PHYS 312 Thermal Physics; PHYS 314 Electromagnetism and Relativity

PHYS 511 EXPERIMENTAL PHYSICS II - 2 semester hours **F, Sp, Su**

A continuation of Physics 510-Experimental Physics I.

Prerequisites: PHYS 312 Thermal Physics; PHYS 314 Electromagnetism and Relativity;
PHYS 510 Experimental Physics I

PHYS 512 PHYSICAL ELECTRONICS - 3 semester hours **F, odd years**

Electron emission, excitation of electrons in solids, gas discharge phenomena, and an introduction to plasma physics.

Prerequisite: PHYS 315 Electromagnetism and Relativity

PHYS 513 ADVANCED DYNAMICS - 3 semester hours **Sp, even years**

General principles of analytical mechanics; methods of Lagrange, Hamilton and Jacobi applied to problems in mechanics.

Prerequisite: PHYS 313 Physical Mechanics

PHYS 514 ELECTRODYNAMICS - 3 semester hours **F even years**

Maxwell's equations, vacuum field equations, motion of electrons, Lienard-Wiechert potentials, self-energy and radiation damping, special relativity, co-variant form of field equations and equations of motion of charged particles.

Prerequisite: PHYS 315 Electromagnetism and Relativity

PHYS 515 PLASMA PHYSICS - 3 semester hours **Sp, odd years**

Plasma production and devices, plasma diagnostics, waves, instabilities, electromagnetic interaction with a plasma, radiation from plasmas, the pinch effect.

Prerequisites: PHYS 315 Electromagnetism and Relativity, MATH 350 Differential Equations, or special permission

PHYS 516 QUANTUM MECHANICS - 3 semester hours **Sp, even years**

The Schrodinger wave equation and applications to physical systems, perturbation theory, scattering, matrix mechanics, angular momentum including spin, the Klein-Gordan equation, the Dirac theory, second quantization, and an introduction to quantum field theory.

Prerequisites: PHYS 416 Introduction to Quantum Mechanics, PHYS 513 Advanced Dynamics,
MATH 350 Differential Equations

PHYS 518 SOLID STATE PHYSICS I - 3 semester hours **Sp, even years**

Crystal structure, crystal diffraction and the reciprocal lattice, crystal binding, elastic constants and elastic waves, phonons and lattice vibrations, thermal properties of insulators and free electron Fermi gas.

PHYS 519 SOLID STATE PHYSICS II - 3 semester hours **F, odd years**

Energy bands, semiconductor crystals, superconductivity, dielectric properties, ferroelectric crystals, diamagnetism and paramagnetism, ferromagnetism and anti-ferromagnetism and magnetic resonance.

Prerequisite: PHYS 518 Solid State Physics I

PHYS 520 METHODS OF THEORETICAL PHYSICS - 3 semester hours **F, even years**

Functions of several variables, partial differential equations, introduction to the theory of complex variables, other special functions.

Prerequisite: PHYS 418 Methods of Theoretical Physics

PHYS 524 RESEARCH AND THESIS - 3 semester hours **F, Sp, Su**

Guided original research directed at a physics faculty member's research interests. Required for the MS degree. May be taken twice with permission of instructor and Department Chair.

PHYS 530 GRAVITATION - 3 semester hours **Sp, even years**

Geometrodynamics, accelerated reference frames, differential geometry, the principles of equivalence, curvature of space time, weak gravitational collapse, blackholes, gravitational waves, and experimental tests of general relativity.

Prerequisites: PHYS 311 Optical Physics; PHYS 312 Thermal Physics; PHYS 313 Physical Mechanics; PHYS 315 Electromagnetism and Relativity; PHYS 416 Introduction to Quantum Mechanics

PHYS 550 SUBATOMIC PHYSICS I - 3 semester hours **F, even years**

A study of nuclei and elementary particles, reaction dynamics, particle accelerators, detection devices, particle classification, symmetries and conservation laws, quantum electrodynamics, the weak interaction, quantum chromodynamics, unified theories, the nuclear shell model and collective model, and nuclear reactions.

Prerequisites: PHYS 315 Electromagnetism and Relativity, PHYS 416 Introduction to Quantum Mechanics, PHYS 422 Atomic and Molecular Physics, or the equivalent

PHYS 551 SUBATOMIC PHYSICS II - 3 semester hours **Sp, odd years**

A continuation of Physics 550, Subatomic Physics I.

Prerequisite: PHYS 550 Subatomic Physics I

Plant Science

The Plant Sciences program encompasses all aspects of plant life integrating concepts and information from the molecular to the ecosystem level. The principal objective is to educate students in concepts and research methods in the various fields of crop, soil, and natural resources. This is accomplished through courses and research work that bridge a number of physical and biological sciences. This new degree program addresses the need to prepare students in basic courses such as plant molecular biology as well as applied courses such as in natural resource protection. The program also addresses the need for plant scientist to have strong statistical and computational skills appropriate to the broad ranager of advance plant science discipline. The Master of Science (M.S.) degree is designed to further the professional training of the student through formal courses while at the same time teaching how to conduct research and present pertinent results.

A minimum of 30 semester hours including thesis is required to obtain this M.S. degree. The thesis is designed to familiarize students with applied or knowledge-driven research and provide them with the hands-on opportunity in plant science research techniques and instrumentation. The curriculum includes core and elective courses, and seminar experiences. The core courses are Advanced Plant Sciences, Biometry, Chemical and Physical Principles of Soils, Genetics and Plant Breeding, Master's Thesis and Graduate Seminar. Broad based elective courses are offered including emerging disciplines such as Food Microbiology and Microbial Biochemistry. These newly designed courses prepare students to engage into current priority areas such as human nutrition, health, obesity, food safety, and bio-security. The other courses also provide opportunities for training in emerging technologies such as plant molecular biology, and Geographic Information Systems (GIS).

Admission Requirements

Admission requirements for the M.S. degree in Plant Science are similar to other masters' programs at the University. For admission to the program, the student must present a competitive GRE score and a minimum of 20 semester hours in the sciences. The credits in the sciences may be either graduate or undergraduate courses in mathematics, general chemistry, botany, soils, microbiology, physics, and related disciplines. Students who do not fulfill the science credits requirements may be admitted provisionally with the understanding that all conditions must be removed within one year of enrollment and none of the remedial science courses will count toward degree completion requirements.

Applicants for admissions to the M.S. Program in Plant Science will be given full consideration once a complete application package has been submitted. Each complete package will be forwarded to the M.S. in Plant Science Committee for review and interview of qualified candidates. This committee will make recommendations to the Chairperson of the Department of Agriculture and Human Ecology. The Chairperson of the Department of Agriculture and Human Ecology will then recommend the top candidates who meet all admission requirements to the Dean of the School of Graduate Studies, Research and Outreach. The Dean of the School of Graduate Studies, Research and Outreach will notify the candidates of their admissions status.

Program Requirements

The M.S. Degree in Plant Science will be conferred to candidates upon the completion of all academic requirements in effect at the time of their first registration, provided the students are continuously enrolled and the requirements are met within the specified time frame. All work towards the degree must be completed within six (6) years of the date of initial registration in the graduate program, excluding periods of military service.

1. Credit Requirements – Candidates for the Master of Science Degree must complete a minimum of 31 semester hours, which includes 24 semester hours of course work plus a thesis of six (6) semester hours. At least 80% of the credit hours presented for graduation must be at the 500 level or higher.
2. Grade Requirements – Degree applicants must maintain a grade point average of 3.00 (B) in the courses taken in their approved graduate program.
3. Transfer Credits – In the 31-hour program, nine (9) semester hours earned at another accredited graduate institution may be accepted toward the Master's degree. Such transfer credits must be approved by the major advisor and must be of "B" quality or higher. Transfer of credit in the core courses is prohibited.
4. Continuous Enrollment – Students in the graduate degree programs must meet the following conditions in order to maintain satisfactory progress toward the completion of the degree:
 - Achieve a satisfactory grade of "A" or "B" in all attempted coursework for graduate credit.
 - Must maintain a cumulative grade point average (GPA) of 3.0 at all time. A student who received two (2) "C" grades or one (1) "F" grade in coursework will be withdrawn from the graduate program. However, under special circumstances, students may appeal their withdrawal status by petitioning the Policy and Petitions Committee of the School of Graduate Studies, Research and Outreach.
5. Major Professor and Committee – All students entering the program shall be advised by a major professor and an advisory committee of faculty members. This group shall provide assistance with course selection, advice concerning the M.S. program, and direct research focus. The Committee shall consist of a minimum of three (3) members, all of who must be members of the VSU graduate faculty. Individuals who are not graduate faculty members, for example, from another institution or from industry must apply to the Dean of the School of Graduate Studies, Research and Outreach for temporary membership.

Curriculum

The curriculum requires a minimum of 31 credits, distributed as follows:

Plant Science Core Courses	13 credit hours
Plant Science/Biology Electives	12 credit hours
Masters Research and Thesis	6 credit hours

Core Course Descriptions

PLSC 510 BIOMETRY – 3 semester hours

The application of statistical techniques for biological/plant sciences. Topics would include sampling techniques, experimental designs, statistical techniques to characterize variation and management of data. This course is intended for imparting applied, hands-on training to plant scientists.

Prerequisite: MATH 121

PLSC 535 GRADUATE SEMINARY – 3 semester hours

Presentations and discussions of topics of current interests in plant science; review of literature on selected topics.

Prerequisite: Consent of advisor and instructor

PLSC 541 ADVANCED PLANT SCIENCE – 3 semester hours

Advanced course involving the physiology and determination of plant yield, advances in photosynthesis, respiration and transpiration, plant productivity under stress, biological nitrogen fixation and regulation of plant growth.

Prerequisite: SOCS 242

PLSC 544 GENETICS AND PLANT BREEDING – 3 semester hours

Theoretical and applied aspects of advanced principles and mechanisms related to heredity of quantitative and qualitative traits of plants and their movement. Methods and techniques used to breed crops.

Prerequisites: BIOL 320, PLSC 444, or PLSC 448

PLSC 545 CHEMICAL AND PHYSICAL PRINCIPLES OF SOILS – 3 semester hours

Mineralogical composition of soils, colloid and cation exchange phenomena, soil structure, plasticity, and soil water. Concentration diagrams related to solubility and dissolution of minerals and fertilizers in soils.

Prerequisite: SOCS 242

PLSC 549 MASTERS' THESIS – 6 semester hours

Research conducted towards completing the thesis requirements for M.S. in Plant Sciences.

Elective Course Descriptions**PLSC 508 GEOGRAPHIC INFORMATION SYSTEMS (GIS) – 3 semester hours**

An introduction to geographic data structures, computerized spatial display and analysis, and applications of GIS, with emphasis on natural resources management.

Prerequisite: Consent of instructor

PLSC 514 PLANT MOLECULAR BIOLOGY – 3 semester hours

A focus on principles and techniques related to manipulations of the hereditary material in plants related to function and improvement.

Prerequisite: BIOL 320

PLSC 520 WETLAND ECOSYSTEM AND MANAGEMENT – 3 semester hours

Origin and processes in the formation of wetlands. Functions and values of wetlands, wetland delineation, wetland classification, regulations that affect wetlands. The importance of wetlands to surface and groundwater quality. Techniques to manipulate or protect wetlands to meet the needs of human, aquatic and terrestrial wildlife.

Prerequisite: SOCS 242

PLSC 526 SAS FOR PLANT SCIENTIST – 3 semester hours

Training of students in the management, analysis, and interpretation of quantitative and qualitative data using SAS software.

Prerequisite: PLSC 500 Biometry

PLSC 527 CURRENT TOPICS IN PLANT SCIENCES – 3 semester hours

Independent current and advanced work on topics related to plant and soil science. Such topics include the use of plants in medicine and health, environmental issues, use of genetically modified organisms, international trade, production under adverse environments, etc.

Prerequisite: Consent of advisor and instructor

PLSC 534 PLANT PROTECTION – 3 semester hours

Diseases and insect-pest in plant production, integrated pest management, pesticide classification, toxicology, formulation, application techniques, safety, legal considerations, and environmental impact. Topics on the discovery and development of new pesticides. The course will be offered by an interdisciplinary team to cover pesticides used against all pests.

Prerequisite: CHEM 305 and 307

PLSC 538 CROP SCIENCE TECHNOLOGY – 3 semester hours

Production techniques for different soils, climate, moisture, and temperature requirements for successful crop production. Directions to crop management research and science; low input, sustainable agriculture.

Prerequisite: Consent of instructor

BIOL 531 FOOD MICROBIOLOGY – 4 semester hours

Role of microorganisms in food borne illness and food quality, spoilage, and preservation. Control and destruction of microorganisms in foods and their production environments. Hands-on laboratory experience with microorganisms found in foods. Focus on spoilage organisms, food borne pathogens, and microbial fermentation.

Prerequisite: Consent of instructor

BIOL 542 MICROBIAL BIOCHEMISTRY – 3 semester hours

The primary purpose of the course is to provide graduate and advanced students with a basic understanding of biochemistry, molecular and cellular biology. Other topics in the course include understanding the principles involved in membrane transport, permeation cell communication and signaling.

Prerequisite: Consent of instructor

Course Sequence

Year 1		
Fall Semester		Credits
PLSC 510	Biometry	3
PLSC 541	Advanced Plant Science	3
PLSC	Elective	3
Spring Semester		Credits
PLSC 544	Genetics and Plant Breeding	3
PLSC 545	Chemical and Physical Properties of Soils	3
PLSC	Elective	3
Year 2		
Fall Semester		Credits
PLSC 535	Graduate Seminar	1
PLSC	Elective	3
PLSC	Elective	3
Spring Semester		Credits
PLSC 549	Masters Thesis	6

Psychology

The Department of Psychology offers the Master of Science degree with concentrations in the following areas: (1) general Psychology, (2) and clinical Psychology. Students interested in becoming community college teachers researchers, or in pursuing further study toward the doctorate are advised to select the concentration in general Psychology. In addition, those who are interested in pursuing doctoral work in school Psychology can take educational Psychology courses through the general Psychology concentration. If students' vocational goals include working in therapy or assessment services, they should pursue the clinical concentration. Outstanding performance in either area may lead to college teaching. Advisors are appointed to aid students in selecting and developing a program in terms of their interests.

Admission Requirements

***Students are admitted for the clinical Psychology track during the Fall semester only**

****Graduate Record Examination (GRE) scores are required as part of the application packet and prior to receiving an offer of admission.**

Unconditional Admission. In addition to the general requirements for admission to the Graduate School, the Department of Psychology requires a) a minimum of 15 semester hours in Psychology, including at least one course in each of the following: 1) social, personality, cognitive, or developmental Psychology, 2) research methods, quantitative methods, or experimental Psychology, and 3) physiological Psychology; b) a 3.00 grade point average (on a scale of 4.00 points) in Psychology or major area; and c) an overall undergraduate grade point average of 2.8.

Conditional Admission. Applicants can be granted conditional admission under the general provisions of the Graduate School whenever the requirements in a), b), and/or c) above are not met, if additional program slots are available. Applicants also must have a minimum grade point average of 2.8 in the undergraduate major, or a 3.00 grade point average during last two years of undergraduate course work, a minimum Graduate Record Examination (GRE) score of 900 in order to be admitted with conditional status in Psychology.

Change of Status. In order to achieve unconditional status and advance to candidacy, students must 1) complete all undergraduate prerequisites listed on the Program Card by the major advisor including experimental or physiological Psychology; 2) earn a B- average in the first 15 graduate-level hours of their planned program of study; and 3) successful completion of PSYC 528.

Continuing Status. Continuing status is dependent upon maintaining a cumulative GPA of at least 3.0, with no more than two grades of C, as well as a favorable review by the departmental graduate faculty committee. For anyone with a grade below C, continuing status is subject to further departmental review.

Course Descriptions

PSYC 508 PSYCHOTHERAPY I: THEORIES OF PSYCHOLOGY - 3 semester hours

An overview of the major theories in psychology. Emphasis on the application of theories to the conceptualization of PSYCOlogical disorders and practice of therapy.

Prerequisite: Admission into the graduate Psychology program or permission of instruction

PSYC 510 PRO-SEMINAR - 3 semester hours

Designed to give students an orientation to graduate study in psychology and to introduce them to the professional problems of the field. Required of all graduate students in psychology.

PSYC 511 ADVANCED GENERAL PSYCHOLOGY - 3 semester hours

A seminar in general-theoretical psychology designed to assist the student in developing basic psychological concepts and orientations. Students are required to read extensively and to report on research literature with the aim of developing skill in writing reviews of literature in the various areas of Psychology. Required of all graduate students in psychology.

PSYC 512 HUMAN GROWTH AND DEVELOPMENT - 3 semester hours

The study of the principles of physical, mental, emotional and social growth of the individual and their implications for the learning process.

PSYC 513 EDUCATIONAL PSYCHOLOGY - 3 semester hours

The application of psychological principles to teaching, learning, and classroom management. Review and analysis of research on learning, motivation, and assessment of pupil progress. A unit on test construction is included.

PSYC 514 EXPERIMENTAL SOCIAL PSYCHOLOGY - 3 semester hours

Exploration of group dynamics and interpersonal influence. Mass communication, social attitudes, conformity, obedience, leadership, and normative behavior. Research projects on these and similar topics.

PSYC 515 LEARNING THEORY - 3 semester hours

A critical analysis of the major theories of learning, including their similarities and differences.

PSYC 517 ADVANCED PSYCHOPATHOLOGY - 3 semester hours

This course teaches students the scientific and theoretical basis for understanding and treating psychological disorders. The underlying causes and courses of the disorders, as well as various treatment methods, are explored.

Prerequisite: Undergraduate Abnormal Psychology Course or permission of the instructor

PSYC 518 PSYCHOPATHOLOGY OF CHILDHOOD - 3 semester hours

A study of deficits, injuries, learning disabilities, developmental difficulties as well as qualities of interpersonal relationships associated with disordered behavior in children.

PSYC 519 PSYCHOTHERAPY II: TECHNIQUES IN PSYCHOLOGY - 3 semester hours

Develop skills in intake interviewing, mental status exams, diagnostic interviewing, and other therapeutic techniques in psychotherapy. Role playing and other exercises are used to facilitate the student's understanding the theories underlying the therapeutic practices.

PSYC 520 PSYCHOLOGICAL ASSESSMENT I: INTELLIGENCE AND ACHIEVEMENT TESTING - 3 semester hours

Focuses on supervised intellectual and achievement assessment of children and adults. Relevant literature on the concepts of intelligence and test construction is required reading. Practice in report writing is required.

Prerequisites: Admission into the graduate clinical or educational Psychology program or permission of instructor

PSYC 521 PSYCHOLOGICAL ASSESSMENT II: PERSONALITY AND PROJECTIVE TESTING - 3 semester hours

A study of the administration, scoring, and interpretation of personality and projective assessment instruments, and the rationale underlying the construction of each.

Prerequisite: PSYC 520, Psychological Assessment I

PSYCHOLOGY - PRACTICUMS

Students are assigned to various service delivery agencies. Under supervision, they gain the practical experience essential to the development of skills in the use of psychological techniques. Ninety (90) clock hours of field work are required for three (3) semester hours credit.

Prerequisite for all practicum courses: Admission into the Clinical Psychology graduate program

PSYC 522 PRACTICUM I - 3 semester hours

Prerequisite: PSYC 508, Psychotherapy; PSYC 517, Advanced Psychopathology; PSYC 520, Psychological Assessment I

PSYC 523 PRACTICUM II - 3 semester hours

Prerequisite: PSYC 519, Psychotherapy II; PSYC 522, Practicum I

PSYC 524 PRACTICUM III - 3 semester hours

Prerequisite: PSYC 523, Practicum II

PSYC 525 INTRODUCTION TO COMMUNITY-CLINICAL PSYCHOLOGY - 3 semester hours

History and social implications of the de-hospitalization movement. Nature, organization, and delivery of community-based mental health services.

PSYC 526 MOTIVATION - 3 semester hours

A study of the dynamics behavior as viewed from various theoretical standpoints. Analysis of such concepts as instinct, need, value, conscious and unconscious motive.

PSYC 527 PERSONALITY THEORY - 3 semester hours

A critical analysis of the major theories of personality development.

PSYC 528 EXPERIMENTAL DESIGN AND DATA ANALYSIS IN PSYCHOLOGICAL RESEARCH - 3 semester hours

A course providing a broad survey of methodologies and special problems in psychological research. The focus on selection and application of techniques and interpretations of results, rather than on computational procedures *per se*. Topics covered include experimental and quasi-experimental design, nonparametric statistics, psychological tests, statistics and selected multivariate methods. The course also allows the student to develop competency in the use of mainframe and microcomputer statistical packages.

Prerequisite: The equivalent of one course in undergraduate statistics.

PSYC 529 CRISIS INTERVENTION STRATEGIES - 3 semester hours

A course designed to primarily give students an opportunity to learn how to select and utilize psychological knowledge for the determination of appropriate strategies for crisis intervention situations. Students are expected to demonstrate the strategies learned. The course is supplemented by field work in selected agencies.

Prerequisites: Admission into the graduate psychology program or permission of instructor

PSYC 530 ETHICS AND PROFESSIONAL STANDARDS OF PRACTICE - 3 semester hours

Seminar reviews ethical principles and practice issues relevant to psychology.

Prerequisite: Admission into the graduate psychology program or permission of instruction

PSYC 531 INTRODUCTION TO GROUP THERAPY - 3 semester hours

A review of basic group psychotherapy.

Prerequisite: Admission into the graduate psychology program or permission of instruction

PSYC 532 DIAGNOSIS AND TREATMENT OF SUBSTANCE USE DISORDERS - 3 semester hours

Basic diagnostic and treatment practices for treating persons with substance abuse disorders. A review of the major categories of psychoactive drugs, as well as the medical, psychological and social impact of each substance use.

Prerequisite: Admission into the graduate psychology program or permission of instruction

PSYC 533 INTRODUCTION TO NEUROSCIENCE - 3 semester hours

An introduction to the research methodology of neuroscience, and an investigation of the neural basis of sensation, cognition, learning, and psychological disorders.

Prerequisites: The equivalent of one undergraduate course in physiological or biological psychology

PSYC 580 STATISTICAL METHODS IN HEALTH PSYCHOLOGY I - 3 semester hours

Quantitative methods of graduate students in psychology. Collection, storage, retrieval, analysis and interpretation of health data. Design and analysis of health related surveys and experiments. Emphasizes inferential techniques and focuses on the application of these methods to health psychology research. Students learn to manipulate data using statistical software.

Prerequisite: The equivalent of one course in undergraduate statistics

PSYC 581 STATISTICAL METHODS IN HEALTH PSYCHOLOGY II - 3 semester hours

An introduction to multivariate tests, such as MANOVA, structural equation modeling, and multiple regression.

PSYC 582 STATISTICAL METHODS IN HEALTH PSYCHOLOGY II - 3 semester hours

An introduction to multivariate tests, such as MANOVA, structural equation modeling, and multiple regression.

Prerequisite: PSYC 581, Statistical Methods I

PSYC 599 RESEARCH AND THESIS - 3 to 6 semester hours**PSYC 603 HEALTH PSYCHOLOGY - 3 semester hours**

An introduction to health psychology that provides a general overview of the discipline of health psychology, including its origins, concepts and methods. A number of types of intervention efforts will be explored, including risk factor modification, secondary preventive/rehabilitative efforts for chronic illness and community/public health interventions. Some of the major areas and topics in health psychology are explored. Students will acquire skills and knowledge that should enhance their critical thinking and understanding the relationship of people's thoughts, emotions, motivations, and actions to their health.

PSYC 609 HISTORY AND SYSTEMS - 3 semester hours

Covers the history and various systematic theories of psychology. Explores the conceptual foundations of psychology from its inception to the present day.

PSYC 612 RESEARCH METHODS IN CLINICAL AND HEALTH PSYCHOLOGY - 3 semester hours

Analysis of the role of research in clinical and health psychology and experimental design issues in psychotherapy research. Students are expected to be familiar with research methodology designs and ethics in psychological research. Prepare individual research proposals for critical evaluation.

Prerequisites: PSYC 580 Statistical Methods I; PSYC 581 Statistical Methods II

PSYC 620 CLINICAL PRACTICUM I - 1 semester hour

Practical application of skills developed in Psychotherapy II. Students will complete intake interviews, mental status exams, and diagnostic interviews with clients/patients.

Corequisite: PSYC 519 Psychotherapy II

PSYC 621 CLINICAL PRACTICUM II - 2 semester hours

Students will develop skills in individual psychotherapy with children and/or adults clients/patients.

PSYC 701 HEALTH PSYCHOLOGY: PSYCHOTHERAPY METHODS AND INTERVENTIONS - 3 semester hours

This course examines the history, as well as theories, models, and interventions designed to support health behavioral change and the management of disease.

Prerequisites: PSYC 508 Psychotherapy I; PSYC 519 Psychotherapy II

PSYC 702 NEUROPSYCHOLOGICAL ASSESSMENT - 3 semester hours

This course covers the theory and practical use of major neuropsychological assessment devices. Students are taught to administer and interpret major neuropsychological tests and batteries. The focus of the course is an practical knowledge, report writing and neuropsychological clinical practice.

PSYC 703 ASSESSMENT AND EVALUATION OF COMMUNITY HEALTH PROGRAMS - 3 semester hours

The student will focus on community needs assessment and evaluating changes in community services and programs and community status. Establish a scope of evaluation efforts and methods for designing and conducting program evaluation and research in community settings. Analyze parameters of effective consultative relationships. The use of community and behavioral analysis as a basis for establishing objectives, determining appropriate methods for interventions, carrying out planned programs and evaluating behavioral change outcomes.

PSYC 704 CLINICAL PSYCHOPHARMACOLOGY - 3 semester hours

The course covers the general principles underlying the use in of drugs to treat the major classes of mental illness. This will include antipsychotics (conventional and atypical), antidepressants, anxiolytics, moods stabilizers, and other psychotropic medications. Mechanisms of action, drug interactions, and pertinent aspects of differential diagnosis will be discussed. Psychiatric aspects of general medical conditions will be presented.

Prerequisite: PSYC 533 Neuroscience

PSYC 705 HEALTH EDUCATION AND BEHAVIORAL SCIENCE - 3 semester hours

An introduction to the underlying principles and theories of health education and behavior change for public health.

Prerequisite: Admission into the doctoral psychology program or permission of instructor.

PSYC 706 PROFESSIONAL ISSUES IN BEHAVIORAL MEDICINE CONSULTATION - 3 semester hours

The objective of this course is to focus on issues facing clinical health providers and other health consultants in traditional and non-traditional health care settings. Themes focus on malpractice risks related to health services, including managed health care; privacy, consent and access to hospital records; quality assurance, quality control and mechanisms of review; interdisciplinary relationships, hospital privileges, multiple codes of ethics/legal constraints and hierarchical levels of professional responsibility for medical regimens; consultation services with diverse and under-served populations; and anticipating future directions in behavioral health and illness.

PSYC 711 RESEARCH IN HEALTH PSYCHOLOGY (SEMINAR) - 3 semester hours

The student will interact with professionals in the field and discuss relevant topics in health psychology. Each guest speaker will discuss the impact of behavior and the influence of health and disease in relation to their topic area. Emphasis will be placed on analyzing current research and programs in health psychology and communicating effectively with health professionals.

Prerequisite: PSYC 612 Research Methods

PSYC 713 HEALTH SERVICES ADMINISTRATION - 3 semester hours

This course focuses on planning, organization, administration, management and policy analysis of health care systems and health programs. Long range strategic planning, reporting program performance, promoting programs, reviewing policy and recognizing appropriate laws and regulations relating to public health. Emphasis on management tasks and styles, decision making and building effective coalition and teams.

PSYC 714 EPIDEMIOLOGY OF HEALTH BEHAVIORS/COMMUNITY EPIDEMIOLOGY - 3 semester hours

Distribution and determinants of disease, disabilities and death in human populations; the characteristics and dynamics of human populations, and the natural history of disease and the biological basis of health.

Prerequisite: PSYC 603 Health Psychology

PSYC 715 SOCIAL AND CULTURAL ASPECTS OF HEALTH AND ILLNESS - 3 semester hours

Investigate physical, social, emotional and intellectual factors influencing health behaviors. Identify major responsibilities of the health educator in the practice of health education. Assessment of psychosocial, cultural and situational factors in the voluntary behavior change process. Analysis of communication pathways, influence and power, social norms and social marketing, coordinating provisions of health education services, and roles of institutions in relation to learning and the behavior change process. Special attention will be given to addressing cultural competence in healthcare settings.

PSYC 720 HEALTH PSYCHOLOGY PRACTICUM - 3 semester hours

Supervised experience with assessment, consultation, and intervention in a health care setting.

PSYC 721 ADVANCED CLINICAL PRACTICUM - 3 semester hours

Students choose specialized training experiences from a variety of community settings. This practicum can be taken more than once.

PSYC 725 COMMUNITY HEALTH PSYCHOLOGY PRACTICUM - 2 semester hours

An opportunity to apply knowledge and skills gained in academic courses in a working environment or community setting under the supervision of a preceptor. This must be a supervised experience with assessment, consultation, and intervention in a public health organization and or health care setting. To acquaint the student with population based programs for health promotion and disease prevention. Requirement: written and oral report to preceptor and course director. Setting: research, medical and social/environmental.

Sport Management

Admission. Participants applying to the Sports Management degree program will be selected based upon their leadership potential, preparation, employment history, and knowledge of current professional practices.

An applicant for graduate study is expected to hold the bachelor's degree from an accredited institution. The applicant's preparation must be appropriate to the desired program and must meet the requirements of the specific degree program pursued.

Each prospective graduate student must submit an application to the Graduate School and receive a letter of admission before registering for courses.

A senior at Virginia State University who has a superior scholastic record and is within six hours of qualifying for the bachelor's degree may be admitted to Graduate Studies; but work applied toward the bachelor's degree may not be used as credit for the master's degree. Enrollment in graduate courses must be approved by the departmental chair and the Dean of the School of Graduate Studies, Research and Outreach.

Application Procedures for Sport Management (Health and Physical Education)

1. Submit a completed application form with the fee of \$25 to the Graduate School Office.
2. Students are admitted on a rolling basis. Applications are processed as they arrive through the published deadline.
3. Have two official transcripts from each collegiate institution attended sent to the School of Graduate Studies, Research and Outreach. To be considered official, a transcript must be received directly from the institution concern. Graduates of Virginia State University must comply with this requirement.
4. An applicant must have taken the GRE or MAT by the time s/he applies. Applicants whose native language is not English are required to present a minimum score of 500 on the Test of English as a Foreign Language (TOEFL). Exceptions are made for transfer students from other U.S. colleges who have completed at least one semester of course work with a grade point average of "C" or better.
5. Letters of reference: Number Required:
Three (3) letters of reference are required.

Letters of recommendation should be requested from individuals who are capable and prepared to make judgments on the applicant's ability to complete graduate studies. Undergraduate faculty and advisors are the best sources. Character references are acceptable, but at least one letter should be from an individual in higher education. If the undergraduate work was completed a number of years ago, this may be a difficult request; therefore, one should use discretion when selecting the three best references.

6. No bachelor's degree in the discipline or a related discipline is required for admission?
7. Statement of Goals: The Goal Statement (350-500 words) should include three components: academic/professional goals, personal strengths that will contribute to success in the graduate program, and personal weaknesses that may inhibit success in the program.
8. Resume: A resume is required.
9. Transfer Credit: Graduate credits from an accredited institution may be transferred into the program. The credits must be equivalent to coursework offered at Virginia State University and the grade must be a "B" or better in order to transfer. The maximum number of credits a student may transfer is 9.

The processing procedures will be as follows:

1. Applicants for admission to the graduate program will be considered when all required materials have been submitted by the applicant. Applications should be submitted on or before February 1 of each year;
2. The Committee for Sport Management will review all applications and interview top candidates for admission;
3. Applicant acceptance into the program will be recommended by the Coordinator of Sport Management to the Chair of Health, Sport Management, and Recreation and the Dean of the School of Liberal Arts and Education (SLAE). The Dean of the SLAE will forward the recommendations for the top candidates who satisfy all the requirements to the Dean of Graduate Studies, Research and Outreach;
4. The Dean of the Graduate Studies, Research, and Outreach will notify the candidates of their admission or denial to the graduate program.

Time-to-Degree Completion

All requirements for the Graduate Degree Program in Physical Education must be completed within six years from the date of initial registration in the graduate program, excluding periods for military service. Students who encounter unique problems, which prevent compliance with this regulation, may appeal through the graduate program advisor to the Chair of the Policies and Petitions committee in care of the School of Graduate Studies, Research, and Outreach.

Under compelling circumstances, students may be awarded extensions, totaling not more than two years, to the present limit of six years. This provision restricts the period for completion of the degree to a maximum of eight years.

All transfer credit for the degree must have occurred within the designated period (six years) prior to the date of graduation. Transfer courses are not eligible for an extension of time. Test scores submitted in support of applications for admission must also be within the six-year period.

Withdrawal from the Graduate Program

Students who withdraw officially from the graduate program and the University will receive grades of “W” in the courses in which they are registered. Graduate students withdrawing from the program will not normally be permitted to enroll in future graduate courses. Students who encounter unique problems, which prevent compliance with this regulation, may appeal through the graduate program advisor to the Chair of the Policies and Petitions Committee, in care of the School of Graduate Studies, Research, and Outreach.

Academic Standards

A graduate student who is a candidate for a degree must earn an average of 3.0 or higher in all courses applicable to his/her degree and receive grades of “S” where grades of “S”, “U”, or “P”, are awarded.

Grades of “C” may constitute no more than 20% of the credits offered for graduation, or a maximum of two “Cs” in two four-hour courses on the graduate level, whichever is greater. Semester hours with “C” grades in excess of this percentage or the allotted eight hours will not count toward the degree but will be calculated into the total cumulative average.

Although Virginia State University encourages a maximum of student responsibility, with a minimum of administrative regulation, it expects each student to maintain appropriate standards in s/he academic program. The University reserves the right to terminate the registration of any student who does not meet acceptable standards. Academically, a student whose record falls below standard or otherwise indicates a lack of ability or effort needed to succeed in graduate study will be denied permission for further study.

Culminating Exam

Comprehensive Exam Description – The written comprehensive examination is designed to test comprehension of the total field of study and is not limited to specific information covered formally in classes. The examination requires that a student demonstrate in writing the ability to apply, to analyze, and to synthesize information. The examination is made up of 4 sections:

Section 1: ADMINISTRATION: Management theory, personnel management, risk management and liability, public relations, marketing, finance/fund raising and budgeting, facility design Section 2: RESEARCH METHODOLOGY: Types of research, current research published, literature review, instrumentation, and internal validity Section 3: PROBLEM SOLVING: Administration and professional problems and problem areas Section 4: PROFESSIONAL ISSUES: Professional association (mission, goals, code of ethics, professional development, professional preparation, current professional and legal issues) (e.g., gender equity, affirmative action, Americans With Disabilities) Section 5: PHILOSOPHY/ETHICS: Philosophical schools of thought, philosophical and ethical issues concerning the field. Comprehensive Exam – Students take the examination after completing 30-36 credits.

The Graduate Faculty members in the Sport Management program write the questions, evaluate candidates answers. Each examination is evaluated by three faculty members. Comprehensive Exam Pass – A student will be given five hours to complete five sections of questions. There will be at least one required question in each section plus selected optional questions from each category. The examination will be graded by three Graduate Faculty members. Anonymity will be preserved. Graders will score each question of the basis of 1 to 10, with a score of 8 or above considered passing. An average score for the total exam is recorded by each grader. Finally, an average of the three scores is determined with an average score of 8 or above needed to pass. The examination must be successfully completed as a whole. It is possible to pass the examination in sections. If a student is unsuccessful in any part on the first attempt, the student will be given a second opportunity. If unsuccessful in the second attempt, the student will be dismissed from the program. Comprehensive Exam Schedule – Comprehensive examinations are administered three times a year: November, April, and June. Students must register for the examination with the graduate coordinator at the beginning of the semester. The examination runs from 9 a.m. to 2 p.m. and is proctored by a graduate faculty member.

Financing Opportunities

Virginia State University awards graduate assistantships annually to students who have demonstrated exceptional promise and achievement. In order to be eligible for the Graduate Sport Management Graduate Assistantship students must have an overall undergraduate GPA of 3.0. These assistantships provide a stipend of \$4500.00 to in-state students, and \$10,000 to out-of-state students per academic year. Recipients are required to work 15 hours per week under the supervision of a qualified full-time graduate faculty members in the Department of HPER at Virginia State University. A committee of graduate faculty members in the Department of HPER along with the Sport Management Program Coordinator will select the award recipients. Students must maintain a G.P.A. of 3.00 to renew their assistantships from semester to semester.

Sport Management Courses

The number of didactic credits required beyond the Baccalaureate: 30. Directed Research and Special Topics may be taken for a maximum of 6 semester hours.

Internship: All students must complete a minimum of 6 semester hours of internship. An internship manual will provide details of this class.

EDUC 513	Program and Curriculum Development in P.E.	3
PESM 502	Planning, Program Development, and Evaluation	3
STAT 510	Statistical Procedures Education and Psychology	3
PESM 505	Facility and Event Management	3
PESM 510	Readings in Sport Management	3
PESM 530	Sport and Marketing	3
PESM 531	Sport Seminar	3
PESM 532/PHED 406	Legal Issues in Sport	3
PESM 533	Sport Nutrition	3
PESM 534/PHED 407	Sport Psychology	3
PESM 538	Organization and Management of Athletics	3
PESM 566	Special Topics in Sport Management	3
PESM 570	Directed Research in Sport	3
PESM 571	Sport Management Internship	6
PESM 599	Oral/Written Comprehensive Examination	0

Health and Physical Education Courses

PESM 562	Program and Curriculum Development in P.E.	3
PESM 563	Health-Related Fitness Education and Assessment	3
PESM 564	Secondary Pedagogy in Sport Management	3
PESM 568	Current Issues in Physical Education	3
PESM 569	Principles of Sport Officiating	3
PESM 572	Field Experience in Physical Education	6

Course Descriptions

EDUC 513 - EDUCATIONAL RESEARCH - 3 semester hours

Seeks to provide students with a basic knowledge of the field of educational research through study and practical exploration of the techniques of research. A critical analysis of the different types of research and the various methods of acceptable styles for reporting data.

PESM 502 - PLANNING, PROGRAM DEVELOPMENT, AND EVALUATION - 3 semester hours

Students will be required to conduct an effective needs assessment and apply the data to develop and implement appropriate programs to meet the needs of the public. Students should also be capable of conducting effective evaluation using statistical applications.

PESM 510 - READINGS IN PHYSICAL EDUCATION - 3 semester hours

Identification of critical issues arising from current problems in physical education or sport management; exploration of points of view and possible solutions.

STAT 510 - STATISTICAL PROCEDURES IN EDUCATION AND PSYCHOLOGY - 3 semester hours

General terminal course for graduate student enrolled in professional educational research, psychology, and guidance covering elementary and advanced statistical methods.

Sport Management Courses

PESM 505 FACILITY AND EVENT MANAGEMENT - 3 semester hours

Evaluation of problems relating to programming of equipment and facilities; visits to and evaluation of surrounding facilities.

PESM 530 SPORT AND MARKETING - 3 semester hours

Evaluation of sport and marketing, including applications of mainstream marketing which include a historical overview of sport marketing, collegiate and professional sporting events, commercial and public organizations, sporting goods, and the sport enterprise.

PESM 531 SPORT SEMINAR - 3 semester hours

Research and discussion of critical questions in physical education and sport management; topics to be studied will vary according to the concerns of seminar students.

PESM 532/PHED 406 LEGAL ISSUES IN SPORT - 3 semester hours

The course is designed to assist students in understanding the aims, objectives, principles, policies, procedures and requirements in regard to legal issues for a successful career as a Sport administrator. Ethics from a legal standpoint will be extensively researched and discussed. Graduate students will be required to research specific legal issue cases and apply them to practical situations.

PESM 538/PHED 401 ORGANIZATION AND MANAGEMENT OF ATHLETICS - 3 semester hours

The course is designed to assist students in understanding the aims, objectives, principles, policies, procedures and requirements for a successful career as a sport administrator. Ethical issues as they pertain to the management and organization of athletics will be discussed extensively. Graduate students will be required to research specific athletic management objectives and apply them to practical situations.

Physical Education Courses**PESM 562 PROGRAM AND CURRICULUM DEVELOPMENT IN PHYSICAL EDUCATION - 3 semester hours**

This course is designed to examine the issues related to curriculum theory and design; developing curricula in relation to national, state and local standards; and program development and management. Emphasis is placed on the current standards in health and physical education, and the relationship of program development and teaching effectiveness.

PESM 563 HEALTH-RELATED FITNESS EDUCATION ASSESSMENT - 3 semester hours

Focuses on health education curriculum design and instructional techniques that can be utilized to promote health literacy in school settings. Development of a comprehensive school health curriculum using the National Health Education Standards and the Assessment Framework is emphasized including recommended scope and sequence, content, and skills. There will also be opportunities to observe practice and reflect on specific teaching and assessment strategies.

PESM 568 CURRENT ISSUES IN PHYSICAL EDUCATION - 3 semester hours

Current issues in contemporary physical education are examined, with an emphasis on formulating policies and procedures to alleviate problem areas. Particular attention is given to professional issues.

PESM 569 PRINCIPLES OF SPORT OFFICIATING - 3 semester hours

This course is designed to provide practical knowledge to develop, organize, and administer officiating rules. Emphasis will be placed on current rules, regulations, and governing bodies.

Elective Courses**PESM 533 SPORT NUTRITION - 3 semester hours**

Topics include current nutrition issues in Physical Education and Sport Management. Special emphasis will be placed on nutrient needs of athletes.

PESM 534/PHED 407 SPORT PSYCHOLOGY - 3 semester hours

Topics include personality, aggression, attitudes, competition stress, social facilitation, and small group research as related to athletes and individuals involved in sport. Graduate student will be required to research specific sport psychology objectives and apply them to practical situations.

PESM 564 SECONDARY PEDAGOGY IN PHYSICAL EDUCATION - 3 semester hours

This course is designed to examine the issues related to teaching physical education, and developing secondary physical education curricula in relation to national, state and local standards. Emphasis is placed on current trends and teaching methods in secondary physical education, and on the relationship of reflective teaching and teaching effectiveness at the 6-12 grade levels.

PESM 566 SPECIAL TOPICS - 3 semester hours

This course is an intensive exploration of selected topics in Physical Education. Consideration of the sources, characteristics, and significance of the subject treated. May be repeated for credit more than once with a different topic.

PESM 570 DIRECTED RESEARCH IN SPORT - 3 semester hours

This course is a supervised research project in an area applicable to the field of study and agreed upon by the student and major advisor.

Internship and Field Experience

PESM 571 SPORT MANAGEMENT INTERNSHP - 6 semester hours

This course includes on-the-job learning in a sport management setting. Field experience involving supervised contact with Sport administrators. Fifteen contact hours per semester hour credit is required (90 total contact hours).

Prerequisite: Completion of all requirements of the program; G.P.A. of 3.0, and consent of instructor.

PESM 572 FIELD EXPERIENCE IN TEACHING PHYSICAL EDUCATION - 6 semester hours

Each field experience provides students with the opportunity to put theory and technique into practice at the level of their teaching specialization. The students will also attend a seminar led by the university supervisor. Fifteen contact hours per semester hour credit is required (90 total contact hours).

Prerequisite: Satisfactory completion of all other requirements for degree completion, and the permission of the program coordinator (6 hours).

PESM 599 ORAL AND WRITTEN COMPREHENSIVE EXAMINATION - 0 semester hours

An oral and written examination to assess the candidate's overall knowledge of course work pursued in the graduate program, and his/her ability to apply this knowledge to designated sets of circumstances.

Prerequisite: Satisfactory completion of all other requirements for degree completion, and the permission of the program coordinator.

Note: The Nutrition/Dietetics Program is **not** a Graduate Program. It should be **deleted** from the graduate catalog.

**Post-Master's Certificate Programs
Certificate of Advanced Graduate Study (CAGS)**

The Certificate of Advanced Graduate Study (CAGS) in Career and Technical Studies is a 30-semester-hour program of study incorporating courses at the 600-level or above. A student must have completed a master's degree before being admitted to the program. The CAGS program is open to students whose bachelor's or master's degree is in one or more of the following fields: agriculture, business education, marketing education, health occupations, family and consumer sciences, technology education, industrial education, or related areas.

The CAGS program is designed specifically for persons who hold, or are preparing for positions as state and local directors, supervisors, assistant supervisors, and department heads of career/technical and adult education; for principals and administrators in public and private schools, or other institutions where career preparation is a primary objective; for persons engaged in manpower development; and for other Career and Technical Studies practitioners interested in organizing and administering Career and Technical Studies programs. Courses may also be selected from other occupational program areas to satisfy the requirements.

Career and Technical Studies

CTST 601	Foundations of Career and Technical Studies	3
CTST 605	Strategies for Teaching Career and Technical Studies	3
CTST 607	Legal Bases for Career and Technical Studies	3
CTST 609	Career and Technical Studies for Administrators	3
CTST 611	Program Evaluation and Accountability in Career and Technical Studies	3
CTST 621	Policy and Policy-Making in Career and Technical Studies	3
CTST 639	Internship	3
CTST 641	Externship	3
CTST 643	Seminar in Career and Technical Studies	3
CTST 649	Graduate Research Seminar in Career and Technical Studies	3
CTST 657	Oral and/or Written Comprehensive	<u>0</u>
		30

Course Descriptions**CTST 601 FOUNDATIONS OF CAREER AND TECHNICAL STUDIES - 3 semester hours**

A study of selected topics and their relation to Career and Technical Studies; organization, administration and evaluation; policy and policy development; school, business, industrial and community relations; and career education. Examines past, present and future aspects and developments of Career and Technical Studies; and outlines changes and future roles of Career and Technical Studies.

CTST 605 STRATEGIES FOR TEACHING CAREER AND TECHNICAL STUDIES - 3 semester hours

A course designed to help prepare vocational administrators and supervisors to assist teaching personnel in planning instructional activities for students. Includes lectures from specialists and visits to model programs.

CTST 607 LEGAL BASES FOR CAREER AND TECHNICAL STUDIES - 3 semester hours

Federal, state, and local legislation and executive orders affecting Career and Technical Studies. Interpretation of legislation and implications for program design, administrative practices, and agency function and design. Revision of current legislation to enhance career and technical programs.

CTST 609 CAREER AND TECHNICAL STUDIES FOR ADMINISTRATORS - 3 semester hours

Designed for school administrators and supervisors desiring an understanding of career and technical studies. Emphasis on regulations for the administration of CTST programs under the provisions of federal, state, and local legislations.

CTST 611 PROGRAM EVALUATION AND ACCOUNTABILITY IN CAREER AND TECHNICAL STUDIES - 3 semester hours

A study of concepts, principles, and methods of evaluation in Career and Technical Studies. Emphasis on criteria, appropriate instruments and personnel for evaluation of educational practices, problems and solutions, and program changes resulting from program evaluation.

CTST 621 POLICY AND POLICY-MAKING IN CAREER AND TECHNICAL STUDIES - 3 semester hours

An in-depth study of policy and policy making in Career and Technical Studies at the local, state and national levels. Investigation of basic purposes of policy, appropriate sources for policy-making, and current policy developments in Career and Technical Studies.

CTST 639 INTERNSHIP - 3 semester hours

A planned field experience in an administrative or supervisory position in Career and Technical Studies. Major emphasis on the needs of the student. Supervised jointly by a certified vocational administrator or supervisor and a member of the University graduate faculty.

CTST 641 EXTERNSHIP - 3 semester hours

A planned advanced clinical practice for the experience educator enrolled part-time in graduate study while holding a leadership position in Career and Technical Studies. Educational problems and practices are systematically analyzed and evaluated. Emphasis on investigation, discussion, and reports.

CTST 643 SEMINAR IN CAREER AND TECHNICAL STUDIES - 3 semester hours

Lectures and discussions on current problems in Career and Technical Studies as determined by interest of students and significant current events. Lectures by authoritative persons, group discussions, projects and presentations.

CTST 649 GRADUATE RESEARCH SEMINAR IN CAREER AND TECHNICAL STUDIES - 3 semester hours

A survey of research designs, research procedures, proposal developments, preparation of research reports, and dissemination of findings.

CTST 657 ORAL AND/OR WRITTEN COMPREHENSIVE EXAMINATION - 0 semester hours

**Certificate of Advanced Graduate Studies
Certificate of Graduate Studies in Project Management**

Project supervisors and/or team leaders abound in business, industry, government, and private establishments. They need certain management and professional skills in order to be effective in their various roles. The graduate certificate in project management is designed to meet their need.

Admission

In addition to the general requirements for admission to the graduate division of the School of Graduate Studies, Research, and Outreach (except the GRE requirement), a minimum of 21 semester hours of undergraduate preparation in an occupational program or a related discipline is required.

Completion Requirements

A total of eighteen (18) semester hours, including the required courses, must be completed with a minimum grade point average of B (3.00).

Required Courses	Sem Hrs.
CTST 509 Project Management Systems.....	3
CTST 519 Project Planning and Scheduling.....	3
CTST 527 Project Leadership.....	3
CTST 532 Project Cost and Risk Management.....	3
Elective Courses	Sem Hrs.
CTST 515/ECON 530 Quantitative Methods	3
CTST 523 Strategies and Perspectives in Project Management.....	3
CTST 525 The Legal Environment in Project Management.....	3
CTST 527 Project Leadership.....	3
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Certificate Program in Nutrition and Dietetics

The justification for creating the Certificate Program in Nutrition and Dietetics is to allow students to enroll in a university program while they are fulfilling the ADA DPD requirements. As students are completing the 39-72 semester hours required by the ADA, they will be qualified to apply for financial aid and student loans. Without offering a Certificate Program in Nutrition and Dietetics, students are required to pay graduation tuition, but since they cannot declare a major, they are not qualified to apply for financial aid or student loans. Since this is the only DPD accredited by the American Dietetic Association in the Richmond/Petersburg Virginia area, it is essential for this program to be recognized as an official VSU program. Completion of a DPD program is the only way students who have already earned a Bachelor’s Degree can begin the process of obtaining the Registered Dietitian (RD) credentials. Satisfying the ADA DPD coursework permits students to then enroll in an ADA accredited Dietetic Internship and upon its completion, they are authorized to sit for the Registered Dietitian (RD) examination. Since this is an essential first step in the process of obtaining the credentials of RD, it is important that VSU facilitate this process for students by creating a Certificate Program in Nutrition and Dietetics.

Prerequisite: Baccalaureate Degrees

Course Requirements: The following courses are needed to complete the minimum didactic (educational) requirements of the American Dietetic Association (ADA) for entry level dietitians, based on Virginia State University’s, ADA accredited curriculum. Completion of the Certificate Program will fulfill the ADA Didactic Program in Dietetics (DPD) course requirements.

			Sem Hrs.
Food Service	DIET 221	Principles of Analysis of Foods	3
Food Management	DIET 322	Meal Management/Lab	3
	DIET 435	Org & Mgmt of Food Service	3
Nutrition Science	DIET 310	Human Nutrition	3
	DIET 385	Nutritional Biochemistry	3
	DIET 424	Advanced Nutrition	3
Applied Nutrition	DIET 311	Nutrition in the Life Cycle	3
	DIET 410	Nutritional Counseling	2

Graduate Programs and Course Descriptions

	DIET 422	Community Nutrition	3
	DIET 431	Medical Nutrition Therapy I	3
	DIET 437	Medical Nutrition Therapy II	3
	DIET 489	Practicum in Dietetics	3
Professional Development	DIET 275	Seminar in Dietetic Practice	1
	FACS 440	Contemporary Apprch Curr & Tech	<u>3</u>
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The following support courses may be taken at any accredited university with prior approval by the Program Director.

Human Physiology	3
Microbiology/Lab	3
General Chemistry I and II/Labs	8
Organic Chemistry I/Lab	4
Advanced Communications	3
Business Principles/Management	3
Introduction to Psychology	3
Introduction to Sociology	3
Economics	3
Statistics	<u>3</u>
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