



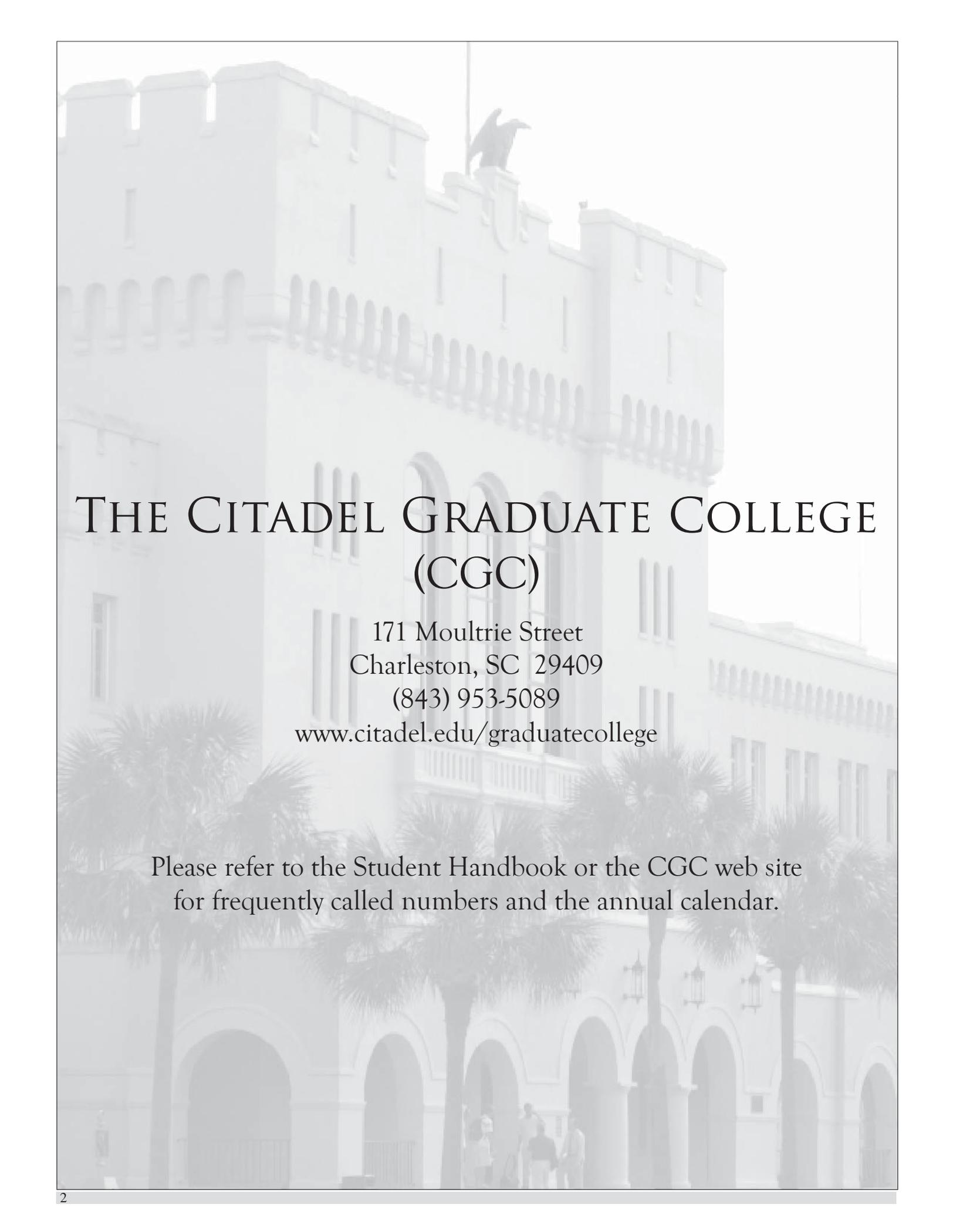
THE CITADEL

GRADUATE COLLEGE

2010-2011 Academic Catalog



Achieving Excellence in the Education of Principled Leaders.



THE CITADEL GRADUATE COLLEGE (CGC)

171 Moultrie Street
Charleston, SC 29409
(843) 953-5089
www.citadel.edu/graduatecollege

Please refer to the Student Handbook or the CGC web site
for frequently called numbers and the annual calendar.

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President's Message

Welcome to The Citadel Graduate College, where we extend our mission of educating principled leaders to people like you who seek graduate study to become leaders in their chosen fields. We take great pride in our distinguished faculty and excellent facilities that combine to offer a unique learning environment. You will find that our students - your friends, neighbors and colleagues - have chosen the CGC because they know it will equip them for the challenges they will face as they advance in their careers. We hope you will join the ranks of the nearly 8,000 CGC alumni for whom a graduate degree from The Citadel was a stepping stone to success and continued growth.



Lt Gen John W. Rosa, USAF (Ret), '73
President

Board of Visitors

The Citadel Board of Visitors is composed of eleven graduates of the college; seven elected by joint vote of the SC General Assembly, three elected by alumni (Citadel Alumni Association) and one appointed by the Governor. All members serve six-year terms.

Colonel Douglas A. Snyder, '82, Chair
Colonel Glenn D. Addison, '79, Vice Chair
Colonel Allison Dean Love, CGC, '93
Colonel William G. Kastner, '74
Colonel Claude W. Burns III, '80
Colonel W. Thomas McQueeney, '74
Colonel Fred L. Price, Jr., '75
Lieutenant Colonel Ben W. Legare, Jr., USA (Ret), '63
Colonel James M. McQuilla, '88
Lieutenant General W. Michael Steele, USA (Ret), '67
Colonel Dylan W. Geoff, '02
The Honorable Mark Sanford, Governor, Ex Officio
Major General Stanhope Spears, Adjutant General, Ex Officio
The Honorable James Rex, State Superintendent of Education, Ex Officio
Colonel Leonard C. Fulghum, Jr., '51, Member Emeritus



The Citadel Statement of Vision, Core Values, and Mission

Statement of Vision

Achieving excellence in the education of principled leaders.

Core Values

Academics: We produce graduates who have insight into the issues, ideas and values that are important to society and possess the skills necessary to deal with them successfully.

Duty: We emphasize the importance of individual accountability and the moral obligation of responsibility for the welfare of others.

Honor: We adhere to a code, which teaches that uncompromising personal integrity is the primary guide in all situations.

Morality: We believe that an individual's character is of utmost importance and, therefore, we provide training which emphasizes ethical principles and core values.

Discipline: We operate a leadership laboratory, which emphasizes a structured environment, acceptance of responsibility, self-confidence and service to others.

Diversity: We promote diversity in all segments of our campus community and in all aspects of college life.

Mission

The Citadel's mission is to educate and prepare graduates to become principled leaders in all walks of life by instilling the core values of The Citadel in a challenging intellectual environment.

The Citadel strives to produce graduates who have insight into issues, ideas, and values that are of importance to society. It is equally important that Citadel graduates are capable of both critical and creative thinking, have effective communication skills, can apply abstract concepts to concrete situations, and possess the methodological skills needed to gather and analyze information.

Throughout its history, The Citadel's primary purpose has been to educate undergraduates as members of the South Carolina Corps of Cadets and to prepare them for post-graduate positions of leadership through academic programs of recognized excellence supported by the best features of a structured military environment. The cadet lifestyle provides a disciplined environment that supports the growth and development of character, physical fitness, and moral and ethical principles.

A complementary purpose of The Citadel, realized through The Citadel Graduate College, is to provide the citizens of the Lowcountry and the State of South Carolina opportunities for higher education and professional development by offering a broad range of educational programs of recognized excellence at both the graduate and undergraduate levels. These programs are designed to accommodate the needs of adult students seeking traditional and demanding academic challenges.

Institutional Characteristics: The Citadel is a coeducational, comprehensive, state-assisted, four-year institution whose primary undergraduate student body consists of approximately 2,000 members of the Corps of Cadets, all of whom reside on campus. The primary service area for these students is regional, with approximately half of each freshman class coming from South Carolina. The Citadel, however, does draw undergraduate students from all parts of the United States and many foreign countries. The college offers a wide range of baccalaureate degree programs (Bachelor of Arts, Bachelor of Science, Bachelor of Science in Business Administration, Bachelor of Science in Civil Engineering, and Bachelor of Science in Electrical Engineering) in the humanities, social and natural sciences, business administration, engineering, and education. These academic programs prepare graduates of the Corps of Cadets for a variety of careers; about half of these graduates enter the business arena, a third or more enter the military and government service, and the remainder goes directly into graduate and professional study. Many graduates choose to pursue professional or graduate degrees later in their careers.

Through its evening undergraduate and graduate programs, The Citadel Graduate College serves a degree-seeking population of approximately 1,200. The primary service area is the South Carolina Lowcountry. The Citadel Graduate College offers three baccalaureate degree programs (Bachelor of Science in Business Administration, Bachelor of Science in Civil Engineering, and Bachelor of Science in Electrical Engineering) and six graduate degree programs (Master of Arts, Master of Science, Master of Arts in Teaching, Master of Arts in Education, Master of Business Administration, and Specialist in Education). Meeting the needs of the South Carolina Lowcountry in terms of instruction, public service, and research, including such initiatives as cooperative programs with other educational institutions, is an important part of The Citadel's mission.

Together, the Corps of Cadets and The Citadel Graduate College enroll approximately 3,200 students, about 60% of whom come from South Carolina.

In its educational programs, The Citadel acknowledges and endorses the teacher-scholar ideal, recognizing that the excellence of all of its academic programs is dependent upon the quality of its faculty. This ideal is pursued through teaching and lecturing, researching, writing, publishing, and public service. The Citadel's faculty also addresses audiences beyond the college by sharing their knowledge with other scholars and with the public.

The Citadel Graduate College Mission/Purpose

The Citadel Graduate College provides adults in the Lowcountry and the State of South Carolina opportunities for higher education by offering a broad range of educational programs of recognized excellence at both the graduate and undergraduate levels. These programs are designed to accommodate the needs of adult students seeking traditional and demanding academic challenges. By providing graduate research, scholarly contributions, affiliations with educational, business and science professional associations nation-wide and around the world, community outreach and development, and contribution of other resources, The Citadel Graduate College supports and encourages stronger economic development in the region by identifying and creating new programs to benefit the community.

The Citadel, The Military College of South Carolina, was established in 1842. In 1966 the coeducational undergraduate Evening College was founded. In 1968, as part of its mission to serve the State and particularly the Lowcountry, The Citadel initiated graduate degree programs. In 1994, the Board of Visitors approved the formation of The College of Graduate and Professional Studies. In 2007, the name was changed to The Citadel Graduate College to help people more closely identify and recognize an important part of The Citadel. Programs under this college are open to all qualified students regardless of sex, race, age or ethnic origin.

The Provost and Dean of the College is the academic officer charged with the administration and supervision of all graduate study. The Graduate Council, made up of the Provost, the Associate Provost and Dean of The Citadel Graduate College, the Director of the Library, and a representative of each academic department with a graduate major, establishes standards and policies and approves program modifications.

Accreditation

The Citadel is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools, an institutional accrediting body recognized by the Council on Postsecondary Education. The Commission on Colleges of the Southern Association of Colleges and Schools accredits The Citadel to award Bachelor's, Master's, and Specialist degrees.

Programs for the preparation of secondary education teachers at the bachelor's and master's levels, for the preparation of guidance counselors at the master's and specialist degree levels, and for the preparation of school superintendents at the specialist degree level are accredited by the National Council on Accreditation of Teacher Education (NCATE), a specialized accrediting body recognized by the Council on Postsecondary Accreditation. The head of the Department of Education serves as the Director of Teacher Education.

The School of Business Administration is accredited by the Association for the Advancement of Collegiate Schools of Business (AACSB) International.

The Clinical Counseling program is accredited by the Masters in Psychology Accreditation Council.

The Civil and Electrical Engineering programs are accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology. (ABET).

The School Counseling Programs that offer a Master of Education in Counselor Education (Elementary or Secondary Certification) were granted full eight years CACREP (Council for Accreditation of Counseling and Related Educational Programs) in July 2005.

The School Psychology Program is fully accredited by the National Association of School Psychologists.

The Citadel Graduate College Academic Calendar 2010-2011

2010		2011	
Aug. 18	Payment for fall 2010 due	Jan. 5	Payment for spring 2011 due
Aug. 23	Fall 2010 classes begin	Jan. 10	Spring 2011 classes begin
Sept. 3	Last day to drop/add	Jan. 17	Martin Luther King Day - no CGC classes
Sept. 6	Labor Day - no CGC classes	Jan. 24	Last day to drop/add
Oct. 11	Last day to withdraw with a grade of "W"	Feb. 1	Last day to apply for spring or summer graduation for those participating in the commencement ceremony*
Nov. 1	Last day to apply for graduation*	Mar. 1	Last day to apply for spring graduation for those not participating in the commencement ceremony**
Nov. 2	Election Day - no CGC classes	Mar. 7	Last day to withdraw with a grade of "W"
Nov. 8	Registration begins for spring 2011 for currently enrolled students	Mar. 7	Registration for summer 2011 begins for currently enrolled students
Nov. 22	Registration for spring 2011 begins for all students	Mar. 21	Registration for summer 2011 begins for all students
Nov. 22	Fall Break begins	Mar. 25	Spring Break begins after class
Nov. 29	CGC classes resume	Apr. 4	CGC classes resume
Dec. 7	Last day for CGC classes	Apr. 4	Registration for fall 2011 begins for currently enrolled students
Dec. 8	CGC exams begin	Apr. 18	Registration for fall 2011 begins for all students
Dec. 14	CGC exams end Winter break begins	Apr. 25	Last day for CGC classes
Dec. 16	Semester grades due by 10:00 a.m.	Apr. 26	CGC exams begin
		May 2	CGC exams end
		May 5	Semester grades due by 10:00 a.m.
		May 8	CGC Commencement

* *Deadline is for CGC students completing requirements on December 15.*

* *Deadline is for CGC students completing requirements in the spring or summer and are participating in the spring commencement ceremony.*

** *Deadline is for CGC students completing requirements in the spring but are not participating in the spring commencement ceremony.*

Purpose of the CGC Catalog

This catalog should not be construed as the basis of a contract between a student and The Citadel. Every effort is made to provide information in the catalog that is accurate at the time the catalog is prepared. However, information on regulations, policies, fees, curricula, courses, and other matters are subject to change at any time during the period for which the catalog is in effect.

Each program of study shall be governed by the program requirements in effect on the date of enrollment. If a student withdraws from the college or fails to maintain enrollment for one year and subsequently returns, the requirements in effect at the time of return will prevail.

Any exception to policies in this catalog, purported to have been made verbally to a student by an official of the college, are null and void unless documented with a signed statement from the college official authorized to make the exception.

This catalog is not an unchangeable contract but an announcement of the current policies. Implicit in each student's matriculation at The Citadel is an unwritten agreement to comply with the institution's rules and regulations, which The Citadel may modify to ensure the quality of its academic programs. When graduation requirements are changed, every effort will be made to insure that the new requirements can be met by the student's original expected graduation date. Nonetheless, each student is expected to read and be aware of the policies and procedures contained in the catalog in order to assure that admissions, registration, and graduation procedures are being followed. The college cannot assume responsibility for a student who does not comply with policy or procedure.

Procedural Information

Application and Admissions

The application process at The Citadel Graduate College (CGC) is a two-part process that occurs simultaneously. The applicant must be accepted into CGC and the program to which he/she seeks a degree. Requirements for acceptance into CGC include:

- a. Completed application for admission
- b. Non-refundable application fee
- c. Transcripts submitted directly from all colleges and universities attended. Transcripts from all schools are required, regardless of whether the coursework would apply to a degree program, to ensure good academic and financial standing.
- d. A standardized admissions test (GRE, GMAT, or MAT depending on the program) score.

Upon receipt of an application, each applicant is sent a letter acknowledging the application and outlining specific admission requirements for CGC and the program for which he/she applied.

The requirements for acceptance into specific programs and degrees are described in this catalog for each program/degree. Official copies of test scores must be sent directly to the CGC office and must be current within five years of application.

Full acceptance is not granted until both CGC and program requirements are met. After acceptance by the program, any non-US Citizen must be cleared for registration by The International Office. The TOEFL test is required of any applicant whose native language is not English. At this time a letter of acceptance is sent to the student which includes the name of the advisor. Students are encouraged to meet with his or her advisor.

Application for Resident Status

Any student or prospective student who is uncertain concerning entitlement to payment of in-state tuition and fees has the responsibility of securing a ruling from The Citadel by providing all relevant information on special application forms. These forms can be obtained from the Office of the Registrar, Bond Hall, Room 173, or online at <http://www.citadel.edu/registrar/forms/> and are to be completed and returned to that office at least two weeks prior to registration for any semester or summer term for which the student is attempting to qualify for payment of in-state tuition and fee rate.

CGC Class Ring

All CGC students graduating from degree programs are eligible for the CGC Class ring. CGC students may order their ring upon completion of all but the final two semesters of coursework/internship and must possess an overall 2.0 GPA for undergraduate students or 3.0 GPA for graduate students. To place a class ring order, contact the Alumni Center at (843) 953-7698. The Alumni Center will verify eligibility with the CGC office.

Drop/Add and Withdrawals

To drop or add a course from the schedule or to change sections within a course, a student must come to the CGC office and complete a “drop/add” form. The deadline for changes is listed in the calendar for each semester. Students who have Lesesne Gateway accounts may drop/add on the web. Formal notice of intent to drop or withdraw from any class is necessary in all cases. After the drop period, students who choose to withdraw must complete a withdrawal form available in the CGC office or online. The dates for dropping and withdrawing are listed in the term calendar at www.citadel.edu/graduatecollege. Course withdrawal means a student is withdrawing from a course after the refund date has passed. A grade of “W” will appear on the student transcript. The “W” does not affect the student’s grade point ratio (GPR).

To withdraw with the grade of “W,” the student must complete the course withdrawal form obtained from the CGC office or online and return the form to the CGC office. Students who do not follow this procedure will receive a failing grade in the course(s) which they cease to attend. Ceasing to attend a course does not constitute an official withdrawal from the course. The grade of “W” will be recorded if a student withdraws on or before the published deadline. Students should check the current calendar for the term found at www.citadel.edu/graduatecollege for deadlines.

Fee Payment

All fees are due and payable at the time of registration. If fees are not paid by the published date on the term calendar, prior to classes starting, the student may be dropped from registered classes. Checks for the amount of charges should be made payable to The Citadel. Fees may also be paid with bank cards, however a service fee is incurred. Electronic check payment is also available at no charge. Deferred payment plans may be arranged in advance of a semester through a third party. Forms are available in the Treasurer’s office. The Citadel reserves the right at any time to adjust fees to meet the current cost of operation. Fee schedules are published each semester on The Citadel’s web page. The Citadel Treasurer is responsible for the collection of monies due The Citadel. All correspondence concerning fees, payments, and status of accounts should be directed to that office.

Financial Aid and Scholarships

The Financial Aid Office handles student loan applications, grants, scholarships and work-study programs.

Forms and Deadlines

To apply for financial aid at The Citadel, all students should file a Free Application for Federal Student Aid (FAFSA) as soon as possible after January 1. These forms are available online at <http://FAFSA.ed.gov>. Additional information may be requested by the Financial Aid Office. Students are responsible for checking their Lesesne Gateway accounts and completing all requested paperwork and financial aid requirements in a timely manner. Because funds are limited, those students whose applications are completed after

the deadline dates will receive consideration for aid only as fund availability permits.

Priority deadline dates are as follows:

Academic year (fall and spring)	February 28
Fall only	February 28
Spring only	October 15
Summer	March 15

Applicants with financial aid paperwork not completed by June 30 should not expect to receive notification of awards prior to the beginning of fall semester. These applicants should be prepared to pay for their tuition, fees, and other costs at the established fee payment deadlines. Students will be reimbursed if they are subsequently determined to be eligible for financial aid.

Determining Financial Need

The amount of financial aid is determined based on the FAFSA form the applicant files after January each year. This form solicits information about the applicant’s family’s current financial situation and produces an “expected family contribution”. Adjusted gross income data from tax forms are used along with current asset information to determine family resources. Allowances are made for federal and state taxes, social security, employment (when both parents work), unusual medical and dental expenses, and family size. Other factors considered are any unusual expenses and the number of family members in college. In its simplest definition, financial need is the difference between what a student will pay to attend college and the expected family contribution, as determined by the need analysis. If costs exceed the amount of family contribution, then the applicant has “demonstrated” financial need.

Dependent or Independent Status

Federal student aid programs are based on the premise that parents have the primary responsibility of financing their children’s education. Independent students will fall into one of the following categories.

Students are automatically independent and therefore not required to submit parental data if:

- a. He/she is 24 years old or older by Dec 31 of the award year
- b. He/she is a graduate student
- c. He/she is married
- d. He/she is currently serving on active duty in the U.S. Armed Forces for purposes other than training
- e. He/she is a veteran of the U.S. Armed Forces
- f. He/she has children (or other dependents) and will provide more than half of their support
- g. He/she was in foster care or deemed a dependent or ward of the court
- h. He/she was an emancipated minor or in legal guardianship as determined by a court
- i. He/she was determined to be an unaccompanied youth that was homeless or were self-supporting and at risk of being homeless.

Federal Eligibility Requirements

Any student who is accepted for admission is eligible to request financial assistance. However, there are several general eligibility requirements a student must meet to receive federal financial aid:

- 1) A student must be admitted to The Citadel as a regular or conditional student.
- 2) A student must be a U.S. citizen or a national or permanent resident.
- 3) A student may not receive aid if he or she is in default at any institution on any Federal Student Loan Program.
- 4) Generally, a student must be enrolled at least half-time. This is defined as 3 hours/semester for graduate students and 6 hours/semester for undergraduate students.
- 5) A student may not receive aid if he or she owes a repayment at any institution on a Pell Grant, Supplemental Grant, or State Student Incentive Grant.
- 6) A student must have the minimum grade point ratio and must make satisfactory academic progress (SAP) toward a degree to continue to receive federal financial aid.

Types of Financial Aid

Grants

Federal Pell Grant - Undergraduate Only

The Federal Pell Grant program provides federal grants for eligible undergraduate students. Eligibility is determined by the Free Application for Federal Student Aid (FAFSA) using a nationally mandated formula applied uniformly to all applicants. Students must demonstrate satisfactory progress toward a degree each year to receive a Pell Grant in the next academic term. The Citadel participates in the Department of Education's Electronic Data Exchange (EDE) program, which provides the student and the institution with faster processing of applications. When a student completes the FAFSA, the eligibility for a Federal Pell Grant is determined by the processor, and a paper Student Aid Report (SAR) is generated and mailed to the student's home address. (An electronic SAR is available for applicants who provide a valid e-mail address). At the same time, an Electronic ISIR is generated to the school. If corrections need to be made on the application, the institution can send the corrections electronically and have the results within 4 days instead of the 2-3 weeks previously required.

Federal Supplemental Educational Opportunity Grant (SEOG) – Undergraduate Only

The SEOG program provides aid to students who qualify for Pell Grants and who show exceptional financial need. These grants range in value from \$300 to \$3,000 per academic year, with the average award being \$750.

ACG Grant – Undergraduate Only

Academic Competitiveness Grants (ACG) was created with the Higher Education Reconciliation Act of 2005 to be awarded for the first time in the 2006-2007 year. The awards range up to \$750 for first year students and \$1300 for second year students. Award levels could be reduced if the estimated number of recipients exceeds the available funding.

Basic Requirements for an ACG:

- Complete the FAFSA
- Be a U.S. Citizen or eligible noncitizen

- Be Pell Grant Eligible
- Be a first or second year student
- Graduate from a "rigorous high school course of study"

Eligible students will be notified of their award via Lesesne Gateway.

SMART Grant (NSG) – Undergraduate Only

The National SMART Grants were created with the Higher Education Reconciliation Act of 2005 to be awarded for the first time in the 2006-2007 year. Awards range up to \$4000. Award levels could be reduced if the estimated number of recipients exceeds the available funding.

Basic Requirements for a NSG:

- Complete the FAFSA
- Be a U.S. Citizen or eligible noncitizen
- Be Pell Grant eligible
- Be a third or fourth year student
- Have a least a 3.0 cumulative GPA
- Have declared a major in an eligible field, and enroll in courses required for that major

Eligible majors for SMART Grants at The Citadel include biology, chemistry, civil engineering, computer science, electrical engineering, mathematics, and physics. Eligible students are notified of their award via Lesesne Gateway.

South Carolina Need-Based Grant - Undergraduate Only

South Carolina Need-Based Grants are awarded to South Carolina residents on a first-come basis and to students that show financial need. A student may receive up to \$2,500 annually for full time status and up to \$1,250 annually for part-time status. For more information view the South Carolina Commission on Higher Education web site for eligibility requirements.

Work Programs

The Federal Work Study Program – Undergraduate/Graduate

This program, which is federally funded, provides part-time employment to qualifying students. Students are paid on an hourly basis, not less than the federal minimum wage. Paychecks for hours worked are issued biweekly directly to the student. The Human Resources Office makes assignments after a student has qualified for work-study.

Loans

The Federal Perkins Loan Program – Undergraduate/Graduate

The Perkins loan program provides needy students with long term, low interest loans for educational expenses. Loans range from \$300 to \$5,500 per year. The interest rate is five percent. Federal legislation requires institutions to make Perkins Loans available first to students with exceptional financial need. Fulltime undergraduate applicants are given priority when funds are limited. Repayment begins following a grace period of nine months after graduation or termination of enrollment on at least a half-time basis. Students may be allowed up to ten years to repay based upon the amount borrowed, with a \$40 per month minimum payment required. Loan repayment may also be deferred for specific reasons. There are also cancellation provisions for borrowers who enter specific fields of teaching, teach in designated schools, serve in an area

of hostilities, volunteer under the Peace Corps or the Domestic Volunteer Service Act of 1973, or serve as a law enforcement or corrections officer.

The Federal Direct Loan Program - Undergraduate/Graduate

The Direct Loan program (formerly GSL) provides students with long term low interest loans. Both subsidized and unsubsidized Direct Loans are available. The federal government “subsidizes” the loan by paying the interest while the student is in school. For an unsubsidized loan, interest accrues while the student is enrolled. Another difference between these two loans is that the family contribution (as determined from the FAFSA) is taken into consideration when determining a student’s need for a subsidized loan. Eligibility for an unsubsidized loan does not depend on the family contribution.

Undergraduate: The maximum amounts in loans, subsidized and unsubsidized combined, may not exceed \$5,500 for a student who has not completed the first year of a program, \$6,500 for a student who has completed the first year but not the second, and \$7,500 for a student in the remaining years of undergraduate study. Undergraduate dependent students can borrow no more than \$31,000 during their academic careers. Of this amount, no more than \$23,000 can be subsidized. Undergraduate independent students can borrow no more than \$57,500 during their academic careers. Of this amount, no more than \$23,000 can be subsidized.

The interest rate for a undergraduate Federal Direct Loan (student) disbursed on or after July 1, 2010 is a 4.5% fixed rate for a subsidized loan and 6.8% for an unsubsidized loan. Repayment begins six months after the student’s enrollment drops below half-time status.

Graduate: The maximum amount that a graduate student can borrow through the federal student loan program is \$20,500 annually. Of this amount, no more than \$8500 can be subsidized.

The interest rate for a graduate Federal Direct Loan (student) disbursed on or after July 1, 2006 is a 6.8% fixed rate. Repayment begins six months after the student’s enrollment drops below half-time status.

The Federal Direct Parent Loan for Undergraduate Students (PLUS) – Undergraduate Only

Under the Federal Direct PLUS program, parents of dependent undergraduate students may borrow annually up to the difference between the student’s cost of attendance and the estimated amount of financial assistance for each dependent student. There is no aggregate maximum under this program.

The interest rate for a Federal Direct PLUS Loan (parent) disbursed on or after July 1, 2006 is a 7.9% fixed rate. Repayment begins 60 days after the final disbursement.

Graduate PLUS Loan – Graduate Only

Under the Federal Direct Graduate-PLUS program, graduate students may borrow annually up to the difference between their cost of attendance and the estimated amount of any other financial aid. The interest rate for a Direct Graduate-PLUS disbursed after July 1, 2006, is a 7.9% fixed rate. Students are encouraged to maximize their Federal student loans first before applying for a Graduate-PLUS.

South Carolina Teacher Loan Program – Undergraduate/Graduate

This loan program is intended to attract talented teachers to remain in South Carolina by offering a cancellation of their student loan. A loan recipient who becomes certified to teach in a subject area of critical need or in a designated school district has the loan cancelled at the rate of 20% for each full year of teaching up to 100%. To qualify, the student must be a resident of South Carolina attending college for the purpose of becoming a certified teacher. Employment must be in the state’s public school system in an area of critical need as defined by the State Board of Education. Loan recipients who do not become certified or do not teach in an area of critical need will be required to repay the entire amount of the loan plus interest. Because funds in the program are limited, there is a priority processing deadline of April 1. To ensure that an application is received at the South Carolina Student Loan Corporation by the deadline, it should be submitted to The Citadel Office of Financial Aid and Scholarships no later than March 15.

Satisfactory Academic Progress (SAP) for Financial Aid Recipients

The Citadel is required by federal law to establish, publish and apply reasonable standards for measuring whether a student is maintaining satisfactory academic progress toward a degree objective, and to ensure progress toward the degree for all periods of enrollment, whether or not the student has received financial aid.

To be eligible to receive or remain eligible to receive financial aid, students must maintain “satisfactory progress” in their course of study. A determination of satisfactory progress incorporates three standards applied at the end of each 12 month period of enrollment:

1. Maintain a minimum amount of earned credit hours
2. Maintain a minimum Grade Point Ratio
3. Complete program of study in a required amount of time

Minimum Earned Credit Hours

In general, students are expected to complete 75% of the hours for which they are funded each academic year. The Financial Aid Office will monitor hours completed at the end of each academic year to determine if the student: 1) has made academic progress; 2) will be placed on probation for one semester; or 3) will be disqualified from receiving financial aid.

Grade Point Ratio (GPR) Requirements

Undergraduate Students

Total Hours	Minimum GPR
0-39	1.300
40-69	1.500
70-99	1.700
100 & above	1.900

Graduate Students must maintain the minimum cumulative grade point average as required by the Graduate College for continuance.

Note: Total hours are quality hours and any Transfer & Pass/Fail Hours combined.

Maximum Hours

Financial aid eligibility is limited to students that have reached 150% of attempted hours for their program of study.

Disqualification

Students will be disqualified at the end each academic year in which one of the following occurs:

Undergraduate Students

- Full-time students who earn less than 24 hours
- Part-time students who earn less than 75% of the hours attempted
- GPR is less than minimum requirement for continuance on probation

Graduate Students

- Full-time students who earn less than 15 hours
- Part-time students who earn less than 75% of the hours attempted
- GPR is less than minimum requirement for continuance on probation

Re-Qualification

Undergraduate Students – The student must enroll without federal aid and complete the number of hours they are deficient. The minimum GPR must also be received for continuance on probation depending on your grade level. This work may be completed at The Citadel without aid or at another institution as long as the hours have been approved by the Registrar’s Office or Citadel Graduate College. It is the student’s responsibility to notify the Financial Aid Office of hours transferred from another institution.

Graduate Students – The student must enroll without federal aid and complete the number of hours they are deficient. A minimum of 3.0 GPR must also be received. This work may be completed at The Citadel without aid or at another institution as long as the hours have been approved by the Citadel Graduate College. It is the student’s responsibility to notify the Financial Aid Office of hours transferred from another institution.

Appeals

Students who are determined to be ineligible for financial aid due to lack of satisfactory academic progress may appeal this decision. An appeal of any decision concerning initial or continued financial aid funding must be submitted on a SAP Appeal Form. The steps are outlined below:

1. Make an appointment to meet with a financial aid counselor once you have received notice that your financial aid will be disqualified.
2. Complete a SAP Appeal Form. Clearly explain your circumstances by attaching supporting documentation and submitting the information to the Financial Aid Office.
3. Your information will be reviewed by the Financial Aid Appeal Committee. A decision will be based upon the information that you provided as well as your records at The Citadel.
4. You will be notified of the decision in writing. If you need to take additional action, you will be advised to do so. If you feel there were circumstances that were not

reflected in the committee’s decision, you may request an appointment with the Director of Financial Aid. You should bring with you any additional documentation that will specifically explain those pertinent issues you think should be considered. The final level of appeal rests with the Director of Financial Aid.

Financial Aid Refund and Repayment Policy

Refunds

Financial aid recipients who withdraw from school are eligible to receive only that portion of the institutionally determined refund (see the Expenses section of this catalog) which exceeds the financial aid received. This policy also applies to students on whose behalf a parent has borrowed a Title IV loan.

Refunds will be returned to the programs from which the student received aid. The Higher Education Amendments of 1998, Public Law 105-244 changed substantially the way funds paid toward a student’s education are to be handled when a recipient of Federal Financial Aid withdraws from school. A statutory schedule is used to determine the amount of Federal Financial Aid that has been earned based on the period the student was in attendance. Up through the 60% point in each payment period of enrollment, a pro rata schedule is used to determine how much Federal Financial Aid the student will receive. After the 60% point in the payment period of enrollment, a student has earned 100% of the Federal funds awarded for the period.

The percentage earned will be calculated based on the following schedule:

Week 1	6 percent	Week 7	43 percent
Week 2	12 percent	Week 8	50 percent
Week 3	18 percent	Week 9	56 percent
Week 4	25 percent	Week 10	60 percent
Week 5	31 percent	Week 11-16	100 percent
Week 6	37 percent		

For example, if a student has received \$1,000 in Federal Financial Aid and withdraws within the first week of classes, that student will receive 6 percent (\$60) of the aid award applied to total charges. The remaining \$940 will be returned to the Federal Financial Aid programs in the following order:

- Unsubsidized Student Loans
- Subsidized Student Loans
- Perkins Loans
- PLUS Loans/Graduate PLUS Loans
- Federal Grants
- Other Assistance under Title IV

The refund and repayment provisions mandated by the Federal government for Federal Aid Recipients apply when a student receives financial aid funds and withdraws, drops out, takes an unapproved leave of absence, fails to return from an approved leave of absence, is expelled, or otherwise fails to complete the period of enrollment for which he or she was charged. The refund and repayment requirements DO NOT APPLY to a student who:

- Withdraws, drops out, or is expelled before his or her first day of class
- Withdraws from some classes, but continues to be enrolled in other classes, or
- Does not receive funds for the period in question.

(Students whose parents received a PLUS Loan are considered to have received funds and so are covered for the refund and repayment requirements.)

Repayments

If a student's non-instructional educational expenses (allowances as prescribed below) incurred up to the time of withdrawal exceed the amount of cash disbursement, the student does not owe a repayment. If cash disbursed exceeds the non-instructional costs of education incurred up to the time of withdrawal, the student does owe a repayment. This repayment is the difference between costs incurred and the actual cash refund received. Non-instructional expenses are determined by calculating the percentage of room, board, books, supplies, travel, and personal expenses incurred during the portion of the term a student is enrolled.

Off-campus board and personal expenses are prorated on a weekly basis. There is no proration of on-campus room charges. A percentage of books, supplies, and travel costs is allowed based on length of enrollment.

Student aid accounts to be refunded and repaid

Once the amounts to be refunded and/or repaid are determined, the aid programs from which the student received funds will be reimbursed in the following order.

- Federal Direct/Stafford loans;
- Federal Perkins loans;
- Federal PLUS loans received on behalf of the student;
- Federal Pell Grants;
- ACG/SMART Grants
- Federal SEOG Grants;
- other Title IV programs;
- other federal, state, private, or institutional student financial assistance received by the student for which refunds are required;
- the student.

Other Assistance

Vocational Rehabilitation Scholarships: This program provides for education and training if the student has a physical or mental disability which is a substantial handicap to employment and if there exists reasonable expectation that vocational rehabilitation services may lead to gainful employment. Additional information is available through the Department of Vocational Rehabilitation in the student's home state.

College Budget Plans: Tuition Management Service (T.M.S.) is one of a number of special plans by many of the larger banks which will pay college fees when due and arrange for a parent or sponsor to repay on a prearranged monthly budget schedule extending over the year. Contact The Citadel's Treasurer's Office for information.

Veterans' Services: Veterans' services are administered under the umbrella of student financial aid at The Citadel. Veterans' services are intended to meet the needs of students receiving benefits under the following programs:

- Ch. 30—Montgomery GI Bill—Active Duty, Veterans
- Ch. 31—Vocational Rehabilitation
- Ch. 35—Dependents' Educational Assistance Program
- Ch. 1606—Montgomery GI Bill—Selected Reserve
- Ch. 1607—(REAP, Reserve Education Assistance

Program).

- Ch. 33—Post 9-11 GI Bill

Veterans who believe they have an entitlement should check with their local VA Office, the regional office in Columbia (1-800-827-1000), or the VA Coordinator at The Citadel. An applicant should contact the VA Coordinator in the Financial Aid Office at The Citadel well in advance of the anticipated matriculation date so that the necessary documents may be obtained in order to certify attendance with the VA. All veterans and dependents receiving VA Educational Benefits are required to come to the Financial Aid Office each semester and complete a request for VA Certification card. Any changes in the veterans' course of study should be cleared with the VA Coordinator in the Financial Aid Office to ensure continuation of benefits. Any reduction in course load should be reported immediately to avoid overpayment. Transfer students are reminded that the office must have copies of all transcript evaluations made by the Registrar's Office before certification can be made to the Veterans' Administration for payment.

Joint Degree Programs

The Citadel participates in joint graduate degree programs with the College of Charleston in Computer Science, English, and History. Students routinely take courses at both institutions. Citadel students will register for all their Computer Science, English, or History courses at The Citadel, even when a particular course may be offered at the College of Charleston. More specific information is available from the respective program directors.

Maymester and Summer School

The Citadel's Maymester and Summer School is a component of CGC which has the responsibility for the coordination and administration of all aspects of The Citadel's graduate and undergraduate summer school programs. The operation of Maymester and Summer School is the responsibility of the Dean of CGC and is administered under the guidelines established in coordination with the Provost and the Commandant. The operation encompasses all aspects of college administration.

All Maymester and Summer School students are ultimately the academic and administrative responsibility of the Provost. CGC students remain under their academic deans, while non-degree and transient students are administered by the CGC Dean. Students residing in the barracks, regardless of academic status are the disciplinary responsibility of the commandment, all other non cadet students remain as stated above.

Admissions—Undergraduate admission to Maymester and Summer School does not constitute admission to the regular academic session of The Citadel.

Undergraduate students seeking initial admission to Maymester and Summer School at The Citadel must complete an application and pay the application fee. High school or college transcripts are not required for enrollment in Maymester or Summer School. Rising high school seniors may be admitted on the basis of written recommendations from their high school guidance counselor or

principal and may enroll in a maximum of two freshman level courses. Citadel undergraduate day students applying, having applied, or having been accepted past or present should contact the Registrar's Office for admission and registration information and assistance.

Graduate students enrolled in Maymester and Summer School must go through the admissions procedure outlined in the CGC catalog. Admission to the program and enrollment in courses are governed by the policies outlined for the program to which the student applies. Students enrolled in graduate courses are classified as "Graduate Students."

Registration—Registration for all students, graduate and undergraduate, enrolled in Maymester or Summer School at The Citadel is conducted in the CGC office located in Bond Hall, Room 101. Admission and registration may be conducted in one of three ways:

- 1) Students may come to the office and complete the application/registration procedure
- 2) Students may mail or fax in an application/registration form.
- 3) Returning students may register through Lesesne Gateway online.

Parking—Ample lighted and secure parking is available on campus for all Maymester and Summer School students. All automobiles parked within The Citadel gates are required to have a parking tag. The tags are obtained in person in the Public Safety Office after paying the fee in the Treasurer's Office. The fee for the parking tag is published in the "Schedule of Classes for Summer School" online at www.citadel.edu. The parking fee covers all sessions of Maymester and Summer School. Very limited parking is available for motorcycles on a first come, first served basis just outside the Hagood gate at the end of Huger Street. All motorcycles must have a Citadel parking tag. Two and three wheeled motorized vehicles may not be operated on campus.

Students may park at their own risk on the public streets surrounding The Citadel without purchasing a Citadel parking tag.

Housing—Housing in barracks is available to any student enrolled in classes at The Citadel during Maymester or Summer School. However, it is not mandatory for any student to live on campus during Maymester and Summer School. The "Schedule of Summer Classes" provides information on the cost of living in barracks housing.

Dining—Coward Hall, The Citadel Dining Hall price of meals for students living in the barracks are included in room and board fees. All other students, graduate or undergraduate, may obtain noon meal tickets for the established fee indicated in the "Summer Schedule of Classes." Meal tickets for 3 meals a day (breakfast and lunch only on Fridays, no meals on Saturdays or Sunday) are also available to all interested students not living in the barracks. Individual meal tickets will not be sold. All students may purchase snacks and light meals in the food court in Mark Clark Hall.

Student Identification Cards—Maymester and Summer School students attending on-campus courses may obtain a Citadel identification card. The identification cards are obtained after registering in Bond 244. This card is necessary for using The

Citadel and area consortium libraries.

Recreation—Campus recreational facilities are available to students enrolled in Maymester and Summer School classes upon payment of the activity fee in the Treasurer's Office. These facilities include the Deas Hall weight room, racquetball courts, swimming pool, gymnasium, tennis courts, track, and The Citadel Beach House located on the Isle of Palms. Students must show The Citadel identification card to use these facilities.

Orientation

In order to assist new CGC students in becoming familiar with The Citadel facilities and support services, CGC offers two new student orientations each year. These orientation sessions are offered before the beginning of the fall term and before the beginning of the spring term. New students will be notified of the date, time, and place of these orientations.

Refunds

No fees are refunded after the published drop deadline. This date is usually following two class meetings. To obtain the appropriate refund, a student must complete the drop form available in the CGC office or drop via the online system. The Dean of CGC may authorize a refund for extenuating circumstances after the scheduled refund date but only if a formal application is made in writing to the Dean of CGC. Registration, technology and application fees are not refundable.

Registration

Registration is conducted by mail, through BannerWeb, or in person in the CGC office located on the first floor of Bond Hall, Room 101. Registration is not complete until all fees are paid. Students may not attend class until they are fully registered. Completed registrations will be honored on a first-come, first-serve basis. Any changes in registration must be made prior to the end of the term's Drop/Add period. Information concerning fees, class times, and registration calendars can be found each academic term online at www.citadel.edu/graduatecollege.

Transfer Credit

Graduate students applying for transfer credit will use the "Transfer Credit for Graduate Programs" form located online at <http://www.citadel.edu/graduatecollege/forms/>. The form will be submitted to CGC through the student's advisor and department head with a copy of the course description from the catalog of the originating institution and the course syllabus. Approval is granted by the student's department, contingent upon Citadel policy. Only courses with a "B" or higher are acceptable for transfer. Undergraduate students should refer to the undergraduate section of the catalog.

Policy Information

Academic Integrity Policy and Procedures

The following academic integrity policy is in effect for non-cadet students for fall and spring semester and all students including cadets in Maymester and summer school.

Absolute integrity is expected of every Citadel student in all academic undertakings. Academic integrity is grounded on the concept of honesty with respect to the intellectual efforts of oneself and others. A student's submission of work for academic credit indicates that the work is the student's own. Students are responsible for knowing what constitutes violations of the Academic Integrity Policy. Examples of violations of the Academic Integrity policy include, but are not limited to the following:

- Plagiarizing or representing the words, ideas, or information of another person as one's own without documentation;
- Giving or receiving prior to an examination any unauthorized information concerning the content of that examination;
- Using, without authorization of the instructor, notes, books, prompts, or other materials, or receiving verbal or electronic assistance to aid in answering questions on an examination;
- Giving or receiving substantive aid during the course of an examination;
- Asking or permitting another person to take a test or engage in other academic work; or taking a test or engaging in academic work for another, whether voluntarily or for hire, in conjunction with class work or for admissions purposes;
- Violating personal property rights (for example, stealing or attempting to steal tests, keys, or grade books);
- Fabricating data in support of laboratory or field work;
- Engaging in other acts of academic misconduct.

While academic integrity is a shared responsibility, it is incumbent upon the student to abide by the academic integrity requirements. It is the responsibility of the faculty member to inform the student of any atypical academic integrity requirements.

1. When a faculty member suspects or has been informed that a student may have violated the Academic Integrity Policy, the faculty member should inform the student in writing within ten working days of discovery. Some situations may require more time; however in no case should this written notification be delayed by more than one month. Written notification will include the allegation and a suggested time, place and date for a meeting of the student, the professor, and Department Head of the department in which the alleged violation took place. If the faculty member making the allegation is the Department Head of the department in which the alleged violation took place, the meeting will include the student, the faculty member, and Dean of the school in which the alleged violation took place.

2. After this meeting, if the faculty member decides that no violation occurred, the matter will be dropped. If the faculty member decides that a violation has occurred but that only a grade penalty is warranted, the student may be assigned an "F" for the work in question, or, in more serious cases, an "F" in the course. If it is determined that a more serious penalty is warranted, or if the student does not accept the grade penalty offered, the accusation will be remanded to the

Dean of the school in which the alleged violation occurred. If that Dean participated in the meeting with the faculty member and the students, the matter is referred to the Provost.

3. Upon receiving the allegation, the Dean of the school where the alleged violation occurred or the Provost will appoint a four member hearing board comprised of the Dean of CGC, two faculty members from outside the program of the accused student and a currently enrolled CGC student of the same student classification, but outside the program of the accused student. The hearing will be convened within two weeks from the date the hearing board receives the case. If circumstances preclude meeting this deadline, the accused will be so informed in writing. A minimum of seven days notice will be provided the student prior to the hearing. The accused student may be advised by another student or member of the permanent faculty or staff, not to exceed two. The student and/or the student's advisor may cross-examine all witnesses and the accuser. A tape recording of the hearing, which will be closed, will be made. Upon conclusion of the hearing, the hearing board will vote and report its findings and recommendation to the Dean of the school in which the alleged violation occurred or the Provost.

4. Upon reviewing the recommendation, the Dean of the school where the alleged violation occurred, or the Provost will either exonerate the student; impose a sanction less than suspension, dismissal or expulsion; or recommend a sanction of suspension, dismissal, or expulsion to the President of the College. If the sanction is not suspension, dismissal, or expulsion, the student may appeal this sanction to the President of the College who makes the final decision. If the sanction is for suspension, dismissal, or expulsion, the President of the College will review the case and the process that has been followed and make the decision on removal of the student from The Citadel for a violation of academic integrity. The student may appeal that decision to the Board of Visitors.

Appeals of Violations of Academic Integrity - Students who have been found guilty of a violation of academic integrity where the punishment is suspension, dismissal, or expulsion shall be entitled to petition an Academic Integrity Board of Review to hear an appeal provided the petition is submitted to the Office of the President within five working days after receiving notice of the findings of the Provost, and provided the petition states the grounds on which the appeal is based. An Academic Integrity Board of Review is established by the President. An Academic Integrity Board of Review will consist of a Dean, who serves as chair; a department head; a senior member of the faculty; and a non-voting recorder. Once established, an Academic Integrity Board of Review will be furnished the record of the original proceedings and will evaluate the petition of appeal to determine if any of the following grounds have been met:

- new evidence has been found since the individual was found guilty;
- the individual's rights were not protected;
- there was a procedural error during the trial.

If after considering the petition of appeal, the Academic Integrity Board of Review determines that the request for appeal sets forth reasonable grounds for appeal and agrees to hear the appeal, the accused student and advisor will be present during the formal portion of the hearing, which will be taped. Oral arguments from

the student or advisor will be heard and will normally be limited to 30 minutes each. In addition, the student or advisor will have the opportunity to question any witnesses called by the Academic Integrity Board of Review. The formal appeal hearing will be taped, and the tape will become part of the record of the Academic Integrity Board of Review. The findings of the Academic Integrity Board of Review will be transmitted to the President in the form of sealed, confidential written recommendations, with appropriate justifications.

Academic Standards

All students are expected to maintain high academic standards. In addition to the grade point average requirements for satisfying degree standards, the following policies set minimum guidelines for all graduate programs. Specific programs may establish more rigorous criteria for satisfactory progress. Students should carefully study the sections of this catalog pertinent to their degree program for statements about expectations, which may exceed these minimal criteria.

Any grade of “C” (ie. “C”, “C+”) is a warning that the individual is not performing at the level expected of graduate students; a grade of “F” is a clear statement of inadequate performance. Either a “C” or “F” grade calls into question the expectation of reasonable progress toward the degree. In order to maintain appropriate academic quality, the following policy applies to students enrolled at The Citadel:

- a. If a student receives a grade of “F” in a graduate course, regardless of his or her status, the student will be terminated from the program. The student may appeal in writing to his or her Dean for reinstatement. If the student is granted reinstatement status before the end of the drop/add period for the next academic term, he or she may register for that term.
- b. If a student receives seven (7) or more credit hours of graduate course work with a grade of “C” or “C+” regardless of his or her status, the student will be terminated from the program. The student may appeal in writing to his or her Dean for reinstatement in the program. If a student is granted reinstatement status before the end of the drop/add period for the next academic term, he or she may register for that term.
- c. Any student admitted to a graduate program who has earned or attempted twelve (12) hours of graduate credit must have a cumulative GPR of 3.0 or higher to continue in the program. If a student’s GPR falls below a 3.0 any time after the completion of twelve (12) hours of graduate credit, the student must improve his/her GPR to a minimum 3.0 by the time he/she has completed nine (9) additional graduate credit hours. If the student achieves a minimum 3.0 while completing these nine (9) additional graduate credit hours, the standard of maintaining a 3.0 GPR begins again. Failure to achieve the 3.0 GPR upon completion of the nine (9) additional graduate credit hours will result in termination from the program. The student may appeal in writing to his or her Dean for reinstatement. If the student is granted reinstatement status before the end of the drop/add period for the next academic term, he or she may register for that term. Some programs have more strict program requirements. Check with your program advisor for the standards for your program.

Admission Categories

Graduate students may be admitted to CGC in one of the following two categories: degree seeking or non-degree seeking.

Degree seeking - A graduate student is classified as degree seeking when all admission requirements are met and the student has been admitted to a degree program. To obtain this classification a student must:

- Complete and return the application form along with the appropriate non-refundable application fee to The Citadel Graduate College.
- Submit to The Citadel Graduate College all official transcripts to include documentation of the baccalaureate and all other undergraduate or graduate work from accredited colleges or universities. Transcripts must be sent directly from each school or university.
- Submit the official score report on the appropriate admissions test (current within 5 years of application). Check individual program requirements in this catalog for the minimum acceptable score for the desired program. Official score report must be sent directly from testing organization.
- Submit an official TOEFL score if native language is not English. The minimum acceptable score is 550 paper-based, 213 computer-based, or 79 internet-based.
- Additional admission requirements of specific programs are outlined in the information provided for each degree program.

Non-degree seeking - A graduate student is classified as non-degree seeking if he/she holds a bachelor’s degree or an advanced degree but who, at the time of the application, does not plan to pursue a degree. This category authorizes the student to take **no more than 8 hours total** for which he/she has the prerequisites. It does not imply admission to a degree program.

Persons admitted to the non-degree student status who later wish to become degree seeking must file an application for the desired program and comply with the requirement stated above in “Degree Seeking”. Program requirements will dictate the number of hours in non-degree status that will be accepted into any program. **No student shall register beyond 8 hours without being fully accepted into a degree program.** To obtain non-degree classification the student must:

- Complete and return the application form along with the appropriate non-refundable application fee to the CGC office.
- Submit a college transcript that shows completion of a bachelor’s or higher degree before registration.

Senior Citizens - Persons over the age of 60 who meet degree or non-degree admissions requirements and are not employed full-time may register for courses on a space-available basis with no credit hours fee charged. All other fees must be paid.

International Students - An international student who applies to a graduate program at The Citadel must complete the following requirements before enrolling in classes:

- Have completed a degree equivalent to an American baccalaureate degree.

- Have his/her academic credentials officially evaluated by one of the accredited organizations suggested by the CGC office.
- Meet all the admission criteria for the desired graduate degree program.
- Provide the appropriate score on the TOEFL exam.
- Provide evidence of ability to meet all financial obligations while in graduate study at The Citadel by completing the Certification of Finances form prior to enrolling in courses.
- International students may not register before full acceptance into a degree program and clearance from the International Student Director.

Admission Policy (Graduate Students)

In keeping with the mission of The Citadel, The Citadel Graduate College seeks to enroll mature students whose motivation and educational backgrounds demonstrate a strong potential for success in the academic program of their choice. Specific entrance requirements are detailed in other sections of this catalog, but every applicant for a graduate degree must submit to the CGC office:

- a. An application with a non-refundable fee,
- b. Official transcripts sent directly from all colleges attended,
- c. Official scores on the appropriate admissions test (current within 5 years of application), and
- d. an official TOEFL score if English is not the native language.

Admission Test

All graduate programs in The Citadel Graduate College require submission of an official admissions test score. The test must be current within five years of application. See the appropriate program for the type of test required. Applicants for graduate programs in The Citadel Graduate College who possess an earned master's or doctorate degree from an accredited institution may request permission to waive the requirement to supply an admissions test score. An applicant must request the waiver in writing from the dean of the academic school in which the program resides. Submission of a request for waiver is not an assurance of approval. Therefore, an applicant must ensure sufficient time to complete an admissions test prior to the first semester of desired attendance.

Advisement and the Planned Program

Upon acceptance into a degree program, a student is assigned an advisor in the area of academic concentration. It is the student's responsibility to confer with this advisor at an early date and at periodic intervals to assure appropriate course selection and awareness of degree requirements. Degree candidates in some programs must file an official program of study. This program of study will be developed in consultation with the student's advisor and approved by the appropriate Dean or Department Head. This program of study is filed in the CGC office and will be used in the degree audit process. It is a joint responsibility of the advisor and student to maintain the program of study in a current state.

Modifications in a program of study can be accomplished with

the written approval of the appropriate Dean or department head. Students who wish to select a new major or degree program must file a written request in the CGC office, meet all admission requirements of the new major or degree program, and be accepted into the new major or degree program before registration in the new program can occur.

Audit Policy

A student may elect to audit a course for no credit. Permission to audit must be obtained from the school/department offering the course. Students must possess an undergraduate degree from a regionally accredited college or university to audit a graduate level course. Students cannot switch from credit to audit status, or vice versa, after two class meetings. Auditors are admitted to class on a "space available" basis. The audit fee is the same as the regular credit hour fee. Students must be registered in the class they wish to audit.

Catalog of Record

The catalog bearing the number of the academic year in which the student enters The Citadel will be their catalog of record for academic program requirements.

Class Attendance

Regular attendance is required of all CGC students. In case of absences due to sickness or other circumstances beyond their control, students should notify the professor. A student who has missed more than 20% of the scheduled meetings may, at the discretion of the professor, be awarded a grade of "F" for excessive absences, unless there are extenuating circumstances. Individual instructors may establish more stringent policies. The attendance record maintained by the instructor is official. As soon as the instructor has determined that a grade of "F" for excessive absences is warranted, the responsible Dean and CGC are notified. The student will be instructed to not return to class. The instructor will enter the grade of "F" during regular grading.

Comprehensive Examinations

The Citadel graduate programs vary in their exit requirements. While all degree programs require at least a 3.0 cumulative GPR (3.25 for Ed.S.) for graduation, some have an exit examination or exit project requirement. It is the student's responsibility to be aware of these standards.

Confidentiality of Student Records

The Citadel maintains and discloses information from student records in accordance with the provisions of the "Family Educational Rights and Privacy Act of 1974" (FERPA), as amended. This law requires that educational institutions maintain the confidentiality of student educational records. The Citadel accords its students all rights under the law. FERPA coverage applies to all educational records that contain a student's name, social security number, or

other personally identifiable information, in whatever medium, to include electronic form. No one outside of The Citadel shall have access to nor will the institution disclose any information from a student's educational records without the written consent of the student except in compliance with the provisions of Federal and State law.

Educational records may be disclosed to personnel within the institution who have a legitimate educational interest, to parents of students who are dependents as defined by IRS standards, to persons or organizations providing students financial aid, to accrediting agencies carrying out their accreditation function, to persons in compliance with a judicial order, or in an emergency, to persons in order to protect the health or safety of the student or others.

Within The Citadel community, only those members, individually or collectively, acting in the student's educational interests are allowed access to student educational records. These members include the Board of Visitors, Faculty, and personnel in the Offices of the President, Provost and Dean of the College, Associate Provost, Dean of The Citadel Graduate College, Registrar, and Vice President for Finance and Business Affairs.

Directory information about a student may be disclosed at the discretion of The Citadel without the consent of the student unless the student has notified the Registrar within two weeks of the beginning of the academic year (fall semester) that the student refuses to allow the disclosure of such information. Any student desiring to keep directory information confidential must give notice at the beginning of each academic year and the notice is valid only for that year. Any student desiring to keep directory information confidential must file notice each year.

Course Cancellation

It occasionally becomes necessary to cancel a course. The Citadel reserves the right to cancel any course for which there is insufficient enrollment. This cancellation may be done without notice. Students affected by a course cancellation will receive due consideration and notification. If no other satisfactory arrangements can be made, the student will receive a complete refund of all fees paid.

Course Load

The minimum semester hour load for students wishing to be classified as full-time graduate students is 9 semester hours. Students holding Citadel graduate assistantships will be considered as full time if they are taking at least 6 semester hours. Students who hold full-time employment should not register for more than 6 semester hours in any given term. Students may register for a maximum of 2 courses or no more than 7 credit hours each summer term (Summer I, Summer II). The evening session is considered a part of Summer I and Summer II. Permission to take more than 2 courses each summer term must be obtained from the Dean of the School, the Department Head of the program or the Dean of the CGC. No more than one course may be taken during Maymester.

Course Substitution

Course substitutions in degree programs and certification plans can only be authorized by the approval of the Head of the Department, Dean of the School, or Dean of the CGC. Forms to initiate this procedure are available in the CGC office.

Degree and Certification Requirements

Specific requirements are detailed in the appropriate sections of the catalog. The general requirements include completing all specific program requirements and coursework while maintaining at least a "B" (3.0) GPA. Students should check the specific requirements of the program in which they are enrolled. State certification requirements are determined by external agencies over which The Citadel has no control. It is the student's responsibility to meet these requirements, which are subject to legislative change. Advisors will assist students in staying current with these requirements and adjusting programs of study to reflect any change.

Earning a Second Master's Degree

The College permits the earning of a second master's degree where the area of concentration is different. Since some of the core courses may be identical, these may be waived in the second degree program. A maximum of 12 hours may be transferred from one Citadel degree program to another for those students wishing to obtain a second master's degree. However, a minimum of 33 hours of new credits must be included in the planned program for the second degree.

English Fluency Policy

In accordance with the laws of South Carolina, The Citadel ensures the English fluency of its teaching faculty. Should a student challenge the English fluency of a member of the faculty, standard procedures for student academic grievances will be followed. If a review committee is called for, the native language of one of the faculty members will not be English.

General Conduct Policy for Students

Responsibility for professional conduct rests with students as adult individuals and as members of The Citadel community. CGC students are expected to conduct themselves as responsible adults. All members of the campus community are expected to use reasonable judgement in all aspects of campus life and activity and to show due concern for the welfare and rights of others. Students are expected to adhere to all federal, state, and local laws. Due to the cadet aspect of The Citadel community, CGC students are reminded to be aware of and respect military college traditions. The CGC Student Handbook is a good source of information.

The Citadel protects freedom of action and speech, so long as the exercise of this freedom is not of an inflammatory or demeaning nature and does not interfere with the operation of the College.

The Citadel's Conduct Policy prohibits the possession of drugs, destruction of property, making false statements of emergency situations, physical or verbal abuse, or harassment of any sort. Students who violate the rules and regulations of The Citadel are subject to expulsion or lesser sanctions. These rules and regulations are published in "Regulations for Non-Cadet Students for Fall and Spring Semester And All Students, Including Cadets, for Maymester or Summer School." The Provost or his designee is responsible for administering the disciplinary conduct code for CGC students unless they reside in the barracks during Maymester and Summer School, in which case the commandant is responsible for discipline.

Grades

Only letter grades are given to evaluate a student's progress. No numerical symbol or percentage is fixed or assigned to the equivalent of any grade.

- A: A grade of "A" represents work of a high quality. Four quality points are awarded for each credit hour.
- B+: A grade of "B+" represents above average quality work. Three and one half quality points are awarded for each credit hour.
- B: A grade of "B" indicates average graduate accomplishments. Three quality points are awarded for each credit hour.
- C+: A grade of "C+" indicates below average graduate work and is an unsatisfactory grade. Two and one half quality points are awarded for each credit hour.
- C: A grade of "C" is unsatisfactory. Two quality points are awarded for each credit hour.
- P: A grade of "P" indicates work of acceptable, graduate-level quality. While it signifies work of "A" or "B" level, it carries no quality points and is awarded only for designated courses such as workshops, internships, etc.
- F: A grade of "F" indicates that the minimum requirements have not been met. No quality points are awarded.
- I: A grade of "I" represents work of satisfactory quality incomplete for authorized reasons. Incomplete "I" grades must be made up during the term following the recording of the grade. A grade of "I" received in the fall term must be made up by the end of the following spring term. A grade of "I" received in either the spring, Maymester, summer I, or summer II term must be made up by the end of the following fall term. An extension of time not to exceed one additional term may be authorized for extenuating circumstances by the appropriate dean. Grades not made up within the authorized time limit will convert to a grade of "F," and such courses will be included in calculating the GPR.
- W: A grade of "W" represents withdrawal from a course prior to the scheduled withdrawal deadline. No quality points are associated with the "W", and there is no academic penalty for the student.

Graduation

Students must apply to graduate by the established deadline. Failure to apply by the deadline incurs a late fee, may delay receipt of the diploma, and may prevent the student from participating in the commencement ceremony.

There are three graduation dates each calendar year. There is a late April or early May graduation date at the end of the Spring period of instruction, an August graduation date at the end of the Summer period of instruction, and a December graduation date at the end of the Fall semester period of instruction. There is one commencement ceremony each calendar year, in April or May, following the Spring semester.

The graduation date is the term in which the student completes all requirements. An incomplete grade is a delay in the completion of requirements, and the posting of the final grade determines the completion of that requirement.

Applications for graduation are available in the CGC office and online. A late fee is charged for applications filed after the posted deadline. To be recommended for a degree, students must meet all admission requirements and satisfactorily complete the scholarship and curriculum requirements for the degree. Finally, students must be free from all financial indebtedness to The Citadel.

These deadlines for the graduation application ensure your diploma will be ordered in a timely manner and prevent additional administrative costs. It is each student's responsibility to apply to graduate. Do not select a graduation date until you are certain all requirements will be met.

Parents who are either graduates of the Corps of Cadets, the Veteran Day Program, or The Citadel Graduate College may present diplomas to their sons or daughters at the CGC commencement ceremony.

Intellectual Property

Ownership of intellectual property will reside with the originator, whether a member of the faculty, a member of the staff, or a student, unless: (a) the property is created at the specific direction of the College; or (b) the originator has made exceptional use of College resources in creating it.

At the time when the work is directed by the College or at the time when the College makes exceptional resources available to the originator of intellectual property, the Provost and the originator will together determine ownership and will negotiate a written agreement concerning that property. These determinations will be made on a case-by-case basis.

Intellectual Property Policy Preamble

The Citadel has among its primary purposes teaching, research, and the expansion and dissemination of knowledge. Products of these endeavors include the development and use of intellectual property. It is the policy of the College that its faculty, staff,

and students carry out their scholarly work in an open and free atmosphere that encourages publication and creation of such works without constraint but consistent with applicable laws and College policy. This policy *will be* in accord with the guidelines and criteria published in The American Association of University Professors' "Statement of Copyright" (*Policy Documents and Reports*. Ninth Edition, 2001, or subsequent editions).

Learning and Academic Retention Center

The Citadel's Learning and Academic Retention Center provides a wide range of academic support services. Included among these are the enhancement of writing, mathematical, and reading skills; the general improvement of academic performance in all subject areas; and an emphasis on retention throughout The Citadel's academic community. Graduate as well as undergraduate students have access to the Center. In addition to individual and small-group tutorials held in the Center, the staff conducts requested workshops for both graduate and undergraduate classes.

In all of its activities, the Center strives to assure that its efforts are consistent not only with the mission statement of The Citadel, but also with the objectives of the academic departments and specific graduate programs. Although there may be an occasional exceptional situation in which it is appropriate to restrict the nature of the assistance that may be offered by the Center (e.g., because of specific program accreditation issues that might impact, say, a particular assignment), Citadel graduate students are encouraged to take advantage of the resources offered by the Learning and Academic Retention Center.

Nondiscrimination Policy

The Citadel is committed to providing equal opportunities to men and women students in all campus programs, including intercollegiate athletics, in order to make The Citadel the best coeducational college in America.

This commitment requires that no discrimination shall occur in our admissions policies, academic programs or services, as well as employment practices on the basis of sex, race, color, religion or national origin. This policy is in accordance with Title IX of the Educational Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act of 1990 as amended. Inquiries concerning the application of Title IX and other nondiscrimination laws may be referred to The Citadel's Affirmative Action Officer and Title IX Coordinator, Bond Hall, Room 369, 171 Moultrie Street, Charleston, South Carolina, 29409, 843-953-6989, or the Assistant Secretary of Education, Civil Rights Division, US Department of Education, Washington, DC 20201-2516.

Pass-Fail Courses

For certain courses, such as internships, practica, workshops, professional development courses, etc., a grade of pass or fail may be appropriate. Students taking courses of this nature need to discuss such arrangements with their advisor. Quality points will

not be awarded for pass or fail work, and performance that is barely adequate (C+ or below) will not receive credit.

Registration

Registration is not completed until all fees are paid. Students may not attend class until they are fully registered. Knowingly attending class without paying is an integrity violation. Any changes in registration must be made prior to the end of the terms' Add/Drop period. All fees are due by published calendar dates.

Repeating a Course

Courses may be repeated only under the following circumstances:

- No courses may be repeated once a grade of "B" or higher has been earned.
- If a class in which a "C+" or "C" was earned is repeated, it may be repeated only one time.
- If a course is repeated, the last grade of record is used to determine whether course requirements for graduation have been met.
- The hours may be used only once toward graduation.
- All courses, previously passed or repeated, will be figured in the student's GPR. No grade previously recorded is removed from the transcript.

Satisfactory Progress

Unless otherwise stated, students are expected to complete all degree requirements within a six (6) year period from the time of registration for the first graduate course in that program. Students enrolled in the Ed.S. in School Psychology program have seven (7) years to complete the degree. Students enrolled in the M.A. in Psychology: Clinical Counseling degree program have a five (5) year limit. Requests for a waiver must be initiated by the student in writing to the appropriate Department Head who is responsible for making the final decision and for notifying the student. Department Heads will forward recommendations through their appropriate Dean who sends it to the CGC office. Waivers must be on file in the CGC office prior to application for graduation. It is the students responsibility to ensure the waiver is provided to the CGC office.

If a waiver is granted, a probationary extension for one year is authorized. At the completion of that year, an additional extension may be authorized (if necessary) contingent upon the student having made adequate progress. "Adequate Progress" is defined as completing graduate work in two of the three semesters (summer session counting as a semester) of the year of probation. An average grade of "B" (3.0) for that year is also required. At all levels, the department or school will be responsible for oversight of student progress and initiation of action related to unsatisfactory progress. It is the student's responsibility to be aware of courses that will not meet graduation time lines for satisfactory progress. Advisors should assist students with this calculation.

Student Academic Grievances

The academic grievance process of the college is reserved for the most serious alleged offenses. These matters deal not with differences of opinion, but with violations of due process; denial of individual rights; or unequal treatment/discrimination based on sex, race, color, or national origin. Students who feel that they have an academic grievance are directed first to confer with the instructor or other individual(s) involved. Where this does not result in satisfaction or if this step is not feasible, the student should present the grievance in writing to the lowest appropriate level not involved in the grievance, department head or Dean.

If the student does not receive a response within a reasonable period of time, normally considered two weeks, a copy of the written grievance may be provided to the next higher academic level not previously involved in the grievance, i.e. the department head or the school Dean, with a request for assistance in resolving the grievance. A final appeal for satisfaction may be made to the Provost. The purpose of this process is to permit each level of the academic level of authority to have the opportunity to resolve the grievance satisfactorily. The Dean of CGC does not rule on academic matters. However, students are encouraged to provide a courtesy copy of grievances and appeals to the Dean of CGC for record. CGC will monitor time lines and processes for compliance with procedure and will inform the appropriate level of the academic authority if procedure is not followed.

Student Appeal of Grade

A student who wishes to appeal the final grade assigned in a course must first confer with the instructor of the course in which the grade was received. If this does not result in satisfaction, the student should contact the appropriate department head or Dean who will review the matter. The faculty member and the student are both obligated to provide requested relevant information to the department head or Dean. The department head or Dean will present his/her findings to the student within ten working days of being contacted.

If this does not result in satisfaction, the student should contact the Provost. If deemed appropriate, the Provost will appoint a hearing board of three faculty members, with one designated as chair, and a student in good standing of the same student type as the appellant. This board shall have the authority to request testimony, hear witnesses, and study records and materials. The board shall forward its findings and recommendations to the Provost, who shall decide the case. The decision of the Provost is final.

Student Responsibility

The College and departments establish certain academic requirements that must be met before a degree is granted. Advisors, department heads, and Deans are available to help the student understand and arrange to meet these requirements, but the student is responsible for fulfilling them. If, at the end of a student's course of study, the requirements for graduation have not been satisfied, the degree will not be granted. For this reason, it is important for

each student to be acquainted with all academic, financial, and administrative requirements within the prescribed deadlines and time limits.

Theses

Thesis committee appointments will be made at the discretion of the appropriate department head. Disposition of thesis will be coordinated by the student with the library.

Transcript

A transcript is a confidential document and is released only when students make a request in writing. There is no charge for the initial transcript, but a fee is charged for all subsequent ones. Remittances for transcripts should accompany the request for the transcript and should be mailed directly to the Office of the Registrar. Official copies are not released to students but are sent to requested destinations.

Transcripts sent from other colleges to The Citadel become the property of The Citadel and cannot be issued to the student as a third party.

Transfer Credit

No more than 12 hours, relevant to the student's program, may be transferred from other regionally accredited colleges or universities. Exceptions are granted by the Provost. Only graduate credit hours, of which grades of "B" or higher have been earned, are transferable. Some programs allow fewer hours of transfer credit. Students should check the requirements for specific programs for the maximum number of credit hours that may be transferred into his or her program at The Citadel.

To be transferred, credit hours must have been earned within six years of the date of admission to The Citadel. Students who desire to take a course at another institution for transfer while enrolled in CGC must obtain prior approval from their department head. Acceptance of transfer credits within the foregoing rules is the prerogative of the academic department or school.

Ordinarily, course work accepted for transfer must parallel course work available at The Citadel. However, where the head of the major department or Dean of the school feels that graduate course work not equivalent to courses at The Citadel will enhance the program, up to six semester hours of such credit may be acceptable. These will be part of the maximum allowable transfer hours for that program.

Specific Policies and Procedures for Evening Undergraduate Programs

All other CGC policies and procedures apply.

CGC courses cover a wide variety of areas and are open to interested persons from diverse backgrounds. In addition to graduate programs, CGC also offers three undergraduate degrees: bachelor of science in business administration; bachelor of science in civil engineering; and bachelor of science in electrical engineering.

Each of these degree programs is offered in cooperation with Trident Technical College (TTC). The first two years of each program are taken at TTC. The junior and senior years are completed at The Citadel through evening and summer courses offered by CGC. The degree is awarded by The Citadel.

Courses may also be transferred in from accredited colleges and universities other than TTC. The basic course requirements remain the same. The junior and senior years are completed at The Citadel.

In each of the undergraduate degree programs offered by CGC, a minimum of 36 of the total required credit hours must be taken at The Citadel. Credits gained through AP, CLEP, or any other “testing out” process may not be counted among those 36 credit hours. Acceptability of transfer credits is governed by the policy described under the Transfer Credits section below.

CGC spring, fall, and summer schedules are available online. Information on programs, classes, and fees can also be obtained from the CGC office or online. Information on financial aid is available online through the Office of Financial Aid and Scholarships or by phone at 953-5187.

Academic Criteria for Continuance

Records of degree-seeking undergraduate students are assessed for academic criteria for continuance after each period of two semesters and the included summer sessions. In order to be eligible to continue at The Citadel, a student must meet minimum standards regarding hours earned at The Citadel or properly transferred from another accredited institution, and an acceptable cumulative grade-point ratio must be maintained. Full-time students, those taking at least 12 credit hours each semester, must earn at least 24 semester hours each two-semester period. Part-time students must have passed at least 50 percent of the coursework attempted in the two previous semesters and the included summer sessions. If a previously passed course is repeated, the hours may be used only once toward meeting requirements for hours passed.

The student must also meet the grade point ratio (GPR) requirement for the appropriate category of credit hours of record as listed in the table below. In determining the category for credit hours of record, hours transferred into The Citadel from other institutions are included as credit hours of record.

The column “Quality Hours Plus Transfer Hours” includes:

- 1) all credit attempted for which a grade of “A,” “B,” “C,” “D,” or “F” was received at The Citadel,
- 2) course work transferred from other colleges, and
- 3) courses taken on a Pass-Fail basis.

Quality Hours Plus Transfer & Pass/Fail Hours	Grade-Point Ratio for Continuance (on probation)	Grade-Point Ratio for Continuance (without probation)
0-39	1.100	1.300
40-69	1.400	1.600
70-99	1.700	1.800
100 & above	1.900	2.000

This table traces the minimum academic progress students must make toward attaining the minimum acceptable overall grade-point ratio of 2.000 as they approach the total number of hours required in the course of study of their selected major. For the purpose of determining academic probation, criteria for continuance, dean’s list, graduation, and other academic matters, grade-point ratios will not be rounded.

Academic Discharge

An undergraduate student who fails to meet either or both of the academic criteria for continuance will be discharged for academic deficiencies. Although The Citadel will notify students that they are deficient in either or both areas, it is the responsibility of students to ensure that these criteria are met. To avoid academic discharge, a student must meet both hour and GPR requirements concurrently either at the end of the fall semester, at the end of the spring semester, or in August, as appropriate.

A student who is discharged for academic reasons for the first time may apply for readmission after being out of school for one semester. If approved for readmission, the student will be readmitted on academic probation.

If a student fails for a second time to meet minimum academic criteria for continuance, the Dean responsible for the academic program in which the student is majoring will review the academic record and any extenuating circumstances the student wishes to present in writing. Based on this review and in consultation with the faculty advisor and the department head or the CGC Dean, the responsible Dean will determine the conditions under which the student will be permitted to continue or will award the student a second academic discharge. Except under extremely extenuating circumstances, a student discharged a second time for academic reasons will not be considered for readmission and may not enroll in course work in any program at The Citadel—day, evening, or summer.

Academic Probation

Undergraduate students are placed on academic probation for any semester when their cumulative grade-point ratio based on courses taken at The Citadel fails to meet requirements for continuance without probation as outlined in the Academic Criteria for Continuance table. Students will be removed from academic probation after the semester their cumulative grade-point

radio meets the requirements of the table. Students on academic probation are not making satisfactory progress, and restrictions, such as limiting the number of credit hours in which they may enroll, may be enforced.

Admission

Because of community service orientation, CGC permits participation by evening undergraduate students in non-degree status as well as those who are pursuing an undergraduate degree.

Catalog of Record

The catalog bearing the number of the academic year in which undergraduate students enter The Citadel will be their catalog of record for matters of academic policy.

When a student is readmitted after an absence of at least three academic semesters (summer sessions will not be considered as semesters for this purpose), the catalog bearing the number of the academic year in which the student is readmitted will be the catalog of record for matters of academic policy and graduation requirements.

College Level Examination Program

Through College Level Equivalency Program (CLEP) Subject Examinations, undergraduate students are permitted to earn college course credits for knowledge they have gained in certain subject areas prior to beginning their college experience.

CLEP credits may be earned under the following conditions:

1. Since all CLEP examinations are not accepted by The Citadel, the student must obtain prior approval through the Office of the Registrar.
2. The score earned must meet or exceed the current minimum score recommended by CLEP for that subject area exam.
3. The amount of credit will be determined by the scope of the material measured.
4. Because of the laboratory experience is such an integral part of the Core Curriculum Science Requirement, credit for only the lecture portion of a science course may be earned through CLEP. The lab portions must be earned through a laboratory course.
5. Because basic skills of listening to and speaking a language are such critical components of the Core Language Experience, completing any portion of this requirement through CLEP must be approved by the head of the Department of Modern Languages.

A complete listing of courses for which credit may be awarded through CLEP is available in the Office of the Registrar.

Combining Courses

Courses may be combined to meet a maximum of one general elective credit requirement under the following circumstances:

- a. The courses to be combined must all be offered by the same department and must be related in some way.
- b. The department head or Dean for the program in which

the student is majoring must provide a recommendation and rationale for combining courses.

- c. The Dean responsible for the academic program in which the student is majoring must grant final approval for the combining of courses.

Definitions

Elective refers to a course that is required for graduation and may be any three-credit course offered by the College.

Approved Elective refers to a course that must be selected from a list of courses provided by the individual school or department.

Non-Departmental Elective refers to a course that is required for graduation and must be taken outside the major department. Students are encouraged to study areas outside the major to ensure as broad an education as is practical.

Students are reminded that it is expected that all coursework in the first two years of these programs be taken at other accredited institutions and transferred to The Citadel. Courses at the 100- or 200-level will rarely be offered through CGC in a fall or spring semester. Some courses may be available in Maymester or Summer School at The Citadel.

Grades

Only letter grades are given to evaluate an undergraduate student's progress. The following definitions of letter grades are applicable:

- a. "A" represents superior attainment on the part of the student.
- b. "B" represents work that is clearly above the average, but not superior.
- c. "C" represents average attainment on the basic standards set for the course.
- d. "D" represents minimum attainment of the basic standards.
- e. "F" represents failure.
- f. "W" represents withdrawal from a course prior to the official deadline which is indicated in the college calendar and is no earlier than the Wednesday following the midterm grading period. Beyond that point, students will receive the grade of "F" should they fail to complete the course or complete it unsuccessfully. Under extenuating circumstances, the grade of "W" may be awarded after the established deadline to withdraw from a course. Such an action is taken only upon the recommendation of the instructor and requires the concurrence of the Dean responsible for the student's academic program. Supporting evidence is the responsibility of the student and must be submitted in writing to the responsible Dean.
- g. The notation of "I" (for Incomplete) is used in instances when course requirements have been very nearly met but for authorized reasons (illness, injury, family emergency, etc.) cannot be completed during the current semester. To be eligible for the grade of "I," students' work must be satisfactory at the time they are forced to terminate participation in the course. Unsatisfactory work will result in a failing grade. The grade of "I" must be cleared during the next semester in residence or within one year, whichever comes first, or the "I" becomes an "F." The summer session will not be considered a semester in this case. Students may not officially enroll in a course in which they currently have an "I." An extension of time due to extenuating circumstances may be authorized by the Dean responsible for academic

program upon the recommendation of the instructor. The removal of the incomplete is the responsibility of the student.

Should a student fail to complete a semester or summer session for any reason, the grade in each course in which the student is then enrolled shall be determined by the individual faculty member.

No numerical symbol, bracket, or percentage is assigned the equivalent of any grade. Arbitrary distribution of grades according to some formula or curve is not permitted. However, by means of departmental supervision and consultation between instructors, every effort is made to obtain consistent standards within the department.

Students are expected to use proper grammar in all their course work, whether written or oral. Proper usage is expected at the college level and is required by all professors.

Any change of grade deemed necessary by the faculty member concerned must be based on instructor error and made within one month after the beginning of the next semester in attendance following the recording of the grade. In no case will a grade be changed after one month into the second semester after it was awarded. The summer session will not be considered a semester in this case. After grades in a course have been submitted to the Registrar's Office, every request for a change of grade must be approved by the department head and the Dean responsible for the academic program. Grade reports are provided at the end of each semester and summer session.

Grade-Point Ratio Computation

In computing the undergraduate grade point ratio, grades are weighted as follows:

Grade	Quality-Points Per Semester Hour
A	4
B	3
C	2
D	1
F, I, W	0

The grade-point ratio for any semester is determined by dividing the total number of quality points earned by the total number of hours for which the following grades were received: A, B, C, D, or F.

The cumulative grade-point ratio on which graduation, academic probation, and academic discharge are based is determined by dividing the number of quality points earned at The Citadel by the number of quality hours attempted at The Citadel. The number of quality hours for this purpose includes all credit hours attempted at The Citadel for which the following grades were received: A, B, C, D or F. The number of quality points earned includes all quality points associated with quality hours earned at The Citadel. The Citadel does not recognize plus and minus grades for the CGC programs.

Non-Degree Seeking Students

Non-degree seeking undergraduate students are permitted to participate under the following conditions:

- Students who provide documentation of having graduated from an accredited high school or having completed the

General Education Development (GED) examination may register for up to 15 credit hours of course work for personal or professional development.

- Persons age 60 or above and not employed full-time may enroll tuition-free in courses in the CGC on a space-available basis. All other fees must be paid.
- High school seniors may be permitted to register for a maximum of two courses and the associated labs in the CGC on the basis of written recommendation from their high school guidance counselor or principal.
- Undergraduate transient students who wish to enroll in course work for transfer to another institution may be asked to present evidence that they are in good academic standing at their home institution.
- Students who are in cadet status and are enrolled in the Corps of Cadets for a fall or spring semester are not eligible to enroll in CGC courses. Students who are in cadet status and are not currently enrolled in the Corps of Cadets, but who have not been given a conduct or academic discharge, may, with the prior approval of the appropriate Dean, take a limited number of credit hours in CGC. A cadet who has been expelled from The Citadel is not eligible to attend any class at The Citadel—day, evening, or summer. A cadet who has been suspended or dismissed is not eligible to attend any class at The Citadel—day, evening, or summer—until accepted for readmission to the College.

Pass-Fail

Juniors and seniors with cumulative grade-point ratios of 2.000 or higher may elect to take elective courses on a Pass-Fail option. Normally, no more than one course may be taken under this option each semester, and no more than four courses taken under this option may be used to meet graduation requirements. A student may take the Pass-Fail option only on courses which meet elective requirements. Students may not change their decision to take a course on the Pass-Fail basis after the first two weeks of the term. Courses completed on the Pass-Fail option carry graduation credit, but quality points are not awarded. These courses are not included in grade point ratio computations.

Instructors report grades as usual, A through F. The Registrar's Office translates grades as follows:

- The grades of "A" through "C" as "S" (satisfactory, pass-for credit);
- The grades of "D" or "F" as "U" (unsatisfactory, fail-no credit).
- Students desiring to take a course on the Pass-Fail option should contact the Registrar's Office.

Requirements for Graduation

For graduation, an undergraduate student must complete one of the departmental major courses of study stated in the catalog of record and must achieve a minimum cumulative grade-point ratio of 2.000 and a minimum grade point ratio of 2.000 in all coursework in the major.

Recommendations for graduation are made by the Academic Board to the Board of Visitors, which in turn awards appropriate degrees.

Transfer Credits

Normally, only courses which are comparable in content and credit hours to specific courses offered by The Citadel and in which grades of “C” or better have been earned at an accredited institution will be considered for transfer. However, the Dean responsible for the academic program in which the student is majoring may accept for transfer to meet General Elective credits courses that are not offered by The Citadel but which are considered to be worthy of credit as electives and in which grades of “C” or higher have been earned. The respective department heads or Deans, as appropriate, have responsibility for considering all transfer courses that are comparable to courses offered by The Citadel. Course work taken at another college and accepted for transfer by The Citadel need not be applicable to a student’s major. Courses transferred from another college will not be noted in the student’s grade-point ratio at The Citadel. Transcripts sent from other colleges to The Citadel become the property of The Citadel and cannot be issued to the student or a third party.

To ensure that courses taken away from The Citadel will be accepted for transfer, students must obtain written, prior approval through the Office of the Registrar.

All transfer credits are provisional. If an academic unit determines within a reasonable period of time after classes begin that the student is not prepared to take a course for which the course transferred is a prerequisite, the allowance of credit is withdrawn, and the student must take the prerequisite course at The Citadel.

Transfer Students

An undergraduate student may be accepted into evening undergraduate degree-seeking status in the CGC under one of the following conditions:

- a. The Citadel and TTC have an articulated agreement that permits a student to complete the first two years of study in engineering or business administration at TTC. These credits are transferred to The Citadel where a student can complete the final two years for a Bachelor of Science Degree in Business Administration, Civil Engineering, or Electrical Engineering. A student who completes in its entirety the TTC portion of one of these programs needs only to submit an application and an official transcript from TTC and certificate of completion in order to be admitted for the final two years of study in CGC. Details of the 2+2 programs are available online or in the CGC office, Bond Hall, Room 101. These three programs are outlined in this catalog under their respective departments.
- b. Applicants may be admitted into degree seeking status if they have transfer credit from other accredited institutions that meet the requirements of the first two years of the degree program they wish to pursue. The student must provide official transcripts from all other colleges attended. Admission is based on prior college-level academic performance and confirmation of completion of all coursework for the first two years of the degree program.

- Applicants whose prior college-level academic performance is questionable may be permitted to enroll in a limited number of courses in a probationary status at the discretion of the academic department. Upon completion of the first 15 semester hours with a grade point ratio of at least 2.0, the adult student will be admitted to degree-seeking status in the selected major upon review by the academic department. If this minimum grade point ratio is not achieved within the first 15 semester hours, admission will be denied and participation in the CGC will be terminated.
- c. After acceptance by the program, any non-U.S. citizen must be cleared for registration by the International Student Coordinator. An official TOEFL score is required of any applicant where English is not the native language.

Graduate Degree Programs 2010-2011



School of Business Administration

Master of
Business Administration

THE
CITADEL
GRADUATE COLLEGE

Master of Business Administration
 School of Business, 843-953-5056
Dr. Wesley M. Jones, Director of Graduate and External Programs,
 wes.jones@citadel.edu
Ms. Kathy J. Jones, MBA Coordinator,
 mbadirector@citadel.edu

Mission Statement:

The mission of the School of Business Administration is to educate and develop leaders of principle to serve a global community.

Admission Requirements:

Applicants will be admitted to the MBA program on the basis of scholastic achievement and aptitude for graduate study. Other qualities appropriate to graduate study are also considered. Anyone holding a bachelor's degree in business administration from an accredited college or university (one recognized by the Council for Higher Education Accreditation) is eligible for consideration. Students with an undergraduate degree from a discipline other than business who would like to pursue the MBA must fulfill admission requirements by the completion of the appropriate Foundation courses that are listed on page 29 of this catalog in addition to the other admissions requirements.

All material must be received by the CGC office on or before the following dates to assure consideration to the MBA program.

<u>Semester to begin:</u>	<u>Admission material due:</u>
Fall	July 20th
Spring	December 1st
Summer	March 20th

1. Complete and return a graduate application form, along with appropriate non-refundable application fee, to The Citadel Graduate College (CGC), Bond Hall Room 101.
2. An official transcript of the baccalaureate degree and all other undergraduate or graduate work directly from each accredited college or university. Applicants whose degrees are from colleges or universities outside the United States are required to have transcripts translated by an academic credential evaluation organization recognized by The Citadel Graduate College.
3. Take the Graduate Management Admissions Test (GMAT) and submit an official copy of the scores to the CGC office. The GMAT must be taken within the last five years for The Citadel to accept the scores. Scores on other graduate entrance exams, such as the GRE, are not acceptable substitutes.
4. Submit two letters of recommendation to the CGC office. These may be from faculty members where undergraduate work was done and/or from associates in business or military service. Recommendations should be able to evaluate the applicant's potential for graduate work in business.
5. Submit a resume detailing previous work experience.
6. Submit two brief essays that answer the following questions:
 - a. How have your education, knowledge, experience and skills prepared you for graduate business education, and how

will these help you contribute to the program's educational community?

- b. What do you hope to gain from your graduate education, both during the process and in the future?
7. Submit an official TOEFL score if the applicant's native language is not English. The minimum score is 550 paper-based, 213 computer-based or 79 Internet-based.
 8. The MBA Committee and/or the MBA Director may request an interview with the applicant.

Admission Denied: During the admission process, the applicant's records will be reviewed and results communicated in writing. If the application is denied, an applicant may petition the MBA Committee through the MBA Director for reconsideration, citing any extenuating or mitigating circumstances.

Program Requirements:

Students that have an undergraduate business degree from an accredited college or university (e.g. AACSB accredited) are required to complete 36 hours of graduate study, including nine required courses and three elective courses. A maximum of two courses (6 hours) may be transferred in from an approved AACSB MBA program at another institution.

Students are expected to complete all degree requirements within a six-year period from the time of registration in their first graduate course at The Citadel.

Required courses: BADM 713, BADM 716, BADM 722, BADM 728, BADM 731, BADM 734, and BADM 737 are required before taking the capstone course, BADM 740. Students must successfully complete these courses with a GPR of 3.0 or better before taking BADM 740. Any prerequisites for advanced or elective courses must be met.

Course load: It is strongly recommended that students take no more than six hours per semester. Permission is no longer required to take more than six hours unless the student has provisional status. Students with provisional status must secure permission from the MBA Director to take more than three hours in a semester.

Course of Study:

Students from AACSB accredited undergraduate programs who meet the admissions requirements of The Citadel MBA program will be allowed to begin MBA classes upon acceptance. This course of study will consist of 27 specific required hours (9 classes) and 9 elective hours (3 classes) and will lead to the awarding of a general MBA from The Citadel School of Business Administration. The required courses in the general MBA are listed below and must be taken by every student.

- BADM 713 Communication for Leadership, 3 credit hours
- BADM 716 Legal and Ethical Environment For Decision Makers, 3 credit hours
- BADM 719 Information Technology Management, 3 credit hours
- BADM 722 Leadership in Organizations, 3 credit hours
- BADM 728 Accounting for Executives, 3 credit hours

BADM 731 Quantitative Methods for Operations Management, 3 credit hours
BADM 734 Financial Problems, 3 credit hours
BADM 737 Strategic Marketing, 3 credit hours
BADM 740 Global Business Strategy, 3 credit hours
Must be taken within the last six hours of a students' MBA program of study.
Three Electives, 9 credit hours
Total Courses: 36 credit hours

Transfer Credit: A maximum of six credit hours for graduate courses from an accredited institution (including consortia and AACSB International-accredited institutions) may be approved for transfer (except BADM-740), provided: (1) those courses are determined to be equivalent to one of the advanced or elective courses at The Citadel, (2) grades of "B" or better were received in the courses being considered, and (3) credit was earned within the five years prior to admission into The Citadel MBA program.

Grading: All students are subject to the Academic Standards section under Policy Information of The Citadel Graduate College catalog which can be found on page 14.

Requirements for Graduation: The degree of Master of Business Administration may be conferred upon those students who successfully complete the 36 hours of graduate coursework as specified above with a grade-point ratio (GPR) of 3.0 or better on hours earned at The Citadel. Completion of more than 36 credit hours of advanced graduate coursework will only be allowed (for exceptional circumstances) with approval of the Director of the MBA program. Additional hours may not be used to increase GPR to the 3.0 required for graduation.

Business School Website: Find more information on the MBA program by visiting the school's website at www.citadel.edu/csba.

Related Programs:

Certificate: Health Care Administration

Students earn an MBA from The Citadel and a Certificate in Health Care Administration from MUSC. For more information regarding this program, please email Ann Brown at brownah@musc.edu.

Dual Degree Programs:

PharmD/MBA Program - Students earn a PharmD from MUSC and an MBA from The Citadel. For more information regarding this program, please visit http://www.sccp.sc.edu/students/pharmd_mba.aspx.

MD/MBA Program - Students earn an MD from MUSC and an MBA from The Citadel. For more information regarding this program, please contact The Citadel's MBA office by email at mbadirector@citadel.edu.

Non-Degree Business Foundations Program:

Applicants who do not meet the standards for full admission into the 36-hour MBA program may still be admitted into the Non-Degree Business Foundations Program. This program is open to anyone needing a background in business or as a refresher in business foundational concepts. Participation in this program may be used to meet the requirements for admission into the 36-hour MBA program. There is no GMAT requirement or GPA requirement for admission into the Business Foundations program. Those wishing to complete the 36-hour MBA program, however, must meet the requirements for admission.

Admission Requirements for Non-Degree Business Foundations Program:

1. Complete and return a graduate application form, along with the appropriate non-refundable application fee to The Citadel Graduate College (CGC), Bond Hall Room 101.
2. Submit an official transcript for the baccalaureate degree and all other undergraduate or graduate work directly from each college or university attended.
3. Submit two essay questions (these questions may be used as part of the application to the MBA program as well), no more than one page each, which answers the following questions:
 - a. How has your experience/education prepared you for a graduate course in business?
 - b. What do you expect to gain from taking the foundation courses?
4. Submit the names and contact information for three (3) references familiar with your work.

All material must be received by the CGC office to receive consideration for admission to the foundation program must meet the same deadlines as stated above.

Course Descriptions:

BADM-701—Foundations of Accounting

Three Credit Hours

This course is designed to provide students with knowledge of the basic tools and concepts used in financial accounting. It emphasizes identifying and interpreting relevant accounting information for decision-making by external users. The focus is on the four financial statements: the income statement, the statement of changes in equity, the balance sheet, and the statement of cash flows. Prerequisite: None.

BADM-704—Foundations of Economics

Three Credit Hours

This course introduces students to microeconomics (the study of individual economic units, including product markets, individual consumers, and firms) and macroeconomics (the study of broad economic aggregates such as gross domestic product). Prerequisite: None.

BADM-707—Foundations of Marketing and International Business

Three Credit Hours

This course provides an introduction to the world of international business including the nature and fundamental concepts of

international business, its environment, opportunities in the global marketplace as well as theoretical and applied examples. In addition, the course illustrates how concepts from international business are utilized in the marketing of products and services for the individual firm.

Prerequisite: None.

BADM-710—Quantitative Methods

Three Credit Hours

The course is designed to equip graduate students in business with statistical and quantitative techniques that can be applied to real life business situations. To accomplish this, students will learn to apply statistical and quantitative algorithms by use of both a calculator and computer software. Software programs included in the course are Excel spreadsheets, Excel data analysis tools and graphics, SPSS for Windows. Students will learn various strategies to communicate results—written reports, online bulletin boards, multimedia presentations, oral presentations, computer supported presentations, and Power Point presentations. Topic coverage includes: descriptive statistics, probability, discrete probability distributions, continuous probability distributions, sampling distributions, estimating a single population parameter, quality and statistical process control, simple regression and correlation analysis, multiple regression analysis, forecasting, and chi-square analysis.

Prerequisite: None.

BADM-725—Foundations of Finance

Three Credit Hours

This introductory course in finance provides students with the financial management tools necessary to analyze complex business financial problems, and offer reasoned alternative solutions. The course builds on principles presented in basic financial and managerial accounting courses, and introduces the student to new financial principles.

Prerequisite: Foundations of Accounting (BADM 701) or equivalent undergraduate coursework.

MBA Program:

BADM-713—Communication for Leadership

Three Credit Hours

This course provides insight on the role of organizations as communication systems in which effective writing and speaking are crucial. Emphasis is on developing awareness of verbal and written styles, interpersonal skills, and creating a repertoire of writing and speaking strategies.

Prerequisite: None.

BADM-716—Legal and Ethical Environment for Decision Makers

Three Credit Hours

This course introduces the framework of law and ethics within which businesses operate and provides the student with a broad understanding of common law (contract, tort, and property) as well as a statutory, administrative, and Constitutional law.

Prerequisite: None.

BADM-719—Information Technology Management

Three Credit Hours

This course introduces the student to the vocabulary of

Management Information Systems (MIS) and explores how organizations are using information technology for a competitive advantage and redefining the way in which they interact with their stakeholders.

Prerequisite: None.

BADM-722—Leadership in Organizations

Three Credit Hours

This course is a seminar that focuses on the understanding and application of organizational theory and leadership principles. In addition, the course will include components on developing individual leadership skills and different theories of organizations. The applications component of the course will include a variety of approaches such as cases, films, guest speakers, individual self-assessment, role play, team building exercises, and a leadership portfolio.

Prerequisite: None.

BADM-728—Accounting for Executives

Three Credit Hours

This course is designed to provide students with a knowledge of the basic tools and concepts used in managerial accounting and to provide an opportunity for students to employ their knowledge of financial and managerial accounting through case studies and projects. It emphasizes identifying and interpreting relevant accounting information for decision-making by internal and external users. The focus is on the use of accounting information for decision-making, including behavioral and ethical aspects.

Prerequisite: Foundations of Accounting (BADM 701) or equivalent undergraduate coursework.

BADM-731—Quantitative Methods for Operations Management

Three Credit Hours

Students explore the role of operations management in building the competitive strength of the firm and in pursuing the firm's goals of customer satisfaction, profit, service delivery, quality and shareholder wealth. The course integrates classical and modern operations management methodologies with both hypothetical and real-world business cases. Students learn concepts and quantitative algorithms involved in designing and managing operations.

Prerequisite: Quantitative Methods (BADM 710) or equivalent undergraduate coursework.

BADM-734—Financial Problems

Three Credit Hours

This course provides students with a venue for applying the concepts and techniques from the Foundations of Finance course to complex business problems. The course content will be delivered primarily using the case method of analysis. Emphasis will be on teamwork and group analysis of directed and non-directed business finance cases. Students will be responsible for identifying relevant financial issues, offering alternative solutions, and making, justifying and critiquing recommended courses of action. A portion of the course will be devoted to analyzing cases with a significant international component. The course may also utilize simulation as part of the course content.

Prerequisites: Foundations of Finance (BADM 725) or equivalent undergraduate coursework.

BADM-737—Strategic Marketing

Three Credit Hours

This course examines how organizations gain and maintain a competitive advantage in a dynamic era. The course emphasizes the analysis of marketing decisions involving product, price, promotion, and distribution variables. Global opportunities are investigated.

Prerequisites: Foundations of Marketing and International Business (BADM 707) or equivalent undergraduate coursework.

BADM-740—Global Business Strategy

Three Credit Hours

This comprehensive and integrative MBA capstone course pulls together the concepts, tools, and approaches taught in all the required courses. Using a combination of cases which place students in diverse managerial positions and a business simulation which requires the student to act as a senior executive responsible for the strategic decisions of an organization, the course emphasizes the application, execution, and resolution of multi-dimensional problems. The course emphasizes the strategic management of the business unit and the development of a paradigm for strategic analysis, as well as matching internal processes with the implementation of diverse objectives. The focus is on business-level strategy and the role of leadership in improving performance.

Prerequisites: Communication for Leadership (BADM 713), Legal and Ethical Environment for Decision Makers (BADM 716), IT Management (BADM 719), Leadership in Organizations (BADM 722), Accounting for Executives (BADM 728), Financial Problems (BADM 734), and Strategic Marketing (BADM 737). *Must be taken within the last six hours of a student's MBA program of study.*

Elective Courses:

BADM-750—Seminar in Business Administration

Three Credit Hours

This course may be elected by students desiring to perform advanced study and/or research in a particular area. Special topics covered within the seminar, as well as required prerequisites, are at the discretion of the instructor.

Prerequisites: None.

BADM-751—Seminar in Accounting

Prerequisites: Foundations of Accounting (BADM-701) and Accounting for Executives (BADM-728)

BADM-752—Seminar in Economics

Prerequisite: Foundations of Economics (BADM-704)

BADM-753—Seminar in Finance

Prerequisites: Foundations of Finance (BADM-725) and Financial Problems (BADM-734)

BADM-754—Seminar in Management

BADM-755—Seminar in Marketing

Prerequisite: Foundations of Marketing and International Business (BADM-707) or equivalent undergraduate coursework.

BADM-762—Negotiation Strategies

Three Credit Hours

Negotiation, the art and science of creating agreements between two or more parties, introduces students to the effective use of power, persuasion, influence, and control in modern organizations. In this course students first apply theories developed as guides to improving negotiating strategies (the science) and, second, develop and sharpen negotiating skills through realistic cases (the application) with an emphasis on preparation, bidding, and distributive and integrative bargaining techniques.

Prerequisite: None.

BADM-764—Entrepreneurship

Three Credit Hours

This course is designed for students interested in creating a business venture, acquiring an existing business, working in industries that serve the entrepreneur, or who wish to become familiar with the concepts, issues, and techniques of new venture creation and entrepreneurship. Tools to be developed include recognition of a venture opportunity, acquisition of information on resources needed for venture creation and survival, development of competitive marketing strategies, and international opportunities.

Prerequisite: None.

BADM-766—Human Resource Development

Three Credit Hours

Human Resource Development (HRD) as a field involves the learning, development and behavior of humans in social systems. These systems include but are not limited to, workforce, education, and family. Research from Management Science, Education, Psychology, and Sociology strengthen HRD theory and practice. The purpose of this course is to explore the integration of the individual into work organizations by examining work issues in learning, training, leadership, and psychosocial development. A primary focus of this course is on applied performance management informed by human sciences research as a tool that can be applied to productivity.

Prerequisites: None.

BADM-768—Human Resource Management

Three Credit Hours

This course is designed to provide managers with an understanding of the processes of adding strategic human capital to the organization. The course examines the design of work, personnel recruitment and selection, employee compensation and benefits, employee relations and personnel policies, and labor issues. The course is applied management science designed for managers.

Prerequisite: None.

BADM-770—Internet Resources for Managers Online

Three Credit Hours

This online course introduces MBA students to the resources available through the WWW that support all functional areas of business. In this course you will find, analyze, and report on resources for management, strategy, accounting, finance, marketing, information resources, communication, international business, and others. Although not a web site development course, as part of the course, you will learn to create basic web pages that contains tables, graphics, background images, and hyper links.

Prerequisite: None.

BADM-772—International Management

Three Credit Hours

This course is designed to provide students with an understanding of the issues facing international managers and the environment of the Global Market Place. Some of the challenges include: accommodating different currencies, dealing with a multiplicity of governments, operating effectively in diverse legal environments, being sensitive to and avoiding problems that may arise from cultural differences among people, and the formulation of effective strategies in the complex global environment.

Prerequisite: None.

BADM-774—International Business

Three Credit Hours

In this course students study the trend toward internationalization, explore the terminology used in international business, and, via case studies and examples, demonstrate the problems and advantages of the internationalization process.

Prerequisite: None.

BADM-776—International Marketing

Three Credit Hours

This course examines detailed analysis of theories, issues, and decisions facing the global marketing manager. Emphasis is on small and large firms, innovative applications, workshops, and original research projects.

Prerequisites: Foundations of Marketing and International Business (BADM 707) or equivalent undergraduate coursework.

BADM-778—Investments

Three Credit Hours

This course explores the practical aspects of investment analysis germane to evolution of market securities and derivative instruments evaluation, portfolio analysis and performance evaluation, sources of printed and Internet investment information, and the formulation of investment policies and strategies.

Prerequisite: None.

BADM-780—Research Methods

Three Credit Hours

This course provides students with the requisite knowledge and skills necessary for carrying out the research process from research design to the analysis and presentation of results. Many quantitative techniques may be applied in the data analysis, including (but not limited to) parametric and nonparametric statistical techniques, estimation, and statistical inference.

Prerequisite: Quantitative Methods for Operations Management (BADM 731).

BADM-782—Advanced Topics in Information Technology

Three Credit Hours

The topics covered in this course may include expert systems, decision theory, decision support systems, artificial intelligence, telecommunications, and/or other contemporary issues in information technology.

Prerequisite: Information Technology Management (BADM 719).

BADM-784—Business and Economic Forecasting

Three Credit Hours

This course addresses the important function of strategic planning. Planning requires accurate forecasts of future sales, capacity, market size, prices, and a myriad of other variables that determine the

long-run profitability of the firm. This course will help the student understand and create forecasts for the firm, industry and the economy. Techniques include smoothing, time series analysis, and regression analysis.

Prerequisites: Quantitative Methods for Operations Management (BADM 731).

BADM-786—Contemporary Accounting and Advanced Problems

Three Credit Hours

This course explores the current issues in the field of accounting. Particular issues covered in any given semester will be selected by the course professor and announced at the time of registration.

Prerequisites: Accounting for Executives (BADM 728).

BADM-788—Consumer Behavior

Three Credit Hours

This course consists of the study of domestic and international models of consumer behavior, including key variables from the behavioral sciences. Course content includes research methodologies, case studies, applications to decision-making, and an original student research project.

Prerequisites: Foundations of Marketing and International Business (BADM 707) or equivalent undergraduate coursework.

BADM-790—Production/Operations Strategies for Manufacturing and Service Industries

Three Credit Hours

This course builds upon previous course work to provide a basis for development of a coherent operations strategy to support the firm's competitive strategy. Using case studies, course content is based upon the programs that have proved successful in global firms and covers process choice, product development, order coordination inside and outside the firm, and methodologies for developing technology and operations strategies.

Prerequisites: Accounting for Executives (BADM 728), and Quantitative Methods for Operations Management (BADM 731).

BADM-792—Financial Institutions

Three Credit Hours

This course analyzes financial markets and institutions, emphasizing the role, structure, and activities of financial intermediaries. The dynamic pattern of financial flows is analyzed by flow-of-funds analysis. The decision processes and market impact of both the suppliers of credit and the users of these funds are examined. The nature of economic and regulatory policy and its impact on markets and institutions are emphasized throughout.

Prerequisites: None.

BADM-795—Independent Study

Three Credit Hours

This is an advanced course that may be taken by graduate students desiring to engage in a research/scholarly project of mutual interest to the student and the faculty member who directs the study. The course is intended to be rigorous. The course structure, evaluation process, and expected outcomes should be clearly delineated by the instructor in advance.

Prerequisite: Advanced graduate standing and permission of the instructor, the MBA Program Director, and the Dean of The School of Business.



School of Education

Master of Arts in Teaching:

- Biology
- English
- Mathematics
- Social Studies
- Physical Education

Master of Education

- Educational Leadership
Elementary or
Secondary School
Administration and
Supervision
- Counselor Education
Elementary or
Secondary and
Student Affairs &
College Counseling
- Literacy Education

Specialist in Education

- Educational Leadership
- School Superintendent

SCHOOL OF EDUCATION

Graduate Programs

The purpose of the Graduate Programs of the School of Education is to serve the people of the Lowcountry, the state of South Carolina and the Southeast by providing high quality programs in the areas of professional education and school counseling. The School offers programs to prepare secondary school teachers, school counselors, reading teachers and consultants, and educational administrators.

The Citadel has been involved in the preparation of teachers since the creation of the School of Education and Psychology in 1929. In 1954 the School of Education was approved as a separate department. Master's degree programs for teachers and Master's degree programs for prospective counselors were authorized in 1968. Master's degree programs for school administrators were authorized in 1970. The Educational Specialist degree in educational administration was approved in 1975 and the Educational Specialist degree in school psychology was approved in 1980.

Prior to 1974 the South Carolina State Department of Education approved The Citadel's educational preparation programs. In 1974 all professional education programs offered by the College were initially accredited by the National Council for Accreditation of Teacher Education (NCATE). Both state-approved program status and national accreditation have been continuous since they were initially granted. The most recent SCDE, Commission on Higher Education (CHE), and NCATE program reviews, conducted in the spring of 2000, resulted in continuing program accreditation approval. The Council for Accreditation of Counseling and Related Educational Programs (CACREP) granted accreditation in July 2005 to the School Counseling Programs which offers a Master of Education in Counselor Education.

Statement of Philosophy

The philosophy of the School of Education at The Citadel is based on five fundamental propositions. These propositions serve to orient the mission and conceptual base of the School, guide the actions and value system of the faculty, shape the curricula of the various programs, and provide to its faculty their sense of purpose and meaning for teaching, scholarship, and professional service. These five propositions are:

1. The faculty is committed to promoting education for all individuals to the fullest extent possible. With the implementation of appropriate teaching and assessment strategies, a fundamental guiding belief is that all students, though having unique learning styles and experiences, are capable of learning.
2. It is the educator's responsibility, with the aid of appropriate resources and support, to establish a mutually respectful environment where effective learning occurs for all students.
3. Education is a systematic effort to facilitate the knowledge, skills, attitudes, and values necessary for the student to function in a diverse society.
4. The faculty is committed to upholding the highest professional standards in all situations in which they model

these standards to students through their teaching, research, and service endeavors.

5. The faculty is committed to an open interchange of ideas wherein the perspectives of all are valued.

The School's Conceptual Model

The Citadel's Professional Education Unit prepares principled educational leaders to be knowledgeable, reflective, and ethical professionals. Candidates completing our programs are committed to ensuring that all students succeed in a learner-centered environment.

Rationale:

- Now more than ever, our society is in need of principled educational professionals capable of and committed to ensuring that all children learn.
- Now more than ever, the quality of education available to our children and youth will make the difference between those who prosper in the new economy and those left behind.
- Now more than ever, it is time to accelerate our transformation of an educational system that is no longer relevant for the modern, global economy.

In today's world we must educate all children and at unprecedented high levels. As noted by Ted Hershberg and his colleagues at the University of Pennsylvania, "the evidence makes clear that the current structure of public education designed for a different purpose and different century cannot help all students become effective citizens or productive workers in the new economy."

The Citadel's Professional Education Unit is committed to the simultaneous transformation of the preparation of educational leaders and of the places where they work. Specifically, The Citadel's Professional Education Unit seeks to develop principled educational leaders who:

- have mastered their subject matter and are skilled in using it to foster student learning;
- know the self who educates (Parker J. Palmer) and integrate this self knowledge with content knowledge, knowledge of students, and in the context of becoming professional change agents committed to using this knowledge and skill to ensure that all students succeed in a learner-centered environment; and
- exemplify the highest ethical standards by modeling respect for all human beings and valuing diversity as an essential component of an effective learner-centered environment.

The Citadel's Professional Educational Unit is on the march, transforming itself into a Center of Excellence for the preparation of principled educational leaders. Through our initial program for teacher candidates for P-12 schools and our advanced programs for professional educators in P-12 schools, The Citadel's Professional Educational Unit transforms cadets and graduate students into principled educational leaders capable of and committed to transforming our schools into learning communities where all children and youth succeed.

The Citadel's Professional Educational Unit has identified 17 performance indicators for candidates to demonstrate that they are principled educational leaders who are knowledgeable, reflective, and ethical professionals:

Knowledgeable Principled Educational Leaders...

1. know in-depth subject matter of their field of professional study and practice;
2. demonstrate and apply an understanding of developmental and learning theories;
3. model instructional and/or leadership theories of best practice;
4. utilize the knowledge gained from professional study to develop and implement an educational program that is varied, creative, and nurturing;
5. integrate the use of technology; and
6. demonstrate a commitment to lifelong learning.

Reflective Principled Educational Leaders...

1. develop and describe their philosophy of education and reflect upon its impact in the teaching and learning environment;
2. develop and manage meaningful educational experiences that address the needs of all learners with respect for their individual and cultural characteristics;
3. construct, foster, and maintain a learner-centered environment in which all learners contribute and are actively engaged;
4. apply their understanding of both context and research to plan, structure, facilitate, and monitor effective teaching and learning in the context of continual assessment; and
5. research their practice by reflectively and critically asking questions and seeking answers.

Ethical Principled Educational Leaders...

1. apply reflective practices;
2. demonstrate commitment to a safe, supportive learning environment;
3. demonstrate high values and a caring, fair, honest, responsible and respectful attitude;
4. establish rapport with students, families, colleagues, and community;
5. value diversity and exhibit sensitivity to and respect for cultures; and
6. exhibit prompt regular attendance, wear professional attire, and communicate in standard English.

The Professional Education Board

To facilitate the college-wide mission of preparing principled leaders for professional education, The Citadel established the Professional Education Board (PEB). The Citadel PEB's primary focus is to foster academic environments that promote the development of principled leaders for the education profession and to facilitate the continuing improvement of professional education programs across the college. In pursuing these goals, the PEB will concentrate on communication, assessment, and governance issues. The Citadel's Dean of the School of Education chairs the Board, which is comprised of representatives from all of The Citadel's professional education constituencies, including faculty, staff, students, and our P-12 colleagues. PEB members are appointed by the Dean of the School of Education

in collaboration with the Deans of Humanities and Social Science, of Science and Mathematics, and of The Citadel Graduate College. Beginning in September, 2006 the Professional Education Board meets monthly during each academic year.

The School's Web Site

The School of Education has a diverse faculty with a wide array of teaching and research interests. Additional information on these interests, as well as other departmental highlights, initiatives and activities, can be viewed on the School of Education's web site: www.citadel.edu/education.

Admission Test Policy

The minimum acceptable score for admission for all degree programs is a score of 396 on the Miller Analogies Test (MAT) or 900 (combined score on verbal and quantitative sections) on the Graduate Record Examination (GRE). Students who score between 380 and 395 on the MAT or between 750 and 899 on the GRE may apply for provisional status. A student with provisional status who completes 6 semester hours and maintains a 3.50 GPA may be classified as regular degree-seeking status (see respective programs for additional requirements). Regular admission status is granted only upon completion of all admission requirements, documentation, and respective program requirements. Note: Provisional students must comply with CGC admission requirements. Students who do not complete admission requirements during the provisional period will be restricted from additional registrations beyond the 6 hour provisional status. Students who score 379 or below on the MAT or 749 or below on the GRE will not be admitted. Admission tests must be current within five (5) years of application and official score sent directly to the CGC at the request of the student.

Master of Arts in Teaching (MAT)

Secondary Education

- Biology (Grades 9-12)
- English Language Arts (Grades 9-12)
- Mathematics (Grades 9-12)
- Social Studies (Grades 9-12)

Physical Education (Grades K-12)

School of Education: 843-953-5097

Teacher Education Division Coordinator:

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Content Area Advisors:

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Dr. Joel Gramling, joel.gramling@citadel.edu

English:

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Physical Education:

Dr. Josey Templeton, josey.templeton@citadel.edu

Social Studies:

Dr. Michael Barrett, Michael.Barrett@citadel.edu

Mission Statement:

The Master of Arts in Teaching (MAT) program is designed for students seeking initial teacher certification in the fields of Biology, English Language Arts, Mathematics, Physical Education, or Social Studies. The program shares the philosophy and conceptual base of the School of Education: Leadership for learner-centered education. Students will study learner-centered education in their courses and make its principles a part of their own philosophy. In addition, students must demonstrate an understanding of essential knowledge and its application to the classroom through field experiences and a professional internship. Some of those areas of knowledge include human development, education foundations and research, as well as an understanding of the academic content the student proposes to teach.

Admission Requirements:

1. Complete and return a graduate application form, along with appropriate non-refundable application fee, to The Citadel Graduate College (CGC), Bond Hall, Room 101.
2. Submit an official transcript of the baccalaureate degree and all other undergraduate or graduate work directly from each

accredited college and university.

3. Successfully complete either the Graduate Record Examination (GRE) or the Miller Analogies Test (MAT). GRE minimum acceptable score is a verbal and quantitative combination of 900. MAT minimum is a raw score of 396.*
4. Applicants are expected to have a cumulative undergraduate GPA of 2.5 or higher. Applicants with less than a 2.5 undergraduate GPR may appeal to The Admission, Retention, and Certification Committee. The Committee's recommendation regarding this appeal will be forwarded to the Dean of the School of Education for final action.
5. Students are expected to attend a MAT orientation session prior to their formal admission to the program.
6. MAT in Physical Education applicants requires three letters of recommendations and an evaluation by the department.

*Students who score between 750-899 on the GRE or 380-395 on the MAT may apply for provisional status. Under provisional status, students may enroll for only one semester of 6 hours. If the student maintains a 3.50 GPA under provisional status, they may be considered for degree seeking status the following semester provided all other requirements are met. Students who score 379 or below on the MAT or 749 or below on the GRE will not be admitted. Admission test must be current within five (5) years of application.

Program Requirements:

The program assumes a substantial undergraduate preparation in the proposed certification area. It is the responsibility of the student, and a requirement of the degree program to submit official transcripts of previous academic work to the program advisor via The CGC office. Through a dual advisement system that includes content and education faculty, transcripts will be evaluated and a program of study will be developed for each student. Additional undergraduate course work may be required. The program of study will include work in professional education and a content field. *At the outset, it should be recognized that programs of study are highly individualized based on the prior preparation of the teacher candidate and hours for completion vary among students.* In addition to the regular admission requirements of The Citadel Graduate College, **each MAT student must complete and pass the Praxis II Examination in the content field in which the student seeks certification.** A passing score, using South Carolina standards (www.ets.org/praxis/prxsc.html), must be achieved prior to placement in the Professional Internship. Prior to the internship in teaching, the teacher candidate must:

- Apply for the internship no later than May 1 for the subsequent spring internship semester and no later than October 1 for the subsequent fall internship semester.
- Complete the teacher certification application with state-required fees, social security card copy, and fingerprints for FBI/SLED background check.
- Successfully complete the PRAXIS II Content Specialty Exam.
- Be cleared by the South Carolina State Department of Education.
- Successfully complete all required field experiences - a minimum of 100 hours prior to the student teaching internship.
- Successfully complete 60 full days during the student teaching internship.
- Negative TB test.
- MAT interns must successfully pass Red Cross Blood Borne

Pathogens training prior to internship.

Proof of current American Red Cross certification in First Aid and CPR must be submitted prior to the internship.

- Successful completion of the approved program will qualify the student for a South Carolina teaching certificate/license in their chosen discipline and appropriate grade level(s).

Please note: Effective September 1, 2005, Secondary Teaching Certificates issued by South Carolina State Department of Education will cover grades 9-12 and Middle Grades Teaching Certificates will cover grades 5-8. Additionally, effective July 1, 2006, the PRAXIS- Principles of Learning and Teaching (PLT) pedagogy exam will be required prior to the issuance of an initial certificate.

Secondary Education:

- Biology (Grades 9-12),
- English Language Arts (Grades 9-12),
- Mathematics (Grades 9-12),
- Social Studies (Grades 9-12),

(Special Note: Beginning fall 2010 accelerated programs in Secondary Biology and Mathematics are available for interested full time students. Please see requirements under "Accelerated Program" below.)

Prerequisite: PSYC 500 - Human Growth and Development (or verifiable undergraduate preparation in psychology)

Core Education Requirements

The following courses MUST be taken prior to any other professional education courses. Courses in the content field may be taken prior to or concurrent with this required core. (For Physical Education, see specific Professional Education Courses listed under that section.)

- EDUC 500 - Foundations of American Education or EDUC 522 - Critical Educational Issues in a Multicultural Society (if student has prior Education coursework)
- EDUC 512 - Data Collection and Analysis
- EDUC 514 - The Exceptional Child in the School
- EDUC 536- Educational Psychology

Professional Education Requirements

The professional requirement courses should be taken after the Core Education Courses have been completed. Content courses may be taken prior to or in conjunction with all of these courses except the Professional Internship. The student must recognize that the Professional Internship requires that a minimum of 60 full days be spent in the school. During the Internship, it will not be possible for the student to take any additional courses or be employed.

- EDUC 501- Methods and Materials of Middle and High School Teaching *
- EDUC 592- Teaching Reading in Middle and High School - Content Areas*
- EDUC 520 - Professional Internship

*Not required for Physical Education students. Alternate requirements are listed under required content area courses.

For Biology and Social Studies, 9 graduate hours in a content field is a minimum. For candidates in English, a minimum of 12 graduate hours is required. For Mathematics and Physical Education programs, courses required at the graduate level are

noted below. Transcripts will be evaluated against the following list of required courses in the possible certification areas of the MAT program. Guidelines from the South Carolina State Department of Education, NASPE, NCSS, NCTE, NCTM, NMSA, and NSTA are used to determine courses for each program which students have taken in either graduate or undergraduate levels. Each student is assigned an advisor from the School of Education and from the respective content area that he or she has chosen. Both advisors examine transcripts and develop a program of study for the students. To complete the program and be eligible for certification, in addition to education courses, students must have taken all of the content area courses below. Further, it is the responsibility of the teacher candidate to make sure that they have credit for prerequisites for each required course. In the event that all of the following have been taken prior to matriculation into this program, the content area advisor will recommend additional graduate work in the content field for program completion.

Master of Arts in Teaching Biology (Grades 9-12)

Note: At least 3 of the course requirements listed below must be successfully completed on the graduate level

Science Content Area Required Courses:

- Anthropology - 1 course - ANTH 201 or ANTH 202 or ANTH 501
- Biology Survey - 2 courses - BIOL 101 with BIOL 111 and BIOL 102 with BIOL 112 or BIOL 130 with BIOL 131 and BIOL 140 and BIOL 141
- Cell Biology with lab- 1 course - BIOL 205 or BIOL 612
- Chemistry with lab- 2 courses - CHEM 103 with CHEM 113 and CHEM 104 with CHEM 114 or CHEM 151 with CHEM 161 and CHEM 152 with CHEM 162
- Ecology with lab- 1 course - BIOL 406 or BIOL 506
- Evolution - 1 course - BIOL 208 or BIOL 601
- Genetics with lab- 1 course - BIOL 308 or BIOL 508
- Geology with lab- 1 course for High School Certification - GEOL 201 and 211, GEOL 202 and 212
- Anatomy/Physiology with lab - 1 course - BIOL 403 or BIOL 414 or BIOL 502 or BIOL 317 with 327 or BIOL 318 with BIOL 328
- Introduction to Physics with lab - 1 course is required, 2 are recommended - PHYS 203 and PHYS 253 or PHYS 204 and PHYS 254 or PHYS 221 and PHYS 271 or PHYS 222 and PHYS 272
- Microbiology with lab- 1 course - BIOL 310 or BIOL 607
- Biology Methods- select 1 from the following - BIOL 605- Laboratory Methods in Biology, BIOL 606- Field Methods in Biology, BIOL 609- Seminar in Environmental Science
- Biology Elective - 1 course

Master of Arts in Teaching – English (Grades 9-12)

Notes:

- ENGL 595 and three of the other courses listed below must be completed successfully on the graduate level. Each candidate's content area program of studies is based on an analysis of his or her undergraduate transcript in relation to NCTE standards.
- For MAT English majors, participation in community arts and humanities functions and documentation of integration of the arts into lesson plans created for use in K-12 settings (EDUC 501, 592, 595, and 520) are mandatory.

English Language Arts Required Courses:

- British Authors - 2 courses - ENGL 201 and 202 or ENGL 203 and 204
- American Literature- 1 course - ENGL 215
- Public Speaking- 1 course - ENGL 205 or ENGL 206
- World Literature -2 courses - ENGL 218/520 and ENGL 219/521
- Film Studies- 1 course - ENGL 209/560
- African American Literature - ENGL 349/535
- Adolescent Literature- 1 course - ENGL 370/552
- Literary Criticism- 1 course - ENGL 407/555
- Advanced Composition- 1 course - ENGL 413/565
- Modern Grammar- 1 course - ENGL 414/553
- History of English Language- 1 course - ENGL 415/554
- Methods and Materials for English Language Arts - ENGL 595 (Required for all candidates)

Master of Arts in Teaching – Mathematics (Grades 9-12)

The MAT in Mathematics program assumes a substantial undergraduate preparation in mathematics. Therefore, prior to formal admission to the MAT Mathematics program, an applicant must have successfully completed the following courses. Any of these courses not taken prior to admission to The Citadel are added to the candidate's **minimum** of 18 graduate hours in mathematics.

- Analytical Geometry & Calculus I - MATH 131
- Analytical Geometry & Calculus II – MATH 132
- Analytical Geometry & Calculus III - MATH 231
- Differential Equations - MATH 234
- Linear Algebra - MATH 240
- Fundamentals of Computing - CSCI 110

The following required mathematics courses must be taken at The Citadel:

- Probability & Statistics - MATH 542
- Mathematical Modeling- MATH 550
- Modern Algebra - MATH 532
- Modern Geometry - MATH 521
- Methods for Middle/Secondary Mathematics - MATH 514
- Applications of Discrete Mathematics- MATH 545

Master of Arts in Teaching - Social Studies (Grades 9-12)

Note: At least 3 of the course requirements listed below must be completed successfully on the graduate level.

- History of World Civilization or Western Civilization -2 courses HIST 105 and HIST 106 or HIST 103 and HIST 104
- Survey of U.S. History- 2 courses- HIST 201 and HIST 202
- Introduction to Sociology- 1 course - SOCI 201
- Principles of Macroeconomics- 1 course - BADM 201
- American National Government- 1 course - PSCI 102 or PSCI 502
- Cultural Anthropology- 1 course ANTH 202 or ANTH 501
- Historiography- 1 course - HIST 594
- Urban Politics- 1 course - PSCI 302 or PSCI 509 or PSCI 306 or PSCI 506 or PSCI 307 or PSCI 401
- World Geography- 1 course GEOG 209 or GEOG 511
- History of the Non-Western World- 1 course - HIST 560
- Teaching of History and Social Sciences or Instructional Approaches to Social Sciences- 1 course - HIST 692 or PSCI 505

Accelerated Programs - Master of Arts in Teaching – Biology or Mathematics (Grades 9-12)

Prerequisite: Human Growth and Development - PSYC 500 (or verifiable undergraduate preparation in psychology).

Biology Content Area Required Courses:

Prior to admission - Teacher candidates remove undergraduate deficiencies in Science and plan for required graduate level program courses in Science (Developed through undergraduate transcript analysis with Mathematics content area advisor) – Expected Science Content Preparation for all Biology Teacher Candidates:

- Behavior of Organisms and their Relationship to Social Systems - 1 course - ANTH 201, ANTH 202, ANTH 501 or SOCI 201, PSYC 201, PSYC 305, or PSYC 500
- Biology Survey with lab - 2 courses - BIOL 101 with BIOL 111 and BIOL 102 with BIOL 112 or BIOL 130 with BIOL 140 and BIOL 131 and BIOL 141
- Chemistry with lab - 2 courses - CHEM 103 with CHEM 113 and CHEM 104 with CHEM 114 or CHEM 151 with CHEM 161 and CHEM 152 with CHEM 162
- Geology with lab - 1 course - EART 201
- PHYS 254 or PHYS 221 and PHYS 271 or PHYS 222 and PHYS 272
- Introduction to Physics with lab - 1 course is required, 2 are recommended - PHYS 203 and PHYS 253 or PHYS 204 and
- Cell Biology with lab- 1 course - BIOL 205 or BIOL 612
- Ecology with lab - 1 course - BIOL 406 or BIOL 506
- Evolution - 1 course - BIOL 208 or BIOL 601 Genetics with lab - 1 course - BIOL 204 or BIOL 308 or BIOL 508
- Anatomy/Physiology with lab - 1 course - BIOL 403 or BIOL 317 with BIOL 327 or BIOL 318 with BIOL 328 or BIOL 502 or BIOL 603
- Microbiology with lab - 1 course - BIOL 310 or BIOL 607
- Biology Methods - select 1 course from the following:
- BIOL 605 - Laboratory Methods in Biology or BIOL 606 - Field Methods in Biology or BIOL 609 - Seminar in Environmental Science
- Two other graduate level Biology courses should be chosen if all undergraduate course requirements have been met. Biology teacher candidates may choose from the following: BIOL 502–Comparative Vertebrate Anatomy, BIOL 505–Biometry, BIOL 508–Genetics, BIOL 509–Marine Biology, BIOL 510–Vertebrate Natural History, BIOL 512–Descriptive Histology, BIOL 514–The Vascular Flora of South Carolina, BIOL 518–Ornithology, BIOL 519–Economic Botany, BIOL 526–Freshwater Biology, BIOL 531–Reproductive and Developmental strategies, BIOL 602–Morphological Survey of Plant Kingdoms, BIOL 603–General Physiology

Cohort Required Education and Biology Content Course

Sequence:

- Fall: BIOL Graduate level course from transcript analysis and EDUC 540-Integrative Foundations and Teaching in American Education
- Spring: Physical Sciences as needed and BIOL Graduate level course from transcript analysis
- Summer I: BIOL Graduate Level course from transcript analysis and EDUC 541-Integrative Educational Psychology and the Exceptional Child
- Summer II: Biology Methods – BIOL 605, 606 or 609 and EDUC 542–Teaching Reading and Writing in Middle and

High School Content Areas through Applied Research.

- Fall: EDUC 520-Internship **and** EDUC 525-Transition to the Profession

Field Experiences and Clinical Practice/ Internship Semester

Expectations: As is expected for all South Carolina graduate teacher preparation programs, candidates in this program will spend a minimum of 75 hours in school settings prior to their internship semester participating in activities that range from focused observation to assisting small groups to teaching whole classes. These pre-internship experiences are an integral part of the core education courses. During the internship semester, teacher candidates in this program will spend 60 full days in a High School Science setting with content area certified teachers who are ADEPT trained as well as participate in a Transition to the Profession Seminar Course during the final semester of the program.

Mathematics Content Area Required Courses:

Prior to admission - Teacher candidates remove undergraduate deficiencies in Math

(Developed through undergraduate transcript analysis with Mathematics content area advisor)

Expected undergraduate preparation:

- Analytical Geometry & Calculus I - MATH 131
- Analytical Geometry & Calculus II - MATH 132
- Analytical Geometry & Calculus III - MATH 231
- Differential Equations - MATH 234
- Linear Algebra - MATH 240
- Fundamentals of Computing - CSCI 110

Cohort Required Education and Math Content Course Sequence:

- Fall: MATH 532-Modern Algebra and EDUC 540-Integrative Foundations and Teaching in American Education
- Spring: MATH 542-Probability and Statistics and MATH 545-Applications of Discrete Mathematics
- Summer I: MATH521-Modern Geometry, Math 550-Math Modeling and EDUC 541-Integrative Educational Psychology and the Exceptional Child
- Summer II: MATH514-Methods for Middle/Secondary Mathematics **and** EDUC 542-Teaching Reading and Writing in Middle and High School Content Areas through Applied Research.
- Fall: EDUC520-Internship **and** EDUC 525-Transition to the Profession

Field Experiences and Clinical Practice/ Internship Semester

Expectations:

As is expected for all South Carolina graduate teacher preparation programs, candidates in this program will spend a minimum of 75 hours in school settings prior to their internship semester participating in activities that range from focused observation to assisting small groups to teaching whole classes. These pre-internship experiences are an integral part of the core education courses. During the internship semester, teacher candidates in this program will spend 60 full days in a High School Mathematics setting with content area certified teachers who are ADEPT trained as well as participate in a Transition to the Profession Seminar Course during the final semester of the program.

Master of Arts in Teaching in Physical Education (Grades K-12)

Dr. Josey H. Templeton, 843-953-7952,
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Dr. Lori H. Williams, 843-953-7954,
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Dr. Tim Bott, 843-953-7959,
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Dr. Kathryn Richardson-Jones, 843-953-3163,
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Admission Requirements:

1. Contact one of the pedagogy specialists in the Department of Health, Exercise, and Sport Science.
2. Complete and return a graduate application form, along with appropriate non-refundable application fee, to The Citadel Graduate College (CGC), Bond Hall Room 101.
3. An official transcript of the baccalaureate degree and all other undergraduate or graduate work directly from each accredited college or university.
4. Applicants are expected to have a cumulative undergraduate GPA of 2.5 or higher. Applicants with less than a 2.5 undergraduate GPA may appeal to The Admission, Retention, and Certification Committee. The Committee's recommendation regarding this appeal will be forwarded to the Dean of the School of Education for final action.
5. Successfully complete either the Miller Analogies Test (MAT) or the Graduate Record Examination (GRE) and have scores sent to the CGC office. The test must be current within five years of application. Minimum acceptable score for the MAT is 396. The minimal acceptable GRE score is a combined verbal and quantitative score of 900. Applicants who score between 380-395 on the MAT or between 750-899 on the GRE may apply for provisional status provided all other requirements are met. A student with provisional status who completes 6 graduate semester hours and maintains a 3.5 grade point ratio may be classified as a regular degree-seeking student. Regular admission status is granted only upon completion of all admission requirements, documentation, and respective program requirements, and review by department. Students who score 379 or below on the MAT or 749 or below on the GRE will not be admitted.
6. Three letters of recommendation must be sent to the CGC office.
7. A Program of Study completed by the applicant and his/her program advisor must be submitted to the CGC office.

Program Requirements:

This is a 42 hour graduate program, of which, at least 33 hours must be completed at the graduate level. A maximum of twelve (12) hours of graduate courses may be transferred to The Citadel from other accredited colleges/universities. A maximum of nine (9) hours of undergraduate courses may be applied to coursework in the program.

These nine hours may be substituted for three of the following courses: HESS 505, 525, 535, and 561. To qualify, these undergraduate courses must have been completed within the last three years with a grade of "B" or better. This program assumes a substantial undergraduate preparation in the proposed certification area. It is the responsibility of the student, and a requirement of the degree program to submit official transcripts of previous academic work to the program advisor via the CGC office. Through a dual advisor system that includes content and education faculty, transcripts will be evaluated and a program of study developed for each student. This program of study will include work in professional education and a content field.

In addition to regular admission requirements of the CGC, each MAT student must successfully pass the PRAXIS II Examination in the content field in which the student seeks certification. A passing score, using South Carolina standards, must be achieved prior to placement in the Professional Internship.

Prior to the internship in teaching, the teacher candidate must:

- Apply for the internship no later than May 1 for the subsequent spring internship semester and no later than October 1 for the subsequent fall internship semester.
- Complete the teacher certification application with state-required fees, social security card copy, and fingerprints for FBI/SLED background check.
- Successfully complete the PRAXIS II Content Specialty Exam.
- Be cleared by the South Carolina State Department of Education.
- Successfully complete all required field experiences - a minimum of 75 hours prior to the student teaching internship.
- Successfully complete 60 full days during the student teaching internship.
- Negative TB test.
- MAT interns must successfully pass Red Cross Blood Borne Pathogens training prior to internship.
- Proof of current American Red Cross certification in First Aid and CPR must be submitted prior to the internship.

To graduate and be recommended for certification, teacher candidates must have a minimum grade point average of 3.0 and must have successfully completed the PRAXIS II (Principles of Learning and Teaching, Physical Education Content Knowledge, and Physical Education Movement Forms Video Evaluation) and any other certification tests for the State of South Carolina. Completion of the approved program will qualify the student for a teaching license in physical education, grades K-12.

Prerequisites or Co-requisites:

Students must have completed these pre-requisite or co-requisite courses (undergraduate or graduate) within the last six (6) years with a grade of "C" or better.

- Biology (4) or Chemistry (4) or Physics (4) with laboratory;
- Health & Wellness (3) or pass a departmental competency exam;
- Human Anatomy (4) and Human Physiology (4) or Anatomy/Physiology (8) (each course must include a laboratory);
- Adolescent Psychology (3) and Child Psychology (3)

OR

- PSYC-500 Human Growth and Development (3)

Course Requirements:

Transcripts will be evaluated against the following list of required courses in physical education. Guidelines from the National Association for Sport and Physical Education (NASPE) are used to determine courses that students take in either graduate or undergraduate school. The M.A.T. in Physical Education will require forty-two (42) hours. Each student is assigned an advisor from the School of Education and from The Department of Health, Exercise, & Sport Science. Both advisors will examine transcripts and develop a program of study for each student.

Required Education and Physical Education Courses - 42 hours

EDUC 536	Educational Psychology
EDUC 512	Data Collection & Analysis
HESS 505	Motor Development and Motor Learning*
HESS 525	Scientific Principles of Physical Education and Health, Exercise, & Sport Science*
HESS 527	Content and Methods of Teaching Health Education and Health-Related Aspects of Physical Fitness
HESS 528	Content and Methods of Teaching Rhythmic Activities and Movement Education
HESS 533	Content and Methods of Teaching Elementary School Physical Education
HESS 534	Accommodating Persons with Disabilities in Sport & Physical Activity
HESS 535	History, Philosophy, and Curriculum of Physical Education*
HESS 550	Instructional Aspects of Teaching Physical Education
HESS 551	Content & Methods of Teaching Secondary Physical Education
HESS 561	Advanced Measurement and Evaluation in Physical Education*
HESS 620	Professional Internship (6 hours)

The Professional Internship requires that a minimum of sixty (60) full days be spent in the schools, and during the Professional Internship, it will not be possible for the teacher candidate to take any additional courses.

**Undergraduate and graduate transcripts may be evaluated for application to coursework in the program.*

Field Experiences:

Many education courses require field experiences that vary from course to course and are related to specific course objectives. All field experiences provide opportunities for Master's candidates to develop pedagogical knowledge and skills. At a minimum, teacher candidates are expected to successfully complete 75 hours of field experiences prior to the Professional Internship that is an additional sixty (60) days.

Course Descriptions:

HESS-505—Motor Development and Motor Learning

Three Credit Hours

This course provides the study of appropriate learning and development theories, and heredity and environmental factors that influence human performance.

HESS-525—Scientific Principles of Physical Education, Health, Exercise, & Sport Science

Three Credit Hours

This course introduces students to the study of effects of exercise, physical activity, and work on various physical fitness components, as well as analysis of the human body in motion, sports objects in motion, and forces acting upon animate and inanimate objects/bodies.

Prerequisite: A biology, chemistry, or physics course and two human anatomy and/or physiology courses.

HESS-527—Content & Methods of Teaching School Health Education & Health-Related Aspects of Physical Fitness

Three Credit Hours

This course updates content knowledge and prepares students in teaching styles, methodologies, and assessment techniques for health education curricula in K-12 schools.

Prerequisite: A health and wellness course or passing a departmental competency exam.

HESS-528—Content & Methods of Teaching Rhythmic Activities & Movement Education

Three Credit Hours

This course teaches content and prepares students in teaching methodologies for fundamental rhythmic activities and movement education in grades K-12, including basic locomotor skills, creative rhythmic activities, dances (traditional, folk, square, social, line), and aerobics. Additional emphasis is placed on candidate skill development in dance and basic gymnastics.

Prerequisite: HESS 550 or permission of the instructor.

HESS-533—Content & Methods of Teaching Elementary School Physical Education

Three Credit Hours

This course teaches content and theoretical and practical study of teaching progressively graded programs of activities for elementary school students, grades K-5.

Prerequisite: HESS 550 or permission of the instructor.

HESS-534—Accommodating Persons with Disabilities in Sport & Physical Activity

Three Credit Hours

This course provides the study of legal, ethical, and practical definitions of involving people with disabilities in physical activity, physical education, and sport settings.

HESS-535—History, Philosophy, and Curriculum of Physical Education

Three Credit Hours

This course introduces students to the historical and philosophical roots of physical education and examines the degree to which these influence curricular models and decisions made by K-12 practitioners.

HESS-550—Instructional Aspects of Physical Education

Three Credit Hours

This course is designed to discuss theories of instruction in physical education settings including environmental arrangements, task presentation, content development, and feedback. Practical applications of these principles to small peer group settings using open and closed motor skills will be included.

HESS-551—Content and Methods of Teaching Secondary Physical Education

Three Credit Hours

This course is designed to develop both the pedagogical skills of teacher candidates as well as content knowledge in teaching team and individual/dual sports. Emphasis is placed on planning, teaching, and evaluating physical education lessons in secondary settings. Additional emphasis is placed on candidate skill development in team and individual/dual sports.

Prerequisite: HESS 550 or permission of the instructor.

HESS-561—Advanced Measurement and Evaluation in Physical Education

Three Credit Hours

Analysis and interpretations of data associated with various cognitive, affective and psychomotor tests commonly used in physical education. Topics include test administration, test construction, performance-based assessments, rubrics, and physical fitness and skill testing.

HESS-620—Professional Internship in Teaching

Six Credit Hours

A requirement for teacher certification, observation, and teaching in approved schools under supervision by college professor. Two placements are required: one in an elementary school setting and one in a secondary school setting. A field experience component of a minimum of 60 days is required.

Prerequisites: Please refer to program requirements.

Master of Education in Educational Leadership - Elementary or Secondary School Administration and Supervision

School of Education, 843-953-5097

Dr. Mary Lou Yeatts, Coordinator, Division of Educational Leadership, marlou.yeatts@citadel.edu

Dr. Kathy Brown, brownk2@citadel.edu

Dr. Kent Murray, kent.murray@citadel.edu

Mission Statement:

The mission and goals of the Masters of Education in Educational Leadership, Elementary School Administration and Supervision and Secondary Administration and Supervision are to teach:

- Knowledge of human and public relations problems in education
- New curricular developments and trends
- Skills in practical applications of educational research
- Competence in applying principles of human and group behavior in problem situations.
- Knowledge and competencies in staff personnel administration
- Different leadership and management styles and a clear understanding and working knowledge of Learner-Centered Education.

Admission Requirements:

Admission is based on assessment of the following:

1. An application form, along with appropriate non-refundable application fee, must be returned to The Citadel Graduate College (CGC) Bond Hall, Room 101.
2. An official transcript of the baccalaureate degree and all other undergraduate or graduate work directly from each accredited college or university.
3. An overall undergraduate grade point average of 2.5 or a 2.7 ratio for the last 60 semester hours of undergraduate credit. Applicants with less than a 2.5 undergraduate GPR may appeal to The Admission, Retention, and Certification Committee. The Committee's recommendation regarding this appeal will be forwarded to the Dean of the School of Education for final action.
4. Official scores of the Graduate Record Exam (GRE)—minimum score accepted is a verbal and quantitative combination of 900 or official scores of the Miller Analogies Test (MAT)—minimum score of 396, taken within the past five years.*
5. A copy of a valid South Carolina elementary or secondary teaching certificate. Applicants must be in good standing with the State Board of Education at the time of acceptance.
6. A copy of a South Carolina Professional Certificate verifying three years teaching experience. **At least one year of teaching at the appropriate level for Advanced**

Level certification for which the candidate is applying must be validated.

R 43-64 REQUIREMENTS FOR CERTIFICATION AT THE ADVANCED LEVEL

I. ADMINISTRATION

(A) Elementary School Principal and Supervisor

- (1) Master's degree
- (2) Valid South Carolina Educator's Professional Certificate at the elementary level
- (3) Minimum qualifying score(s) on the area examinations required by the State Board of Education
- (4) Verification of three years teaching experience, including at least one year of teaching in grades pre-K-8
- (5) Completion of an advanced program approved by the State Board of Education for the training of elementary principals and supervisors

South Carolina Educator Certification Manual, p. 62 (Revised August 2008)

R 43-64 REQUIREMENTS FOR CERTIFICATION AT THE ADVANCED LEVEL

I. ADMINISTRATION

(B) Secondary School Principal and Supervisor

- (1) Master's degree
- (2) Valid South Carolina Educator's Professional Certificate at the secondary level
- (3) Minimum qualifying score(s) on the area examinations required by the State Board of Education
- (4) Verification of three years teaching experience, including at least one year of teaching in grades 7-12
- (5) Completion of an advanced program approved by the State Board of Education for the training of secondary principals and supervisors

South Carolina Educator Certification Manual, p. 62 (Revised August 2008)

Note: Courses taken prior to official admission or courses taken through other programs do not count toward the School Administration and Supervision program/degree without written approval from the School of Education's Dean.

* The minimum acceptable score is as follows:

1. M.Ed. - a score of 396 on the MAT or 900 on the GRE
 - a. Provisional Status - Candidates, who score between 380 and 395, on the MAT or between 750 and 899 on the GRE may apply for provisional status. Candidates, admitted under this provisional status, may enroll for only one semester of 6 hours and maintain a 3.5 GPA in order to be classified as a degree seeking or certification-only candidate after completion of departmental review.
 - b. Regular admission is granted upon completion of CGC requirements and respective program requirements.

Admission Requirements for South Carolina Certification Only:

Applicants who hold a valid SC teaching certificate and a master's degree with a minimum 3.25 GPA in a different area of professional education but wish to add administration certification must provide the following admission materials:

1. An application form, along with appropriate non-refundable application fee, must be returned to The Citadel Graduate College (CGC) Bond Hall, Room 101.
2. An official transcript directly from each accredited college or university attended - Bachelor's through Master's degree.
3. A copy of valid South Carolina teaching certificate.
4. Official scores of the Graduate Record Exam (GRE)—minimum score accepted is a verbal and quantitative combination of 900 or official scores of the Miller Analogies Test (MAT)—minimum score of 396, taken within the past five years.*
5. A copy of a South Carolina Professional Certificate verifying three years teaching experience. At least one year of teaching at the appropriate level for Advanced Level certification for which the candidate is applying must be validated.

R 43-64 REQUIREMENTS FOR CERTIFICATION AT THE ADVANCED LEVEL

I. ADMINISTRATION

- (A) Elementary School Principal and Supervisor
- (1) Master's degree
 - (2) Valid South Carolina Educator's Professional Certificate at the elementary level
 - (3) Minimum qualifying score(s) on the area examinations required by the State Board of Education
 - (4) Verification of three years teaching experience, including at least one year of teaching in grades pre-K-8
 - (5) Completion of an advanced program approved by the State Board of Education for the training of elementary principals and supervisors

South Carolina Educator Certification Manual, p. 62 (Revised August 2008)

R 43-64 REQUIREMENTS FOR CERTIFICATION AT THE ADVANCED LEVEL

I. ADMINISTRATION

- (B) Secondary School Principal and Supervisor
- (1) Master's degree
 - (2) Valid South Carolina Educator's Professional Certificate at the secondary level
 - (3) Minimum qualifying score(s) on the area examinations required by the State Board of Education
 - (4) Verification of three years teaching experience, including at least one year of teaching in grades 7-12
 - (5) Completion of an advanced program approved by the State Board of Education for the training of secondary principals and supervisors

South Carolina Educator Certification Manual, p. 62 (Revised August 2008)

Note: Courses taken prior to official admission or courses taken through other programs do not count toward the School Administration and Supervision program/degree without written approval from the Dean, School of Education.

*The minimum acceptable score is as follows:

1. Certification-Only - a score of 396 on the MAT or 900 on the GRE
 - a. Provisional Status - Candidates, who score between 380 and 395, on the MAT or between 750 and 899 on the GRE may apply for provisional status. Candidates, admitted under this provisional status, may enroll for only one semester of 6 hours and maintain a 3.5 GPA in order to be classified as a degree seeking or certification-only after completion of review by the department.
 - b. Regular admission is granted upon completion of CGC requirements and respective program requirements.

Program Requirements:

A total of 39 semester hours must be completed for the M.Ed. in Educational Leadership. In addition to completing all courses, candidates applying for certification as an administrator must:

1. Present a minimum qualifying score on the PRAXIS, South Carolina's Supervision and Administration Examination, prior to enrolling in an internship.
2. Present a Valid South Carolina Teaching Certificate that posts three years teaching experience including at least one year of teaching at the certification level requested.
3. Complete Program Audit.
4. Complete required courses, 33 hours and two internships (EDUC 661 and EDUC 662 or EDUC 663 and EDUC 664), six hours (9-12 internship hours per week over a six-month period) for a total of 39 credit hours. Candidates for administrative internships must:
 - (a) Complete 27 credit hours prior to submitting an internship application for faculty review.
 - (b) Earn a passing score on the PRAXIS, South Carolina's Supervision and Administration Examination.
 - (c) Meet with advisor to review request for admission to an internship
 - (d) Apply in person or via fax to CGC to register for an internship

Applicants for fall administrative internships should file an application with their advisor no later than August 1 of the preceding semester. Applicants for spring administrative internships should file an application with their advisor no later than December 1 of the preceding semester. Applicants for summer administrative internships should file an application with their advisor no later than March 1 of the preceding semester. In order to register for internships, authorized applications must be on file in the CGC office, along with the valid South Carolina state administrator's examination score.

*Proviso—Candidates filing applications and applying for

administrative internships after the December, March, and August deadlines cannot be guaranteed enrollment.

M.Ed. Required Program:

Note: Maximum course load is (6) hours.

1. Core requirements—9 semester hours

All core requirements must be completed prior to or concurrently with registration for any other courses.

EDUC 512 Data Collection and Analysis

EDUC 514 The Exceptional Child in the School

EDUC 522 Critical Educational Issues in a Multicultural Society

2. Professional Requirements—30 semester hours

EDUC 528 School Administration

EDUC 527 Finance and Business Management

EDUC 601 School Law

EDUC 602 Staff Personnel Administration

EDUC 529 Microcomputers and School Management

EDUC 524 Techniques of School Supervision

EDUC 531 Principles of Elementary Curriculum

Development or

EDUC 532 Principles of Middle or High Curriculum

Development

EDUC 616 Political Process of Public Education

EDUC 661 Internship in Elementary Administration or

EDUC 663 Internship in Middle or High Administration

EDUC 662 Internship in Elementary Administration or

EDUC 664 Internship in Middle or High Administration

Certification-Only Required Program:

1. Professional Requirements - 30 semester hours

EDUC 528 School Administration

EDUC 527 Finance and Business Management

EDUC 601 School Law

EDUC 602 Staff Personnel Administration

EDUC 529 Microcomputers and School Management

EDUC 524 Techniques of School Supervision

EDUC 531 Principles of Elementary Curriculum

Development or

EDUC 532 Principles of Middle or High Curriculum

Development

EDUC 616 Political Process of Public Education

EDUC 661 Internship in Elementary Administration or

EDUC 663 Internship in Middle or High Administration

EDUC 662 Internship in Elementary Administration or

EDUC 664 Internship in Middle or High Administration

Specialist in Educational Leadership - School Superintendent

School of Education, 843-953-5097

Dr. Mary Lou Yeatts, Coordinator, Division of
Educational Leadership, yeattsm1@citadel.edu

Dr. Kathy Brown, kathy.brown@citadel.edu

Dr. Kent Murray, kent.murray@citadel.edu

The Specialist in Educational Leadership (Ed.S.) Degree is an advanced graduate degree between the Master's and Doctoral degrees. In accordance with South Carolina Certification Regulations, The Citadel offers an Ed.S. major that prepares candidates for certification at the superintendent's level.

Admission Requirements:

Admission to the Specialist in Educational Leadership Program is based on assessment of the following:

1. A completed graduate application form along with the appropriate non-refundable application fee to The Citadel Graduate College (CGC) office, Bond Hall Room 101.
2. All official transcripts directly from each accredited college or university attended (including a Master's Degree or Certification-only in administration) with a minimum 3.25 grade point average.
3. A South Carolina State Professional Certificate with school administrator endorsement **and two years in an administrative position equivalent to assistant principal or higher** in education.
4. A South Carolina Professional Teaching certificate that is valid and three years teaching experience **and two years** as a school or district administrator, post secondary administrator, or school business administrator.
5. Official scores of the Graduate Record Exam (GRE) minimum score accepted is a verbal and quantitative combination of 900 or official scores of the Miller Analogies Test (MAT) minimum score of 396, taken within the past five years.
 - a. **No Provisional Status granted.**
 - b. Regular admission is granted upon completion of CGC requirements and respective program requirements including completion of review by the department.

R 43-64 REQUIREMENTS FOR CERTIFICATION AT THE ADVANCE LEVEL

I. ADMINISTRATION

(C) District Superintendent

- (1) Master's degree
- (2) Valid South Carolina Professional Certificate at the elementary, middle or secondary level
- (3) Minimum of qualifying score(s) on the area examination(s) required by the State Board of Education
- (4) Verification of a total of three years experience as a pre-K-12 or post-secondary teacher and two years as a school or school district

administrator, post secondary administrator, or school business administrator

- (5) Completion of an advanced program approved by the State Board of Education for the training of school superintendents

South Carolina Educator Certification Manual, p. 63 (Revised August 2008)

Note: Specialist in Educational Leadership courses taken prior to official program admission will not count toward the degree without written approval from the School of Education.

Transfer Credit:

Six credit hours of graduate courses, which are appropriate for the major in Educational Leadership, may be approved for transfer from an accredited institution of higher learning. Transfer courses must be no older than 6 years from the first semester of degree work taken at The Citadel. All additional courses must be taken at The Citadel.

Program Requirements:

A total of 33 semester hours must be completed for the Specialist in Educational Leadership. In addition to the general goals of the school's graduate program, the objectives of the Specialist in Education degree are knowledge of school law, curricular trends, school building trends, and program budgeting; skill in using various techniques for goal setting and problem diagnosis in such areas as instructional programs, staff development, and community relations; skill in decision-making and in evaluating decisions on the basis of subsequent information; knowledge of research in administration, curriculum, human development and staffing; performance behavior in a job setting; knowledge of the role of the school in modern America and the multicultural currents influencing the school; knowledge and skills for performing in a political setting; and, a clear understanding and working knowledge of Principled Educational Leaders. A student, who applies for certification as a school district administrator, must meet the following:

1. A minimum qualifying score on the state administrator's examination prior to entrance into the internship.
2. Three years teaching experience.
3. Program Audit showing completion of 33 credit hours:
 - a. Required courses, 27 credit hours
 - b. Two internships, EDUC 632 and EDUC 633, (9-12 internship hours per week over a six-month period), six credit hours

Candidates for administrative internships must:

- (a) Complete 21 credit hours prior to submitting an internship application for faculty review.
- (b) Earn a passing score on the PRAXIS, South Carolina's Supervision and Administration Examination.
- (c) Meet with advisor to review request for admission to an internship.
- (d) Apply in person to CGC to register for an internship.

Applicants for spring administrative internships should file and application with their advisor no later than December 1 of the preceding semester. Applicants for fall administrative internships should file an application with their advisor no later than August 1 of the preceding semester. Applicants for summer administrative

internships should file an application with their advisor no later than March 1 of the preceding semester. In order to register for internships, authorized applications must be on file in the CGC office, along with the valid South Carolina state administrator's examination score.

*Proviso—Candidates filing applications and applying for administrative internships after the December, March, and August deadlines cannot be guaranteed enrollment.

Required Program:

1. Professional Requirements - 33 semester hours
EDUC 606 Superintendency and School Organization
EDUC 600 Professional Negotiations
EDUC 619 Assessment of School Programs
EDUC 598 Curriculum Project (**Prerequisite EDUC 531/532**)
EDUC 535 Organizational Theory and Behavior
EDUC 610 Seminar on School Improvement
EDUC 603 School Plant Seminar
EDUC 612 Seminar in School Law (**Prerequisite EDUC 601**)
EDUC 614 Seminar in Educational Administration
EDUC 632 Internship in Superintendency
EDUC 633 Internship in Superintendency
Total hours = 33 (beyond the master's degree)

***If EDUC 529, EDUC 531/532 or EDUC 616 were not taken in a master's program, the appropriate course must be taken as a requirement of the Ed. S.**

Master of Education in Counselor Education (Elementary or Secondary and Student Affairs & College Counseling)

School of Education, 843-953-5097

Dr. Cynthia Crawford, 843-953-5326

cynthia.crawford@citadel.edu

Dr. Aaron H. Oberman, 843-953-7123

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Dr. George T. Williams, 843-953-2205

Coordinator of Counselor Education Programs

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The Council for Accreditation of Counseling and Related Educational Programs (CACREP) granted accreditation in July 2005, effective until October 31, 2013, to the School Counseling Programs which offer Master of Education degrees in Counselor Education.

Mission Statement:

The mission of the Counselor Education Programs at The Citadel is to prepare elementary and secondary school counselors and college student affairs specialists to have the knowledge, skills, and dispositions to be principled educational leaders who are knowledgeable, reflective, and ethical professionals who are committed to the provision of a school environment focused toward a learner-centered education.

Program Objectives:

1. Reflect current knowledge and positions from lay and professional groups concerning the counseling and human development needs of a pluralistic society;
2. Reflect the present and projected needs of a pluralistic society for which specialized counseling and human development activities have been developed;
3. Reflect input from all persons involved in the conduct of the program, including program faculty, current and former students, and personnel in cooperating agencies;
4. Are directly related to program activities; and
5. Are written so that they can be assessed.

Graduates of the Counselor Education Programs are expected to possess:

- An understanding of counseling as an intervention that contributes to the ability of individuals to respond effectively to developmental issues and tasks;
- An understanding of leadership for learner-centered education as a conceptual framework;
- An understanding of the counseling process;
- An ability to integrate theory and research into practice;
- A commitment to preventive, developmental approaches as the keystone of school counselor identity and practice;
- An understanding of how historical, philosophical, and

political influences have shaped and affected the development of counseling practice;

- Effective oral and written communication skills;
- Skills to work in a rapidly changing and diverse society including differences as gender, age, socioeconomic status, ethnicity, race, and religion;
- Skills required to work effectively with students' parents, teachers, school staff, and the community;
- An ability to assist clients in responding to stresses and crises generated by changes in family, personal relationships, the school, and the community;
- Skills needed to effectively use technology;
- Leadership qualities in education at the local, state, regional, and national levels;
- A commitment to lifelong personal and professional development; and
- An ability to model the highest professional and ethical standards through counseling, guidance, research, and service.

The School Counseling Programs have also been designed to produce graduates who are able to demonstrate the competencies identified in The South Carolina System for Assisting, Developing, and Evaluating Professional Teaching (ADEPT) Performance Dimensions (PDs) for School Guidance Counselors (October 2003) as they relate to "Comprehensive Developmental Guidance and Counseling" that include:

- PD1: Long-Range Planning
- PD2: Short-Range Planning of Guidance and Counseling Activities
- PD3: Development and Use of Assessments
- PD4: Providing Guidance and Counseling Services
- PD5: Providing Consultation Services
- PD6: Coordinating Guidance and Counseling Services
- PD7: Professional Responsibilities

Students in both the elementary and secondary school counseling programs complete both a School of Education Core and Counselor Education Core (refer to Division of Counselor Education Handbook online at http://www.citadel.edu/education/academic_programs/counseling.html) for a total of 51 credit hours.

Students enrolled in the Master of Education in Counselor Education with a concentration in Student Affairs and College Counseling degree program complete a School of Education Core, Student Affairs Core, and Counselor Education Core for a total of 48 credit hours.

Students enrolled in the Student Affairs Graduate Certificate program complete only four courses focusing on the areas of student services, student development, historical and contemporary aspects of higher education, and administration (See page 107 for details).

Admission Requirements:

Applicants from diverse academic, social, and cultural backgrounds committed to advancing the profession of school counseling are encouraged to apply. Applicants who do not meet a specific requirement (e.g., GPA), but show strength in other requirements will be considered on an individual basis. Admission is not based on any single factor, but on a composite assessment of the following:

1. An official transcript of the baccalaureate degree and all other undergraduate or graduate work directly from each accredited college or university.
2. A minimum GPA of 3.0 for the last 60 sequential units completed.
3. Official scores of the Graduate Record Examination or the Miller Analogies Test taken within the last five years.*
4. Three letters of reference, at least two of which should be from instructors or supervisors who will assess a prospective student's academic ability and/or potential for effectiveness in the field.
5. A detailed personal statement (1,500 - 3,000 words) which informs the faculty about the applicant's personal and educational background, strengths and weaknesses, understanding of and motivation and suitability for entering into the school counseling profession, and long-term professional goals. This statement is very important because it enables the faculty to make informed decisions regarding admission.
6. Complete and return a graduate application form, along with appropriate non-refundable application fee, to the The Citadel Graduate College (CGC), Bond Hall Room 101.
7. A personal group admissions interview with an Academic Review Board to assess personal and professional readiness and satisfactory completion of requirements.
8. Completed Admissions Questionnaire (<http://citadel.edu/graduatecollege/forms>)

* The minimum acceptable score for all degree programs is a score of 396 on the MAT or 900 on the GRE. Students who score between 380 and 395 on the MAT or 750-899 on the GRE may apply for provisional status. Students may enroll for one semester under provisional status upon completion of all other requirements and review by department. Students may enroll for only 6 hours and must maintain a 3.50 GPA in order to be classified as degree seeking. Regular admission is granted upon completion of CGC requirements and respective program requirements and review by department.

Applicants should provide all of the above materials to The Citadel Graduate College, 171 Moultrie Street, Charleston, SC 29409-6250. The application deadlines are March 1st for summer admission, October 1st for spring admission, and June 1st for fall admission.

The formal application in School Counseling or Student Affairs and College Counseling at The Citadel is procured from the office of The Citadel Graduate College, located in Bond Hall 101 or online at www.citadel.edu/admission/g/apply. The telephone number is (843) 953-5089.

All successful applicants are initially admitted in a "conditionally classified" status. Admitted students will receive a letter from The Citadel Graduate College. It is the student's responsibility to meet with a faculty advisor early in the first term to begin preparing an official study plan. Prior to meeting with an advisor, each student should become familiar with the current applicable semester's class schedule, The Citadel Graduate College catalog, and the Division of Counselor Education Handbook. Students are also required to attend Counselor Education Town Hall Gatherings each semester. An official study plan is submitted after the student has successfully completed the three courses, EDUC 514 (School Counseling) or 522 (Student Affairs), EDUC 515 (School Counseling) or 537 (Student Affairs), and EDUC 551 and the student has made adequate personal, academic and professional progress during the three designated courses for the Academic Review Board to grant "Unconditional" or "fully classified" status.

NOTE: Coursework taken prior to official program admission or coursework taken in other programs does not count toward the school counseling program/degree without written approval from the faculty advisor and the Dean of the School of Education. Students who hold full-time employment shall not register for more than 6 semester hours in any given term.

Effective summer 2007, all school counseling students (i.e., degree seeking and certification only seeking) must purchase a LiveText account at The Citadel's Bookstore. LiveText makes it possible for school counseling students to have secure access to their portfolios and other materials. Through LiveText, faculty members and administrators collect data, generate reports from the data, and use this information to make informed program and unit decisions.

Admission Requirements for Certification Only:

Applicants who hold a master's degree in another area of professional education or counseling, but wish to add school counseling certification (elementary or secondary), must provide the same admission materials.

Transfer of Credits:

Counselor Education M.Ed. degree applicants may transfer a maximum of 12 credit hours of graduate coursework taken at other institutions. Coursework accepted for transfer must be parallel course work within the Counselor Education programs at The Citadel. Transfer of credit is not acceptable for the following Citadel courses: EDUC 515, 552, 624, 629, 650, or 651. Transfer of credit approval must be documented in writing by the faculty advisor and the Dean of the School of Education.

School Counseling Program Requirements:

Students in either program complete both a School of Education core and a Counseling core for a total of 51 credit hours. Part of the coursework includes a 600 clock-hour internship in either elementary or secondary school counseling settings. Students are required to earn a minimum score of 550 on the PRAXIS II test for guidance and

counseling prior to enrolling in the practicum (EDUC 629). This must be on file at The Citadel Graduate College.

Once students finish nine (9) credit hours of graduate study in the program, including the three courses, EDUC 514, EDUC 515, and EDUC 551, they must meet with a faculty advisor and complete an official study plan. The faculty advisor, in consultation with other school counseling faculty, reviews the study plan and determines whether the student has made adequate personal, academic, and professional progress during the three designated courses, totaling nine (9) credit hours. "Unconditional" or "fully classified" status is then given by the Academic Review Board. (Refer to Appendix in Division of Counselor Education Handbook, for "School Counseling Student Evaluation Form.")

The study plan specifies required courses for the M.Ed. degree. A schedule for completion of the courses is devised at this time. The study plan takes into account the prerequisites and sequencing of coursework to meet a student's degree objective.

Field Experience Requirements:

School Counseling students must formally request permission from the faculty advisor to enroll in a practicum or internship. This request is submitted in the form of an application for field experience which must be completed during the term prior to that in which the field experience is sought. The coordinator of the field experiences must approve all field experience applications, which are due by the last Friday in September for spring placements and the last Friday in January for fall placements.

Practicum is the first extended field experience. Students are placed in a school site and work under the supervision of a site supervisor as well as The Citadel instructor. Students are required to spend a minimum of 100 clock-hours in a public school setting as well as attend weekly seminars with other practicum students and The Citadel instructor. Additionally, the PRAXIS II test score for guidance and counseling must be on file at the office for The Citadel Graduate College prior to application for a practicum placement.

School Counseling students must complete all coursework before placement in an internship setting. Students will be required to spend a minimum of 600 supervised hours in a school setting for internship. The focus of the internship is on experiences that involve the full scope of the school counselor's role and function. Interns are expected to continue the development of skills in individual and group intervention, participate in classroom guidance, assessment, scheduling, records and other activities that, while not specifically counseling-related, are necessary to support the school counseling and guidance program. Interns are supervised primarily by the field site supervisor, with supervision by The Citadel instructor as well.

Requirements for Graduation:

Students pursuing M.Ed. degrees in School Counseling must complete all course requirements within a 6-year period from the date of initial enrollment. It is a student's responsibility to initiate meeting with a faculty advisor to modify a study plan schedule and to have any changes documented in writing with the faculty advisor's signature.

Students are required to take the Counselor Preparation

Comprehensive Examination (CPCE) during the beginning of the semester while enrolled in the Internship I course (i.e., EDUC-650 and EDUC-651).

Students are required to present his/her professional electronic portfolio at the end-of-the-semester Counselor Education Professional Portfolio Presentation Day(s) prior to completion of the Internship II course (i.e., EDUC-652 and EDUC-653).

Required Program:

Based upon these objectives, 51 semester hours of study for Elementary and Secondary School Counseling are offered as follows:

Elementary and Secondary School Counseling (51 Credit Hours Total)

School of Education Core - 12 Credit Hours

EDUC 500*	Foundations of American Education (3 credit hours)
PSYC 500*	Human Growth and Development (3 credit hours)
EDUC 514*	The Exceptional Child in the Schools (3 credit hours)
EDUC 522*	Critical Educational Issues in a Multicultural Society (3 credit hours)

Counselor Education Core - 36 Credit Hours

A. Foundations - 18 Credit Hours

EDUC 515	Introduction to the Counseling Profession (3 credit hours)
EDUC 521	Program Planning, Management, and Evaluation in School Counseling (3 credit hours)
EDUC 550	Career Counseling and Development (3 credit hours)
EDUC 551	Counseling Theories and Practice (3 credit hours)
EDUC 552	Group Counseling (3 credit hours)
EDUC 561	Counseling Diverse Populations (3 credit hours)

B. Research/Appraisal - 6 Credit Hours

EDUC 512	Data Collection and Analysis (3 credit hours)
EDUC 549	Applied Measurement Techniques (3 credit hours)

C. Helping Relationships - 12 Credit Hours

EDUC 624	Basic Counseling Skills (3 credit hours)
EDUC 629	Practicum in School Counseling (3 credit hours)
EDUC 650**	Elementary School Counseling Internship I (3 credit hours)
and	
EDUC 652	Elementary School Counseling Internship II (3 credit hours)
OR	
EDUC 651**	Secondary School Counseling Internship I (3 credit hours)

hours)
and
EDUC 653 Secondary School Counseling Internship II (3 credit hours)

D. Elective - 3 Credit Hours

Approval of the 3 credit hour course elective must be documented by the student's faculty advisor.

* Students who have completed an upper division course in one of these areas may request to substitute approved electives for one or more of these courses. Appropriate documentation is required.

**The internship (i.e., Internship I and II) in school counseling consists of 16 weeks of full-time placement and a total of 600 clock hours. Internships cannot be completed while working full-time in an occupation other than school counseling. Internships may be arranged with the faculty advisor to be completed during two sequential academic semesters. Students choosing to complete an internship in one semester, register for both Internship I and II (i.e., either EDUC 650 and EDUC 652 or EDUC 651 and EDUC 653) while students completing an internship in two semesters, first register for Internship I one semester and Internship II the following semester.

Student Affairs & College Counseling Curriculum:

The Student Affairs & College Counseling Curriculum is based on 48 credit hours of study as follows. Individuals interested in pursuing a graduate certificate in Student Affairs which can refer to page 107.

School of Education Core - 6 Credit Hours

EDUC 500—Foundations of American Education (Student Affairs Specialization Only)

Three Credit Hours

This course provides an introduction to the historical, political, sociological, and philosophical foundations of higher education. Emphasis is on the complex relationship between society and higher education. Issues regarding race, class, gender, and culture within the educational system are addressed in the context of fostering educational opportunity and ameliorating inequalities. An historical context also is established which allows for critical examination of events, individuals, and ideas that have influenced the development of higher education in the United States. Through an integration of knowledge in the foundations of education, the course prepares reflective decision makers who can critically examine various schools of philosophical thought and political issues related to higher education.

EDUC 522—Critical Issues in a Multicultural Society (Student Affairs Specialization Only)

Three Credit Hours

A study of contemporary issues/trends internal and external to work within higher education system, focusing on the status, programming needs, and legal and ethical concerns of racial minorities, persons with disabilities, different lifestyle orientations, and adult learners on college/university campuses.

Student Affairs Core - 9 Credit Hours

EDUC—537 Student Development Services

Three Credit Hours

Overview of the historical development of the counseling and student affairs profession, as well as legal & ethical codes, and skills needed in the profession. (for Student Affairs major, this course replaces EDUC 515, Introduction to the Counseling Profession.)

EDUC 538—Theories of Student Development in Higher Education

Three Credit Hours

This course provides an overview of theories of student development in higher education as it applies to the cognitive and psychosocial development of students and the influence of the college environment.

EDUC 539—Higher Education Administration

Three Credit Hours

This course provides an overview of the process of organizing the personnel and financial resources needed to effectively meet student development and institutional goals and objectives. This course will introduce students to basic human and fiscal management concepts and skills.

Counselor Education Core - 33 Credit Hours

A. Foundations - 15 Credit Hours

- EDUC 550: Career Counseling and Development (3 credit hours)
- EDUC 551: Counseling Theories and Practice (3 credit hours)
- EDUC 552: Group Counseling (3 credit hours)
- EDUC 561: Counseling Diverse Populations (3 credit hours)
- EDUC 562: Legal & Ethical Leadership Issues in Education (3 credit hours)

B. Research/Appraisal - 6 Credit Hours

- EDUC 512: Data Collection and Analysis (3 credit hours)
- EDUC 549: Applied Measurement Techniques (3 credit hours)

C. Helping Relationships - 12 Credit Hours

- EDUC 624: Basic Counseling Skills (3 credit hours)
- EDUC 634: Practicum in Student Affairs and College Counseling (3 credit hours)
- EDUC 655:** Internship I in Student Affairs and College Counseling (3 credit hours)
- EDUC 656:** Internship II in Student Affairs and College Counseling (3 credit hours)

** The internship in Student Affairs consists of 16 weeks of full-time placements and a total of 600 clock hours. Internships may be arranged with the faculty advisor to be completed during two sequential academic semesters or both courses may be taken concurrently in one semester.

Four Additional Special Topics Courses for Seeking Licensed Professional Counselor (LPC) - 12 Credit Hours

- EDUC ____: Elective approved by faculty advisor

	(3 credit hours)
EDUC 567:	Assessment of Abnormal Behavior (3 credit hours)
EDUC 568:	DSM-IV-TR (3 credit hours)
PSYC 500:	Human Growth and Development (3 credit hours)

Licensed Professional Counselor (LPC) National Certified Counselor (NCC)

School Counseling students completing the program meet the majority of curriculum requirements through the South Carolina Board of Examiners for the Licensure of Professional Counselors, Marriage and Family Therapists, and Psycho-Educational Specialists for Licensed Professional Counselor (LPC) and for certification as a National Certified Counselor (NCC) by the National Board for Certified Counselors (NBCC). Requirements for LPC and NCC include additional graduate coursework in psychopathology and assessment and treatment of psychopathology, an additional 2000 clinical hours (including 150 supervision hours) over a two year period, approved supervision, and successful performance on the National Counselor Examination for licensure and certification. The Citadel School of Education offers two courses during the summer that meet the psychopathology and assessment and treatment of psychopathology course requirements: These courses are EDUC 568: DSM-IV-TR (diagnosis) and EDUC-567: Assessment of Abnormal Behavior (assessment and treatment of psychopathology).

Division of Counselor Education Handbook

All prospective and enrolled School Counseling and College Student Affairs Specialists students are expected to read the latest edition of The Citadel, School of Education, Division of Counselor Education Handbook online at: http://www.citadel.edu/education/academic_programs/counseling.html under "Program Information."

Master of Education in Literacy Education

School of Education, 843-953-5097

Dr. Jennifer L. Altieri, 843-953-3162

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Dr. Stephenie M. Hewett, 843-953-5019

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Dr. Dan Ouzts, 843-953-5201

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Mission Statement:

Through quality field experiences and a strong theoretical foundation, candidates who pursue this degree develop a comprehensive knowledge of the field of literacy education. This understanding parallels the school's vision of creating "principled educational leaders who are knowledgeable, reflective, and ethical professionals."

The general goals and objectives of the program are:

1. A knowledge and mastery of all aspects of the literacy process;
2. A knowledge of those skills necessary to select, administer, and interpret informal and formal assessments used to examine children's and adolescents literacy strengths and weaknesses;
3. A knowledge of the abilities and skills which enhance a wholesome teacher- student-parent relationship in working with students identified as at-risk readers in order to develop a case study;
4. A knowledge of those skills necessary to recognize and accommodate for individual differences in literacy instruction;
5. A knowledge of how to plan, supervise, and enhance programs as a reading consultant;
6. A knowledge of and ability to demonstrate effective literacy instructional strategies;
7. A knowledge of communicating information about literacy;
8. A knowledge of the relationship of literacy skills to subject-matter content areas;
9. A knowledge of significant research conducted in literacy education; and
10. A knowledge of a broad range of children's and adolescent literature and how to incorporate this literature into the classroom.
11. A knowledge of how to effectively support and mentor educators and serve as a literacy leader.

Admission Requirements:

1. Complete and return application form along with appropriate non-refundable application fee to The Citadel Graduate College (CGC), Bond Hall room 101.
2. Applicants must have a 2.50 overall undergraduate grade point average in order to be accepted into the Master of Education in Literacy Education program. Applicants with less than a 2.5 undergraduate GPR may appeal to The Admission, Retention, and Certification Committee. The Committee's recommendation regarding this appeal will be forwarded to the Dean of the School of Education for final action.
3. An official transcript of the baccalaureate degree and all other undergraduate or graduate work directly from each accredited college or university.
4. Submit a valid teaching certificate issued by South Carolina or another state.
5. The minimum acceptable score is a score of 396 on the MAT or 900 on the GRE (Current within five years of application). Candidates who score between 380 and 395 on the MAT or 750-899 on the GRE may apply for provisional status. After enrolling for one semester under provisional status, completing 6 hours and earning a 3.50 GPA, the candidate may be considered as degree seeking provided all other requirements are met. Regular admission status is granted upon completion of college requirements, respective program requirements, and review by department.
6. Candidate must be in good standing with the State Board of Education at the time of acceptance.

Note: Course work taken prior to official program admission or course work taken in other programs does not count toward the Master of Education in Literacy Education program/degree without written approval from the faculty advisor and the Dean.

Program Requirements:

The Master of Education in Literacy Education is a 36-hour program, consisting of 2 professional core requirements and 10 literacy courses. A program of study which details the degree requirements is completed by the student and the advisor. The candidate for the Master of Education in Literacy Education degree must satisfactorily complete the Praxis II, exam number 0204: *Teaching Reading*. Additionally, candidates will be required to complete a program completion portfolio prior to graduation. Recommendation and verification for certification are completed by the School of Education upon graduation and a passing score on the Praxis II.

Recommendation for certification as Reading Teacher in South Carolina requires two years teaching experience. Recommendation for certification as Reading Consultant in South Carolina requires five years teaching experience. Upon completion of coursework, a satisfactory score on the Praxis II, and the requisite years of teaching experiences, a candidate completing the MEd in Literacy Education is recommended for certification as both Reading Teacher and Reading Consultant provided the candidate already possesses a valid teaching certificate in the state of South Carolina.

Required Program:

All courses must be taken in sequence as laid out in the program of study.

Professional Core Requirements-6 semester hours

EDUC-536 Educational Psychology

And select one course from the following:

EDUC-512 Data Collection and Analysis

EDUC-549 Applied Measurement Techniques

Professional Educational Specialization-30 semester hours

EDUC-570 Developing Literacy Knowledge with At Risk Readers

EDUC-588 Developing Literacy Skills PreK-Grade 5

EDUC-589 Methods and Materials for Developing Literacy Skills

EDUC-590 Literacy Assessment and Instruction

EDUC-591 Practicum in Literacy Education

EDUC-592 Teaching Reading in the Middle and High School Content Areas

EDUC-594 Internship in Literacy Education

EDUC-596 Analysis of Literacy Research

EDUC-599 Supervision of School Literacy Programs

EDUC-608 Literature for Children and Adolescents

Course Descriptions:

EDUC-500—Foundations of American Education

Three Credit Hours

This course provides an introduction to the historical, political, sociological, and philosophical foundations of education. Emphasis is on the complex relationship between society and school. Issues regarding race, class, gender, and culture within the educational system are addressed in the context of fostering educational opportunity and ameliorating inequalities. An historical context also is established which allows for critical examination of events, individuals, and ideas that have influenced the development of education in the United States. Through an integration of knowledge in the foundations of education, the course prepares reflective decision-makers who can critically examine various schools of philosophical thought and political issues related to education.

EDUC-501—Methods and Materials of Middle and High School Teaching

Three Credit Hours

Study of the aims, methods, and materials employed in middle & high schools; organization of subject matter; motivation and direction of learning; development of attitudes, appreciations, and ideas; classroom presentation of formal materials; conducting informal activities; provision for individual differences; measurement of educational outcomes; and enhancement of personal and professional growth. The focus of the course is the application of the learner-centered conceptual base in the process of teaching their discipline specialty. A. English; B. Biology; C. Social Studies; D. Mathematics. A passing score on the PRAXIS II must be achieved upon completion of this class.

EDUC-504—Teaching in the Middle School

Three Credit Hours

This course surveys the current practices in middle schools in terms of objectives, methods, and materials. The student is involved in practical application of these practices as they relate to the organization of subject matter, the motivation of pupils, the achievement of learning outcomes, and the evaluation of learning experiences.

EDUC-505—Individual Instruction

Three Credit Hours

Emphasis upon current approaches and strategies utilized in the individualized programs in the classrooms. Management systems essential to individualized instruction will be emphasized.

EDUC-508—Remedial Strategies in Reading and Language Arts

Three Credit Hours

A course for practicing educators which analyzes varying strategies for helping the problem learner primarily in the literacy areas of reading and the language arts. The course covers techniques at all grade levels and reviews the literature as to teaching effectiveness. Case studies are required.

EDUC-512—Data Collection and Analysis

Three Credit Hours

A course designed to introduce the graduate student to quantitative methods to include construction of assessment instruments, analysis, and interpretation of quantitative data. Students will be required to develop minimum competence in use of microcomputers for descriptive statistical analyses and word processing. Emphasis will be placed on the development of skills in critical analysis of literature relating to effective schools. This ability to analyze research data should result in improved by professional performance.

EDUC-513—Teaching of Social Studies

Three Credit Hours

Organization, methods, and procedures for teaching social studies, including history, in the secondary and middle schools.

EDUC-514—The Exceptional Child in the School

Three Credit Hours

The Exceptional Child in the School, an introductory level course for students with little or no background or experience in special education, is appropriate for students from various fields as well as for those who anticipate further study and future careers in special education. An interdisciplinary approach is used in the study of learning and behavior characteristics of exceptional children and youth. There is a focus on cause, identification, and educational and community programs for exceptional individuals.

EDUC-515—Introduction to the Counseling Profession

Three Credit Hours

Overview and orientation to counseling profession including history, roles, functions, settings, specialties, organizations, credentialing, ethical, legal, and professional issues.

EDUC-516—Research Design

Three Credit Hours

Research Design is intended for those students who will be conducting and producing research studies. The course examines the various descriptive and experimental models for data analysis (in the behavioral sciences), with emphasis placed on the fundamentals of planning and inferential statistical techniques.

Prerequisite: EDUC-517 or equivalent.

EDUC-517—Statistics in Education and Psychology

Three Credit Hours

A course to provide skill in treatment of research data including descriptive and inferential statistics. Some experience with analysis of published statistical research in the fields of education and psychology will be provided.

EDUC-520—Professional Internship

Six Credit Hours

A supervised clinical teaching experience conducted in a public school. This is a full-time, entire semester internship. Each student also attends evening seminars. This last course in the MAT sequence requires an Application: for fall semester, April 1, for spring, October 1. Application forms are available in the Department of Education. Prerequisite: all other program of studies requirements. Passing scores on the PRAXIS II specialty area examinations are required before enrollment in this course.

EDUC-521—Program Planning, Management, and Evaluation in School Counseling

Three Credit Hours

The purpose of the course is to prepare school counselors to work within elementary and secondary school systems. A model for planning, developing, implementing, and evaluating a comprehensive guidance and counseling program with emphasis on student development and competencies will be presented. The school guidance counselor's role and function will be discussed as a balance of responsive services, systems support, individual planning, and guidance curriculum. Students will develop resources, classroom guidance curricula and group counseling materials that they can use in their fieldwork experiences and in the initial stages of their careers.

Prerequisite: EDUC-515

Lab fee - \$20.00

EDUC-522—Critical Educational Issues in a Multicultural Society

Three Credit Hours

A study of contemporary issues/trends, internal and external to elementary and secondary school systems, which impact on the learner. The course is designed to encourage students to examine issues/trends within the context of their present and future career interests.

EDUC-524—Techniques of School Supervision

Three Credit Hours

Criteria of various types of good schools. Need for school supervision at all levels. Relationship of supervisor to administrators, organization of different schools, materials of instruction, evaluating learning and instruction, teacher visitation and conferences.

EDUC-527—Finance and Business Management

Three Credit Hours

Procedures and problems relating to financing public education, theory of taxation, types of taxes, practices of education finance, federal, state, and local support of education, budget procedures, financial accounting, purchasing, insurance, inventories, and school maintenance.

EDUC-528—School Administration

Three Credit Hours

A course for school personnel preparing for administrative positions. The course involves a study of the basic concepts involved in planning, organizing, managing, and evaluating public schools.

EDUC-529—Micro-Computer and School Management

Three Credit Hours

A course for practicing and prospective educational administrators. The course presents the current state-of-the-art technology in using microcomputers in such areas as record keeping, pupil scheduling, energy conservation, data collection and analysis, and the evaluation programs.

EDUC-531—Principles of Elementary Curriculum Development

Three Credit Hours

The study of underlying principles of curriculum development and organization including curriculum evaluations and current issues and trends in the subject fields will be the focus of the course. Attention is given to the professional decisions teachers, administrators, and counselors must make about curriculum.

EDUC-532—Principles of Middle or High Curriculum Development

Three Credit Hours

The study of underlying principles of curriculum development and organization including curriculum evaluations and current issues and trends in the subject areas. Attention is given to the learner-centered decisions teachers, administrators, and others educators must make about secondary curriculum.

EDUC-535—Organizational Theory and Behavior

Three Credit Hours

A study of the school organization as a social system, supervision and curriculum, control, authority, change, planning strategies, and organizational dynamics.

EDUC-536—Educational Psychology

Three Credit Hours

This course provides an introduction to educational psychology and explores the process of learning throughout the life span. Emphasis is placed on the application of psychological concepts, theoretical principles, and research findings to the planning and implementation of effective instructional strategies in the classroom. Moreover, through this course graduate students who are preparing for employment in the field of education are acquainted with many facets of the teacher's role in the teaching/learning process. Class discussions, activities, and field experience focus on the connection between theory and practice and provide students with opportunities to apply psychological principles and solve practical problems for personal and professional growth.

EDUC-549—Applied Measurement Techniques

Three Credit Hours

Students will examine and utilize tests and other evaluation techniques in counseling, in educational planning, in curriculum assessment, and in school-wide testing programs. Controversial issues in measurement will be appraised in the context of basic principles and actual use.

EDUC-550—Career Counseling and Development

Three Credit Hours

Students will learn foundational career development theories, the usefulness of career inventories, and the current trends in career counseling for adults and school-age children. In addition, students will practice and demonstrate competency in career counseling.

Lab Fee: \$20

Prerequisite: EDUC-549 and EDUC-551

EDUC-551—Counseling Theories and Practice

Three Credit Hours

Overview of selected approaches to counseling theory and practice.

Prerequisite: EDUC-515

EDUC-552—Group Counseling

Three Credit Hours

Overview of selected approaches to group guidance and counseling theory and practice.

Prerequisite: EDUC-551

EDUC-561—Counseling Diverse Populations

Three Credit Hours

Designed to provide an overview of human behavior including diversity and cultural pluralism. Multicultural theories and models of counseling and consulting are presented and examined.

EDUC-562—Legal & Ethical Leadership Issues in Education

Three Credit Hours

This course examines goals and objectives of professional organizations, codes of ethics, legal considerations, standards of preparation, certification, licensing, role identity of counselors and other personnel services specialists, and fee structures, and the impact of fees on the counseling relationship.

EDUC-566—Seminar in Teaching Strategies for Middle School and High School Teachers

Three Credit Hours

A course designed to provide middle school and school secondary teachers with practical concepts, competencies, and cooperative experiences in interdisciplinary unit teaching. Emphasis will be given to such instructional concepts as team planning, diagnosis, and strategies. Interdisciplinary units will be constructed and evaluated within the experience.

EDUC-570—Developing Literacy Knowledge with At Risk Readers

Three Credit Hours

A survey of the nature, problems, and learning needs of at-risk readers, the course provides participants with information and techniques necessary for appropriate instructional decisions and actions.

EDUC-585—Independent Research

Three Credit Hours

A supervised research project in an area related to the student's major would be completed. A formal presentation to a panel of three faculties who evaluate the project will be required. With the approval of major advisor and graduate dean, this course may be repeated once for additional credit.

Prerequisite: Permission of the instructor and submission of a research prospectus.

EDUC-587—Special Topics in Education

Three Credit Hours

A course designed for the intensive study of a current problem in the field of education. The instructional design will emphasize field research and applied practice. No more than 6 credit hours under this listing can be credited toward a degree program.

EDUC-588—Developing Literacy Skills Pre K-Grade 5

Three Credit Hours

A foundational course designed to focus on developing literacy skills from pre-kindergarten through fifth grade. The developmental process of literacy growth along with techniques for teaching phonemic awareness, word recognition, vocabulary, and comprehension skills will be explored.

EDUC-589—Methods and Materials for Developing Literacy Skills

Three Credit Hours

Specific methods of literacy instruction will be studied and demonstrated along with analysis and evaluation of a wide variety of materials used in literacy instruction.

EDUC-590—Literacy Assessment and Instruction

Three Credit Hours

A course examining and providing practice with formal and informal assessments used to target children's literacy strengths and identify areas needing improvement. Participants will assess one child and plan corrective instruction based on the assessment results.

Lab Fee - \$20.00

Prerequisite: EDUC-588 or EDUC 589

EDUC-591—Practicum in Literacy Education

Three Credit Hours

A field-based course in which each candidate engages in the supervised teaching of an individual student. Candidates synthesize the knowledge they have gained in the program to demonstrate ability to appropriately assess and instruct a student at that student's level of literacy instruction. A case study approach is used.

Prerequisite: EDUC 590. An application for practicum and satisfactory score on Praxis II must be on file. Also, applicants must have a cleared background check on file with the S.C. Department of Education. Practicum applications are due the last Friday of January for the Fall semester practicum.

EDUC-592— Teaching Reading and Writing in the Middle and High School—Content Areas

Three Credit Hours

A course designed for the middle school and high school teacher emphasizing pupil diagnosis followed by instructional decision making directed toward a balanced teaching approach.

Candidates focus on literacy skills while teaching the subject matter of the secondary content areas.

EDUC-594—Internship in Literacy Education

Three Credit Hours

A field-based course in which each candidate engages in the supervised teaching of small groups of students. Candidates synthesize the knowledge they have gained in the program to demonstrate ability to appropriately assess and instruct a group of students at each student's level of literacy instruction.

Prerequisites: EDUC 591 and EDUC 512 or 549. An application for practicum and satisfactory score on Praxis II must be on file. Also, applicants must have a cleared background check on file with the S.C. Department of Education. Practicum applications are due the last Friday of January for the Fall semester practicum.

EDUC-596—Analysis of Literacy Research

Three Credit Hours

An in-depth analysis of significant literacy studies is provided. Analysis is directed toward reviewing, exploring, and evaluating the research techniques and findings.

Prerequisite: 12 Hours of Literacy Coursework

EDUC-597—Supervision of Student Teachers

Three Credit Hours

A course in supervision for master teachers, department heads, and college teachers with supervisory responsibilities in teacher education.

EDUC-598—Curriculum Project

Three Credit Hours

This course is designed as a capstone to the program in Curriculum and Instruction. The student will be required to develop a curriculum project ultimately to be implemented in the student's classroom or school. This written project will require a review of existing literature and a presentation of the results to peers and professor.

Prerequisite: EDUC 531 or EDUC 532

EDUC-599—Supervision of School Literacy Programs

Three Credit Hours

A course designed primarily for principals, supervisors, and reading consultants. Included is the study of the nature and functions of supervision for literacy programs; supervisory techniques; the role of the principal, supervisor, and reading consultant in the improvement of instruction; administration of a literacy program; and other cognate problems and issues.

Prerequisite: 12 Hours of Literacy Coursework

EDUC-600—Professional Negotiations

Three Credit Hours

Emphasis is placed upon knowledge and improvement in the various education associations. The student will become acquainted with forces and trends influencing collective negotiations; principles, concepts, and theory relevant to negotiations; negotiation skills; and relevant literature and research.

EDUC-601—Principles of School Law

Three Credit Hours

Constitutional, statutory, case, and common law bases of school administration and the study of legal provisions and principles relating

to education. Includes emphasis on research and analysis.

EDUC-602—Staff Personnel Administration

Three Credit Hours

Study of personnel policies and practices as they relate to recruitment, selection, orientation, employment, promotion, evaluation, in-service development, morale, dismissal, retirement, and teacher-administrator relationships.

EDUC-603—School Plant Seminar

Three Credit Hours

Study of problems and policies of the school plant, such as population studies, educational planning, school building standards, materials and uses, rating, and public relations. Discussion of innovative plans and construction as well as visits to new schools will be made.

EDUC-605—Independent Study

Three Credit Hours

This course will offer students an opportunity to acquire deeper knowledge of thought and practice in the major field of emphasis. Each student must develop a plan of independent study at the outset and file the completed study at the end of the semester.

Prerequisite: Permission of instructor and Dean of School of Education.

EDUC-606—The Superintendency and School Organization

Three Credit Hours

Emphasis on the principles of central school administration and the structural organization of public education and the responsibilities and authority of school boards, superintendent, principals and relationships among them.

EDUC-608—Literature for Children and Adolescents

Three Credit Hours

A survey of literature for children. Appreciation and enjoyment of noteworthy books including award winners and multicultural literature will be the focus of instruction. The ability to effectively use a variety of texts with children throughout the school program will be emphasized.

EDUC-610—Seminar on School Improvement

Three Credit Hours

The process of designing, implementing, and evaluating a school climate improvement program which includes mutual efforts by staff and students to formulate and attain school goals. Emphasis will be placed on effective school research.

EDUC-611—Staff Development and Evaluation

Three Credit Hours

This course focuses on designing staff development and evaluation systems to enhance effectiveness of school personnel.

EDUC-612—Seminar in School Law

Three Credit Hours

An update on legal issues and decisions related to teaching and the administration of public schools including current laws and regulations pertaining to public schools in South Carolina.

Prerequisite: EDUC-601

EDUC-614—Seminar in Educational Administration

Three Credit Hours

Exploration of various theories and their impact on administration and the organization. Emphasis will be placed on behavioral science theories drawn from historical, philosophical, and sociological works applied to the administrative process.

EDUC-616—Political Process of Public Education

Three Credit Hours

A study of the process by which education public policy decisions are made, authority and responsibility, power and influence, public policy; methods of determining power structure, superintendency, and roles and tasks. Includes attention to school community relations.

EDUC-619—Assessment of School Programs

Three Credit Hours

A theoretical and applied analysis of the procedures and techniques involved in designing and implementing evaluation and assessment studies of total school programs. Attention will be given to accreditation procedures, minimum standards, legislative requirements, as well as the assessment of instructional outcomes.

EDUC-620—Systems Planning and Management for Education

Three Credit Hours

This course is designed to apply systems theory to real educational situations. Setting and implementing goals and objectives, using various management techniques and tools, and then applying general management principles and practices constitute the instructional content.

EDUC-624—Basic Counseling Skills

Three Credit Hours

Systematic development of skills essential to enter practicum.
Prerequisite: EDUC-551

EDUC-629—Practicum in School Counseling

Three Credit Hours

Supervised counseling experience in which student serves as counselor in school setting for a minimum of 100 clock hours.
Prerequisites: EDUC-624

EDUC-632, 633—Internship: School Superintendency

Three Credit Hours

Supervised field studies and experiences in central office administration. Pass/Fail grading system.
Prerequisite: Passing PRAXIS exam score on file at The Citadel. Permission of Advisor, School of Education.

EDUC-650—Elementary School Counseling Internship

Three Credit Hours

Supervised field experience of 300 clock hours in which student serves as counselor in school setting.
Prerequisite: EDUC-629 & permission of Advisor

EDUC-651—Secondary Counseling Internship I

Three Credit Hours

Supervised field experience of 300 clock hours in which student serves as counselor in school setting.
Prerequisite: EDUC-629 & permission of Advisor

EDUC-652—Elementary School Counseling Internship II

Three Credit Hours

Prerequisite: EDUC-650 and permission from advisor. May be taken concurrently with EDUC-650.

EDUC-653—Secondary School Counseling Internship II

Prerequisite: EDUC-651 and permission from advisor. May be taken concurrently with EDUC-651.

EDUC-661—Internship in Elementary Administration (fall/spring)

Three Credit Hours

Supervised fields studies and experiences in elementary school administration. Course may be taken during fall or spring semester only. Pass/Fail grading system.

Prerequisites: Passing PRAXIS exam score on file at The Citadel. Permission of Advisor.

EDUC-662—Internship in Elementary Administration (summer, fall, spring)

Three Credit Hours

Supervised field studies and experiences in secondary administration. Course may be taken during fall or spring semester only. Pass/Fail grading system.

Prerequisite: Passing PRAXIS exam score on file at The Citadel. Permission of Advisor.

EDUC-663—Internship Middle and High Administration (fall/spring)

Three Credit Hours

Supervised field studies and experiences in secondary school administration. Course may be taken during fall or spring semester only. Pass/Fail grading system.

Prerequisites: Passing PRAXIS exam score on file at The Citadel. Permission of Advisor.

EDUC-664—Internship in Middle and High Administration (summer)

Three Credit Hours

Supervised field studies and experiences in secondary school administration. Internship requires full-time internship in assigned school.

Prerequisites: EDUC-663. Passing PRAXIS exam score on file at The Citadel. Permission of Advisor.



School of Humanities & Social Sciences

Master of Arts:

- English
- History
- Psychology: Clinical Counseling
- Social Science

Specialist in Education:

- School Psychology

Master of Arts in English

Department of English, 843-953-5068

Dr. James M. Hutchisson, hutchissonj@citadel.edu

Mission:

The Citadel and the College of Charleston offer a joint Master of Arts degree in English. The thirty-six hour program, with a thesis option, provides advanced course work in British literature, American literature, English language, and composition and rhetoric. The program is designed to attract qualified holders of the baccalaureate degree, whether recent college graduates, English teachers, or others interested in pursuing graduate studies in English. A Joint Program Committee, comprised of faculty members from each institution, oversees admissions, course scheduling, comprehensive examinations, degree certification, and other matters related to the management of the program. Diplomas and other official documents indicate that the program is a joint endeavor and include the names of both institutions.

Admissions Requirements:

1. Complete and return application form along with appropriate non-refundable application fee to the The Citadel Graduate College (CGC), Bond Hall room 101.
2. Submit to the CGC office official transcript(s) directly from each institution of higher learning attended, including documentation of graduation from an accredited four-year college or university. The transcript(s) should be sent directly from the institutions attended to the CGC office. Applicants are expected to have a cumulative undergraduate GPA of at least 2.5 on a 4.0 scale and a 3.0 in the major.
3. Submit at least two letters of recommendation from former professors or immediate supervisors in recent employment. Each referee should be as specific as possible in addressing the applicant's academic ability, motivation, and ability to complete a graduate degree.
4. Submit a two-page statement about educational goals and interest in a graduate program in English.
5. Submit a writing sample that demonstrates an ability to perform literary analysis and conduct research. Typically this requirement can be met by submitting a research paper prepared for an advanced undergraduate English course.
6. Submit an official copy of scores from the general test of the Graduate Record Examination (GRE) or the Miller Analogies Test (MAT). (Applicants who do not have an undergraduate degree in English are also required to take the GRE advanced test in literature.) The test scores must date from the past five years. Applicants are expected to have a composite GRE verbal, quantitative, and analytical score of at least 1400.

7. An applicant who does not meet the minimum GPA and/or test score expectations or who does not have sufficient undergraduate background in English may be allowed, upon making a written request to the Joint Program Committee, to pursue course work as a provisional student. Upon completing nine semester hours with a minimum GPA of 3.25 the student will be eligible for degree-seeking status.

Program Requirements:

The Master of Arts is conferred upon those candidates who successfully complete an approved program of study consisting of at least 36 semester hours of graduate credit with a cumulative GPA of 3.0. Specific requirements are listed below:

Thesis Option:

- British Literature before 1800, 6 hours
- British Literature after 1800, 6 hours
- American Literature, 6 hours
- Seminar (English 700), 3 hours
- Electives, 9 hours
- Thesis and Oral Defense of Thesis 6 hours
- Demonstration of competency in one foreign language
- Comprehensive Examination

Non-thesis Option:

Same as above, except that the thesis is deleted and the number of elective hours is eighteen.

Notes:

- At least nine hours must be taken at each campus.
- English 700 satisfies the seminar requirement and may also be used to satisfy a core requirement in British or American literature, depending on the topic.
- Electives will normally be graduate courses in English. Other courses will be considered on a case-by-case basis by the Joint Program Committee.
- No more than nine hours of English 698 (3), 699 (3), and 701 (6) in any combination may count toward the required 36 hours.
- Students may demonstrate their competency in a foreign language by completing two years or their equivalent of college-level study in a single foreign language with an average grade of C or higher: or completing, with a grade of B or higher, English 517: Old English Language. The foreign language requirement must be met before a student can take the comprehensive examination.
- The comprehensive examination is prepared and administered by the Joint Program Committee and is taken by all candidates after the completion of at least 27 hours of coursework. Copies of all previous examinations are available on the websites of both English departments.

Concentration in African American Literature:

In 2004 an African American Literature Concentration was added to the Master of Arts degree program. The fifteen hour (15) concentration, with a thesis option, offers advanced course work in African American literature, independent study courses for further exploration into an African American literature topic, and cross disciplinary opportunities with courses in other departments that have a central concern with African American literature. Students opting to add a concentration in African American literature must meet the normal requirements for the M.A. In addition, they must complete one of these two courses of study:

Standard Option:

- 9 hours of African American literature (any combination of 535, 570, 571, and 573)
- 3 hours of study of an African American topic in another discipline, as approved by the graduate director
- 3 hours of study in an African American topic, such as an independent study or internship, as approved by the graduate director

Thesis Option:

- 6 hours of African American literature (any combination of 535, 570, 571, 572, and 573)
- 3 hours of study of an African American topic in another discipline, as approved by the graduate director
- 6 hours of thesis on an African American topic

Notes:

- A student may substitute 3 hours of independent study on an African-American topic (as approved by the graduate director) for any 3 hours of coursework.
- Students taking this concentration may apply only one of their African American literature courses to the six hour American literature requirement of the M.A.

Course Descriptions:

ENGL-500—Old and Middle English Literature

Three Credit Hours

A study of *Beowulf*, other Old English poems, and Old English prose in translation; includes such Middle English works as *Sir Gawain and the Green Knight*, *Pearl*, *Piers Plowman*, the *Ancrene Riwle*, *The Owl and the Nightingale*, and other romances, lyrics, and drama. (Chaucer is excluded.)

ENGL-501—Chaucer

Three Credit Hours

A study of Chaucer's language, art, and cultural milieu through the reading of *Troilus and Criseyde*, the *Canterbury Tales*, and many of the shorter works.

ENGL-502—Shakespeare

Three Credit Hours

A comprehensive study of Shakespeare's art, including an intensive reading of several plays and appropriate attention to the primary critical approaches.

ENGL-503—English Drama to 1642

Three Credit Hours

A study of English drama from its origins in the Middle Ages, through the predecessors and contemporaries of Shakespeare, and on to the closing of the theatres in 1642.

ENGL-504—Poetry and Prose of the English Renaissance

Three Credit Hours

Non-dramatic poetry and prose of the sixteenth and early seventeenth centuries, with emphasis on the major authors (Spenser, Sidney, Marlowe, Jonson, Donne, and Herbert) and on the major literary types.

ENGL-505—Milton

Three Credit Hours

A study of the major poetry, selected prose, and selected minor poems with emphasis on *Paradise Lost*.

ENGL-506—Restoration and Eighteenth Century Drama

Three Credit Hours

A study of such important dramatists of the period as Otway, Etherege, Wycherley, Dryden, Congreve, Vanbrugh, Farquhar, Goldsmith, and Sheridan.

ENGL-507—Poetry and Prose of the Restoration and Eighteenth Century

Three Credit Hours

A study of Dryden, Swift, Pope, Johnson, Blake, and other important poets and prose writers of the period.

ENGL-509—Romantic Literature

Three Credit Hours

A study of Romantic writings of the early nineteenth century, with special emphasis on Wordsworth, Coleridge, Byron, Shelley, and Keats.

ENGL-510—Victorian Literature

Three Credit Hours

A study of English literature from 1832 to 1900 in major writers such as Tennyson, Browning, Arnold, Carlyle, Swinburne, and Rosetti.

ENGL-512—Southern Literature

Three Credit Hours

A study of the best literature written in the South from the time of William Byrd to the present. The focus will be on the "Southern Renaissance," with special attention given to the Fugitive Poets and William Faulkner.

ENGL-516—Continental Literature

Three Credit Hours

A study of European literature in translation since the Renaissance, including works by such authors as Cervantes, Moliere, Racine, Goethe, Stendhal, Balzac, Tolstoy, Dostoyevski, and important writers of the twentieth century.

ENGL-517, 518—Special Topics in Literature

Three Credit Hours

A study of a special author, period, topic, or problem in literature which is outside the routine offerings of the department. The subject for each course will be announced.

ENGL-520—A Survey of World Literature I

Three Credit Hours

Masterpieces of world literature in translation from the beginnings to around 1650 with special attention to the philosophical content and the development of literary forms.

ENGL-521—A Survey of World Literature II

Three Credit Hours

Masterpieces of world literature in translation from around 1650 to the present time with special attention to the philosophical content and the development of literary forms.

ENGL-522—Colonial and Revolutionary American Literature

Three Credit Hours

A detailed study of major American writers from the earliest settlers through the end of the eighteenth century.

ENGL-523—Nineteenth Century American Literature I—Romanticism

Three Credit Hours

A study of major figures of the American Romantic period (approximately 1830-1860), including Emerson, Thoreau, Poe, Hawthorne, and Melville.

ENGL-524—Nineteenth Century American Literature II—Realism

Three Credit Hours

A study of major figures of the American Realistic period (approximately 1860-1900), including Whitman, Dickinson, James, Twain, and Crane.

ENGL-525—Eighteenth Century British Novel

Three Credit Hours

A study of the origins of the British novel, including such figures as Fielding, Richardson, and Defoe.

ENGL-526—Victorian Novel

Three Credit Hours

A study of major British novelists of the late nineteenth century, including Dickens, Eliot, and Hardy.

ENGL-527—British Fiction: 1900 to 1945

Three Credit Hours

A study of the novels and short stories of major 20th-century British writers up to 1945, including such figures as Conrad, Lawrence, Forster, Woolf, and Joyce.

ENGL-528—American Fiction: 1900 to 1945

Three Credit Hours

A study of the novels and short stories of major American writers of the early twentieth century, including such figures as Fitzgerald, Hemingway, Faulkner, and Stein.

ENGL-529—American Fiction: 1945 to the Present

Three Credit Hours

A study of the significant American novels and short fiction published since World War II.

ENGL-530—Special Topics in The Humanities

Three Credit Hours

A study of special areas of the humanities or related areas which are outside the normal course offerings of the English Department. The subject for each course will be announced.

ENGL-531—British Poetry: 1900 to Present

Three Credit Hours

A study of the poetry of major twentieth-century British authors such as Auden, Yeats, Thomas, and Hardy.

ENGL-532—American Poetry: 1900 to Present

Three Credit Hours

A study of the poetry of major twentieth-century American authors such as Eliot, Pound, Stevens, Williams, and Frost.

ENGL-533—British Drama: 1900 to Present

Three Credit Hours

A study of the work of major twentieth-century British dramatists such as Shaw, Pinter, Stoppard, and Beckett.

ENGL-534—American Drama: 1900 to Present

Three Credit Hours

A study of the work of major twentieth-century American dramatists such as O'Neill, Williams, Miller, and Albee.

ENGL-535—African American Literature

Three Credit Hours

A study of African American literature from the early days of slavery, to the struggle for emancipation, to the twentieth-century Harlem Renaissance and civil rights movement. Readings will cover poetry, fiction, and drama, as well as autobiographies and cultural commentaries.

ENGL-537—Contemporary British Fiction

Three Credit Hours

A study of the novels and short stories of major contemporary British writers.

ENGL-550, 551—Special Topics in Composition or Language

Three Credit Hours

A study of a special author, period, topic, or problem in composition or language which is outside the routine offerings of the department. The subject for each course will be announced.

ENGL-552—Adolescent Literature

Three Credit Hours

A study of literature for the adolescent, including methods of introducing the major literary genres to the secondary school student.

ENGL-553—Modern English Grammar

Three Credit Hours

An intensive study of the syntax of present day English. The course also includes a review of traditional grammar, focusing primarily on the parts of speech. Special attention is given to linguistic theory, particularly regarding the acquisition of language.

ENGL-554—History of the English Language

Three Credit Hours

A historical survey of the syntactic and phonological features of Old, Middle, Early Modern, and present day English. Special attention is given to the varieties of American English, particularly African American Vernacular English.

ENGL-555—Literary Criticism

Three Credit Hours

A study of the major literary theories from ancient Greece to the present and practical application of the theories to particular works of literature. Special attention is given to semiotic theory as it relates to the influence of language and visual images on thinking, composing, and action.

ENGL-556—Theory and Practice of Teaching Composition

Three Credit Hours

A study of traditional and contemporary theories of the composition process and applications of those theories to teaching composition.

ENGL-557—Creative Writing—Poetry

Three Credit Hours

Class discussion of student writing using twentieth-century poems as models.

ENGL-558—Technical and Professional Writing

Three Credit Hours

Principles and practice of technical communication as applied to reports, technical papers, oral presentations, and business communications.

ENGL-559—History and Theory of Rhetoric

Three Credit Hours

A study of language as a means of winning the assent, sympathy, or cooperation of an audience. Includes contemporary rhetorical theory and its development from classical rhetoric.

ENGL-560—Film Studies

Three Credit Hours

A study of films from a variety of nations and filmmakers. Attention is given to how techniques of filmmaking such as *mise en scène*, montage, and lighting communicate a filmmaker's construction of meaning. In some cases, comparisons may also be made between films and their written sources to demonstrate differing approaches to conveying comparable meaning.

ENGL-562—Workshop in Advanced Composition

Three Credit Hours

The study, discussion, and practice of advanced composition techniques; including the use of computer technology for print documents, audio-visual presentations, and web applications.

ENGL-563—Creative Writing—Fiction

Three Credit Hours

Class discussion of student writing using twentieth-century fictional works as models.

ENGL-570—Topics in African American Literary Genres

Three Credit Hours

A study of a particular genre of African American literature, such as drama, novels, or poetry. Topics will vary according to instructors.

ENGL-571—Topics in African American Literary Periods

Three Credit Hours

A study of a particular period of African American literature, such as the Harlem Renaissance. Topics will vary according to instructors.

ENGL-572—Topics in Major African American Writers

Three Credit Hours

A study of a particular African American writer, such as Langston Hughes or Toni Morrison. Topics will vary according to instructors.

ENGL-573—Special Topics in African American Literature

Three Credit Hours

A study of a specific topic in African American literature that is not a genre, period, or individual writer. Topics will vary according to instructor.

ENGL-595—Methods and Materials for English Language Arts

Three Credit Hours

This course exposes students to theories and practices of teaching English (to include reading, writing, speaking, listening, viewing and thinking) in grades 9-12, including preparation for reflective practice and classroom-based teacher research. In-class instruction is augmented by field experiences that expose students to the professionalism of practicing ELA teachers and the realities of working with a diverse population of students. This course is intended to prepare candidates for a teaching internship. Prerequisites: EDUC-501 and EDUC-592.

Note: This class is designed for students in the M.A.T. in English program; it cannot be used for degree credit in the M.A. program that The Citadel offers jointly with the College of Charleston.

ENGL-650—Principles of Literary Research

Three Credit Hours

Study of textual bibliography, research methods and resources, and methods of presenting research.

ENGL-698—Tutorial

Three Credit Hours

Individual study of a given topic following a syllabus of readings, papers, and other assignments prescribed by a faculty member serving as director.

ENGL-699—Independent Study

Three Credit Hours

Individual study of an agreed-upon topic under the direction of a faculty member but following a course of reading and other requirements proposed by the student and established by negotiation with the director

ENGL-700—Seminar

Three Credit Hours

Individual research into a scholarly or critical problem in literature, composition, or language. Progress, methods, and results will be shared with the class by presentation and discussion will lead to the preparation of a single long paper.

ENGL-701—Thesis

Six Credit Hours

Completion of a formal master's thesis under faculty direction.

ENGL-702—Internship

Three Credit Hours

A supervised field experience in which the student observes and participates in a professional occupation related to the English degree. The internship will consist of 300 hours of work and the completion of a formal report. Permission of the graduate director required. Graded on a pass/fail basis.

Master of Arts in History

Department of History, 843-953-5073

Dr. Joelle Neulander,

joelle.neulander@citadel.edu

Mission Statement:

The Citadel and the College of Charleston offer a joint Master of Arts Degree in History providing each student with advanced specialized work in one of the following areas: United States history, European history, and Asian/African/Latin American history. The program has a special emphasis on the history of the American South, the South Carolina Lowcountry and the Atlantic World. The program serves the needs of those interested in pursuing graduate studies in history. Teachers who complete the program have a greater command of the literature of a particular field. Others are prepared to do doctoral work or pursue other advanced degrees, enter the field of public history, or seek employment opportunities which require advanced training in the humanities. The management of the program is vested in a Joint Program Committee composed of representatives of the two history departments. The directorship rotates between the two institutions. Diplomas and other documents will indicate that the program is a joint endeavor and will include the names of both institutions.

Admission Requirements:

1. Complete and return a graduate application form, along with appropriate non-refundable application fee, to the The Citadel Graduate College (CGC), Bond Hall Room 101.
2. Submit one official copy of a transcript directly from each institution of higher learning attended, including documentation of graduation from an accredited four-year college or university.
3. Submit three letters of recommendation, normally from former professors. Each reference should be as specific as possible in analyzing the applicant's potential for success in the program. References should address the student's ability to design, conduct, and present research without direct supervision, the ability to analyze complex data and issues, and the ability to write effectively.
4. Submit evidence of ability to conduct research and present findings. A term paper, honors thesis, or critical essay from a graduate or upper-level course taken in college will suffice. The evidence of writing should reflect the ability to conceptualize a research theme, conduct research to support an argument, and reach a justified conclusion. The paper should demonstrate an ability to handle documentation of evidence.
5. Submit an official copy of test scores of the Graduate Record Examination or Miller Analogies Test. Tests must have been taken within last five years.
6. Applicants are expected to have a cumulative undergraduate GPR of at least 2.5 on a 4.0 scale and a 3.0 in the major. They are also expected to have 15 hours of history course work beyond the initial survey along with a composite GRE verbal and quantitative score exceeding 1000 (or MAT score of 410). An applicant who fails to meet these

requirements may be allowed to pursue course work as a provisional student only upon application to the Joint Program Committee. Upon completion of nine semester hours, with no more than three hours in independent study (HIST-770) and a minimum G.P.A. of 3.25, the student may be admitted unconditionally. The student must make this request in writing to the Joint Program Committee. There is no guarantee that courses taken in a non-degree status will be credited towards a degree once a student gains provisional or regular admission. Coursework taken to meet admission prerequisites will not count towards degree requirements.

7. The Admissions Committee will consider complete applications for the program on the following dates:
March 1st for the summer or fall semester
October 1st for the spring term

Program Requirements:

In consultation with an advisor, each degree candidate will develop a plan of study which includes course work at both institutions. The plan of study must be submitted to the Program Director upon completion of the first six hours or the first semester of graduate work.

In addition to lectures and examinations, graduate courses demand wide reading, thorough research, and advanced historical writing. Only graduate students admitted to the M.A. program will be automatically enrolled, but non-degree students and exceptional undergraduates—upper division majors in history and related disciplines—may be enrolled in 500-level courses. For this, however, they will need permission from the instructor and are expected to have a minimum GPA of 3.4 in history courses. No more than two 500-level courses may be taken by an undergraduate. 600- and 700-level courses are for M.A. program students exclusively. Work expected of juniors and seniors will not be as great as that expected of the graduate students. The qualitative expectations remain the same for all students.

Required Program:

The Master of Arts in History is conferred upon those candidates who successfully complete an approved program of study consisting of a minimum of thirty-three (33) semester hours of graduate credit with a cumulative GPR of 3.0. The distribution of courses follows this general scheme:

Major concentration: 18 hours
Minor concentration: 6 hours
Historiography: 3 hours
Third concentration: 3 hours*
Electives: 3 hours**

The program offers two tracks, according to students' career goals.

1. **Thesis track** students must take HIST-801, HIST-802 and successfully defend their thesis. (These courses count towards the 18 hours in the major concentration.)
2. **Non-thesis track** students must take two research seminars, preferably within their area of concentration, and a comprehensive exam in their major field.

*All students must take at least three hours in each concentration offered by the program (US, Europe, World).

**In history or a related discipline in the humanities or social sciences.

Students must obtain prior approval from their campus program director to take a non-history elective. A specific number of courses must be distributed between both institutions.

All students are encouraged to attain proficiency in a foreign language. There is no formal requirement for all students in the program to demonstrate language proficiency at a certain level. However, depending upon the program, a candidate may be required by the advisor to demonstrate mastery of an appropriate foreign language, indicated by the satisfactory use of source material or literature in the relevant foreign language in seminar or research work.

Concentration in African American Studies:

Students who elect this option must meet all the normal requirements by the master's degree. In addition, they must complete one of the two courses of study below and all courses must meet the approval of the graduate program director.

Thesis Option:

- 6 hours in African American oriented history
- 3 approved hours in another discipline
- 6 hours in an African American oriented thesis

Non-Thesis Option:

- 9 hours in African American oriented history
- 3 approved hours in another discipline
- 3 hours in African American oriented independent study or similar (i.e., research seminar)

Three hours of independent study on an African American topic may be included as part of the nine hours of course work.

Course Descriptions:

(Non-degree, MAT, and exceptional undergraduate students may enroll in 500 level courses only, space permitting.)

HIST-502—Colonial America and the American Revolution to 1789

Three Credit Hours

The motives of colonization; the evolution of self-government; the extension of the frontier; economic, social, and religious life; imperial rivalries; the causes of the Revolution; the War for American Independence; problems of the Confederation; and the establishment of the Federal Union.

HIST-503—The Jeffersonian and Nationalist Period

Three Credit Hours

A study of American history, 1800-1850, with an emphasis on the clash of Federalist and Jeffersonian principles; emerging political and cultural nationalism; the war of 1812; the influence of Jacksonian Democracy on political, social, and economic life; growing sectionalism and the Mexican War.

HIST-504—Civil War and Reconstruction

Three Credit Hours

The political, economic, diplomatic, and military history of the United States, 1850-1877, emphasizing the forces that tend to bind or disrupt the Union and including a detailed account of the war and its consequences.

HIST-506—The U.S. in the Twentieth Century

Three Credit Hours

A study of the efforts to fulfill the democratic vision in the era of wars and depressions, accelerating technological innovation, material progress, and cultural change.

HIST-521—The American South

Three Credit Hours

The political, social, and economic development of the South from the 1820s to the present with an emphasis on the region within the national context as one of both change and continuity.

HIST-522—South Carolina History

Three Credit Hours

A survey of the political, economic, social, and intellectual development of South Carolina from its discovery to the present, with emphasis on the relation of the state to the South and to the nation.

HIST-523—Afro-American History

Three Credit Hours

An introduction to the history of black Americans in the United States, with emphasis on the social forces underlying transition from West Africa to the New World, from slavery to freedom, and from rural to urban life. Topics to be discussed include the Atlantic slave trade, American slave societies, maroon communities, free blacks in the antebellum United States, Reconstruction and free labor, colonization, emigration, and urban migration.

HIST-532—Ancient Greece

Three Credit Hours

Greek civilization from its beginning to Alexander the Great. Emphasis on political, economic, social, and intellectual movements.

HIST-533—Ancient Rome

Three Credit Hours

Roman history from its beginning until the Age of Constantine. Emphasis on political and social developments in the Republic and the early empire.

HIST-535—Medieval Europe

Three Credit Hours

European social, political, economic, and religious institutions and cultural and intellectual phenomena in the light of the changing historical environment from the end of the Ancient World to the Renaissance.

HIST-537—Renaissance and Reformation

Three Credit Hours

The Renaissance as a European-wide movement emanating from the Italian peninsula; the crisis of the church medieval and the rise of the Renaissance papacy; Humanism, with special emphasis on the great painters, architects, and sculptors such as Giotto, Brunelleschi, Donatello, Botticelli, da Vinci, Raphael, and Michelangelo; the

Renaissance city-states, Machiavelli, and the Renaissance monarchies of France, England, Spain, and the Holy Roman Empire; the continuing crisis of the church medieval and the religious upheavals of Protestantism; the work of Luther, Calvin, Zwingli, and the Anabaptists; the Catholic Reformation.

HIST-541—Enlightenment and French Revolution

Three Credit Hours

The major social, political, and cultural changes in Europe from the death of Louis XIV to the fall of Napoleon. Topics include the intellectual history of the Enlightenment; the causes of the Revolution; the development of radical ideologies; social and political instability; the French impact on Europe; and the achievements of Napoleon as civil administrator, military strategist, and commander.

HIST-542—Nineteenth-Century Europe

Three Credit Hours

Europe from Waterloo to Sarajevo; political reaction and reform; the Industrial Revolution with its economic, social, and political effects; nationalism and the renewed interest in imperialism; other factors in international rivalries and the coming of World War I.

HIST-543—Twentieth-Century Europe

Three Credit Hours

An examination of the origins and consequences of two World Wars on the major European states; the political, social, and economic development of those states and their relative positions today.

HIST-545—History of Modern Russia

Three Credit Hours

History of the development of Tsarist absolutism under the Romanov dynasty and of the religious, social, and economic institutions of the Tsarist state. Intensive treatment of the 1917 Revolution; the rise and fall of the Soviet empire.

HIST-551—Women in the Western World

Three Credit Hours

An examination of the ideas, institutions, and events in Western Civilization which specifically affected women. Lectures and readings will be organized topically rather than geographically or chronologically. Areas to be examined include religion, education, sex and marriage, the family, work, feminist and suffragist movements.

HIST-562—Colonial Latin America

Three Credit Hours

A survey of Spanish and Portuguese colonial America to 1825. Topics include native populations on the eve of conquest; exploration and conquest by Europeans; the development of multiracial societies; the colonial economies; the institutions of Ibero-American empires; the social, economic, and intellectual roots of revolution; independence movements.

HIST-563—Modern Latin America

Three Credit Hours

A survey of Spanish and Portuguese America since the wars for independence. Topics include the aftermath of the independence movements, incorporation into the international economy, changing social organization, race relations, the search for political stability, the role of the military, 20th century revolutionary movements, intellectual currents.

HIST-572—Precolonial Africa

Three Credit Hours

An introduction to the precolonial history of sub-Saharan Africa. Special attention will be focused on the growth of Islam in West Africa, the East African city-states and kingdoms, and the upheaval in nineteenth-century southern Africa. African slavery and the slave-trade will also be considered.

HIST-573—Modern Africa

Three Credit Hours

A history of the development of Africa during the modern period, including European penetration, the Colonial era, African resistance and independence, and contemporary issues.

HIST-577—Modern Middle East

Three Credit Hours

Tradition, modernization, and change in the contemporary Islamic World. The impact of nationalism, secularism, and westernization in the Middle East, from the disintegration of the Ottoman Empire and the emergence of successor states to the Arab-Israeli conflict, the oil crisis, and Great Power confrontation.

HIST-582—China to 1800

Three Credit Hours

A survey of traditional Chinese history from earliest times to 1800. Emphasis is placed upon intellectual development against the background of social, political, and economic transformations.

HIST-583—Modern China

Three Credit Hours

A study of Chinese history from 1800 to the present, emphasizing the transformation of the Confucian universal empire into a modern national state. The course will focus on the problems of imperialism, nationalism, revolution, the rise of communism, the proletarian Cultural Revolution, and the Four Modernizations in post-Mao China.

HIST-586—Japan to 1800

Three Credit Hours

A survey of the political, economic, and cultural development of Japan from earliest times to 1800, with emphasis on the borrowing and adaptation of Chinese culture and the development of a unique Japanese civilization.

HIST-587—Modern Japan

Three Credit Hours

A study of modern Japanese history from 1800 to the present, with emphasis on the creation of the modern state, the impact of Western civilization on Japanese culture, Japan's experience with liberalism and militarism, with Japanese imperialism, and the postwar transformation.

***HIST-590—Special Topics in U.S. History**

Three Credit Hours

Examples include Turning Points in American History, the Progressive Era, the Social and Cultural Transformation of the 1920s, etc.

***HIST-591—Special Topics in European History**

Three Credit Hours

Examples include Georgian Britain, Edwardian Britain, the European Left and Labor, etc.

***HIST-592—Special Topics in Latin American Asian/African History**

Three Credit Hours

A course that concentrates upon an important historical period or topic within one of four principal regions: Latin America and the Caribbean, Asia, Africa, or the Middle East.

***HIST-593—Special Topics in Peace, War, and Diplomacy**

Three Credit Hours

Examples include World War I, the Vietnam War, Diplomacy of the American Civil War, etc.

HIST-610—Special Topics in U.S. History

Three Credit Hours

Examples include the Depression and New Deal; Business, Labor and Economic History; Social and Cultural History.

HIST-620—Special Topics in Lowcountry Studies

Three Credit Hours

An interdisciplinary course organized around a specific topic (e.g., Education, the Environment of the Lowcountry, Plantation Culture, Gullah, the Caribbean Origins of the Lowcountry). This interdisciplinary course will allow a student to explore an area of specific interest.

HIST-630—Special Topics in Peace, War, and Diplomacy

Three Credit Hours

Examples include The Diplomacy of the American Revolution, Disarmament during the 1920s, etc. This course may be offered as HIST 660 (3) for topics in European history and as HIST 680 (3) for topics in Asian, African, or Latin American history.

HIST-640—Special Topics in European History

Three Credit Hours

Examples include Social and Cultural History, the Scientific Revolution, the Age of Louis XIV, etc.

HIST-650—Special Topics in British History

Three Credit Hours

Examples include The English Reformation, the English Civil War, the Victorian Age, etc.

HIST-670—Special Topics in Asian/African/ Latin American History

Three Credit Hours

A course that concentrates upon an important historical period or topic within one of four principal regions: Latin America and the Caribbean, Asia, Africa, or the Middle East.

HIST-691—Historiography

Three Credit Hours

The core course. Examines various methods of gathering historical data and issues of conceptualization and interpretation. The course thus seeks to develop in students critical awareness and expertise based on familiarity with a variety of historical techniques, methods, and concepts.

HIST-710—Research Seminar in U.S. History

Three Credit Hours

A topical seminar that focuses on a central historical problem with a major research paper required. Primary sources are utilized whenever

possible.

HIST-720—Research Seminar in Lowcountry Studies

Three Credit Hours

An interdisciplinary seminar designed to acquaint students with the historical methods necessary to pursue successfully a research topic. This will entail an introduction to primary sources.

HIST-740—Research Seminar in European History

Three Credit Hours

A topical seminar focused upon a central historical problem with a major research paper required.

HIST-760—Research Seminar in Asian/ African/Latin American History

Three Credit Hours

A topical seminar focused upon a central historical problem within one of four principal regions: Latin America and the Caribbean, Asia, Africa, or the Middle East. A major research paper will be required.

HIST-770—Independent Study in History

Three Credit Hours

Repeatable once.

HIST-801-802—Master's Thesis

Six Credit Hours

*These 500-level special topics courses are designed primarily for the brief summer terms each with an enrollment of up to twenty (20) students. Lectures are accompanied by some discussion of the readings, and usually a short paper of 10 to 15 pages is required. In contrast, the comparable 600-level special topics courses (i.e., HIST-610, 630, 640, and 670) are restricted to fifteen (15) M.A. students and normally are conducted as seminars with discussions of assigned readings in the scholarly literature. Emphasis is placed upon the analysis and synthesis of diverse historical materials, and a longer research paper of 20 to 25 pages is required on a suitable topic in the historiography of the field. In general, these distinctions in size, methodology, and assignments apply to all 500 and 600-level courses.

Courses for the MAT Degree:

HIST-560—History of the Non-Western World

Three Credit Hours

This course introduces the histories of East Asia, Meso-America, the Middle East, South Asia, and Sub-Sahara Africa. It examines the development of each area's political, social, and cultural traditions and institutions. Close attention is devoted to social values, religious beliefs, and cultural practices. Particular emphasis is given to how contact with the West irrevocably altered each region. (This course does not count towards the requirements for the M.A. in History.)

HIST-594—Historiography for Social Studies Teachers

Three Credit Hours

Designed for social studies and history teachers in the secondary and middle schools, this course seeks to familiarize students with the history of historical writing and the tools of a practicing historian. The course will examine the various methods of gathering historical data and conceptualizing and interpreting

historical information. (This course does not count towards the requirements for the M.A. in History.)

HIST-692—Teaching of History and Social Sciences

Three Credit Hours

Organization, methods, and procedures for teaching history and the social studies in the secondary and middle schools.

Department of Psychology Graduate Programs

The Department of Psychology offers two graduate psychology programs, one in Clinical Counseling (MA only) and the other in School Psychology (MA and Ed.S.). The two programs share 27 credit hours. These courses reflect the Department's recognition that all branches of psychology revolve around a common knowledge base with specializations being an extension beyond that base.

The Department of Psychology espouses a philosophical perspective of training and practice that stresses an empirical and applied approach to addressing psychosocial problems of clients. Most faculty members are engaged in clinical practice, research efforts, or both. Faculty members' activities are guided by a scientist-practitioner model, which emphasizes a scholarly approach to applications of psychology.

The Clinical Counseling program offers graduate education at the master's degree level for those interested in becoming professional counselors in community agencies, including college counseling centers, hospitals, mental health, and social services agencies. The program is accredited by the State Department of Education in South Carolina and the Masters in Psychology Accreditation Council (MPAC), and it is a member of the Council of Applied Masters Programs in Psychology (CAMPP). Students enrolled in the Clinical Counseling program work to achieve a Master of Arts in Psychology degree by completing a total of 54 credit hours. The program includes 30 credit hours of core courses, 12 hours of advanced courses, 3 hours of electives, and 9 hours of field work. Field work is completed in agencies throughout the tri-county area and involves a 150-hour practicum and 600-hour internship. Students completing the Clinical Counseling program meet the educational requirements for licensure as Professional Counselors in South Carolina.

The School Psychology program is built around the model of the data-based problem-solver at the individual, organizational, and systems levels in schools, with an emphasis on the efficacy of outcomes for clients served. The program involves 75-semester hours of credit, and it leads to the Education Specialist (Ed.S.) degree and certification as a "School Psychologist II" in South Carolina and National Certification as a School Psychologist. The School Psychology program is fully accredited by the National Association of School Psychologists (NASP). Students can apply for the award of a Master of Arts in Psychology degree after completing 39 semester hours from the School Psychology Program of Studies and receiving the approval of the Director of the School Psychology program and the Head of the Department of Psychology. PSYC 599, Thesis, MUST be completed as part of those 39 hours. It should be noted that students are not eligible for certification as a school psychologist at the Masters level (i.e., this is not a terminal degree). Information regarding both of these programs can be found on The Citadel's Psychology Department website at www.citadel.edu/academics/psyc/.

Master of Arts in Psychology: Clinical Counseling

Department of Psychology, 843-953-5320
Dr. William G. Johnson
will.johnson@citadel.edu

Mission Statement:

The mission of the Master of Arts in Psychology: Clinical Counseling program at The Citadel is to prepare students to become scholarly practitioners of psychosocial counseling in community agencies, including college counseling centers, hospitals, mental health centers, and social services agencies. The program emphasizes the application of theories of human development, psychopathology, and behavior change to psychosocial problems of a diverse population of individuals and families seeking mental health services in the community. The program's model blends didactic and experiential training to facilitate students' ability to utilize an empirical approach to assessment, goal development, intervention, and evaluation of services for a wide range of individuals and families experiencing a variety of psychosocial difficulties. It is the expectation of the program that students will be trained to be competent and ethical professional service providers who will apply a scholarly perspective as well as compassion and caring to their work.

Admission Requirements:

Admission to the Clinical Counseling Program is based on a competitive review of all application materials. All applicants must request admission packets from CGC and submit for review:

1. An official transcript of the baccalaureate degree and all other undergraduate or graduate work directly from each accredited college or university. Minimum requirements for consideration include an overall undergraduate grade point average of 3.0 (or graduate grade point average of 3.0) and 12 credit hours in psychology. A score of 600 on the GRE Subject Examination in Psychology is acceptable in lieu of the credit hour requirement;
2. The Graduate Record Examination (GRE) score of 1000 (minimum of 450 on verbal and quantitative section) or a score of 410 or higher on the Miller Analogies Test (MAT). Current within five years of application;
3. A completed admissions questionnaire;
4. Two letters of reference.
5. Complete and return a graduate application form, along with appropriate non-refundable application fee, to The Citadel Graduate College (CGC), Bond Hall Room 101.

Students requesting a transfer from another Master's program must provide documentation of a GRE or MAT score (copies are acceptable) in order to complete requirements for application to the Program.

Application materials can be requested from The Citadel Graduate College, The Citadel, Charleston, South Carolina 29409: (843) 953-5089 or online at www.citadel.edu/graduatecollege. All application requirements must be met and materials submitted to The Citadel Graduate College by March 15 to be considered for fall admission in the Clinical Counseling Program.

Program Requirements:

The Master of Arts in Psychology: Clinical Counseling curriculum provides instruction in the theory and practice of counseling from a psychological perspective. The curriculum consists of a total of 54 credit hours, including 30 credit hours of core courses, 12 hours of advanced courses, 3 hour elective, and 9 hours of fieldwork. Fieldwork is completed in agencies throughout the tri-county area and involves a 150-hour practicum and 600-hour internship. Students who successfully complete this program (and take Career Counseling as one of their elective courses) meet the educational requirements for professional licensure as a Professional Counselor in South Carolina. The program addresses the development of counseling skills in a variety of treatment modalities, including individual, family and group. While some graduates have sought and gained admission to doctoral programs, the program is designed as a terminal masters degree program. The program is a member of the Council of Applied Master's Programs in Psychology and is accredited by the Masters in Psychology Accreditation Council. Students must abide by the Ethical Principles of Psychologists and Code of Conduct of the American Psychological Association throughout their enrollment.

The MA degree will be conferred on students who have successfully completed the requirements of the program with a minimum GPA of 3.0. For the elective thesis option, a written presentation as well as oral defense of the student's research before a faculty committee is required. All students must successfully complete a comprehensive examination after completing their ten core courses (see below) and must complete a written and oral presentation of a case study for a panel of faculty members as part of the internship requirement in order to complete the program. Students must complete all course requirements within a 5-year period from the date of initial enrollment. No more than 12 hours of graduate credit taken as non-degree-seeking student will be applied toward program requirements.

Required Program for Clinical Counseling Students:

Core Courses:

Course	Credit
PSYC-500	Human Growth and Development , 3 hours.
PSYC-501	Principles of Cognitive and Behavioral Change, 3 hours
PSYC-507	General Psychopathology: Assessment and Differential Diagnosis, 3 hours
PSYC-508	Counseling and Personality Theories, 3 hours
PSYC-514	Ethics and Mental Health Law, 3 hours
PSYC-523	Statistics and Research Design, 3 hours
PSYC-525	Basic Counseling Techniques, 3 hours
PSYC-549	Applied Measurement Techniques, 3 hours
PSYC-553	Introduction to Family Dynamics, 3 hours
PSYC-561	Social-multicultural Perspectives, 3 hours

Students completing the Clinical Counseling curriculum must complete a comprehensive examination successfully to be permitted to take the following Advanced Courses:

Advanced Courses:

Course	Credit
PSYC-552	Group Counseling Techniques, 3 hours
PSYC-611	Clinical and Professional Issues in Counseling, 3 hours
PSYC-643	Contemporary Psychological Assessment and Psychotherapy, 3 hours
PSYC-644	Advanced Counseling Techniques, 3 hours
PSYC-629	Practicum: Clinical Counseling, 3 hours
PSYC-651	Internship I, 3 hours
PSYC-652	Internship II, 3 hours

Electives:

PSYC-557	Counseling & Psychotherapy for Couples, 3 hours
PSYC-602	Social and Biological Basis of Child and Adolescent Behavior, 3 hours
PSYC-603	Affective and Cognitive Interventions: Child/Adolescent, 3 hours
PSYC-555	Special Topics: Alcohol and Substance Abuse Counseling, 3 hours
PHED-511	Special Topics: Sports Psychology, 3 hours
EDUC-550	Career Counseling, 3 hours (Required for Licensed Professional Counselor)

Field Placement Requirements:

Clinical Counseling students complete one 150-hour practicum and one 600-hour internship providing clinical services in a community agency subsequent to successful completion of PSYC-643 and PSYC 552. Field placement opportunities are available in many agencies within the tri-county area and are listed on the website. Field placement sites may require a background check prior to beginning training.

Students who have completed graduate work elsewhere but who desire admission to one of the Clinical Counseling practicum/internships for licensure or professional development reasons must receive formal approval by the Clinical Counseling Committee. Additionally, such students will be required to take the following three courses at The Citadel prior to admission to practicum:

PSYC-508	Counseling and Personality Theories
PSYC-552	Group Counseling Techniques
PSYC-643	Contemporary Psychological Assessment and Psychotherapy
PSYC-644	Advanced Counseling Techniques

The Citadel has adopted this policy because of its ethical responsibilities to practicum agencies, the clients of the agencies, and to the students. Without this background of experience with students, The Citadel is not in a viable position to attest to the student's readiness for the practicum/internship placement.

List of Psychology Courses begins on Page 73.

Specialist in Education in School Psychology

Department of Psychology, 843-953-5320
Dr. Kerry Lassiter, lassiterk@citadel.edu

Mission:

The mission of the Specialist in Education (Ed.S.) program in School Psychology is to prepare students to become scientist practitioners. This model sees the school psychologist as a data-based problem solver at the individual, the group, and the systems level. The concept includes the interaction of the student in the classroom, the school system, the family and the community. The Ed.S. degree emphasizes application of psychological principles, knowledge, and skills in relating to the process and problems of education. The program is approved by the South Carolina Department of Education, and graduates are eligible for certification at the School Psychologist II level in South Carolina. The program is also approved by the National Association of School Psychologists (NASP, 2003).

Admission Requirements:

Admission to the School Psychology Program is based on a competitive review of application materials. All applicants must submit for review:

1. An official transcript of the baccalaureate degree and all other undergraduate and graduate work directly from an accredited college or university. Minimum requirements for consideration include an overall undergraduate grade point average of 3.0 (or graduate grade point average of 3.0);
2. A current (within five years of application) Graduate Record Examination (GRE) score of at least 1000 (minimum of 450 on each section). The Miller Analogies Test (MAT) can be substituted for GRE scores with prior permission from the Coordinator of Admissions (953-5320). A score of at least 410 or higher on the MAT is required.
3. A completed admissions questionnaire (www.citadel.edu/graduatecollege/forms);
4. Two letters of reference;
5. Complete and return a graduate application form, along with appropriate non-refundable application fee, to the The Citadel Graduate College (CGC), Bond Hall Room 101.

Application materials can be requested from The Citadel Graduate College, The Citadel, Charleston, South Carolina 29409: (843) 953-5089 or online at www.citadel.edu/graduatecollege. All application requirements must be completed and materials submitted to The Citadel Graduate College by February 1st.

Program Requirements:

The Ed.S. degree in School Psychology consists of 75 semester hours with 4 interacting components:

1. Core knowledge courses focusing on psychological foundations with emphasis on the role, functions, and scope of the profession of school psychology (30 hours).

- a. PSYC 500: Human Growth and Development
- b. PSYC 501: Principles of Behavior and Cognitive Change
- c. PSYC 507: General Psychopathology: Assessment & Differential Diagnosis
- d. PSYC 508: Counseling and Personality Theories
- e. PSYC 512: Ethics, Roles, & Law
- f. PSYC 523: Statistics & Research Design
- g. PSYC 525: Basic Counseling Techniques
- h. PSYC 549: Applied Measurement Techniques
- i. PSYC 553: Introduction to Family Dynamics
- j. PSYC 561: Social-multicultural Perspectives

2. Advanced knowledge and skills courses which emphasize the knowledge and skills more specific to educational settings (30 hours).

- a. PSYC 502: Psychological & Educational Exceptionalities: Child/Adolescent
- b. PSYC 503: Objective Assessment
- c. PSYC 504: Special Techniques in Assessment
- d. PSYC 505: Personality, Social, & Emotional Assessment
- e. PSYC 602: Social & Biological Basis of Child & Adolescent Behavior
- f. PSYC 605: Systems Theory & Consultation: Prevention and Intervention*
- g. PSYC 606: Educational Interventions*
- h. PSYC 607: Behavioral and Emotional Interventions*
- i. PSYC 612: Reading Assessment and Interventions
- j. PSYC 620: Contemporary Issues in School Psychology

*Course taught in conjunction with Practicum in Consultation. Students are required to complete a consultation project in the public schools.

3. Courses critical to functioning as a data-based problem-solver which provide supervised, hands-on training in assessment and intervention skills within school settings (12 hours).

Prerequisite: Students can not begin this block of courses until they have officially been admitted into the School Psychology Program and completed all prerequisites.

- a. PSYC 615: Practicum in School Psychology I
- b. PSYC 616: Practicum in School Psychology II
- c. PSYC 617: Consultation & Intervention Practicum I
- d. PSYC 618: Consultation & Intervention Practicum II
- e. PSYC 621: Internship in School Psychology I
- f. PSYC 622: Internship in School Psychology II

***NOTE: PSYC 615/617 & 616/618 are co-requisites**

4. Experience as a scientist practitioner in gathering and analyzing data (3 hours).

- a. PSYC 599: Thesis (**must be completed prior to award of the M.A.**)

Students in the School Psychology program who successfully complete the 75 semester hours and other Program requirements (see Handbook

of School Psychology) are awarded the Ed.S. degree. Students must complete all course requirements within a 5-year period from the date of initial enrollment. Internship requirements must be completed within 2 years of the completion of course work or 7 years from date of initial enrollment. Students may apply for a Master of Arts in Psychology degree after completion of 39 semester hours from the School Psychology Program of Studies, 3 of which must be the thesis.

Field-Based Placement Requirements:

School Psychology students must complete all course work before placement in an internship setting (including thesis). Students will be required to spend a minimum of 1200 clock hours in a supervised internship and complete these hours within 2 years.

To meet South Carolina requirements, students who plan to complete an internship must apply through the South Carolina Department of Education (SCDOE) for an internship certificate. Further, to meet these requirements, internship candidates must submit an Application for Internship, Teacher Certification Application, SCDOE required fees, a copy of their social security card, and fingerprints for FBI/SLED background check to the Internship Coordinator of School Psychology for submission to the SCDOE by the deadline for the intended semester of Internship (January 15 for Fall Semester internship and May 1 for Spring internship).

Other field-based experiences may require a criminal background check prior to field placement.

Program Sequence:

PSYC 503, 504, 505, and 615/616 **must** be taken in prescribed sequence, with each course building on the preceding one incrementally. The intervention courses (PSYC 605, 606, 607 and 617/618) must be completed prior to (or taken concurrently with) PSYC 615/616 (Practicum in School Psychology I/II) to allow for further practical experience with intervention skills within the schools. **Please note that ALL full-time school psychology students must be enrolled in PSYC 503 during their first Fall semester enrolled in order to avoid an extension of their course work by one year.**

Attendance Policy:

The Catalog of The Citadel Graduate College delineates a general policy regarding class attendance. Students are expected to be familiar with this general attendance policy. Unless stated differently in course syllabi, this general policy is in effect and course instructors can fail a student who misses more than 20% of classes.

The Graduate program in School Psychology is, by its nature, an applied practitioner program leading to anticipated passing scores on the PRAXIS II and certification as a practicing School Psychologist in South Carolina. A number of the courses are designed to facilitate the acquisition of hands-on experiences with various diagnostic, evaluation, and intervention techniques where skill acquisition is based on instructor demonstrations and modeling, guided individual and group practice and participation by the student, role playing,

and group activities, such as simulations, that build the necessary foundations for the acquisition of the basic skills necessary to the practice of the profession of School Psychology. In these courses, a strict absence policy has been adopted by the Program to ensure that learning experiences are not compromised. Specifically, those courses that fall under this absence policy are as follows: PSYC 503, PSYC 504, PSYC 505, PSYC 512, PSYC 615/616, PSYC 617/618, PSYC 605, PSYC 606, PSYC 621, and PSYC 622. Students enrolled in these classes are advised to consult their syllabus and instructor for more specific details

Course Descriptions:

PSYC-500—Human Growth and Development

Three Credit Hours

An analysis of the principles of human development with emphasis on the contributions of biological, social, psychological, and multicultural influences as applied to an understanding of cognitive, emotional, social, and physical development across the life-span. Particular emphasis will be given to the psychobiological nature and social context of development as well as cultural and ethnic variations impacting on developmental processes.

PSYC-501—Principles of Behavior and Cognitive Change

Three Credit Hours

This course will provide a systematic review of key concepts and principles of contemporary behavior and social learning theory. This material serves as a backdrop for an examination of a functional analytic approach to behavioral assessment and cognitive-behavioral therapeutic interventions. The theoretical rationale and empirical basis of traditional and more recently developed cognitive-behavioral interventions will be reviewed. Examples of these interventions include exposure techniques, contingency management, child-parent training, social skills training, cognitive therapy interventions, motivational interviewing, acceptance and commitment therapy, mindfulness, and dialectical behavioral therapy.

PSYC-502—Psychological and Educational Exceptionalities: Children and Adolescents

Three Credit Hours

This course is an overview of child and adolescent educational and behavioral disorders. The course will focus on definition, etiology, epidemiology, diagnosis, and treatment/intervention. Overlap and distinguishing characteristics of educationally and psychiatrically defined disorders (e.g., DSM-IV) will be emphasized.

PSYC-503—Objective Assessment

Three Credit Hours

This course is critical to data collection in the School Psychology program's data-based problem-solving model. It is an introduction to the administration, scoring, and interpretation of measures of intelligence and visual-motor abilities. The student will have practical experiences in the use of appropriate instruments. Each student must demonstrate proficiency with these instruments with emphasis on utilizing this information within the data-based problem-solving model, particularly the problem definition, problem analysis and intervention planning stages.

Prerequisite: Officially admitted into School Psychology Program

PSYC-504—Special Techniques in Assessment

Three Credit Hours

This course is critical to data collection in the School Psychology program's data-based problem-solving model. It is an advanced assessment course, building on skills learned in PSYC503, where students gain practical experience with intelligence, achievement, visual-motor measures as well as adaptive behavior and preschool assessment. Emphasis is on integrating information from all sources (i.e., problem analysis) into information utilized in intervention planning within the problem-solving model. Prerequisite: Objective Assessment (PSYC 503).

PSYC-505—Personality, Social, and Emotional Assessment

Three Credit Hours

Students will have direct experiences in assessment and evaluation with a focus on several diagnostic systems and methodologies (e.g., DSM-IV, IDEA, etc.). Emphasis will be on acquiring and interpreting information on behavior tendencies and styles with special attention to school age children and youth. Students will gain practical experience in the use and interpretation of objective, projective, and observational techniques. Practical experiences will be integrated with analysis of the literature relating to legal issues, validity of data, and clinical studies. Emphasis will be on utilization of such information in a model that emphasizes data-based problem solving, planning and intervention at multiple levels across systems.

Prerequisites: Objective Assessment (PSYC-503) and Special Techniques in Assessment (PSYC-504).

PSYC-507—General Psychopathology Assessment and Differential Diagnosis

Three Credit Hours

A study of the major mental illnesses delineated in DSM-IV. The course will have a particular focus on differential and overlapping symptomatology within and across major classes of disorders. Models of assessment will be matched with specific symptom patterns. Continuity and overlap of normal and deviant behavior will be recognized. Additionally, students will examine the etiological and epidemiological factors in psychopathology.

PSYC-508—Counseling and Personalities Theories

Three Credit Hours

This course is designed to provide a balanced and systematic study of the major counseling and personality theories. The course will integrate personality theory (including assessment and research techniques), and normal, and abnormal personality with a particular emphasis on therapeutic application of the major theories of counseling intervention.

Prerequisite: Human Growth and Development (PSYC-500).

PSYC-512—Ethics, Roles, and Law

Three Credit Hours

This course will provide a survey of the field of school psychology. The role and function of the school psychologist, legal, ethical and professional issues in school psychology will be topics covered in this course. Field experiences, research methods and contemporary trends in school psychology will also be addressed. Students will be oriented to a data-based problem-solving model of school psychology that is empirically driven and intervention focused within an ecological framework. An important outcome for this course is to foster participant's dispositions towards appreciating

the diverse opportunities for school psychologists to positively impact communities, and to value implementing best practices as a school psychologist.

PSYC-514— Ethics and Mental Health Law

Three Credit Hours

This course is designed to provide the Clinical Counseling student with a broad overview of professional issues related to counseling, including reference to current and historical role issues and emphasis on matters of ethics and mental health law related to the counseling profession. Particular attention will be given to the examination of ethical principles and mental health law relevant to the potential conflicts/dilemmas arising in the course of counseling practice (e.g., suicide, homicide, role conflict, multiple relationships, etc.). Issues specific to service delivery to minorities and special populations will be addressed, as will possible ethical conflicts arising within particular counseling modalities (e.g., marital and family counseling, group counseling).

PSYC-523—Statistics and Research Design

Three Credit Hours

Course will focus on descriptive and inferential statistics as tools for exploration of quantitative research methods. Students will develop competence in generating basic research designs to answer questions in schools, agencies, and practice.

PSYC-525—Basic Counseling Techniques

Three Credit Hours

Course focuses on fundamental skills of interviewing, assessment, case conceptualization, and intervention. These preparatory skills are taught through role-play and other practical approaches. The course is practice-oriented and designed to assist the student in developing professional skills. The student will be involved in analyzing his or her own counseling style and performance. Prerequisites: completion of all or concurrent registration in: Human Growth and Development (PSYC-500), Principles of Cognitive and Behavioral Change (PSYC-501), General Psychopathology (PSYC-507), and Counseling and Personality Theories (PSYC-508).

PSYC-549—Applied Measurement Techniques

Three Credit Hours

This course is designed to prepare students to become intelligent users of assessment information within the clinical decision-making process. The primary focus is on understanding the philosophical and statistical properties of measurement instruments, developing an understanding of the advantages and limitations of assessment approaches, enhancing sensitivity to social and ethical issues in assessment, and using an integrative approach for applying the results of assessment to diagnosis and the clinical decision-making process.

PSYC-552—Group Counseling Techniques

Three Credit Hours

This course provides students with an understanding of the role of the group counseling/psychotherapy modality in therapeutic settings. Focus is on the major components of group counseling/psychotherapy, including: client selection and preparation for group; attributes and behaviors of effective group counselors; group dynamics and group processes; stages of group development; therapeutic

factors associated with groups; and methods/procedures used in group counseling/psychotherapy.

Prerequisite: The student must have completed all core courses

PSYC-553—Introduction to Family Dynamics

Three Credit Hours

This course is designed to serve as an introduction to the various schools of family therapy. Students will study the historical context and underlying pragmatic assumptions inherent in the diverse schools. Students will survey the major contributors to each theoretical perspective and examine techniques unique to each perspective.

Prerequisite: Human Growth and Development (PSYC-500).

PSYC-555—Special Topics in Psychology

Three Credit Hours

This course is designed to provide service providers and students with information and knowledge regarding contemporary psychological and social problems. Various topics will be offered as the need arises. This course varies across semesters. Students must obtain approval from their advisor to include this course as an elective.

PSYC-557—Counseling and Psychotherapy for Couples

Three Credit Hours

This course is designed to provide an overview of the major theories of relationship psychotherapy and technical interventions utilized within the major approaches to couples counseling. The development aspects of family and couples counseling will be reviewed and special course topics will include spouse abuse, divorce mediation and adjustment, and ethical considerations. The training activities provided in this course will include diagnosis of family problems, assessment techniques, case presentations, enactments, and other experimental work. Video use and analysis are significant parts of the course.

Prerequisite: Family Dynamics (PSYC-553).

PSYC-561—Social-Multicultural Perspectives

Three Credit Hours

This course uses principles of social psychology to examine the influences of cultural, ethnic, minority, gender, and life-styles on psychological, educational and social development. Particular attention will be focused on variations in experiences and perceptions of individuals from divergent backgrounds as these impact on educational and psychological environments. Students will be provided practical experiences that will enable them to shift focus from their own perspectives.

Prerequisite: Human Growth and Development (PSYC-500).

PSYC-599—Thesis

Three Credit Hours

A supervised applied research project related to a topic or issue in psychology. A prospectus, to be approved by the supervising faculty member, shall detail the nature of the study and the methodology to be used. The thesis shall be submitted according to designated format, and its acceptance (and the award of credit) shall depend upon an oral defense before departmental faculty. The student will also be expected to submit the research for presentation at a state, regional, or national psychology association meeting or equivalent.

Prerequisite: Completion of Statistics and Research Design (PSYC-523).

PSYC-602—Social and Biological Basis of Child and Adolescent Behavior

Three Credit Hours

This course is an advanced course with a contemporary focus on the child and adolescent with particular attention to biological and social forces that shape development. Developmental processes will be examined through a review of current research. Part of the course will focus on cultural/technological forces (e.g., computers, television, video games) which are particularly important to today's youth and which are important forces impacting on development.

Prerequisite: Human Growth and Development (PSYC-500).

PSYC-605—System Theory and Consultation: Prevention and Intervention

Three Credit Hours

This course is critical to the intervention stage of the School Psychology program's data-based problem-solver model. School psychology students will develop skills in systems theory and intervention, consultation, and alternative delivery services to schools. Traditional test-and-place perceptions will be replaced with perceptions based on the principles of prevention, consultation, alternative intervention methods, and intervention progress monitoring. Students will cover systems theories and models of consultation to include mental health consultation, behavioral consultation, organizational change, and collaborative decision-making as well as primary/secondary prevention methods with a focus on the learning and psychology of the school age child/adolescent. Interventions that promote positive school cultures will be examined across classroom, school, family, and community systems.

Prerequisite: Ethics, Roles and Law (PSYC-512).

Corequisites: Practicum in School Psychology I (PSYC 615) and Practicum in Consultation and Intervention I (PSYC 617)

PSYC-606—Academic Interventions

Three Credit Hours

This course is critical to the School Psychology program's data-based problem-solving model and emphasizes a multi-tiered model including primary, secondary, and tertiary prevention (e.g., Response to Intervention; RTI). It is an applied course for school psychologists-in-training designed to develop skills in designing, implementing, and evaluating evidence-based interventions that improve the academic achievement of primary and secondary school students. The course will cover curriculum-based assessment (CBA) and measurement (CBM), collaborative problem-solving, and analysis of students' academic strengths and needs. Emphasis will be placed on linking assessment data to development of appropriate interventions designed to address specific needs in reading, writing, and mathematics.

Corequisites: Practicum in School Psychology I (PSYC 615) and Practicum in Consultation and Intervention I (PSYC 617)

PSYC-607—Behavioral and Emotional Interventions

Three Credit Hours

This course is critical to the School Psychology program's data-based problem-solving model. It is an applied course for school psychology students designed to develop skills in designing, implementing, and evaluating evidence-based interventions that improve the behavior and emotional well-being of primary and secondary school students. The course will cover behavioral principles and appropriate assessment techniques, including systematic observation of behavioral and functional behavioral assessment. Emphasis will be placed on linking assessment data to development of appropriate interventions designed

to target specific needs related to internalizing and externalizing behaviors. Crisis intervention and threat assessment will also be addressed.

Corequisites: Practicum in School Psychology II (PSYC 616) and Practicum in Consultation and Intervention II (PSYC 618)

PSYC-611—Clinical and Professional Issues in Counseling

Three Credit Hours

Counseling does not occur in a vacuum and clinical counselors working within the community must possess basic knowledge of a number of topics that affect the provision of care to clients. This course addresses a number of topics that relate to the practice of counseling. Topics to be addressed include: 1) licensure and professional development; 2) advanced personality theory with a focus on assessment and treatment of personality disorders; 3) psychopharmacology for the non-physician; and 4) use of empirically validated treatments.

Prerequisite: Students must have completed all core courses and passed comprehensive examination.

PSYC-612—Reading Assessment and Intervention: A Neuropsychological Perspective

Three Credit Hours

Students will learn to evaluate the reading ability of children and youth using both qualitative and quantitative assessment techniques. This course will emphasize diagnosis leading to scientifically validated instructional interventions. Reading problems will be couched in a neuropsychological framework and will be consistent with the DSM and IDEA. Students will learn how to incorporate assessment data with existing psychological data on the person served to generate a more complete psychological profile. Students will also learn how to incorporate assessment data within a response to programs and methods of instruction used to prevent reading problems before they occur will also be reviewed.

Corequisites: Practicum in Consultation and Intervention: I and II (PSYC 616/618)

PSYC-615/616 —Practicum in School Psychology: I and II

Two Credit Hours each

These practica courses are part of the final "capping off" of students before they begin professional school psychology internships.

Applying the data-based problem-solving model, students will engage in the administration and scoring of traditional and alternative measures of intelligence, achievement, adaptive behavior, visual-perceptual, and socio-emotional functioning that are commonly used by school psychologists. Students will apply data to problem analysis and recommend or implement appropriate interventions, monitor the effectiveness of the interventions, and adhere to standards of best practice in school psychology. Students will experience various roles frequently expected of school psychologists in public schools or affiliated agencies with supervision provided by practicing certified/licensed psychologists.

Corequisites: Practicum in Consultation and Intervention: I and II Course (PSYC-617/618)

Prerequisites: Objective Assessment (PSYC 503), Special Techniques in Assessment (PSYC 504), and Personality, Social, and Emotional Assessment (PSYC 505).

PSYC-617/618 –Practicum in Consultation and Intervention: I and II

One Credit Hour Each

These practica courses involve the application of principles and theories of consultation and intervention through field-based experiences. Students will learn to employ empirically-based treatments and to evaluate innovative treatment programs applied to a variety of children and conditions. Intervention and prevention programs will target multiple levels within the placement site, including the individual student, classroom, school, and/or system. Demonstration of learning and skill will be exhibited in the development of case studies involving children experiencing academic and/or emotional difficulties. Through these case studies, students will combine the scientist-practitioner model with a data-based problem solving approach to intervene with children in need of school psychology intervention.

Corequisites: Practicum in School Psychology: I and II (PSYC-615/616).

Prerequisites: Objective Assessment (PSYC 503), Special Techniques in Assessment (PSYC 504), and Personality, Social, and Emotional Assessment (PSYC 505).

PSYC-620—Contemporary Issues in School Psychology

Three Credit Hours

This course provided an in-depth study of current issues and research in school psychology. Course content will cover contemporary issues in the field that impact the school psychologist's ability to competently and effectively deliver services, as well as review methods and procedures involved in assessing institutional programs (i.e., program evaluation, implementation and efficacy).

PSYC-621/622—Internship in School Psychology: I and II

Three Credit Hours Each

A field placement in school psychology utilizing either a clinic setting (for no more than half the internship) and/or a public school setting in which the student works under the direct supervision of a certified school psychologist in conjunction with The Citadel Coordinator of School Psychology Practicum and Internships. Internship training represents the cumulative experience and the synthesis of all course work and practice. The goal is to prepare the intern for independent function as a school psychologist, i.e., data-based problem-solver, capable of providing a full range of services with a multiculturally diverse client population. Students are required to complete 1200 clock hours (PSYC-621 and 622) of supervised internship experience.

Prerequisite: Completion of all other course work for the Ed.S. degree (including thesis).

PSYC-629—Practicum: Clinical Counseling

Three Credit Hours

This course is a supervised field experience for community counseling students who are at the end of their program. The practicum consists of 150 hours of work within a community agency. In addition to working with clients in the community, students experience individual and group supervision that emphasizes case conceptualization and the use of intervention strategies. The practicum course integrates previous course experiences with counseling skills. The student will complete a comprehensive case study integrating theory, research, and practical issues in the treatment of a client seen during the practicum experience.

Prerequisites: Completion of all prior course work (may take elective

with Practicum). Note that permission of advisor is required during the semester prior to enrollment in the course. Registration is contingent upon advisor approval based upon successful completion of coursework and demonstration of readiness to function in a professional role in the community.

PSYC-643—Contemporary Psychological Assessment and Psychotherapy

Three Credit Hours

This course integrates clinical assessment, case conceptualization, and treatment planning and evaluation. The emphasis on assessment highlights specific, focused procedures for common clinical problems. Interview methods, self-report instruments, and self-monitoring among others will be considered for their psychometric characteristics, clinical utility, and practicality. Case conceptualization will integrate the results of the assessment process with current conceptual and empirical literature on etiology and treatment. The course includes practical exercises in the assessment, conceptualization, and treatment for the most common clinical problems.

Prerequisite: Students must have completed all core courses and passed comprehensive examination.

PSYC-644—Advanced Counseling Techniques

Three Credit Hours

This course is designed to prepare clinical counseling students for the practicum experience. The student will implement and apply previous learning of theory, techniques, and understanding of the therapeutic process through experiential and didactic methods. The student will develop increased knowledge of the counseling process, including assessment, case conceptualization, diagnostics, and intervention strategies. The student will complete a comprehensive case study integrating theory, research, and practical issues in the "treatment" of a simulated client.

Prerequisite: Students must have completed all core courses and passed comprehensive examination.

PSYC-651/652—Internship: Clinical Counseling

Three Credit Hours Each

The internship is a supervised field experience consisting of 600 hours of work in a community agency. It involves continued refinement of counseling skills developed over the course of the student's program. The student will complete and present a comprehensive case study integrating theory, research, and practical issues in the treatment of a client seen during the internship experience.

Prerequisites: Completion of all prior course work (may take elective with Practicum). Note that permission of advisor is required during the semester prior to enrollment in the course. Registration is contingent upon advisor approval based upon successful completion of coursework and demonstration of ability to function in a professional role in the community.

Prerequisite: Completion of all prior course work, including Practicum (may take elective with Internship)

Master of Arts in Social Science

Department of Political Science
& Criminal Justice, 843-953-5069
Dr. Terry Mays, terry.mays@citadel.edu

Mission Statement:

The degree is designed to allow students to advance their knowledge of the social sciences through an interdisciplinary study of political science, criminal justice, sociology, anthropology, psychology, and related disciplines.

This program offers students the opportunity to acquire a broad interdisciplinary background in the social sciences and includes a familiarization with the perspectives, processes, and methods used in the study of social phenomena. Designed for students and professionals from all walks of life, the program allows one to tailor the emphasis of the course of study to fit a variety of individual and career interests.

Admission Requirements:

1. Complete and return a graduate application form, along with appropriate non-refundable application fee, to the The Citadel Graduate College (CGC), Bond Hall Room 101.
2. An official transcript of the baccalaureate degree and all other undergraduate or graduate work directly from each accredited college or university attended.
3. All students must successfully complete either the Graduate Record Examination (GRE) or the Miller Analogies Test (MAT). It must be current within five years of application. The minimum for the GRE is a verbal and quantitative combination of 900. The minimum for the MAT is a score of 396. Individuals who fail to meet the minimum score requirement may be admitted to regular student status with a recommendation of the CGC Dean upon the completion of eight hours of work with a minimum grade point average of 3.25.
4. Completed program of study with advisor.

Required Program:

The Master of Arts in Social Science is a 36 credit hour program consisting of the following requirements:

1. Required Core (6 hours)
PSCI 500/ CRMJ 500 Seminar in Social Science
PSCI 501/ CRMJ 501 Research Methods in Social Science
*NOTE: these 6 hours must be included in the first 12 hours taken in the program.
2. Cluster A: Foundation Courses (15 hours)
Students should select five courses from any political science, criminal justice, sociology, or anthropology

courses the Department offers.

3. Cluster B: Electives (15 hours)
Students should select five courses from those listed in this cluster, three of which must be Psychology graduate courses (9 hours). Other courses may be used as electives with the permission of the Departmental Graduate Director.

* Courses taught by the Department of Political Science and Criminal Justice and designated as leadership subject application courses for the Graduate Certificate in Leadership may not count simultaneously as Cluster A and B courses for the MASS degree program. Those in the MASS program who are dual enrolled in the Graduate Certificate in Leadership may opt to have the course count within the Cluster B as their leadership subject application requirement but not simultaneously as a Cluster A requirement. Courses taught by the Department of Political Science and Criminal Justice and designated as leadership subject application will count as a Cluster A requirement for those in the MASS degree program and not dual enrolled in the Graduate Certificate in Leadership. Please see page 106 for information about the Graduate Certificate in Leadership.

List of Courses: (Cluster B)

PSYC 500	Human Growth and Development
PSYC 501	Principles of Cognitive & Behavioral Change <i>*With Instructor Permission Only</i>
PSYC 507	General Psychopathology <i>*With Instructor Permission Only</i>
PSYC 508	Counseling and Personality Theories <i>*With Instructor Permission Only</i>
PSYC 553	Introduction to Family Dynamics
PSYC 555	Special Topics in Psychology <i>*With Instructor Permission Only</i>
PSYC 561	Social-Multicultural Perspectives
PSYC 570	Social and Cognitive Foundations of Interpersonal Behavior
BADM 704	Foundations of Economics
BADM 713	Communication for Leadership
EDUC 500	Foundations of American Education
EDUC 561	Counseling Diverse Populations
EDUC 600	Professional Negotiations
EDUC 512	Southern Literature
EDUC 516	Continental Literature
EDUC 520	Survey of World Literature I
EDUC 521	Survey of World Literature II
ENGL 530	Special Topics in the Humanities
ENGL 535	African-American Literature
ENGL 558	Technical and Professional Writing
ENGL 570	Topics in African-American Literary Genres
ENGL 571	Topics in African-American Literary Periods
ENGL 572	Topics in Major African-American Writers
ENGL 573	Special Topics in African-American Literature

GEOG 511 World Geography

Any 500 level History course EXCEPT:

HIST 560 History of Non-Western World (MAT only)

HIST 594 Historiography for Social Science Teachers (MAT only)

HESS 502 Drug and Substance Abuse

HESS 503 Human Sexuality

HESS 504 Public Health

Total: Thirty six (36) hours.

Course Descriptions: (Cluster A)

PSCI-500/CRMJ-500—Seminar in Social Science

Three Credit Hours

An interdisciplinary introduction to the social sciences with an emphasis on the perspectives and patterns of inquiry of several subfields. This course surveys the empirical and theoretical contributions of different social science disciplines in order to provide a fundamental understanding of the dynamics of individual and group behavior. Topics include ethics, social science methodology, and the key criticisms of these methods.

PSCI-501/CRMJ-501—Research Methods in Social Science

Three Credit Hours

An examination of methods in the scientific study of social phenomena with emphasis given to the systematic study of society and contemporary research problem in the social sciences, including research design, data collection, data analysis, and computer applications.

PSCI-502—The American Federal System

Three Credit Hours

This course will examine the origins of and the relationships between the national government and the state and local governments. Topics covered will include the nature of the federal system and overviews of the functions and powers of the national and state and local governments. Particular attention will be given to an evaluation of the policy-making process through a study of one or more policy areas such as urban policy, welfare policy, and environmental policy.

PSCI-503—The Politics of American Democracy: Political Behavior, Interest Groups, and Political Parties

Three Credit Hours

This course will examine the political process in the United States, including an analysis of public opinion, the mass media, political parties, interest groups, voting behavior, and elections. It will incorporate an introduction to the basic methods of data analysis in order to allow students to read and understand social science literature.

PSCI-505—Instructional Approaches to Social Sciences

Three Credit Hours

This course is designed to provide an overview of the social sciences, to show how they differ from the humanities and the natural sciences, to review how the scientific approach and the scientific method may

be applied to the study of social sciences, and to introduce students to a variety of pedagogical techniques; special emphasis will be given to the use of technology in the teaching of the social sciences and will include instruction on the use of the internet, on the gathering and analysis of social science data, and the utilization of simulations in the classroom.

PSCI-506—Legislative Process

Three Credit Hours

A study of the organizations and procedures of a legislative body with attention on its role in policy formation and its relationships with other parts of a political and governmental system.

PSCI-507—American Presidency

Three Credit Hours

A study of the modern presidency with attention to its origin and its historical and constitutional development. Emphasis is placed on the examination of the various roles and functions of the President and on an analysis of presidents in action.

PSCI-509—Urban Politics

Three Credit Hours

A survey of urban areas and their development with emphasis on the politics of U.S. urban and suburban areas. Topics explored through lectures, seminars and student-led discussions of the professional literature include types of urban governance; urban demographics; suburbanization and gentrification; “urban sprawl”; the development of professionalized city planning; public administration and finance; pluralist competition in city regimes; race and politics; economic development; issues of federalism; and city-county consolidation and state-city relations.

PSCI-510—Topics in Political Science

Three Credit Hours

Selected topics that fit the needs of students as well as the specialized knowledge of the faculty. Topics could range from stability and change in the American political system to the best way to attain security in a nuclear-armed world.

PSCI-521—Advanced Placement: American Government

Three Credit Hours

This course reviews and examines the materials, methods, and approaches utilized in organizing and teaching the high school advanced placement course on American Government. Successful completion of the course satisfies the state requirement for certification to teach the advanced placement American Government Course.

PSCI-561—Law and Legal Process

Three Credit Hours

A general survey of the American legal process (except for the criminal justice process) with emphasis on the nature and function of law, the organization of legal institutions (primarily the state and federal judiciaries), an introduction to civil law and the civil justice process, the roles of judges and lawyers, the judicial decision-making process, and the impact of court decisions.

PSCI-570—The Civil Rights Movement

Three Credit Hours

An examination of the Civil Rights Movement from World War II to the present with extended attention given to the critical period from 1954 to 1965; the course will consider the impact of this “civil rights decade” on American politics and political behavior during the last third of the 20th century. Key events, organizations, and personalities will be examined, and continuing issues (such as affirmative action, majority-minority legislative districting, and racial typing) will be discussed. Secondary analyses will be supplemented by the use of videotapes, first-hand accounts, and primary documents to enhance students’ understanding of the movement and its effects.

PSCI-592—Political Theory

Three Credit Hours

Major theoretical writing from the ancient Greeks to the present day with emphasis on a comparison of ideas and on the relationships between theories and contemporary problems.

PSCI-662—Constitutional Law: Civil Rights and Liberties

Three Credit Hours

A study of the underlying and basic principles of the Constitution as reflected in the leading decisions of the United States Supreme Court with special attention directed to the Bill of Rights and the Thirteenth, Fourteenth, and Fifteenth Amendments.

CRMJ-510— Topics in Criminal Justice

Three Credit Hours

Selected special topics or problems in the general area of criminal justice to fit the needs of students as well as the specialized knowledge of the faculty.

CRMJ-560— Criminal Justice Agency Administration

Three Credit Hours

Seminar on the nature of criminal justice organizations, criminal justice personnel, and group behavior in criminal justice organizations. Organizational and management theories are analyzed and applied to contemporary structure. Innovative strategies are discussed, as is policy development consistent with jurisdictional variables.

CRMJ-561— Drugs and Crime

Three Credit Hours

This course of study explores and analyzes issues involving drugs and crime. Drug types, drug offenders, drug trafficking/global smuggling, money/laundering, law enforcement/interdiction, governmental response, domestic and international drug policy, drug-crime correlation, drug testing, and the drug relationship to other social problems are examined. Future trends and current dilemmas are investigated regarding the effectiveness of law enforcement, the “war on drugs”, and drug usage.

CRMJ-562— Comparative Criminal Justice Systems

Three Credit Hours

An examination of the ideology, structure, and justice processes of various criminal justice systems in the United States, Europe, Asia, Africa, Middle East and Latin America This comparative

study involves the analysis of diverse social control, legal, police, court, correction, and juvenile systems from representative justice approaches around the world. Variations among countries in crime and deviance phenomena, as well as, comparative normative values, practices, and ethics of justice system practitioners are explored. Contemporary dilemmas and issues involving crime and criminal justice practices among divergent justice schemes are discussed.

CRMJ-563— Criminal Evidence

Three Credit Hours

A graduate level discussion of types of evidence, collection of evidence, the chain of custody, and procedures relating to its introduction into judicial proceedings. Special attention is given to Fourth Amendment constitutional issues and the changing nature of the judicial order.

CRMJ-564— Juvenile Justice

Three Credit Hours

A study of juvenile delinquency and the operation of the American juvenile justice system. The course explores classical and contemporary theories of juvenile delinquency and status offending, as well as the effects of family, peers, school, gang affiliation, and drug usage on youthful offenders. In examining the juvenile justice system, the course investigates the historical development and individual operating components. (e.g., police, courts, and corrections) of the system. Consideration is given current and future issues involving youth and delinquency such as curfew, boot camp, youth violence, drug usage, and court waiver.

CRMJ-565 Corrections

Three Credit Hours

An overview of the American correctional system including prisons, jails, probation and parole. In addition to the historical development of punishment and corrections, the course explores issues involving the effectiveness of formal punishment, deterrence effects, punishment types, and the death penalty. Discussions also include prison inmate culture, prison gangs, prison life, inmate civil rights and litigation, problems and dilemmas of early release, probation, parole, and recidivism. Future trends and prospects for an increasing prison and parole population are discussed.

CRMJ-566— Ethics in Criminal Justice

Three Credit Hours

A study of the role of justice, ethics, and ethical behavior in the criminal justice process and practice. The course examines ethical issues regarding the applications of law enforcement, law, courts, and corrections in the justice mechanism. Consideration is given to the function of ethical conduct in the rule of law, use of authority, and exercises of governmental power in criminal justice. Ethical dilemmas and practical applications are explored.

SOCI-501—Social Determinants of Modern Life

Three Credit Hours

This course explores some of the major determinants of group life such as social structure, socialization, stratification, the major social institutions, and social change. In addition, attention will center upon population dynamics and migration and the effects which they exert upon community life.

ANTH-501—Physical and Cultural Adaptations

Three Credit Hours

This course examines how humans have adapted to their unique environments through cultural alterations and physical changes to the body by looking at pre-1492 Native American peoples. The development of human cultures are examined beginning with the origins of the First Americans and tracing their migrations to the various environments of North, Central, and South America for a more in-depth look at the range of variability among living peoples. The growth and development of human cultures are examined from the movement of pre-1492 Native Americans as bands and progressing through tribes to more advanced urban societies.



School of Science & Mathematics

Master of Arts:

- Biology

Master of Science:

- Computer Science

Master of Arts in
Education:

- Mathematics

Master of Science:

- Health, Exercise, &
Sport Science

THE
CITADEL
GRADUATE COLLEGE

Master of Arts in Biology

Department of Biology, 843-953-5203

Dr. Paul M. Rosenblum,

paul.rosenblum@citadel.edu

Mission Statement:

The Master of Arts in Biology degree is designed to advance the knowledge of students in a variety of biological disciplines. The purpose of this degree is to offer certified secondary school teachers, business people and other professionals the opportunity to advance their knowledge in the rapidly expanding discipline of biology. For teachers, the degree enhances their ability to teach a variety of courses within the discipline. For other professionals, the program allows individuals to construct a program for professional advancement in their field.

Admission Requirements:

1. Complete and return application form along with appropriate non-refundable application fee to the Citadel Graduate College (CGC), Bond Hall room 101.
2. An official transcript of the baccalaureate degree and all other undergraduate or graduate work directly from each accredited college or university attended.
3. All students must successfully complete either the Graduate Record Examination (GRE) or the Miller Analogies Test (MAT). It must be current within five years of application. The minimum for the GRE is a verbal and quantitative combination of 900. The minimum for the MAT is a raw score of 396. Individuals who fail to meet the minimum score requirement may be admitted to regular student status with a recommendation of the CGC Dean upon the completion of eight hours of work with a minimum grade point average of 3.25.
4. Completed program of study with advisor.

Program Requirements:

The Master of Arts in Biology program requires a minimum of eight graduate level courses totaling at least 32 credit hours. At least 20 credit hours must be in biology courses chosen from the list below. With the approval of the graduate advisor, students in the M.A. in Biology program may apply up to 12 credit hours in allied areas toward their graduation requirements. These allied areas may include, but are not limited to, education, chemistry, geology, psychology, and physics. Students admitted to the program are not required to have an undergraduate major in biology, however it is assumed that students have had at least eight hours in college level biology courses. Prospective students who do not have the recommended eight hours in undergraduate biology must confer with the department head or graduate advisor prior to beginning the program. All students must meet with the graduate advisor prior to beginning their course of study. A copy of the program of study will be sent to the CGC to allow admission. When the student files for graduation, the final program of study will be signed by the student and advisor and sent to CGC.

Course Descriptions:

BIOL-502—Comparative Vertebrate Anatomy

Four Credit Hours

A study of the comparative anatomy of vertebrate animals. Emphasis will be placed on the evolution of organ systems in response to environmental pressures.

Lecture: three hours a week; laboratory: three hours a week.

BIOL-505—Biometry

Three Credit Hours

This course will focus on methods and procedures for designing experiments, gathering, analyzing, and interpreting data. Topics to be included are descriptive statistics, estimation, measurements of confidence and reliability, tests of significance, measurements of relationship and correlation, and non-parametric analyses. In addition to lecture format, students will get hands-on experience in data gathering, analyses using computer statistical programs, statistical inference and decision making.

BIOL-506—Ecology

Four Credit Hours

An introduction to the study of biological interrelationships and the effects of the environment on the structure and function of animal and plant systems. Laboratory will emphasize methods and materials of ecological investigations.

Lecture: two hours a week; laboratory: four hours a week.

BIOL-508—Genetics

Four Credit Hours

A study of inheritance, including Mendelian genetics, molecular genetics, changes in chromosome structure and number, cytogenetics, and population genetics.

Lecture: three hours a week; laboratory: three hours a week.

BIOL-509—Marine Biology

Four Credit Hours

Lectures cover major ecological factors and the fundamentals of oceanography. Laboratory work stresses familiarity with species, taxonomic methods, sampling procedures, experimental design, use of equipment, and data handling.

Lecture: two hours a week; laboratory: four hours a week.

BIOL-510—Vertebrate Natural History

Four Credit Hours

An introduction to the classification, ecology, evolution, and distribution of the vertebrates. Laboratory with emphasis on identification and field study techniques, especially with respect to the vertebrates of South Carolina.

Lecture: three hours a week; laboratory: three hours a week.

BIOL-512—Descriptive Histology

Four Credit Hours

A detailed study of the chief types of animal tissues and a description of the histology of organs. Laboratory work includes microscopic study of cells, tissues, and organs of animals.

Lecture: three hours a week; laboratory: three hours a week.

BIOL-514—The Vascular Flora of South Carolina

Four Credit Hours

An introductory study of the native vascular flora of South Carolina, emphasizing the identification and collection of native plants. The student will have practice in use of taxonomic keys and in preparation of specimens.

Lecture: two hours a week; laboratory: four hours a week.

BIOL-518—Ornithology

Four Credit Hours

A study of the structure, function, and ecology of birds. Field trips and bird specimens will give students a working knowledge of birds common to South Carolina.

Lecture: three hours a week; laboratory: three hours a week.

BIOL-519—Economic Botany

Three Credit Hours

A course in economic botany devoted to the consideration of plants which are useful or harmful to humans, their origins and history, botanical relationships, chemical constituents that make them economically important, and their role in prehistoric and modern cultures and civilizations.

Lecture: three hours a week.

BIOL-526—Freshwater Biology

Four Credit Hours

The study of freshwater organisms and their environment. Instruction will cover the biological diversity, ecological and physiological adaptation, and the physical setting of freshwater systems. Local systems of interest include large coastal rivers and lakes, upper portions of estuaries, and old rice fields.

Lecture: two hours a week; laboratory: four hours a week.

BIOL-531—Reproductive and Developmental Strategies

Four Credit Hours

A study of reproductive and developmental strategies used across the phyla, this course will consider how the choices of the reproducing adults affect the development and survival of the offspring. The laboratory will include use of model systems to investigate the theories discussed in lecture.

Lecture: three hours a week; laboratory: three hours a week

BIOL-601—Evolution of Animals

Three Credit Hours

A review of evolutionary principles and general morphology of the animal kingdom.

Lecture: three hours a week.

BIOL-602—Morphological Survey of Plant Kingdoms

Four Credit Hours

An advanced course in comparative morphology, life history, and phylogeny of the vascular and nonvascular plants. The laboratory will include work on structural and developmental relationships as applied to morphological and anatomical interpretations of the vascular and nonvascular plants.

Lecture: three hours a week; laboratory: three hours a week.

BIOL-603—General Physiology

Three Credit Hours

A study of the general principles of animal physiology. Emphasis will be placed on cellular, tissue, and organ system function and

how these are integrated to allow the organism to respond and succeed in its environment.

Lecture: three hours a week.

BIOL-604—Marine Invertebrates

Four Credit Hours

A study of marine invertebrates and their environment.

Lecture: three hours a week; laboratory: three hours a week.

BIOL-605—Laboratory Methods in Biology

Four Credit Hours

An experience in laboratory preparation, participation, evaluation, and supply sources for a series of general biology laboratory exercises for the secondary or middle school level.

Lecture: three hours a week; laboratory: three hours a week.

BIOL-606—Field Methods in Biology

Four Credit Hours

An examination of the methods used by field biologists emphasizing experimental design, sampling techniques, and data analysis. Classroom discussion will be supplemented by practical field experience. Topics will include the measurement of primary productivity, estimation of animal population size, plant community composition and diversity, and the correlation of environmental factors with species distribution. An effort will be made to use procedures and field situations that are accessible to local teachers.

Lecture: three hours a week; laboratory: four hours a week.

BIOL-607—Microbiology

Four Credit Hours

General coverage of the anatomy, morphology, ecology, and chemistry of microorganisms. The emphasis of the course will be on bacteria, however, some time will be spent on the study of fungi, viruses, rickettsiae, and protozoans.

Lecture: three hours a week; laboratory: three hours a week.

BIOL-609—Seminar in Environmental Studies

Three Credit Hours

A series of field trips, lectures, and other experiences designed to develop an understanding of the environment as it affects human well being now and in the future. This course is especially designed for teachers and counselors, grades K-12, in all disciplines. Classes will normally meet daily from 8:30 a.m. to 2:00 p.m. for a period of two weeks during a summer session. Outside fieldwork is required.

BIOL-610—Special Topics in Biology

Variable Credit Hours

This course is designed for the study of specialized topics in modern biology. The subject for each course will be announced.

Lecture: three hours a week.

BIOL-611—Graduate Research

Variable Credit Hours

Research problems in various areas of biology to introduce the student to the planning and execution of research experimentation, data analysis, and the presentation of research findings.

By arrangement; prerequisite: Permission of instructor.

BIOL-612—Cell and Molecular Biology

Three Credit Hours

An in-depth exploration of the cell surface, organelles, and metabolism of different cell types. This course integrates cell biology, molecular biology, and biochemistry.

Lecture: three hours a week.

BIOL-621—Aquatic Toxicology

Four Credit Hours

An introduction to assessing the effects of toxic substances on aquatic organisms and ecosystems. Topics include general principles of toxicology, fate and transport models, quantitative structure-activity relationships, single-species and community-level toxicity measures, regulatory issues, and career opportunities. Examples will be drawn from marine, freshwater, and brackish-water systems.

Lecture: three hours a week; laboratory: three hours a week.

BIOL-624—Molecular Genetics and Recombinant DNA: Theory, Practice and Issues

Three Credit Hours

The fundamental principles and applications of recombinant DNA technology will be discussed and demonstrated. Emphasis will be placed on sources and preparation of materials for classroom activities. Societal issues involving recombinant DNA technology will also be explored.

Lecture: two hours a week; laboratory: two hours a week.

BIOL-631—Environmental Physiology

Three Credit Hours

This course will study the effects of such parameters as salinity, oxygen, temperature and elevation or depth on animal physiology and the adaptations made by animals to these environments.

Lecture: two hours a week; laboratory: two hours a week.

Master of Science in Computer Science

Department of Mathematics and Computer Science

Dr. John I. Moore, Jr., Department Head,
843-953-5048, john.moore@citadel.edu

Dr. Margaret Francel, Program Director,
843-953-6987, margaret.francel@citadel.edu

Mission:

The M.S. in Computer Science is designed to offer professionals an opportunity to attain an advanced degree in the computer science field while upgrading their skills and knowledge. The computer science program is a joint program with the College of Charleston.

Admission Requirements:

1. A completed graduate application form, along with an appropriate non-refundable application fee, to the The Citadel Graduate College (CGC), Bond Hall room 101.
2. An official transcript of the baccalaureate degree and all other undergraduate or graduate work directly from each accredited college and university. Students admitted to the program are normally expected to have an undergraduate grade point average of at least 3.0.
3. Approval from the Program Director or Department Head before registering for any graduate Computer Science (CSCI) courses.
4. Completion of the Graduate Record Examination (GRE) with a minimum combined score of 1000 on the verbal and quantitative sections of the general test and a minimum score of 4.0 on the writing assessment. The GRE must be current within five years of the application for admission to the program.
5. Evidence of a command of spoken and written English such as a TOEFL score of 550 paper-based, 79-80 internet based or 213 computer-based (if English is not the native language of citizenship).
6. Competency, demonstrated through coursework, approved work experience, or a program administrated competency exam, in the areas of basic Computer Architecture, Object-oriented Programming, Discrete Mathematics, and Data Structures.

Degree Requirements:

The Master of Science in Computer Science degree is conferred upon those candidates who successfully complete an approved program of study consisting of a minimum of 33 semester hours of graduate credit (of which no more than nine may be transfer credit) with a cumulative GPA of 3.0.

All degree candidates must:

1. Complete the following four core courses for a total of 12 hours.
CSCI 601 Data Modeling and Database Design
CSCI 602 Foundations of Software Engineering
CSCI 603 Object-Oriented Design Patterns
CSCI 604 Distributed Computer Systems Architecture

2. Declare an area of specialization from among software engineering, information systems, or computer science, and complete four courses in that area (12 hours).
 - a) Degree candidates in the Software Engineering specialization must complete four courses from the courses numbered 634, 654, 656, 657, 658, 659, 672, or 690 when approved by the department head or program director. One of these courses must be 656 and one of the courses must be chosen from 654 and 658.
 - b) Degree candidates in the Information Systems specialization must complete four courses from the courses numbered 631, 632, 634, 636, 638, 659, 672, or 690 when approved by the department head or program director. Two of courses must be 632 and 631.
 - c) Degree candidates in the Computer Science specialization must complete four courses from the courses numbered 612, 614, 616, 618, 638, 674, or 690 when approved by the department head or program director. Three of the four courses must be from the courses numbered 612, 614, 616, or 618.
3. Complete one of the following three options (9 hours).
 - a) CSCI 699 Research Thesis (6 hours) plus one elective.
 - b) CSCI 698 Project thesis (3 hours) plus two electives.
 - c) Three electives (9 hours).

The Citadel's School of Engineering offers a graduate certificate program in Technical Project Management consisting of four courses. ENGR 650 (Overview of Technical Project Management) may be substituted for CSCI 634 in satisfying degree requirements for the M.S. in Computer Science, and the remaining three courses, ENGR 651, ENGR 652, and ENGR 653, may be taken as electives satisfying requirement 3c above.

Course Descriptions:

CSCI-601—Data Modeling and Database Design

Three Credit Hours

Topics include conceptual, logical, and physical data modeling, data analysis, relational database design and normalization, query languages, query processing, administration, and CASE tools. A database design project is part of the requirement and includes hands-on data modeling, design, development, and implementation.

CSCI-602—Foundations of Software Engineering

Three Credit Hours

A breadth-first coverage of software engineering processes and methodologies including life cycle modeling, process management and improvement. Metrics and phased development are emphasized.

CSCI-603—Object-Oriented Design Patterns

Three Credit Hours

A programming course emphasizing design patterns to increase software design quality, reliability and reuse. The course covers current pattern catalog and object-oriented design processes for design refactoring. Tool usage is expected to be heavy.

CSCI 604—Distributed Computer Systems Architecture

Three Credit Hours

Processor micro-architectures, hardwired vs. micro-programmed control, pipelining and pipeline hazards, memory hierarchies, bus-based system architecture and memory mapping, hardware-software interface, and operating system concepts.

CSCI-612—Advanced Computer Organization

Three Credit Hours

The course covers general purpose systems consisting of loosely coupled components built from PCs. Topics include interconnection networks, protocols, high performance I/O, load balancing, availability, programming models and environments, parallel algorithms and applications. The course is lab intensive and will include the implementation of parallel algorithms on a Beowulf Cluster.

Prerequisites: CSCI 604 and an undergraduate course in Operating Systems.

CSCI-614—Advanced Operating Systems

Three Credit Hours

A study is made of a broad range of advanced operating systems concepts, including protection, security, memory management, kernels, file systems, synchronization, naming, networks, and distributed systems as well as recent trends in operating systems design. Specific aspects of operating systems which support distributed computing will be emphasized. Linux kernel internals will also be considered.

Prerequisites: CSCI 604 and an undergraduate course in Operating Systems.

CSCI-616—Automata Theory

Three Credit Hours

The theory of finite state machines and regular expressions are applied to the design of switching circuits, components of compilers such as lexical analysis, pattern-matching, text-editors, unifications as needed in Prolog or for automated deduction, and almost any program which processes under commands. Undecidable problems and intractable problems are explored.

CSCI-618—Programming Languages

Three Credit Hours

The course surveys the principles of programming language design and the issues related to their implementation. Topics will include a comparison of the major programming paradigms: imperative, functional, logic, and object-oriented. Also covered are data types, methods of specifying the semantics of language constructs, and concurrency.

CSCI-631—Privacy and Security Issues

Three Credit Hours

A survey of the principles and practices related to computer security. The course concentrates on the problems of security associated with computer networks and emphasizes the application of cryptography to address those problems.

CSCI-632—Data Communications and Networking

Three Credit Hours

An introduction to data communications and computer networking. Topics include LAN topologies, transmission media, error detection, packet switching networks, internetworking of heterogeneous network technologies, internetworking protocol suites (with emphasis on TCP/IP), the client/server paradigm, the BSD Socket interface, network security, and important network applications.

CSCI-633—Semantic Web Principles and Practices

Three Credit Hours

This course covers the emerging technology supporting the Semantic Web with machine-processable content. Students will engineer and implement ontologies, associated metadata and logical inference systems. Covered are specialized languages such as Extensible Markup Language (XML), Resource Description Framework (RDF), and Ontology Web Language (OWL) and query associated query languages.

CSCI-634—Project Change and Management

Three Credit Hours

Managing projects within an organizational context. Including the processes related to initiating, planning, executing, controlling, reporting, and closing a project. Project integration, scope, time, cost, quality control, and risk management. Managing the changes in organizations resulting from introducing or revising information systems. Identifying project champions, working with user teams, training and documentation. The change management role of the IS specialist.

CSCI-636—Information Technology Policy, Governance and Strategy

Three Credit Hours

The top management, strategic perspective for gaining competitive advantage through information systems. The development and implementation of policies and plans to achieve organizational goals. Effective information systems use. Defining the systems that support the operational, administrative and strategic needs of the organization, including the growth and support of computing throughout the organization. Approaches to managing the information systems function in organizations. Role of the CIO.

CSCI-638—Advanced Topics in Database Systems

Three Credit Hours

Builds on the foundation established in CSCI-601 and focuses on topics such as: algorithms for query processing and optimization, physical database design, transaction processing, concurrency control, database backup and recovery techniques, database security, distributed databases, multimedia databases, object and object-relational databases, data warehousing, and data mining. Prerequisite: CSCI 601 or permission of the instructor.

CSCI-654—Software Requirements Analysis and Specification

Three Credit Hours

An introduction to the software engineering requirements process. Topics to include: feasibility studies, risk; and requirements elicitation, modeling, analysis, specification, and validation. Prerequisite: CSCI 602.

CSCI-656—Software Systems Design and Implementation

Three Credit Hours

An introduction to the issues, techniques, strategies, representations, and patterns used in designing and implementing software. Possible design topics include: specification of internal interfaces, architectural design, data design, user interface design, design tools and evaluation of design. Possible implementation topics include: language-oriented issues, construction technologies, tools and formal construction methods.

Prerequisites: CSCI 602 and CSCI 603.

CSCI-657—Embedded Systems Design

Three Credit Hours

This course is an introduction to specifying, designing, implementing and testing (real-time) embedded systems. Topics include the embedded system life cycle, choosing a processor, hardware/software partitioning, design techniques, cross-platform development, debugging, testing and integration. Implementation languages may include Java, C/C++ or assembly.

Prerequisites: CSCI 602 and CSCI 604.

CSCI-658—Software Testing and Maintenance

Three Credit Hours

An introduction to the concepts and methods associated with software testing and maintenance. Testing topics to include: testing as part of requirements engineering and software design, test plan writing, and static and dynamic testing. Maintenance topics to include: an overview of corrective, adaptive, perfective and preventive maintenance activities as well as organizational managerial issues.

Prerequisite: CSCI 602.

CSCI-659—Service-Oriented Computing

Three Credit Hours

Service-Oriented Computing is a term that describes software systems that combine Service-Oriented Architecture (SOA) and Business Process Management (BPM) layers. This course explores both SOA and BPM, demonstrating that in combination business and IT concerns can be aligned.

Experience with service-oriented development, process modeling and execution, and securing services will be obtained.

CSCI-672—Human-Computer Interaction

Three Credit Hours

This course is an introduction to human computer interaction and user interface development. Topics include human factors of interactive software, interactive styles, design principles and considerations, development methods and tools, interface quality and evaluation methods.

CSCI-674—Introduction to Computer Graphics

Three Credit Hours

An introduction to the fundamental principles of computer graphics. Using the OpenGL application-programming interface, students will learn these principles by writing a series of programming projects.

Prerequisites: Basic knowledge of linear algebra and experience writing programs in a high level language.

CSCI-690—Special Topics in Computing

Three Credit Hours

A course in the special study of an advanced or new topic in computer science, information science or software engineering. This course may be repeated for additional credit, as the topic change.

Prerequisite: Permission of the instructor.

CSCI-691—Independent Study

Variable Credit Hours

This course consists of individual study of an agreed-upon topic under the direction of a faculty member and following a course of reading and other requirements proposed by the student and established by negotiation with the director. This course is intended to provide graduate students with an opportunity to study in an area of computer science, software engineering or information systems that is not generally offered. The course may be repeated once.

Prerequisite: Approval by the MSCS program director.

CSCI-698—Project Thesis

Three Credit Hours

Project thesis is a three-credit hour course for the completion of a formal master's project thesis under faculty direction. A project thesis is characterized by a research project that applies or extends course topics through systems development.

Prerequisites: Completion of the four core courses CSCI 601, CSCI 602, CSCI 603, and CSCI 604, and approval by the MSCS program director.

CSCI-699—Research Thesis

Six Credit Hours

Research Thesis is a six-credit hour course for the completion of a formal master's research thesis under faculty direction. A research thesis is a traditional research project characterized by a comprehensive paper on a research topic.

Prerequisites: Completion of the four core courses CSCI 601, CSCI 602, CSCI 603 and CSCI 604, and approval by the MSCS program director.

Master of Arts in Education in Mathematics

Department of Mathematics and Computer Science

Dr. John I. Moore, Jr., Department Head,
843-953-5048, john.moore@citadel.edu

Mr. Stephen D Cotter, Program Director
843-953-5035, steve.cotter@citadel.edu

Graduate courses in Mathematics are also offered in support of other degree programs, primarily the Master of Arts in Teaching (MAT) with a concentration in the field of Mathematics.

Mission:

The purpose of the M.A.E. in Mathematics is to enhance the mathematical knowledge and teaching techniques of middle and secondary mathematics teachers. The program is intended for individuals who currently hold a teaching certificate, but a certificate is not required. Courses associated with this program do not require that the participant have an undergraduate major in mathematics. However, the mathematics background and maturity gained from at least twelve hours of mathematics at the college level, with at least one course in calculus, are required. Participants whose preparation may not be adequate should confer with the department head or the program director.

Admission Requirements:

1. A completed graduate application form along with appropriate non-refundable fee returned to The Citadel Graduate College (CGC), Bond Hall room 101.
2. An official transcript of the baccalaureate degree and all other undergraduate or graduate work directly from each accredited college or university. Applicants are expected to have a cumulative undergraduate GPA of 2.5 or higher. Applicants with less than a 2.5 GPA may appeal to the Department of Mathematics and Computer Science, and their application will be reviewed by the Program Director and the Department Head. The department recommendation will be forwarded to the Dean of Science and Mathematics for final action.
3. An official copy of the Graduate Record Exam (GRE) or the Miller Analogies Test (MAT). The minimum combined score for the GRE on the verbal and quantitative sections of the general test is 900. The minimum score for the MAT is a raw score of 400.*
4. Completion of a minimum of 12 hours of college mathematics that includes at least one course in calculus.

*Students who score between 750-899 on the GRE or 380-395 on the MAT may apply for provisional status. Under provisional status, students may enroll for only one semester of 6 hours. If the student maintains a 3.50 GPA under provisional status, they may be considered for degree seeking status the following semester. Students who score 379 or below on the MAT or 749 or below on the GRE will not be admitted. Admission test must be current within five (5) years of application.

Degree Requirements:

The minimum number of hours required is 33 semester hours, of which at least 21 must be mathematics courses and 9 must be education courses. The other three hours can be either mathematics or education.

Required Mathematics Courses:

- MATH 518 Technology in Mathematics Classrooms (3)
- MATH 542 Probability and Statistics (3)
- MATH 550 Mathematical Modeling (3)
- MATH 553 Calculus from an Advanced Standpoint (3)
- Electives Three or four courses* (9-12 semester hours)

*MATH 501, 509, 517, and 541 are excluded as electives. CSCI 562 and CSCI 563 may be counted.

Required Education Courses (one course from each of the following areas):

- a. Humanistic Orientation (one course) (3)
 - EDUC 500 Foundations of American Education
 - EDUC 522 Critical Education Issues in Multicultural Society
- b. Behavioral Science Foundation (one course) (3)
 - EDUC 536 Educational Psychology
- c. Research (3)
 - EDUC 512 Data Collection and Analysis

A comprehensive written examination that covers the content of the four core courses (MATH 518, MATH 542, MATH 550, and MATH 553) is required of all candidates upon completion of these courses.

Course Descriptions:

MATH-501—Arithmetic and Algebraic Structures for Middle School Teachers

Three Credit Hours

This course is designed to relate the content of arithmetic and algebraic structures to middle school teachers. It will address the special needs of middle school teachers and identify resources and assistance. Course instruction will model the recommendations of NCTM and the content will be consistent with the South Carolina Curriculum standards.

MATH-505, 506—Mathematics for Middle/Secondary School Teachers

Three Credit Hours

These courses are designed to introduce students to topics in finite mathematics with applications to “real” world problems. Either spreadsheets or some other technology will be used to model the problems and expedite the calculations.

MATH-509—Geometry and Measurement for Middle School Teachers

Three Credit Hours

A course designed to introduce appropriate geometric concepts and measurements for middle school. Course instruction will model the recommendations of NCTM and the content will be consistent with South Carolina Curriculum standards.

MATH-510—Problem Solving Techniques

Three Credit Hours

Strategies and techniques for problem solving will be introduced and used to solve mathematical problems. The emphasis will be on middle and secondary level problem solving. A major portion of the course consists of hands-on experience in problem solving, both individually and in groups.

MATH-511—Number Theory

Three Credit Hours

The Euclidean algorithm; prime and composite integers, elementary Diophantine equations, Pythagorean triples, Euler's phi-function, congruences, Euler-Fermat theorems, exponents and primitive roots, quadratic residues.

MATH-512—History of Mathematics

Three Credit Hours

A survey of the development of mathematics from the time of the ancients to the present, analysis of causes for the retardation of the advancement of mathematics in different centuries, contributions by under represented cultures and selected reading to show the contributions of mathematics to the development of science.

MATH-514—Methods for Middle/Secondary Mathematics

Three Credit Hours

Various methodologies for teaching middle and secondary mathematics will be introduced and used in the course. The emphasis will be on using techniques and ideas suggested in the NCTM standards and South Carolina Frameworks. Ideas on how to supplement textbook material and how to motivate students will be presented. Students in the course will have the opportunity to practice the techniques presented.

MATH-517—Concepts of Pre-Calculus for Middle School Teachers

Three Credit Hours

This course will review the topics in pre-calculus with an emphasis on conceptual understanding and how middle school mathematics leads into pre-calculus. Technology will be used to assist in the motivation and development of algebraic and trigonometric ideas. Prerequisite: MATH 501 or equivalent.

MATH-518—Technology in Mathematics Classrooms

Three Credit Hours

This course will introduce new technological developments and explore ways to use calculators, computers, etc. in the teaching of mathematics.

MATH-519—Using Technology in Teaching Middle School Mathematics

Three Credit Hours

This course will demonstrate how calculators and other technological advances can be used to motivate and develop conceptual understanding of arithmetic, algebra, and geometric concepts. Various applications which make use of calculators will be investigated. The appropriateness of calculator use in teaching certain topics will be discussed.

Note: Credit may not be received for both MATH 518 and 519.

MATH-521—Modern Geometry

Three Credit Hours

A reexamination of elementary geometry from an advanced standpoint. Metric and synthetic approaches to plane and solid geometry, topics in non-Euclidean geometry.

MATH-530—Geometric Linear Algebra

Three Credit Hours

A linear algebra course which emphasizes the geometry of vectors in two and three dimensions. Topics include linear transformations, bases, orthogonality, matrix algebra, and applications in the real world as well as applications in mathematics.

MATH-532—Modern Algebra

Three Credit Hours

An introduction to the terminology, concepts, and methods of modern Abstract Algebra. Topics discussed include groups, rings, integral domains, fields, and isomorphism. Examples drawn from familiar number systems are used to illustrate elementary properties of the systems discussed.

MATH-541—Probability and Statistics for Middle School Teachers

Three Credit Hours

The course will demonstrate basic ideas of data collection and the use of elementary statistical ideas to analyze the data. Various graphical representations and models will be explored. Interpretations of the data and possible extrapolations will be investigated.

MATH 542—Probability and Statistics

Three Credit Hours

Topics will include probability, random variables, important probability distributions, sampling distributions, point and interval estimation, hypothesis testing, regression, correlation, and analysis of variance. Emphasis will be given to applications in the fields of biology, business, agriculture, political science, and education.

MATH-545—Applications of Discrete Mathematics

Three Credit Hours

Discrete mathematical topics are introduced and used in various applications. Included are counting techniques, combinatorics, graphs, theory, and recurrence relations.

MATH-550—Mathematical Modeling

Three Credit Hours

The course is designed to strengthen the content knowledge needed to use mathematical modeling as an effective tool in problem solving. Topics include models which require use of some or all of the following: difference equations, curve fitting, graphing, spreadsheets, geometry, matrices, calculus, maximization and minimization, and simulation using random numbers.

MATH-553—Calculus from an Advanced Standpoint

Three Credit Hours

This course is designed to prepare teachers who may teach the Advanced Placement course in calculus. Emphasis will be on understanding background and concepts involved in the development of calculus. The use of graphing calculators and other technology will be demonstrated and practiced.

MATH-570—Selected Topics

Three Credit Hours

Special topics in mathematics which are not covered in other courses. This course may be repeated for additional credit, as the topic change.

CSCI-562—Microcomputer Applications for Teachers

Three Credit Hours

This course is specifically designed to help teachers/administrators prepare to use microcomputers and Internet resources in their classroom/school. Topics include a general introduction to computers, word-processing, spreadsheets, databases, and telecommunications. Emphasis will be on actual classroom/school applications. This course is not intended for anyone who has already taken another computer course.

Note: This course can not be used for the Master of Science in Computer Science.

CSCI-563—Programming for Teachers

Three Credit Hours

This course is an introduction to problem solving and programming skills. It is aimed at developing strategies and programs that teachers can use with middle and high school students.

Note: This course can not be used for the Master of Science in Computer Science.

Prerequisite: CSCI 562 or other computing course.

Department of Health, Exercise, & Sport Science

Mission Statement:

Goals of the degree programs M.S. in Health, Exercise, and Sport Science and M.A.T in Physical Education are to provide an exemplary educational environment and experiences leading to advanced skills, knowledge, and attitudes within the domains of human movement; healthful living; individual growth and development; application of physical, biological, and behavioral sciences to the teaching and learning processes; and management and administration of sport, exercise, and recreation programs.

These two programs provide scholarly approaches to the study of professions for those interested in health science, exercise science, sport science, physical education, and human performance. These advanced degree programs prepare graduates for leadership positions including those within schools and other teaching and coaching venues; the recreation industry; college and university sports, intramurals, recreation, and sports club programs; resort programming; wellness and fitness industries; and sport and athletic administration.

The Department of Health, Exercise, and Sport Science also provides a Graduate Certificate in Sport Management (see page 106 for details).

Master of Science in Health, Exercise, & Sport Science

Dr. John S. Carter, 843-953-7953/5060,
john.carter@citadel.edu

Dr. Dena P. Garner, 843-953-7960,
dena.garner@citadel.edu

Admission Requirements:

1. Contact the Director of Graduate Studies for the Department of Health, Exercise, and Sport Science.
2. Complete and return a graduate application form, along with appropriate non-refundable application fee, to the The Citadel Graduate College (CGC), Bond Hall Room 101.
3. An official transcript of the baccalaureate degree and all other undergraduate or graduate work directly from each accredited college or university. Students whose degrees are from colleges and universities outside the United States will be required to have their transcripts translated by one of several academic credential evaluation organizations recognized by the CGC office.
4. Successfully complete either the Miller Analogies Test (MAT) or the Graduate Record Examination (GRE) and have official scores sent directly to the CGC office. The test must be current within five years of application. Minimum acceptable score for the MAT is 396. The minimal acceptable GRE score is a combined verbal and quantitative score of 900. Applicants who score between 380-395 on the MAT or between 750-899 on the GRE may apply for provisional status. A student with provisional status who completes 6 graduate semester hours in one semester and maintains a 3.5 grade point ratio may be classified as a regular degree-seeking student. Regular admission status is granted only upon completion of all admission requirements, documentation, respective program requirements, and evaluation by department.
5. Three letters of recommendation must be sent to the CGC office. These may be from faculty members of the applicant's undergraduate institution and/or from associates in business, government, education, or military service.
6. Submit a resume detailing previous work experiences to the CGC office.
7. Submit an official TOEFL score if your native language is not English. The minimum acceptable score is 550 paper-based, 213 computer-based, or 79 internet-based.

Program Requirements:

The program consists of thirty-nine (39) or forty-two (42) semester credit hours depending on course selection. Either twenty-one (21) or twenty-four (24) hours are derived from seven (7) or eight (8) required core courses. The balance of hours (18) may be taken from approved health, exercise, and sport science electives and a maximum of three (3) hours of free electives. **Within the broad scope of courses offered, each program of study is individually structured to accommodate needs and interests of the student while assuring mastery of the disciplines of health science, exercise science, and sport science.** Each student enrolled in this program is expected to integrate components of research, apply contemporary technological and/or computer expertise, and practice effective oral and written communications skills through each phase of the program.

During the last semester of program work, each student is required to take a written and oral exit competency examination. Questions for the written phase are drawn from coursework completed by each student in the Department of Health, Exercise, & Sport Science. After the written exam is evaluated, each student will undergo an oral investigation consisting of questions selected by members of the departmental graduate faculty. Any student who does not satisfactorily complete the exit competency examination may be required to take additional courses or accomplish individualized study to strengthen identified areas.

Core Requirements:

Depending upon program emphasis, seven (7) or eight (8) courses within the curriculum are designated “Core Courses” are required for each student:

HESS 501	Nutrition
HESS 505	Motor Development and Motor Learning
HESS 506	Applied Exercise Physiology
HESS 510	Biomechanics of Sport Techniques
HESS 540	Research Techniques and Methods of Analyzing Research in Health, Exercise, & Sport Science I
HESS 541	Current & Future Trends in Health, Exercise, & Sport Science *
HESS 507	Special Problems in Health, Exercise, & Sport Science *

(OR)

HESS 542	Practicum in Health, Exercise, & Sport Science *
(OR)	
HESS 598	Thesis I in Health, Exercise, & Sport Science (3) *
HESS 599	Thesis II in Health, Exercise, & Sport Science (3) *

* HESS 540 is a prerequisite or co-requisite for this course

TOTAL HOURS of CORE REQUIREMENTS: 21 or 24

Approved Electives

Each student is required to choose a **minimum** of six (6) courses (18 hours) from the following list of approved elective courses.

HESS 502	Drug & Substance Abuse
HESS 503	Human Sexuality
HESS 504	Public Health
HESS 508	Epidemiology

HESS 509	Preventive and Rehabilitative Aspects of Physical Activity
HESS 511	Special Topics in Health, Exercise, & Sport Science
HESS 512	Special Topics in Health, Exercise, & Sport Science
HESS 513	Sport Facility & Event Management
HESS 518	Sport Marketing
HESS 520	Special Topics in Sport Management
HESS 521	The Art of Selling in Sport
HESS 523	Administration and Leadership of Exercise and Sport Organizations
HESS 529	Special Problems in Sport Management: Advertising in Sport
HESS 530	Practicum in Sport Management
HESS 534	Accommodating Persons with Disabilities in Sport & Physical Activity
HESS 538	Internship in Sport Management (6 hours)
HESS 539	Sport Public Relations & Promotions
HESS 543	Consumer Health
HESS 544	Exercise Testing & Assessment
HESS 545	Nutrition for Exercise, Sport, and Physical Activity
HESS 546	Environmental Physiology
HESS 547	Techniques of Conditioning for Sport and Physical Fitness
HESS 548	Psychology of Sport & Motivation
HESS 549	Sociological and Cultural Aspects of Sport
HESS 552	Fundraising for Sport Organizations
HESS 553	Sport Communications
HESS 560	Research Techniques and Methods of Analyzing Research in Health, Exercise, & Sport Science II * **
HESS 554	Analysis of Sport Skills and Techniques
HESS 555	Legal Aspects of Sport
HESS 556	Sport Finance
HESS 557	Economics of Sport

* HESS 540 is a prerequisite or co-requisite for this course

** This course or an equivalent course may be required if a student chooses the thesis option

- **Opportunities exist for the development of specialized programs of study that emphasize Health Science, Exercise Science, or Sport Science.**
- Common threads of effective written and oral communication skills, research methodology, applied contemporary technology and computer expertise, collaboration and cooperation with other disciplines, and reflective learning will be incorporated within each course in the M. S. curriculum.

**Total program hours: 39 OR 42
(21/24 core hours + 18 elective)**

Course Descriptions:

HESS-501—Nutrition

Three Credit Hours

A study of primary nutrients essential to health with attention given to specific needs from infancy through adulthood. Current theories and practices related to physical and intellectual performance are also investigated. Contemporary topics are presented such as degenerative diseases, food-borne diseases, fad dieting, food additives, and sports nutrition.

HESS-502—Drug and Substance Abuse

Three Credit Hours

A study of characteristics of commonly abused chemicals and other substances and reasons for abuse. Attention will be given to methods of rehabilitation and prevention.

HESS-503—Human Sexuality

Three Credit Hours

A study of all facets of human sexuality.

HESS-504—Public Health

Three Credit Hours

A course designed to analyze public health trends, services, funding, and organization of local, state, and federal agencies.

HESS-505—Motor Development and Motor Learning

Three Credit Hours

Study of appropriate learning theories, hereditary and environmental factors that influence learning and performance of gross motor skills.

HESS-506—Applied Physiology of Exercise

Three Credit Hours

Study of effects of exercise upon various components of physical fitness. Analysis and interpretation of research in areas of cardiovascular-pulmonary adjustment, metabolic requirement, and heat regulation during exercise are emphasized.

Prerequisite: Human Physiology or Exercise Physiology

HESS-507—Special Problems in Health Science, Exercise Science, and Sport Science

Three Credit Hours

An independent research study of a local problem or a specialized subject area that is not normally covered in existing courses.

Prerequisite: HESS-540 Research Techniques and Methods of Analyzing Research in Health, Exercise, & Sport Science I

HESS-508—Epidemiology

Three Credit Hours

An introduction to the science of epidemiology and techniques used in epidemiology.

Prerequisite: Tests and Measurements, Statistics, or equivalent.

HESS-509—Preventive and Rehabilitative Aspects of Physical Activity

Three Credit Hours

This course provides emphasis on roles of exercise and physical activity in prevention and rehabilitation of degenerative diseases.

HESS-510—Biomechanics of Sports Techniques

Three Credit Hours

Study and analysis of humans in motion, sport object motion, and forces acting upon animate and inanimate bodies. Basic cinematographic and non-cinematographic techniques are utilized in a variety of both general and specific sports skill applications.

Prerequisites: Anatomy and/or Physiology

HESS-511—Special Topics in Health, Exercise, & Sport Science

Three Credit Hours

Opportunities for graduate students to take special courses not generally offered within the department. Each course must be appropriate for one's program of studies, and permission of the Director of Graduate Studies in Health, Exercise, and Sport Science is required.

Prerequisite: Varies according to the topic.

HESS-512—Special Topics in Health, Exercise, & Sport Science

Three Credit Hours

Opportunities for graduate students to take special courses not generally offered within the department. Each course must be appropriate for one's program of studies, and permission of the Director of Graduate Studies in Health, Exercise, and Sport Science is required.

Prerequisite: Varies according to the topic.

HESS-513—Sport Facility & Event Management

Three Credit Hours

This course will integrate various operational functions of sport facilities, including management principles, methodologies, and practices. In addition, effective management of sport and recreational events will be studied.

HESS-518—Sport Marketing

Three Credit Hours

This course will cover basic components of sport marketing: use of sports as a marketing tool for other products; marketing of sports products; and current considerations relevant for both marketing through and marketing of sports.

HESS-520—Special Topics in Sport Management

Three Credit Hours

Opportunity for graduate students to take special courses not generally offered within the department. Each course must be appropriate for one's program of studies, and permission of the Director of Graduate Studies in Health, Exercise, & Sport Science is required.

HESS-521—The Art of Selling in Sport

Three Credit Hours

A course concentrating on knowledge, skills and concepts related to the "art" of sales, an area valued considerably in the sport industry.

HESS 523—Administration and Leadership of Exercise and Sport Organizations

Three Credit Hours

This course examines organizational theory and behavior as well as leadership qualities related to exercise and sport organizations. Effectiveness, structure, and design of sport and exercise organizations will be addressed as well as cultures, leadership styles, conflicts, changes, and human resources involved in these entities.

HESS-529—Special Problems in Sport Management: Advertising in Sport

Three Credit Hours

A course examining knowledge, skills and concepts required for successful advertising in the sport industry. Strategies and techniques of successful advertising will be studied.

HESS-530—Practicum in Sport Management

Three Credit Hours

A supervised field experience of at least 125 hours in a sport industry setting. Students observe, shadow, and work in a setting that enhances and complements classroom learning, develops valuable skills, nurtures professional networking, and acts to advance one's future career goals.

Prerequisites: Sport Marketing (HESS 518), Administration and Leadership of Exercise and Sport Organizations (HESS 523), or instructor approval.

HESS-534—Accommodating Persons with Disabilities in Sport & Physical Activity

Three Credit Hours

Study of legal, ethical, and practical definitions of involving people with disabilities within physical activity, physical education, and sport settings.

HESS-538—Internship in Sport Management

Six Credit Hours

Involvement in an external working experience with a host sport organization for a period of at least 500 hours. This internship will provide students with opportunities to receive practical experience in selected sport management settings.

Prerequisites: All required MBA courses or instructor approval

HESS-539—Sport Public Relations & Promotions

Three Credit Hours

A course that focuses on marketing and public relations principles and practices in the sport management industry.

HESS-540—Research Techniques and Methods of Analyzing Research in Health, Exercise, & Sport Science I

Three Credit Hours

A course designed to introduce procedures for conducting, evaluating, and applying research in health, exercise, and sport science including an understanding of fundamental research design, data collection, and data analysis.

HESS-541—Current and Future Trends in Health, Exercise, and Sport Science

Three Credit Hours

Investigation and exploration of current and future trends in health, exercise, and sport science through contemporary readings and seminar discussions.

Prerequisites: HESS-540 Research Techniques and Methods of Analyzing Research in Health, Exercise, & Sport Science I

HESS-542—Practicum in Health, Exercise, and Sport Science

Three Credit Hours

A supervised field experience of at least 125 hours in a health science, exercise science, or sport science setting. Students observe, shadow, and work in a setting (s) that will enhance and complement classroom learning, develop valuable skills, nurture networking, and may advance one toward future career goals.

Prerequisites: HESS-540 Research Techniques and Methods of Analyzing Research in Health, Exercise, & Sport Science I

HESS-543—Consumer Health

Three Credit Hours

A course designed to produce smarter consumers in the health marketplace. Emphasis is on evaluation of health products and services.

HESS-544—Exercise Testing & Assessment

Three Credit Hours

A course designed to acquire knowledge and develop skills necessary for exercise testing, physical fitness assessment, and exercise prescriptions among a variety of populations. Topics to be addressed include exercise program goals and objectives, principles and methods of physical fitness screening, development and testing, evaluation of existing exercise programs, exercise prescriptions, and administration and programming considerations.

HESS-545—Nutrition for Exercise, Sport, and Physical Activity

Three Credit Hours

An examination of nutrition and physical activity interactions including exercise and sport. Topics include current research on nutrients and ergogenic aids, as well as dietary analysis and intervention with athletes.

HESS-546—Environmental Physiology

Three Credit Hours

A course that examines the energetics of environmental stress on cardiovascular, respiratory, metabolic, and muscle physiology as pertain to physical performance.

HESS-547—Techniques of Conditioning for Sport and Physical Fitness

Three Credit Hours

A study of the fundamental concepts of human physiology and exercise physiology as apply to programs of physical conditioning, training, and physical fitness. Theories, current research, and laboratory techniques for assessing human physiological responses to exercise, physical training, health-related physical fitness, and sport performance will be studied.

HESS-548—Psychology of Sport and Motivation

Three Credit Hours

A course that addresses the effects of participating in exercise and sport on psychological traits and states of participants and fans. Cognitive and neurobiological mechanisms and psychological limitations to athletic performance will be studied, as well as mental and psychological techniques and strategies to improve performance and achievement in sport and exercise.

HESS-549—Sociological and Cultural Aspects of Sport

Three Credit Hours

An examination of sport in America and its affects on society, including race, gender, adherence, values, and violence.

HESS-552—Fundraising for Sport Organizations

Three Credit Hours

Traditional and innovative revenue acquisition methods for sport organizations will be examined. Fundamental concepts and theories of fundraising applicable to the sport industry will be studied.

HESS-553—Sport Communications

Three Credit Hours

Examination of the role of sport organizations as communications systems where effective written and oral interpersonal communication skills are imperative for success.

HESS-554—Analysis of Sports Skills and Techniques

Three Credit Hours

An application of data collection and data analysis tools including EMG, videography, and force transducers to kinesiological systems of the human body during movement and sport skills.

HESS-555—Legal Aspects of Sport

Three Credit Hours

This course reviews legal considerations, responsibilities, and liabilities of organizations and personnel related to sport and recreation. Examines event management, personnel relations, and governmental regulations that impact sport and recreation as well as tort liability—special emphasis on effective management of risk, athletic eligibility, contracts, and Title IX.

HESS-556—Sport Finance

Three Credit Hours

This course deals with basic theory in finance and accounting as applied to managerial control of sport organizations. It examines forms of ownership, taxation, financial analysis, feasibility studies, and economic impact studies, related to sport organizations.

HESS-557—Economics of Sport

Three Credit Hours

This course is designed to introduce the student to fundamental economic concepts and analysis, especially the concepts related to spectator sports, youth sports, recreational sports, the sporting goods industry, etc.

HESS-560—Research Techniques and Methods of Analyzing Research in Health, Exercise, & Sport Science II

Three Credit Hours

Advanced procedures for conducting, evaluating, and applying research in health, exercise, and sport science including an understanding of parametric and nonparametric instruments and methodologies used to measure and evaluate various parameters considered essential to research in health, exercise, and sport science.

Prerequisite: HESS-540 Research Techniques and Methods of Analyzing Research in Health, Exercise, & Sport Science I; Statistics, Tests and Measurements, or equivalent.

HESS-598—Thesis I in Health Science, Exercise Science, and Sport Science

Three Credit Hours

Student will be directed to develop the research question or problem statement, define terminology, identify limitations and delimitations, and formulate hypotheses and purpose statements. A literature review critiquing previous research on the topic and a description of methodology to be used to solve the problem will be included. Chapters 1, 2, and 3 of the thesis will be completed and presented to the thesis committee for approval.

Prerequisites: HESS-540, HESS-560 Research Techniques and Methods of Analyzing Research in Health, Exercise, & Sport Science I, II

HESS-599—Thesis II in Health Science, Exercise Science, and Sport Science

Three Credit Hours

Student will be directed to report results, discuss findings in relation to the introduction and previous literature, identify recommendations and conclusions, and include a bibliography. Chapters 4 and 5 of the thesis will be completed, and the entire thesis presented in an oral defense to the thesis committee for approval. The student will also be expected to submit the research for presentation at a state, regional, or national meeting or equivalent.

Prerequisites: HESS-540, HESS-560 Research Techniques and Methods of Analyzing Research in Health, Exercise, & Sport Science I, II and HESS-598, Thesis I in Health Science, Exercise Science, and Sport Science.



School of Engineering

Master of Science:

- Project Management

THE
CITADEL
GRADUATE COLLEGE

Master of Science in Project Management
School of Engineering, 843-953-6588
Dr. Keith Plemmons, PE, PMP
843-953-7677
Keith.Plemmons@citadel.edu

Mission Statement:

The mission of The Citadel's Master of Science in Project Management is to equip a diverse professional student population with the applied knowledge, principled leadership and management skills needed to effectively lead an organization's implementation of projects and multi-disciplinary initiatives.

Admission Requirements:

Applicants will be admitted to the Master of Science in Project Management (MSPM) degree program on the basis of professional and scholastic achievement, along with their aptitude for graduate study. Other qualities appropriate to graduate study are also considered. Anyone holding a bachelor's degree from an accredited college or university (one recognized by the Council for Higher Education Accreditation) is eligible for consideration. A technical or engineering background is not a requirement for admission. All material must be received by the CGC office on or before the following dates to assure consideration to the MSPM degree program during the applicable semester.

<u>Semester to begin:</u>	<u>Admission material due:</u>
Fall	July 20th
Spring	December 1st
Summer	March 20th

For degree-seeking students:

1. Complete and return a graduate application form, along with appropriate non-refundable application fee, to The Citadel Graduate College (CGC), Bond Hall Room 101.
2. An official transcript of the baccalaureate degree and all other undergraduate or graduate academic course work from each accredited college or university recognized by the CHEA must be submitted directly to The Citadel Graduate College.
3. Submission of official copy of GRE or GMAT test score, obtained within the previous five years, to the CGC office.
4. Evidence of a minimum of one year of professional experience, or permission from Department Head.
5. Submit two letters of reference to the CGC office.
6. Submit a resume detailing previous work.
7. Prepare and submit a statement of purpose.
8. Submission of an official TOEFL score if the applicant's native language is not English. The minimum score is 550 paper-based or 213 computer-based or 79 Internet-based.

For non-degree seeking engineering students wanting to

take graduate-level courses to fulfill professional practice requirements:

1. Complete and return a graduate application form, along with appropriate non-refundable application fee, to The Citadel Graduate College (CGC), Bond Hall Room 101.
2. An official transcript of the baccalaureate degree and all other undergraduate or graduate academic course work from each accredited college or university recognized by the CHEA must be submitted directly to The Citadel Graduate College.
3. Submit a resume detailing previous work.
4. Submission of an official TOEFL score if the applicant's native language is not English. The minimum score is 550 paper-based or 213 computer-based or 79 internet-based.

Admission Denied: During the admission process, the applicant's records will be reviewed and results communicated in writing. If the application is denied, the applicant may petition the Dean of Engineering for re-consideration, citing any extenuating or mitigating circumstances.

Program Requirements:

The Master of Science in Project Management is conferred upon those candidates who successfully complete an approved program of study consisting of 30 semester hours of graduate credit as delineated below.

Students are expected to complete all degree requirements within a seven-year period from the time of registration in their first graduate course at The Citadel. Any transfer credit must have been earned within six years prior to admission into The Citadel MSPM program. Any prerequisites for applicable courses must be met.

All degree candidates must:

1. Complete the following four core Technical Project Management (TPM) courses for a total of 12 hours.

ENGR 650	Overview of Technical Project Management
ENGR 651	Technical Project Planning and Scheduling
ENGR 652	Applications of Quality Management
ENGR 653	Technical Project Support and Operations
2. Complete the following two core Leadership courses for a total of 6 hours.

BADM 713	Communication for Leadership
BADM 722	Leadership in Organizations
3. Declare a plan of study from the following optional areas of study totaling 12 hours from one or more of the following optional areas of study

Option Areas of Study:

- Leadership Option
 - BADM 710 Quantitative Methods
 - ENGR 672 Applied Leadership Concepts
 - ENGR 690 Independent Study
 - PSYC 500 Human Growth and Development
 - PSYC 570 Social and Cognitive Foundations of Interpersonal Behavior

- Electrical and Computer Engineering (ECE) Option
 - ELEC 605 Advanced Power Systems
 - ELEC 615 Spectral Analysis
 - ELEC 625 RF Systems
 - ELEC 635 Adaptive Signal Processing
 - ELEC 645 Data Communication Networks
 - ELEC 655 Digital Communications
 - ELEC 665 Fundamentals of Advanced Energy Conversion
 - ELEC 675 Computer Architecture

- Civil and Environmental Engineering (CEE) Option
 - CIVL 502 Sustainability
 - CIVL 504 Natural Hazards and Preservation of Historical Structures
 - CIVL 506 Geographic Information Systems
 - CIVL 508 Monitoring of Civil Engineering Infrastructure
 - CIVL 602 Water Quality Modeling and Management
 - CIVL 604 Aquatic Chemistry
 - CIVL 608 Building Load Analysis
 - CIVL 610 Timber Design
 - CIVL 612 Urban Transportation Planning
 - CIVL 614 Ground Improvement
 - CIVL 616 Deep Foundations
 - CIVL 650 Special Graduate Topics in Civil Engineering

Total Courses: 30 credit hours.

Transfer Credit: A maximum of two courses (6 hours) may be transferred in from an accredited college or university (one recognized by the Council for Higher Education Accreditation). (except for ENGR 650, ENGR 651, ENGR 652, and ENGR 653), provided: (1) grades of “B” or better were received in the courses being considered, (2) credit was earned within six years prior to admission into The Citadel MSPM program, and (3) each course has been approved by the department head.

Transfer Credit From The Citadel: A maximum of four courses (12 hours) may be transferred from another Master’s degree program at The Citadel, provided that core degree requirements are met.

Grading: All students are subject to the Academic Standards section under Policy Information of The Citadel Graduate College catalog.

Requirements for Graduation: The degree of Master of Science in Project Management may be conferred upon those students who successfully complete the 30 hours of graduate coursework as specified above with a grade-point ratio (GPR) of 3.0 or better on

hours earned at The Citadel. Completion of more than 30 credit hours of advanced graduate coursework will only be allowed for professional development, and may not be used to increase GPR to the 3.0 required for graduation.

Required Technical Project Management Courses:

ENGR-650—Overview of Technical Project Management Three Credit Hours

This course applies a systems engineering approach to project management and introduces the student to the entire lifecycle of technical projects as offered by Project Management Institute’s A Guide to the Project Management Body of Knowledge (PMBOK® Guide) and other resources. Practical assignments are combined with industry-accepted standards for the purpose of developing a logical framework for managing and leading technical projects. The five major process groups of Initiation, Planning, Executing, Monitoring and Controlling, and Closing are investigated in relationship with the nine knowledge areas of Integration, Scope, Time, Cost, Quality, Human Resources, Communication, Risk and Procurement. Professional responsibility and ethics will receive particular emphasis. A Capstone Project requirement is a major component of this course and integrated into the other Technical Project Management (TPM) courses, ENGR 651, ENGR 652, and ENGR 653. A formal presentation of the completed TPM Capstone Project to industry, academic and public professionals will be required at the successful completion of the fourth TPM course.
Prerequisite: None

ENGR-651—Technical Project Planning and Scheduling Three Credit Hours

This course explores the principles and applications of work breakdown structures (WBS); the Critical Path Method (CPM) and Program Evaluation and Review Technique (PERT); earned value management, critical chain scheduling and buffer management; definition and allocation of resources; resource leveling; and schedule compression. Course content includes realistic projects, case studies, Primavera and MS Project computer applications, along with web-based management and technology tools. Each student will continue working on their Capstone Project started in ENGR 650, and if ENGR 652 and ENGR 653 have been successfully completed, will formally present the completed project as part of this course.
Prerequisite/Co-requisite: ENGR 650 or instructor permission.*

ENGR-652—Applications of Quality Management Three Credit Hours

This course investigates the principles of quality management and their application in the technical project environment. The standards, tools, techniques and deliverables as related to the development and implementation of a comprehensive quality system will be explored. Topics related to ISO 9000, lean six sigma methodology, business process improvement, and function point analysis will be addressed. Each student will continue working on their Capstone Project started in ENGR 650, and if ENGR 651 and ENGR 653 have been successfully completed, will formally present the completed project as part of this course.
Prerequisite/Co-requisite: ENGR 650 or instructor permission.*

ENGR-653—Technical Project Support and Operations

Three Credit Hours

This course is designed to provide students with knowledge and understanding of the activities necessary for the completion of a project, but not normally recognized as project activities. These activities include project plan development, negotiations, coaching and interpersonal skills, contract specifications and general conditions, bonds and insurance, and risk planning and mitigation. Each student will continue working on their Capstone Project started in ENGR 650, and if ENGR 651 and ENGR 652 have been successfully completed, will formally present the completed project as part of this course.

Prerequisite/Co requisite: ENGR 650 or instructor permission.*

*ENGR 651, ENGR 652, ENGR 653 may be taken in any order.

Required Leadership Courses:

BADM-713—Communication for Leadership

Three Credit Hours

This course provides insight on the role of organizations as communication systems in which effective writing and speaking are crucial. Emphasis is on developing awareness of verbal and written styles, interpersonal skills, and creating a repertoire of writing and speaking strategies.

Prerequisite: None.

BADM-722—Leadership in Organizations

Three Credit Hours

This course is a seminar that focuses on the understanding and application of organizational theory and leadership principles. In addition, the course will include components on developing individual leadership skills and different theories of organizations. The applications component of the course will include a variety of approaches such as cases, films, guest speakers, individual self-assessment, role play, team building exercises, and a leadership portfolio.

Prerequisite: None.

Option Areas of Study Courses (Total 12 hours): Leadership Option Courses

PSYC 500 and PSYC 570 are currently provided by The Citadel under the Department of Psychology. BADM 710 is provided by the School of Business under the Master of Business Administration (MBA) program. ENGR 672 and ENGR 690 are currently provided by The Citadel School of Engineering.

PSYC-500—Human Growth and Development

Three Credit Hours

An analysis of the principles of human development with emphasis on the contributions of biological, social, psychological, and multicultural influences as applied to an understanding of cognitive, emotional, social, and physical development across the life-span. Particular emphasis will be given to the psychobiological nature and social context of development as well as cultural and ethnic variations impacting on developmental processes.

PSYC-570—Social and Cognitive Foundations of Interpersonal

Behavior

Three credit hours

This course presents a survey of the scientific study of social influence ~ or social psychology, in other words. The class is based on the premise that a fundamental understanding of the basic forces affecting how individuals think and behave in social settings serves as a cornerstone of effective interpersonal behavior and sound leadership, and is thus critical to successful performance in virtually every professional endeavor. The topics addressed include social judgment and decision-making, attitudes and attitude change, persuasion, group processes, prejudice and discrimination, and conflict resolution.

Prerequisites: None

BADM-710—Quantitative Methods

Three credit hours

This course is designed to provide students with knowledge of analytical tools and concepts used in making optimal decisions in the pursuit of organizational goals including cost efficiency, service delivery, and profit. Analytical concepts include probability theory, statistics, regression analysis, forecasting, and utility theory. In addition to the theory covered above, the students will also work on projects employing techniques, particularly regression and forecasting.

Prerequisites: None

ENGR-672—Applied Leadership Concepts

Three credit hours

This course is designed to provide project/program management professionals with advanced leadership skills. Areas covered in the course will include leadership challenges unique to international projects, virtual project teams, executive leadership issues, conflict resolution, effective oral and written communications, changing a corporate culture, stakeholder management, and how to lead the team development lifecycle. Course content will include case studies, guest speakers, executive shadowing, and classroom simulations.

Prerequisites: ENG-650

ENGR-690—Independent Study

Three credit hours

This course is designed to give students real-world work experience to complement the classroom education they have previously received or to allow for working on an advanced academic project under the direction of one or more of the faculty of the School of Engineering. Students will have the opportunity to relate their classroom experiences to a variety of managerial issues and/or to the investigation of some advanced topic. Topics shall not be directly related to the student's past life experiences. Applicable efforts, activities, and topics will be coordinated through the School of Engineering.

Prerequisites: ENG-650

Courses:

The Department of Electrical and Computer Engineering (ECE) offers the following courses:

ELEC-605–Advanced Power Systems

Three credit hours

A review of AC systems, power flow and symmetrical faults will be given. Students will study symmetrical components, unsymmetrical faults, system protection, power system controls, and power line transients. Additional topics will include power flow computational methods, regulatory aspects of the North American power grid, and the use of computer tools for the design of transmission and distribution systems.

Prerequisites: Graduate Status or permission from instructor, and an undergraduate course in power system analysis or equivalent.

ELEC-615–Spectral Analysis

Three credit hours

Spectral estimation and analysis plays a key role in a large variety of signal processing applications. Classical and modern spectral analysis techniques are developed and compared in terms of performance and implementation. Topics covered include random-discrete signals, sample autocorrelations functions, the periodogram, and parametric spectral estimates.

Prerequisites: Graduate Status or permission from instructor, and an undergraduate course(s) in continuous and discrete time signal analysis or equivalent.

ELEC-625–RF Systems

Three credit hours

Analysis, design, and optimization of radio-frequency systems. The operation and characterization of RF components, fundamentals of noise and distortion, and system concepts including tools such as level charts and link budgets will be taught. Applications will include wireless communication systems and radar.

Prerequisites: Graduate Status or permission from instructor, and undergraduate courses in linear systems and electromagnetic fields.

ELEC-635–Adaptive Signal Processing

Three credit hours

An introduction to the analysis and design of adaptive systems with applications in the areas of communications, signal processing, and control. Topics include random signal models; theory of adaptation and performance measures; LMS and RLS algorithms; optimal filtering; adaptive equalization; interference cancellation; signal prediction; and system identification.

Prerequisites: Graduate Standing or permission from instructor, and undergraduate courses in signals and systems, and probability and statistics for engineers.

ELEC-645–Data Communication Networks

Three credit hours

Fundamentals of data communication networks. Emphasis on network algorithms and their performance. Topics include: layered network architecture, Link Layer protocols, high-speed packet switching, queueing theory, Local Area Networks, and Wide Area Networking issues, including routing and flow control

Prerequisites: Graduate Status or permission from instructor, and undergraduate courses in computer programming and probability and statistics for engineers.

ELEC-655–Digital Communications

Three credit hours

Introduction to modern digital communication systems. Emphasis on modulation and detection techniques and their performance in the presence of noise.

Prerequisites: Graduate Status or permission from instructor, and undergraduate courses in linear systems and probability and statistics for engineers.

ELEC-665–Fundamentals of Advanced Energy Conversion

Three credit hours

This course covers fundamentals of thermodynamics, chemistry, flow and transport processes as applied to energy systems. Topics include analysis of energy conversion in thermomechanical, thermochemical, electrochemical, and photoelectric processes in existing and future power and transportation systems, with emphasis on efficiency, environmental impact and performance. Systems utilizing fossil fuels, hydrogen, nuclear and renewable resources, over a range of sizes and scales are discussed.

Applications include fuel reforming, hydrogen and synthetic fuel production, fuel cells and batteries, combustion, hybrids, catalysis, supercritical and combined cycles, photovoltaics, etc. The course also deals with different forms of energy storage and transmission, and optimal source utilization and fuel-life cycle analysis.

Prerequisites: Graduate Status or permission from instructor and undergraduate courses in university physics and engineering mathematics.

ELEC-675–Computer Architecture

Three credit hours

Organization and design of computer systems hardware. Provides the basic knowledge required for understanding and designing standard and advanced computer architectures. Topics include: instruction set architectures, ALU design and computer arithmetic, memory organization, cache and virtual memories, controller design, pipelining and parallelism.

Prerequisites: Graduate status or permission of the instructor, and undergraduate courses in digital logic design and assembly language programming.

Civil and Environmental Engineering Option Courses:

The Department of Engineering (ECE) offers the following courses:

CIVL-502–Sustainability

Three credit hours

This course provides an introduction to the broad topic of sustainability and its application to engineering. A foundation of study on the historical perspective of sustainability leads to a focus on sustainable development, sustainable design.

Prerequisites: BS degree in engineering or related field.

CIVL-504–Natural Hazards and Preservation of Historical Structures

Three credit hours

Engineering and science applications and socio-economic impacts of natural hazards on historic structures. Course provides thorough overview of design, rehabilitation, and other socio-

economic decisions related to natural hazards and historical structures.

Prerequisites: BS degree in engineering or related field.

CIVL-506–Geographic Information Systems

Three credit hours

Instruction in Geographic Information Systems (GIS) focusing on data analysis and application methods for engineers, planners and related professions. Fundamental topics include spatial analysis, geostatistical analysis, 3-D modeling, and vector/raster modeling. The focus of the course is on gaining a fundamental understanding of spatial data structures in GIS, geo-spatial data acquisition, geoprocessing, geostatistical methods; visualization, exploration of spatial data; network analysis, terrain mapping, spatial analysis, and modeling. The course will include specific emphasis on urban land use evaluation methods, transportation analysis (dynamic segmentation and routing) and hydrologic modeling.

Prerequisites: BS in mathematics, science, or engineering, or permission from instructor. Familiarity with basic GIS concepts with and either ARC/INFO, ArcView, or ArcGIS highly recommended.

CIVL-508–Monitoring of Civil Engineering Infrastructure

Three credit hours

Design and analysis of instrumentation systems to monitoring of civil engineering infrastructure for the purpose of evaluating performance and/or design. Covered topics include principles of measurement, measurement errors and error analysis, instrumentation sensor types and calibration, data acquisition and signal conditioning, and data management.

Prerequisites: CIVL330 or equivalent or permission from instructor.

CIVL-602–Water Quality Modeling and Management

Three credit hours

Water quality analysis and simulation of physical, chemical, and biological processes affecting rivers, lakes, estuaries, and drinking water distribution systems. Included are best management practices based on application of water quality modeling techniques to environmental systems (rivers, lakes, distribution systems, etc).

Prerequisites: CIVL 312 or permission from instructor.

CIVL-604–Aquatic Chemistry

Three credit hours

Quantitative treatment of variables that govern the chemistry of aquatic systems such as lakes, oceans, rivers, estuaries, and groundwater. Emphasis on carbonate in open and closed systems, metal complexation and solubility, and oxidation-reduction reactions.

Prerequisites: CHEM 152/162 or permission from instructor.

CIVL-608–Building Load Analysis

Three credit hours

Structural engineering applications of analysis methodologies used to determine loads in accordance with ASCE 7. Course provides thorough overview of all practical load considerations.

Prerequisites: CIVL 309 or approved equivalent.

CIVL-610–Timber Design

Three credit hours

Design of wood framed structures in accordance with the NDS Specification. Course provides thorough overview of practical member and connection design and real world applications.

Prerequisites: CIVL 304 or approved equivalent.

CIVL-612–Urban Transportation Planning

Three credit hours

A systems approach to the transportation planning process focusing on policy issues and the decision making process. Topics include: 1.) Trip generation modeling –variables influencing trip generation, regression analysis and category analysis; 2.) Trip distribution – modeling factors governing trip distribution, growth-factor methods and gravity models, calibration of gravity models; 3.) Mode split modeling – factors influencing mode choice, discrete choice models; 4.) Route selection – traffic assignment; and 5.) Transportation surveys; transport related land use models, urban structure, urban goods transport. Use of popular travel demand software and transportation planning applications will also be covered.

Prerequisites: BS in mathematics, science, or engineering, or permission from instructor.

CIVL-614–Ground Improvement

Three credit hours

This course provides a thorough overview of several design and construction methods for improving in-situ soil conditions. Covered topics include site exploration; evaluation of in-situ soil conditions via in-situ testing; soil liquefaction; soil shear strength and compressibility; soil nailing; foundation problems for highway embankments; soil grouting; dynamic compaction, vibro-compaction; and vibro-replacement.

Prerequisites: CIVL410 or equivalent or permission from instructor.

CIVL-616–Deep Foundations

Three credit hours

Design, construction, and inspection of deep foundation systems. Covered topics include effects of deep foundation installations; static capacity and settlement analysis of single pile and pile groups under axial and lateral loads; drilled shaft design, construction, and inspection techniques; deep foundation load testing standards, interpretation, and simulation; non-destructive testing and subsequent analysis; cost analysis of deep foundations.

Prerequisites: CIVL410 or equivalent or permission from instructor.

CIVL-650–Special Graduate Topics in Civil Engineering

Three credit hours

Selected graduate topics in civil engineering. The offering of this course will depend upon the interest of the students, the availability of an instructor, and the approval of the department head. Since the content of this course may change, a student may repeat the course for credit with the consent of the department head. Prerequisites: Graduate status and permission from department head. Prerequisites: none.

Graduate Certificate Programs 2010-2011

Graduate Certificate in Technical Project Management

School of Engineering, 843-953-6588

Dr. Keith Plemmons, 843-953-7677

Keith.Plemmons@citadel.edu

Mission Statement:

The mission of the Technical Project Management (TPM) graduate certificate program is to educate and train the next generation of technical and professional leaders.

Admission Requirement:

Successful applicants must meet the following criteria for admission into the TPM graduate certificate program.

1. Complete and return a graduate application form, along with appropriate non-refundable application fee, to the The Citadel Graduate College (CGC), Bond Hall Room 101.
2. An official transcript of the baccalaureate degree and all other undergraduate or graduate work directly from each accredited college or university attended.
3. Submit a one-page letter of intent (form available at www.citadel.edu/graduatecollege/forms) that provides concise, complete answers to the following questions:
 - a. How has your experience prepared you for the TPM graduate courses?
 - b. How will your knowledge, skills and attitudes contribute to the TPM program's learning community?
 - c. What do you hope to gain from the TPM graduate program?

All material must be received by the CGC office to receive consideration to the TPM graduate program. An undergraduate engineering degree is not required.

Program Requirements:

Students are required to complete 12 hours of graduate study within a four-year period from the time of registration in their first TPM graduate course at The Citadel. Students who fulfill the program requirements will earn a graduate certificate in Technical Project Management.

Required Program:

The required courses for the TPM Graduate Certificate Program are:

- ENGR 650: Overview of Technical Project Management, 3 credit hours
- ENGR 651: Technical Project Planning and Scheduling, 3 credit hours
- ENGR 652: Applications of Quality Management, 3 credit hours
- ENGR 653: Technical Project Support and Operations, 3

credit hours

The optional course for TPM Graduate Certificate Program is:

- ENGR 690: Independent Study

Total Required Courses: 12 credit hours

All students are required to complete a Capstone Project that spans the four TPM courses. Other degree programs may require students to complete subject specific Capstone Projects in order to transfer TPM courses for credit within those programs.

A graduate student desiring to engage in a research or scholarly project of mutual interest to the student and the faculty member who directs the study, may propose to substitute ENGR 690 for ENGR 651, ENGR 652, or ENGR 653. Approval to register for ENGR 690 requires written permission from the Dean of Engineering; a 3.0 cumulative GPA; and approved Specific Course Assignment including applicable scope, expected deliverables, and contact information.

Required Courses:

ENGR 650: Overview of Technical Project Management

Three Credit Hours

This course applies a systems engineering approach to project management and introduces the student to the entire lifecycle of technical projects as offered by Project Management Institute's A Guide to the Project Management Body of Knowledge (PMBOK® Guide) and other resources. Practical assignments are combined with industry-accepted standards for the purpose of developing a logical framework for managing and leading technical projects. The five major process groups of Initiation, Planning, Executing, Monitoring and Controlling, and Closing are investigated in relationship with the nine knowledge areas of Integration, Scope, Time, Cost, Quality, Human Resources, Communication, Risk and Procurement. Professional responsibility and ethics will receive particular emphasis. A Capstone Project requirement is a major component of this course and integrated into the other Technical Project Management (TPM) courses, ENGR 651, ENGR 652, and ENGR 653. A formal presentation of the completed TPM Capstone Project to industry, academic and public professionals will be required at the successful completion of the fourth TPM course.

Prerequisite: None

ENGR 651: Technical Project Planning and Scheduling

Three Credit Hours

This course explores the principles and applications of work breakdown structures (WBS); the Critical Path Method (CPM) and Program Evaluation and Review Technique (PERT); earned value management, critical chain scheduling and buffer management; definition and allocation of resources; resource leveling; and schedule compression. Course content includes realistic projects, case studies, Primavera and MS Project computer applications, along with web-based management and technology tools. Each student will continue working on their Capstone Project started in ENGR 650, and if ENGR 652 and ENGR 653 have been successfully completed, will formally present the completed project as part of this course.

Prerequisite/Co-requisite: ENGR 650 or instructor permission.

ENGR 652: Applications of Quality Management

Three Credit Hours

This course investigates the principles of quality management and their application in the technical project environment. The standards, tools, techniques and deliverables as related to the development and implementation of a comprehensive quality system will be explored. Topics related to ISO 9000, lean six sigma methodology, business process improvement, and function point analysis will be addressed. Each student will continue working on their Capstone Project started in ENGR 650, and if ENGR 651 and ENGR 653 have been successfully completed, will formally present the completed project as part of this course.

Prerequisite/Co-requisite: ENGR 650 or instructor permission.

ENGR 653: Technical Project Support and Operations

Three Credit Hours

This course is designed to provide students with knowledge and understanding of the activities necessary for the completion of a project, but not normally recognized as project activities. These activities include project plan development, negotiations, coaching and interpersonal skills, contract specifications and general conditions, bonds and insurance, and risk planning and mitigation. Each student will continue working on their Capstone Project started in ENGR 650, and if ENGR 651 and ENGR 652 have been successfully completed, will formally present the completed project as part of this course.

Prerequisite/Co-requisite: ENGR 650 or instructor permission.

Optional Course:

ENGR 690: Independent Study

Three Credit Hours

This course is designed to give School of Engineering students real-world work experience to complement the classroom education they have previously received or to allow for working on an advanced academic project under the direction of one or more of the faculty of the School of Engineering. Students will have the opportunity to relate their classroom experiences to a variety of managerial issues and/or to the investigation of some advanced topic. Topics shall not be directly related to the student's past life experiences. Applicable efforts, activities, and topics will be coordinated through the School of Engineering.

Transfer Credit: No transfer credit hours will be accepted.

Grading: All students are expected to maintain high academic and professional standards. Any student who receives any form of "C" (i.e. C, C+) or F will be dismissed from the TPM program for academic insufficiency. Dismissed students must resubmit application documents and appeal to the dean of the school to be considered for continuance in the program.

Graduate Certificate in Sport Management - Sport Sales & Marketing

Department of Health, Exercise, and Sport Science
843-953-5060

Department Head
Dr. John S. Carter, 843-953-7953
john.carter@citadel.edu

Program Coordinator
Dr. Harry Davakos, 843-953-7957
Harry.Davakos@citadel.edu
Dr. Linda Schoonmaker, 843-953-7958
linda.schoonmaker@citadel.edu

The Sport Management Certificate Program

This certificate program in Sport Management offers five (5) courses that will enhance the student's breadth and depth of knowledge and skills in sport sales and marketing. These courses were specifically developed to broaden knowledge, skills, and abilities of working professionals in the field of sport management as well as provide such skills to students who wish to enhance their career marketability. In addition, graduate programs, such as the M.S. in Health, Exercise, and Sport Science program at The Citadel, may accept these certificate program courses as credits towards completion of a Master's degree with an emphasis in Sport Management.

Admission Requirements:

Requirements and application procedures for admission into the Sport Management Certificate Program:

1. Contact the Program Coordinator of the Sport Management Program in the Department of Health, Exercise, and Sport Science, Deas Hall, Room 205, Tel: (843) 843-7957 or (843) 953-5060, email: harry.davakos@citadel.edu.
2. Complete and return a graduate application form, along with a non-refundable application fee to The Citadel Graduate College (CGC), Bond Hall, Room 101.
3. Submit an official transcript of the baccalaureate degree and all other undergraduate or graduate work directly from accredited colleges and universities. Students whose degrees are from colleges and universities outside the United States will be required to have their transcripts translated by one of several academic credential evaluation organizations recognized by The Citadel Graduate College.
4. Submit a resume to the Program Coordinator of the Sport Management Program (Department of Health, Exercise, and Sport Science) detailing previous work experience.
5. A letter of intent to the Program Coordinator of the Sport Management Program (Department of Health, Exercise, and Sport Science) that addresses the following questions:
 - a. How have your past experiences prepared you for the

Sport Management Certificate Program's graduate work?

- b. How will your knowledge, skills, and attitudes contribute to the sport marketing/sales learning community?
- c. What do you hope to gain if accepted to the Sport Management Certificate Program?

All materials must be received by the CGC and Health, Exercise, and Sport Science Department to receive consideration for entrance into the Sport Management Certificate Program.

Course Descriptions:

HESS-518—Sport Marketing

Three Credit Hours

A course examining theories, principles, fundamentals, applications, and challenges of marketing in exercise, sport, and recreation industries.

HESS-521—The Art of Selling in Sport

Three Credit Hours

A course concentrating on knowledge, skills and concepts related to the "art" of sales, an area valued considerably in the sport industry.

HESS-523—Administration and Leadership of Exercise and Sport Organizations

Three Credit Hours

A course examining organizational theory and behavior as well as leadership qualities related to exercise and sport organizations. Effectiveness, structure, and design of exercise and sport organizations are also addressed as well as cultures, leadership styles, conflicts, changes, and human resources involved in these entities.

HESS-529—Special Problems in Sport Management: Advertising in Sport

Three Credit Hours

A course examining knowledge, skills and concepts required for successful advertising in the sport industry. Strategies and techniques of successful advertising will be studied.

HESS-539—Sport Public Relations and Promotions

Three Credit Hours

A course focusing on public relations principles and practices in the sport management industry.

Graduate Certificate in Leadership

Dr. Mick Fekula
Director of Academic Leadership Programs,
843-953-4994

The graduate certificate in Leadership consists of five (5) three (3) hour courses at the graduate level which can be used in each of the following programs or can be completed as a stand alone certificate in leadership for those interested individuals who are not enrolled in one of these three programs;

- Master of Arts in Social Science
- Master of Science in Project Management
- Master of Business Administration

Admission Requirements:

1. Complete and return a graduate application form, along with the appropriate non-refundable application fee, to the The Citadel Graduate College (CGC), Bond Hall Room 101.
2. Submit an official transcript for the baccalaureate degree and all other undergraduate or graduate work directly from each college or university attended.
3. Submit a letter of intent, no more than two pages, which answers the following questions:
 - a. How has your experience/education prepared you for graduate courses in leadership?
 - b. How will your knowledge, skills and experiences contribute to this program's learning community?
 - c. What do you hope to gain from this graduate certificate program?
4. Submit the names and contact information for three (3) references familiar with your work.

All material must be received by the CGC office to receive consideration for admission to this graduate certificate program.

Students who are currently admitted to a graduate degree program at The Citadel are automatically eligible to pursue the Graduate Certificate in Leadership.

Course Descriptions:

PSYC-500—Human Growth and Development

Three Credit Hours

An analysis of the principles of human development with emphasis on the contributions of biological, social, psychological, and multicultural influences as applied to an understanding of cognitive, emotional, social, and physical development across the life-span. Particular emphasis will be given to the psychobiological nature and social context of development as well as cultural and ethnic variations impacting on development processes.

PSYC-570—Social and Cognitive Foundations of Interpersonal Behavior

Three Credit Hours

This course presents a survey of the scientific study of social influence, emphasizing that a fundamental understanding of the basic forces affecting how individuals think and behave in social settings serves as a cornerstone of effective interpersonal behavior and sound leadership.

BADM-713—Communication for Leadership

Three Credit Hours

This course provides insight on the role of organizations as communication systems in which effective writing and speaking are crucial. Emphasis is on developing awareness of verbal and written styles, interpersonal skills, and creating a repertoire of writing and speaking strategies.

Prerequisites: None.

BADM-722—Leadership in Organizations

Three Credit Hours

This course is a seminar that focuses on the understanding and application of organizational theory and leadership principles. In addition, the course will include components on developing individual leadership skills and different theories of organizations. The applications component of the course will include a variety of approaches such as cases, films, guest speakers, individual self-assessment, role play, team building exercises, and a leadership portfolio.

Prerequisites: None.

Application of Leadership

Three Credit Hours

Choose one (1) of the following courses:

- Master of Arts in Social Science
Choose from select History, English, or Political Science courses
- Master of Science in Project Management ENGR 672
- Master in Business Administration BADM 740

Graduate Certificate in Student Affairs

School of Education

843-953-5097

Dr. George Williams, 843-953-2205

Williamsg@citadel.edu

The Citadel Graduate College (CGC) and the Division of Counselor Education within The Citadel School of Education (SOE) is committed to principled educational leadership in higher education making The Citadel the ideal place for offering a program that aims to prepare leaders in Student Affairs.

The Student Affairs graduate certificate is designed to teach students aspiring to work (or currently working) in higher education how to:

- Use resources effectively to achieve institutional missions and goals;
- Establish high expectations for the learning process; and
- Equip individuals with the skills needed to engage students in active learning while building supportive and inclusive communities within higher education institutions that help students develop coherent values and ethical standards.

The program also provides supportive educational background for those interested in pursuing a doctoral degree in Educational Leadership with a concentration in Higher Education Administration currently offered by Clemson University at the Lowcountry Graduate Center.

Admission Requirements:

1. Submit a completed graduate application form along with the appropriate non-refundable application fee to The Citadel Graduate College.
2. Submit official transcript(s) of all undergraduate and graduate credit directly from the source, including documentation of graduation from an accredited four-year college or university.
3. Submit one letter of recommendation.

Once all admission requirements have been satisfied, the SOE Division of Counselor Education Admissions Committee will review the application and the applicant will be notified of their admission decision.

Curriculum:

The Student Affairs certificate program consists of four, three credit-hour courses totaling 12 graduate credit hours. Students may choose to enroll in 15 credit hours when including a practicum. Courses in the program are typically offered at the Lowcountry Graduate Center (LGC).

EDUC-537—Student Development Services in Higher Education Three Credit Hours

This course focuses on the historical and current approaches of the organization, management, and evaluation of student services.

EDUC-500—Foundations of American Education (Student Affairs and College Counseling Concentration) Three Credit Hours

This course is designed to assist students in understanding the historical trends and events that have influenced contemporary American higher education and the resulting evolution of the American college student.

EDUC-538—Theories of Student Development in Higher Education Three Credit Hours

This course provides an overview of theories of student development in higher education as it applies to the cognitive and psychosocial development of students and the influence of the college environment.

EDUC-539—Higher Education Administration Three Credit Hours

This course provides an overview of the process of organizing the personnel and financial resources needed to effectively meet student development and institutional goals and objectives. This course will introduce students to basic human and fiscal management concepts and skills.

EDUC-634—Practicum in Student Affairs and College Counseling Three Credit Hours

This supervised experience includes the student serving as a student affairs specialist in a higher education institutional setting for a minimum of 100 clock hours. Prerequisite: Permission from a faculty Advisor

Undergraduate Degree Programs

2010-2011

Bachelor of Science in Business Administration

School of Business, 843-953-5056
 Ms. Duvall Herlocker, 843-953-6450
 duvall.herlocker@citadel.edu
 Dr. Lester Pittman, 843-574-6420
 lester.pittman@tridenttech.edu

Mission:

The mission of the School of Business Administration is to educate and develop leaders of principle to serve a global community.

2 + 2 Program:

The Citadel's Bachelor of Science in Business Administration is a "2 +2" program provided in cooperation with Trident Technical College. Students take freshman and sophomore level courses at Trident (or an equivalent college), and they come to The Citadel for their junior and senior level courses.

Students who wish to earn a B.S. in Business Administration through The Citadel's Graduate College can begin their coursework at TTC and earn an Associate in Arts degree along the way.

The Steps:

- Apply to TTC (www.tridenttech.edu). List AA as your major and Citadel-Business as your career path.
- Submit SAT/ACT scores OR take TTC's placement test.
- Visit TTC's Orientation Center to be assigned to the right TTC advisor
- Submit official transcripts of all colleges attended
- Meet with your advisor and fill out a 2+2 Enrollment Form
- Complete specified courses at TTC with a minimum cumulative GPA of 2.0
- Apply to The Citadel
- Sign transfer request form

Admission Requirements:

To be admitted into The Citadel's portion of the program, students must:

1. Complete and return an undergraduate application to the The Citadel Graduate College (CGC), Bond Hall Room 101.
2. Complete the designated courses with Trident Technical College or equivalent with a grade of C or higher. (Students may begin taking Citadel courses at any time as long as prerequisites have been met and official TTC and all other college transcripts have been sent.)
3. Maintain a minimum 2.0 GPA.

The Citadel's undergraduate program, our principal focus, blends four semesters of science, four semesters of English, four semesters

of foreign language courses, other traditional liberal arts courses, and upper-level business courses.

Persons interested in the Master of Business Administration program, which is offered only through evening classes, should consult the Graduate portion of this catalog for further information.

Required Courses

Course	Hours
May be taken at TTC or equivalent	
Composition and Literature - ENG 101	3
Composition and Literature - ENG 102	3
English Literature I - ENG 205	3
American, British or World Literature - ENG 203/206/208/209	3
Western Civilization - HIS 101	3
Western Civilization - HIS 102	3
or	
World History - HIS 104	3
World History - HIS 105	3
Modern Language (FRE, SPA, or GER 101)	4
Modern Language (FRE, SPA, or GER 102)	4
Modern Language (FRE, SPA, or GER 201)	3
Modern Language (FRE, SPA, or GER 202)	3
Macroeconomics - ECO 210 [BADM 201]	3
Microeconomics - ECO 211 [BADM 202]	3
Social Science Core Course (PSY 201, SOC 101, ANT 101, or PSC 201)	3
Public Speaking SPC 205 [Citadel Non-Business Elective]	3
Microcomputer Applications - CPT 101 [CSCI 110]	3
College Algebra with Modeling - MAT 109 [MATH 104]	3
Probability & Statistics - MAT 120 [BADM 205]	3
Elementary Calculus - MAT 130 [MATH 106]	3
Accounting Principles - ACC 101 [BADM 211]	3
Accounting Principles - ACC 102 [BADM 212]	3
Solar System Astronomy - AST 101	4
Stellar Astronomy - AST 102	4
or	
Biological Science I - BIO 101	4
Biological Science II - BIO 102	4
or	
College Chemistry I - CHM 110	4
College Chemistry II - CHM 111	4
or	
Physics I - PHY 201	4
Physics II - PHY 202	4
[Note: 4 semesters of science required]	
Non-Business Elective	3
Non-Business Elective	3
General Elective (Non-business elective or business elective)	3
27 courses	Total 87 hours

<u>Course</u>	<u>Hours</u>
Must be taken at The Citadel	
Communications in Business BADM 216 (Pre-requisites: ENG 101 & 102)	3
Business Law - BADM 305	3
Marketing Principles - BADM 309 (Pre-requisites: ECO 211)	3
Computer Applications in Business BADM 317	3
Business Finance BADM 321 (Prereq ACC 101&102)	3
Management & Organization Behavior BADM 338	3
Leadership in Organizations BADM 371 (Prereq BADM 338)	3
Production Management BADM 410 (Prereq ECO 211, MAT 120, ACC 102, BADM 338)	3
Strategic Management BADM 422 (Prereq ECO 210 & 211, ACC 101 & 102, BADM 309, BADM 321 & BADM 338)	3
Business Elective BADM	3
13 courses	39 hours

Courses Descriptions:

BADM-216—Communications in Business

Three Credit Hours

Required of business administration sophomores.

A study of written and oral communication in organizations.

Emphasis is given to communication theory including communication flows and barriers, as well as the psychology of communicating good, neutral, negative, and persuasive messages. The course also covers career planning, delivering professional presentations, electronic communications and writing formal reports.

Prerequisites: ENG 101 & 102

BADM-305—Legal and Ethical Environment of Business

Three Credit Hours

Required of all business administration juniors.

An introduction to the legal system, with special emphasis on its relation to business. Students will contend with federal and state regulations as well as the common law to arrive at an understanding of the legality, ethics, and social responsibility of business decisions. Topics include an introduction to the judicial system, torts and product liability, administrative law and consumer protection, agency and partnership, contracts, the Constitution, criminal law, ethics, and fiduciary trust.

BADM-309—Marketing Principles

Three Credit Hours

Required of all business administration juniors.

Introduction to basic concepts and terminology in marketing: the process of developing marketing strategy, the role of marketing activities within the firm, external influences that affect the development of marketing strategy, and basic analytical tools appropriate to marketing decision-making. International and ethical issues in marketing are examined.

Prerequisite: Principles of Microeconomics (BADM-202).

BADM-317—Computer Applications in Business

Three Credit Hours

Required of business administration juniors.

The application of computer software to assist in analyzing common business decisions, with an emphasis on advanced techniques in spreadsheet and database development and design. Includes a major business project utilizing presentation software and the Internet.

BADM-318—Commercial Law

Three Credit Hours

Required of business administration majors with a concentration in accounting.

A detailed examination of commercial law topics including sales, commercial paper, secured transactions, bulk transfers, and bankruptcy.

Prerequisite: Legal and Ethical Environment of Business (BADM-305).

BADM-320—International Business

Three Credit Hours

This course focuses on decisions in international business operations for small and large firms. Of particular interest are international business climate/culture, foreign exchange rates, international trade, overseas direct investment, and operations management. Students will incorporate case studies dealing with aspects of international business.

BADM-321—Business Finance

Three Credit Hours

Required of all business administration juniors.

An introductory course combining both a description of the structure of business financing and a study of financial principles and practices, with special emphasis on their relation to managerial planning and control.

Prerequisite: Introduction to Managerial Accounting (BADM-211)

BADM-326—Principles of Real Estate

Three Credit Hours

This course provides a personal and professional perspective of the legal, financial, and ethical rights and obligations of all parties in a real estate transaction. Topics include organizing, functioning, financing, marketing, brokering, appraising, and managing of real estate transactions.

BADM-338—Management and Organizational Behavior

Three Credit Hours

Required of business administration juniors.

A study of the fundamental concepts of management and organizational behavior. Emphasis is placed on the study of human behavior, attitudes, and performance in organizations, and on the development of positive interpersonal relations. A major focus is on the managerial role of leader and decision-maker necessary for effective planning, organizing, influencing, and control of the organization. The dynamics and links among individuals, groups, and the national and international environment are analyzed to highlight the determinants of organizational effectiveness.

BADM-371—Leadership in Organizations

Three Credit Hours

Using a case approach as well as a significant experiential component, this course involves the application of leadership theory and practice covered in this class and in other classes in the interdisciplinary minor in Leadership Studies. The course draws from cases in business and other organizations to focus the student's learning in both individual and team projects. Issues of motivation, persuasion, ethics, power, diversity, teams, etc. will all be explored. Guest speakers/leaders will also be an important component of the course.

Prerequisites: Psychology of Leadership (PSYC 371) or Management and Organizational Behavior (BADM 338).

BADM-404—Investments

Three Credit Hours

A survey course that introduces different types of securities, markets, transaction costs, security regulations, and taxes. The basic techniques for analyzing the potential returns and risks of individual securities and for combining them efficiently into portfolios are also studied.

Prerequisite: Business Finance (BADM-321).

BADM-405—Marketing Management

Three Credit Hours

A study of marketing planning and decision-making from the point of view of the marketing manager in a changing economic, social, and legal environment. Basic concepts and methods of analysis used in formulating product, distribution, promotion, and pricing strategy are studied.

Prerequisite: Marketing Management (BADM-309).

BADM-407—Money and Banking

Three Credit Hours

The nature and functions of money, the various monetary standards, the development of our monetary system, the factors affecting the value of money, methods and objectives of money and credit control, international exchange, and analysis of recent developments in money and credit.

Prerequisite: Principles of Macroeconomics (BADM-201).

BADM-409—Human Resource Management

Three Credit Hours

A contemporary course in the management of personnel as a resource concentrating on the historical, legal, social, economic, and ethical framework of labor relations with a focus on forecasting, planning, staffing, compensating, developing a career, labor relations, performance management, and control and evaluation of human resources.

BADM-410—Production & Operations Management

Three Credit Hours

Required of all business administration seniors.

Analysis of the production function as the planning, organizing, directing, and controlling of the required activities and resources necessary to produce products and services. Managerial problems in the areas of plant design and location, production standards, operations planning and control, product development, materials handling, and inventory control are discussed.

Prerequisites: Principles of Microeconomics (BADM-202), Business Statistics (BADM-205), Introduction to Managerial Accounting (BADM-212), and Management and Organizational Behavior (BADM-338).

BADM-412—International Economics

Three Credit Hours

An analysis of the theoretical principles underlying international specialization and exchange, the making of international payments, the relation of international payments to national income, and the application of these principles to recent historical developments and current national policies. An introduction is provided to the network, composition, and sources of world trade.

Prerequisite: Principles of Microeconomics (BADM-202).

BADM-413—International Marketing

Three Credit Hours

Introduction to global problems, cultural and ethical issues, and decision areas facing the marketing manager. Primary emphasis rests on the value of cross-cultural understanding and the need for careful adaptation of marketing efforts.

Prerequisite: Marketing Principles (BADM-309).

BADM-414—Consumer Behavior

Three Credit Hours

The study of behavioral science theories and related marketing models useful to managers in understanding consumers in the domestic and global marketplace.

Prerequisite: Marketing Principles (BADM-309).

BADM-417—Systems Analysis and Design for Business

Three Credit Hours

This course addresses the theory and practice of effective database systems design for businesses. Topics include client/server models and object-oriented databases, as well as the data warehouse's role in supporting business decision-making.

Prerequisite: Computer Applications in Business (BADM-317)

BADM-420—Management of Change

Three Credit Hours

This course uses knowledge and skills from the social sciences to develop strategies for achieving effective change within organizations. Implementation of these strategies to achieve more effective organizations is the core of this course. Topics include team building, process consultation, confrontation and the management of conflict, and technostructural change.

Prerequisite: Senior standing in business administration

BADM-422—Strategic Management

Three Credit Hours

Required of all business administration seniors.

A capstone course designed to give the student practice in integrating the numerous theory courses in all phases of business management. The student develops problem-solving and decision-making skills by assuming the role of top management in a simulated company and through the study of actual business cases.

Prerequisites: Principles of Macroeconomics (BADM-201), Principles Microeconomics (BADM-202), Introduction to Financial Accounting (BADM-211), Introduction to Managerial Accounting (BADM-212), Marketing Principles (BADM-309), Business Finance (BADM-321), Management and Organizational Behavior (BADM-338).

BADM-425—Small Business Management/Entrepreneurship

Three Credit Hours

This course covers the environment of small business, factors of success or failure, small business management tools, and sources of financing. Student teams prepare business plans for the start-up of a business. In some instances, the teams will work with local entrepreneurs in developing business plans. The course is supported by a multimedia business planning system.

Prerequisite: Senior standing in business administration.

BADM-430–435—Seminar in Business Administration

Three Credit Hours

Prerequisite: approval of course instructor and department head.

These courses are designed to provide students of exceptional ability and background with the opportunity to explore a variety of advanced, business-oriented, analytical techniques. Specified topics covered within these courses will be offered at the discretion of the instructor and under the supervision of the department head.

BADM-450—Internship

Three Credit Hours

This course gives senior students real-world work experience to complement the classroom education they have already received. Interns will learn about the variety of issues faced by today's firms and their managers, the kinds of information firms collect and use, and the development of solutions for business problems. Interns will spend ten to twelve hours each week working alongside a senior-level manager in a Charleston-area business.

Prerequisite: Senior or Junior Standing

BADM-490—Independent Study

Three Credit Hours

Approvals for enrollment during pre registration from sponsoring professor and department head are required.

This course may be taken by seniors desiring to engage in a scholarly research project of mutual interest to the student and the faculty member who directs the study. The project should culminate in a formal student research paper.

Prerequisite: Senior Standing

Bachelor of Science in Civil Engineering

Department of Civil and Environmental Engineering

Dr. Kenneth Brannan, Department Head
843.953.5083, ken.brannan@citadel.edu

Department's Mission Statement:

The mission of the Department of Civil and Environmental Engineering (CEE) is to provide a nationally recognized student-centered learning environment for the development of principled leaders in the civil and environmental engineering community through a broad-based, rigorous curriculum, emphasizing theoretical and practical engineering concepts, strong professional values, and a disciplined work ethic.

The Department of Civil and Environmental Engineering recognizes the civil engineer as a people-serving professional who manages resources as well as technology. The civil engineer plans, designs, constructs, and maintains facilities essential to modern life in both the public and private sectors. Accordingly, the department strives to develop the skills of its engineering students in the management of resources—time, materials, money, and people. Consistent with the high aims of the civil engineering profession, the department seeks to ensure its academic program is underpinned by a broad base of ethical knowledge and behavior as well as modern leading-edge technology. The department accomplishes its mission by connecting students, faculty, and staff in a unique academic environment, achieving the intended development of the student through the enriched personal, professional, and educational growth of each individual.

Admission Requirements:

1. Complete the designated courses with Trident Technical College or equivalent with a grade of C or higher.
2. Maintain a minimum 2.0 GPA.
3. Submit all official transcripts directly from the source to the The Citadel Graduate College (CGC) office.
4. Complete and return an undergraduate application to the CGC, Bond Hall Room 101.

Program Educational Objectives:

The Civil and Environmental Engineering program educational objectives are designated in the following three areas:

Design:

Graduating students who are successful in engineering based on a course of study focused on design, including a solid theoretical and practical foundation that leads to successful employment in the private and public sectors.

Sustainable Success:

Graduating students who have sustainable career success and participate in leadership roles through demonstration of lifelong

learning, effective communication, contributions on multidisciplinary teams, and broad based perspective of engineering and societal needs.

Broad Based Education:

Graduating students who have a broad educational background that leads to good citizenship through leadership, management, decision making and problem solving abilities.

Departmental Core Values:

The Department of Civil and Environmental Engineering has adopted the following core values:

Students are our Focus: We believe the education, development, empowerment, and welfare of our students are the primary focus of our efforts.

Civil Engineers as Principled Leaders: We believe the engineering profession requires the highest professional and ethical standards, which we seek to model, teach and prepare our students to embrace.

Collaborative Teaching and Learning Environment: We believe a collaborative collegial environment among our faculty, staff and students is critical in sustaining advancement in educational excellence.

Growth through Assessment: We believe data-driven inquiry and improvement will lead us to sustained advancement in educational excellence.

Program Requirements: Two-Plus-Two Evening Mode

The Citadel through the CGC offers an undergraduate Bachelor of Science degree in Civil Engineering. This program is offered in cooperation with Trident Technical College where the student completes the first two years of study. The junior and senior years of study are completed at The Citadel by attending evening classes.

Program Outcomes:

At the time of graduation from the civil engineering program a student should have achieved an acceptable level of skills and knowledge in the following areas:

- an ability to apply knowledge of mathematics, science and engineering
- an ability to design and conduct experiments, as well as analyze and interpret data
- an ability to design a system, component, or process to meet desired needs
- an ability to function on multi-disciplinary teams
- an ability to identify, formulate and solve engineering problems
- an understanding of professional and ethical responsibility
- an ability to communicate effectively
- the broad education necessary to understand the impact of engineering solutions in a global and societal context
- a recognition of the need for, and an ability to engage in, life-long learning
- a knowledge of contemporary issues
- an ability to use the techniques, skills, and modern

- engineering tools necessary for engineering practice
- an understanding of the elements of project management, construction, and asset management
- an understanding of business and public policy and administration fundamentals
- an understanding of the role of the leader and leadership principles and attitudes

Program of Study:

The Civil and Environmental Engineering Department's four-year program begins with courses which provide a foundation of knowledge and skill in the basic arts and sciences. Limited specialization in engineering starts during the sophomore year. In the junior and senior years, the time is devoted essentially to basic professional subjects. Throughout the four years, the program emphasizes the development of habits of orderly study, investigation, sound reasoning, problem-solving, and design, rather than the mere acquisition of factual information. It is stressed that an engineer is a professional, thoroughly grounded in engineering science and technology, but also aware of the social, economic, ethical, and ecological implications of professional activities. The civil engineering curriculum is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET). Each year the curriculum is augmented by off-campus educators and engineers who lecture and moderate seminars in engineering specialties. Students' sources of knowledge are broadened by participation in these seminars and the student chapters of the American Society of Civil Engineers, Tau Beta Pi (honorary engineering society), and the Society of American Military Engineers.

LeTellier Hall was designed for the needs of civil and environmental engineering education and contains, in addition to laboratories, six multimedia classrooms and one multimedia assembly room that contains additional audio-visual aids. There are three computer facilities located in LeTellier Hall. To help ensure the best use of these facilities, priority access goes to students using software or capabilities specific to the LeTellier sites. LeTellier 203 is a general purpose lab maintained by ITS. LeTellier 206 and 308 are on the CEE departmental network and require a departmental user account.

The Main Computer Lab - LeTellier 203

LeTellier 203 is the primary teaching and student-use computer facility in the Civil Engineering Department. The twenty-three student stations and one projection-capable instructor station and laser printer located in this lab are connected to the campus wide network, CITnet, and provide direct Internet access via Ethernet. The campus-wide network includes: an ALPHA cluster which handles student email and information systems and the library information systems; a Novell network for printer access; and the UNIX systems administered by the Department of Mathematics and Computer Science. The software in the labs is Windows based. All machines in the lab have graphics-capable www browsers. The department's standard general purpose software includes: Microsoft Office, Mathcad, and Autocad Lt. In addition, there are a number of course specific software packages. Faculty also post: classroom presentations, handouts, programming examples, class notes, and solutions to tests, and homework on the CEE Department's Web server. These postings are in a mixture of

formats including PDF files, Mathcad documents, spreadsheet files, executable programs, and multimedia presentation files that students may review as needed before and after class.

The Special Applications Lab - LeTellier 206

LeTellier 206 is the home of the Civil Engineering Department Special Applications Lab. Note: A CEE departmental computer account is required to log in on these workstations. The twelve student computers serve primarily as AutoCad, GIS (ArcView) and structural design workstations. Other uses involve construction management, Global Positioning System (GPS) data analysis/adjustment, and traffic engineering studies. Occasionally, small sections of courses may be scheduled in the lab utilizing the instructors-only workstation and projection system. Each of these computers has a CDRW drive to accommodate large student files. This laboratory is equipped with a network A-B size laser printer and E-size plotter. There is also a 8-1/2x14 fixed-bed color scanner in this lab for student use.

The Graphics Lab - LeTellier 308

LeTellier 308 is the home of the Civil Engineering Department Graphics Instruction Lab. Note: A CEE departmental computer account is required to log in on these workstations. The instructor's station is equipped with a projection system for both the computer and document camera. The twenty student computers serve primarily as Autocad workstations. Each of these computers has a 250 MB ZIP drive and a CDR/W drive to accommodate large student files. This laboratory is equipped with a networked A/B size laser printer.

Materials Testing Laboratory: Major items of equipment include a 400,000-pound universal hydraulic testing machine with a clearance of 8 feet for column testing and with a 36-inch-wide working platform; a 250,000 pound and an additional 300,000 pound concrete cylinder testing machine; a 60,000-pound hydraulic universal testing machine; a 10,000-inch-pound torsion machine; and equipment for making tension, compression, shearing, and most other accepted and significant tests on metals, concrete, wood, and other structural materials. A transmission Polariscope and related equipment are available to investigate in a wide variety of two dimensional photo-elastic models.

Construction Materials Laboratory: Bituminous Materials Testing. This laboratory contains equipment for making the significant quality control and identification tests on asphalt cements, cutback asphalts, and asphalt emulsions. Equipment for the design, mixing, compaction by both hammer and gyratory means, and testing of asphalt concrete paving mixtures by the Marshall and other methods is included.

Concrete Materials Testing: A curing room, mixing equipment, air entraining measuring apparatus, scales, and other minor equipment are provided in this laboratory. Testing is accomplished using the Materials Laboratory testing equipment.

Geotechnical Laboratories: The two soils laboratories are equipped with consolidmeters, triaxial and direct shear machines, unconfined compression machines, permeameters, Atterberg limit equipment, Proctor and modified AASHTO compaction apparatus, standard sieves, soil hydrometers, C.B.R. apparatus, and other equipment needed for tests and experiments with soils.

Fluid Mechanics Laboratory: Equipment is provided for a wide variety of experiments and tests involving the flow of water over weirs or through pipes, meters, orifices, or a Parshall flume. Other major items of equipment include a head loss and flow measurement fluid circuit apparatus, a Reynolds number device, two (2) hydraulic demonstration units permitting experiments involving many phenomena of open channel flow, and a centrifugal pump equipped to measure input and output of energy. In addition, a parallel-series pumping unit is available for students to study parallel-series pumping under a variety of system conditions.

Environmental Engineering Laboratory: Equipment is provided for water analysis determination (primarily according to "Standard Methods") pH, alkalinity, turbidity, conductivity, D.O., and color. Bacteriological examinations may also be made for wastewater analysis, biochemical oxygen demand, solids content, and coliform testing. The equipment includes incubators, a muffle furnace, pH meters, dissolved oxygen probes, electrophotometric devices, an autoclave, a constant temperature refrigerator, spectrophotometer, a drying oven, a water still, a type I generator, a fume hood, a microscope, and essential minor tools and equipment.

Other engineering equipment: Adequate equipment is available for the courses in engineering graphics, surveying, geospatial representation, as well as for the junior and senior courses. This equipment includes levels, theodolites, level rods, tapes, six total stations, data collectors, and nine Geographic Positioning System (GPS) receivers.

Degree: The degree of Bachelor of Science in Civil Engineering (B.S. in C.E.) is awarded to those who successfully complete the program of studies outlined in the course offerings section of this catalog.

Two humanity or social science electives, one technical elective, and one civil engineering design elective are required. These are selected from a list of approved electives maintained by the Civil and Environmental Engineering Department. In completing the two humanities or social science electives, the student will take one from the core curriculum. The other shall be a departmentally approved course. The civil and environmental engineering design elective allows the students to specialize in a technical area of civil engineering by completing a design course at the senior level that integrates principles and practices of earlier courses into the design of the engineering system. Students who are on academic probation will not be permitted to enroll in upper level courses offered by the civil and environmental engineering department (i.e., junior and senior level classes).

All scheduled freshman and sophomore level engineering, science, and mathematics courses must be completed before a student will be permitted to enroll in senior level courses offered by the Civil and Environmental Engineering Department. Students are required to be advised for each semester of enrollment at The Citadel.

Course Descriptions:

CIVL-100—Introduction to Civil and Environmental Engineering

Two Credit Hours

Required of all Civil and Environmental Engineering freshmen. Meets The Citadel 101 first year seminar requirement.

The engineering process from problem formulation to the evolution of creative design is demonstrated through the practical solution of engineering problems. Course topics provide an introduction to the engineering profession, branches and functions of civil engineering, professional ethics, and the role of engineers in society. Course assignments include individual student exercises, team-oriented engineering projects, in-class presentations, and peer evaluations. As a foundation for lifelong learning in the civil engineering profession, students will develop and enhance study skills, including time management, learning strategies, computer techniques/tools, and effective communication. The course will introduce students to campus facilities, resources, support services and lifestyle issues useful for making a successful transition to the unique environment of The Citadel.

Laboratory: Four hours.

CIVL-101—Engineering Drawing

Two Credit Hours

Required of all Civil and Environmental Engineering freshmen. Use and care of drawing instruments; proper weights and types of lines for clear-cut and complete graphical representation; auxiliary and sectional views; pictorial representation with emphasis on isometric drawing, dimensioning, true lengths, and shapes; problems on points, lines, and planes; development of a reasonable skill in lettering. A substantial portion of the course is taught using CAD software.

Laboratory: Four hours

CIVL-202—Statics

Three Credit Hours

Required of all Civil and Environmental Engineering sophomores. Scalar and vector solutions of problems in statics; resultants, reactions, and equilibrium of forces; analysis of simple trusses, friction; centroids and centers of gravity; and moments of inertia. Lecture: Three hours.

Corequisites: Analytic Geometry and Calculus I (MATH-131) and Physics with Calculus I and Lab (PHYS-221/271)

CIVL-205—Surveying

Three Credit Hours

Required of all Civil and Environmental Engineering sophomores. Linear measurements, leveling, compass and transit/theodolite, total stations theory of errors, latitudes and departures, areas, stadia, coordinate geometry, construction field control, legal aspects of land surveying, and public land surveys. Lecture: Three hours.

Corequisites: Engineering Drawing (CIVL-101), Surveying Laboratory (CIVL-235).

CIVL-208—Geospatial Representation

Three Credit Hours

Required of all Civil and Environmental Engineering sophomores. A course in geospatial representation that includes topographic mapping, advanced adjustments using least squares procedures, map projections, state plan coordinate systems, astronomic control for mapping, Geographic Positioning Systems (GPS), Geographic

Information Systems (GIS), and remote sensing.

Lecture: Three hours.

Prerequisites: Surveying (CIVL-205), Surveying Laboratory (CIVL-235), and Analytic Geometry and Calculus I (MATH-131).

Corequisites: Introduction to Civil and Environmental Engineering (CIVL-100).

CIVL-209—Computer Application for Civil and Environmental Engineering

Two Credit Hours

Required for all Civil and Environmental Engineering sophomores. Instruction in computer applications to problems chosen from civil engineering fields and fields clearly related thereto. Development of computer-based methods for analyzing civil engineering systems. The focus of the course is on algorithm development and implementation.

Lecture: One hour; Laboratory: Two hours.

CIVL-235—Surveying Laboratory

One Credit Hour

Required of all Civil and Environmental Engineering sophomores. Application of principles obtained in CIVL-205 through actual field work. Horizontal control activities include distance measurements by tape and EDM, angular measurements by theodolite and total station; traversing; traverse closure computations; balancing computations; and preparation of boundary plat and detailed survey. Computer applications and computer drafting are utilized.

Laboratory: Two hours.

Corequisite: Surveying (CIVL-205).

CIVL-239—Geomatics Laboratory

One Credit Hour

Required of all Civil and Environmental Engineering sophomores. Preparation of topographic map, Geographic Positioning Systems mapping controls, Geographic Information System applications, and understanding the geometry and nomenclature of horizontal and vertical curves.

Laboratory: Two hours.

Prerequisite: Surveying (CIVL-205) and Surveying Laboratory (CIVL-235)

Corequisite: Geospatial Representation (CIVL-208).

CIVL-301—Dynamics

Three Credit Hours

Required of all Civil and Environmental Engineering juniors. Kinematics and Kinetics of particles or rigid bodies in plane motion with emphasis on the special cases of translation and rotation. The techniques of vector mathematics are employed. Lecture: Three hours.

Prerequisites: Statics (CIVL-202) with a grade of “C” or better.

CIVL-302—Highway Engineering

Three Credit Hours

Required of all Civil and Environmental Engineering juniors. Alignment and earthwork drawings and computations; earthwork operations; routine tests of highway materials, bituminous and non-bituminous; pavement and basic thickness design; design and testing of asphalt paving mixtures; constructions of roadway elements; construction surveys; and an introduction into construction specifications. Problems are solved by both

manual and computer methods. Preparation of construction plans for a highway, including use of survey data, plotting, design of horizontal and vertical control; storm drainage design; earthwork determination and mass diagram calculations.

Lecture: Three hours.

Prerequisites: Transportation Engineering (CIVL-305); corequisite: Asphalt and Concrete Laboratory (CIVL-327).

CIVL-304—Mechanics of Materials

Three Credit Hours

Required of all Civil and Environmental Engineering juniors. Elastic properties of structural materials; internal stresses and strains; principal stresses and strains including Mohr’s Circle; axial; torsion; flexure; shear; riveted and bolted joints; combined stresses; shear and moment diagrams; beam deflections. Supplemented by CIVL 307.

Lecture: Three hours.

Prerequisite: Statics (CIVL-202) with a grade of “C” or better.

CIVL-305—Transportation Engineering

Three Credit Hours

Required of all Civil and Environmental Engineering juniors. Development and interrelationships of United States transportation systems; planning, financing, and design of land transportation, airport, and seaport facilities. Includes road and railroad geometric and drainage design; public transportation facilities; sedimentation and erosion controls; airport layout and design; and design of harbors and port facilities.

Lecture: Three hours.

Prerequisites: Introduction to Civil and Environmental Engineering (CIVL-100), Engineering Drawing (CIVL-101), Geospatial Representation (CIVL-208), Geospatial Representation Laboratory (CIVL-238).

CIVL-307—Materials Laboratory

One Credit Hour

Required of all Civil and Environmental Engineering juniors. Laboratory supplement to CIVL-304. Introduction to the use of testing machines and equipment; strength and deformation measurements of ferrous and nonferrous metals, concrete, and wood; properties of materials as determined by results of tests in compression, tension, bending, torsion; behavior of columns; use of electric resistance strain gages; use of ASTM specifications and test procedures.

Taken concurrently with or subsequent to CIVL-304.

Laboratory: Two hours.

Prerequisite: English Composition (ENGL-102); prerequisites or corequisites: Computer Application for Civil and Environmental Engineering (CIVL-209), Mechanics of Material (CIVL-304).

CIVL-309—Structural Analysis

Four Credit Hours

Required of all Civil and Environmental Engineering juniors. Structural analysis of determinate and indeterminate beams and frames using classical, approximate, and computer-based methods. Lecture: Four hours.

Prerequisites: Mechanics of Materials (CIVL-304) with a grade of “C” or better and Analytic Geometry and Calculus II (MATH-132).

CIVL-310—Statics and Mechanics of Materials for Non-Civil Engineers

Three Credit Hours

Vector solutions of problems in statics, resultants, reactions and equilibrium of forces. In addition, the brief study of mechanics of materials including stress and strain relationships and various types of loading on structural members.

Lecture: Three hours.

Prerequisites: Analytic Geometry and Calculus II (MATH-132) and Physics with Calculus and Lab (PHYS-221/271).

CIVL-314—Engineering Administration

Two Credit Hours

Required of all Civil and Environmental Engineering juniors. An elementary course in engineering administration with primary attention given to the basic principles of engineering economy as applied to the economic analysis of the costs of construction and operation of various engineering works. Computer applications in cost analysis. In addition, the course covers engineering ethics as applied by practicing engineers.

Lecture: Two hours.

CIVL-317—Professional Sustainability Issues

One Credit Hour

Required of all Civil and Environmental Engineering juniors. A companion course to CIVL-314. Course focuses on ethics in the engineering context, leadership development of an engineering professional, project management and public policy, team building, and lifelong learning skills.

Lecture: one hour

Prerequisite: Junior standing in Civil and Environmental Engineering

CIVL-320—Fluid Mechanics

Three Credit Hours

Required of all Civil and Environmental Engineering juniors. An introduction to fluid characteristics, properties, and the fundamentals of fluid statics, fluid dynamics, fluid flow, and fluid measurements. Hydraulic principles including pressurized pipe flow, and open channels are also covered. Classroom assignments include design problems and problem solving using computers.

Lecture: Three hours.

Prerequisite: Statics (CIVL-202) with a grade of “C” or better;
Corequisites: Either Analytic Geometry & Calculus (MATH-231) or Applied Engineering Mathematics (MATH-234)

CIVL-321—Hydrology and Hydraulics

Three Credit Hours

Required of all Civil and Environmental Engineering juniors. This course focuses on presentation and application of fundamental hydraulic and hydrology principles including hydrologic cycle; hydrograph development; flood routing; design of storm water systems and water distribution systems, pipe networks, pumping systems, flow through orifices, flumes & weirs, and design of hydraulic structures.

Lecture: Three hours

Prerequisite: Fluid Mechanics (CIVL-320)

CIVL-322—Introduction to Environmental Engineering

Three Credit Hours

Introduction to water, air, solid and hazardous waste. Included are social and ethical considerations, legal and regulatory principles, risk analysis, the effect of pollutants in the environment, ground-water flow theory and application, and the engineering principles governing the generation and control of these pollutants.

Lecture: Three hours

Prerequisites: General Chemistry I (CHEM-151), General Chemistry I Laboratory (CHEM-161), Fluid Mechanics (CIVL-320), and either Analytic Geometry & Calculus (MATH-231) or Applied Engineering Mathematics (MATH-234).

CIVL-327—Asphalt and Concrete Laboratory

One Credit Hour

Required of all Civil and Environmental Engineering juniors. Laboratory applications involving design, preparation, curing and testing of asphalt and Portland cement concrete. Includes testing for component properties, component selection and grading, material handling, mix design, blending, applicable standards and specifications, construction practices, quality control, specimen testing and safety. Marshall and Superpave mix design procedures and testing methods are used to conduct laboratory data collection and analysis. Emphasis is placed on professional laboratory report preparation.

Lecture: Two hours.

Prerequisite: Materials Laboratory (CIVL-307);

Corequisite: Highway Engineering (CIVL-302).

CIVL-330—Measurements, Analysis and Modeling for CEE Systems

Three Credit Hours

In this course, students are introduced to several concepts and techniques essential to the modern civil engineer: Uncertainty and variability of physical systems; analysis of measurement systems; physical modeling and scaling techniques; mathematical and numerical modeling; and the impact of uncertainty on project economics. Both theory and application are presented with a very strong emphasis placed on hands-on exploration. The course requires students to employ their computer skills acquired in CIVL 209 for many assignments.

Lecture: Three hours.

Prerequisite: Computer Application for Civil and Environmental Engineering (CIVL-209).

CIVL-402—Geotechnical Engineering Laboratory

One Credit Hour

Required of all Civil and Environmental Engineering seniors. Field and laboratory applications of typical methods for determining engineering properties of cohesive and granular soils. Experimental topics include specific gravity, particle size distribution, clay soil consistency, engineering classification, permeability, compaction, consolidation, *in situ* soil properties, soil boring and sampling techniques, and shear strength parameter determination using unconfined direct, triaxial, vane shear, and penetration apparatus.

Laboratory: Two hours.

Prerequisite: Introduction to Geotechnical Engineering I (CIVL-409); *Corequisite:* Geotechnical Engineering I (CIVL-410).

CIVL-404—Reinforced Concrete Design

Three Credit Hours

Required of all Civil and Environmental Engineering seniors. Design of reinforced concrete structures using strength design theory. Design of beams, columns, combined stress members, footings, and retaining walls. Comprehensive analysis and design of a building frame and foundation system. Special attention is given to the use of current specifications for design and construction. The use of computer programs to facilitate analysis and design during the comprehensive problem is encouraged.

Lecture: Three hours.

Prerequisites: Structural Analysis (CIVL-309), Analytic Geometry & Calculus (MATH 231), and Applied Engineering Mathematics (MATH 234).

CIVL-406—Steel Design

Three Credit Hours

Required of all Civil and Environmental Engineering seniors. Theory and design of steel structures using the load and resistance factor design method. Design of tension and compression members, beams, and columns. Computer solutions are utilized for design shears, moments, and axial loads.

Lecture: Three hours.

Prerequisite: Structural Analysis (CIVL-309).

CIVL-408—Water and Wastewater Systems

Three Credit Hours

Required of all Civil and Environmental Engineering seniors. Introduction to engineering design principles and practices including water use, quality standards for drinking water, water treatment systems, determining the quality of wastewater, design of sanitary sewers, quality criteria for surface waters, and wastewater treatment systems.

Lecture: Three hours.

Prerequisites: Introduction to Environmental Engineering (CIVL-322), General Chemistry II/General Chemistry Laboratory II (CHEM-152/162), Analytic Geometry & Calculus (MATH-231), and Applied Engineering Mathematics (MATH-234).

CIVL-409—Introduction to Geotechnical Engineering

Three Credit Hours

Required of all Civil and Environmental Engineering Seniors. Introduces the student to the rudiments of theoretical soil mechanics. Topics include engineering uses of soils, laboratory and field determination of soil properties, determination of phase relationships, engineering soil classification, soil-water interaction and seepage flow mechanics, stress effects of loading on soils at depth, and consolidation, compaction, shear strength, and bearing capacity theory.

Lecture: Three hours.

Prerequisites: Mechanics of Materials (CIVL-304) with a grade of "C" or better, Fluid Mechanics (CIVL-320), Analytic Geometry & Calculus III (MATH-231), and Applied Engineering Mathematics I (MATH-234).

CIVL-410—Geotechnical Engineering II

Three Credit Hours

Required of all Civil and Environmental Engineering seniors. An introductory course in geotechnical analysis and design. Topics include shallow foundations, spread footings, deep foundations, piles and caissons, lateral earth pressure for cohesive and

cohesionless soils, slope stability analyses, subsurface investigations, and special topics including such subjects as soil stabilization methods, geotextile applications, liquefaction, etc.

Lecture: Three hours.

Prerequisite: Introduction to Geotechnical Engineering (CIVL-409); corequisite Geotechnical Engineering Laboratory (CIVL-402)

CIVL-418—Fluid Mechanics Laboratory

One Credit Hour

Required of all Civil and Environmental Engineering seniors. Accomplishments of laboratory exercises and experiments to illustrate basic concepts of fluid mechanics and to validate empirical formulas used in hydraulic computations. Principal emphasis is on the phenomena associated with closed conduit and open channel flow of water, measurement of velocities, and flow rates and operational characteristics of pumps. A minimum of one experiment will involve the use of the computers to evaluate laboratory data.

Laboratory: Two hours.

Prerequisite: Fluid Mechanics (CIVL-320).

CIVL-419—Environmental Engineering Laboratory

One Credit Hour

Required of all Civil and Environmental Engineering seniors. Accomplishment of chemical, physical, and microbiological determinations used in the examination of water and wastewater. Laboratory analysis to evaluate water quality will be performed, such as biochemical oxygen demand, suspended solids, pH, alkalinity, and others. A minimum of one laboratory experiment will involve the use of the computer to evaluate laboratory data.

Laboratory: Two hours.

Prerequisite: Water and Wastewater Systems (CIVL-408).

Approved Electives:

The following courses are offered on demand. They constitute part of a list of courses (including courses offered by other departments) which are approved by the head of the Department of Civil and Environmental Engineering as satisfying the requirement that each Civil and Environmental Engineering major complete a three-credit-hour technical elective.

CIVL-411—Engineering Management

Three Credit Hours

Technique of engineering planning and management using the critical path method (CPM) and program evaluation and review techniques (PERT). Both computer and noncomputer approaches are used. Relationships between owners, A-E's, and contractors are covered with emphasis on proper professional conduct by the engineer.

Lecture: Three hours.

Prerequisite: Completion of all freshman, sophomore, and junior courses or approval of the department head.

CIVL-416—Modeling Civil Engineering Systems

Three Credit Hours

Modeling the behavior of a wide range of civil engineering systems using various analytical, computer-based, numerical, and experimental techniques. Introducing the concepts of probabilistic modeling using the Monte Carlo Analysis.

Lecture: Three hours

Prerequisites: Completion of required CIVL courses through the junior

year or permission of the department head.

CIVL-421—Subdivision Planning and Design

Three Credit Hours

The elements of planning a subdivision including an introduction to planning, zoning, subdivision requirements, and review procedures; site development including the integrated design of roadways, storm drainage collection/retention/detention systems, sanitary sewer collection and transportation systems (pumping stations and force mains), potable water systems, and construction cost estimates and specification; and economic analysis with individual student participation in preliminary development of single family, and multifamily projects on 20- to 25-acre tracts of land. Computer applications include use of spreadsheets and CAD.

Lecture: Two hours; Laboratory: Two hours.

Prerequisites: Hydrology and Hydraulics (CIVL-321), Highway Engineering (CIVL-302); *corequisite:* Water and Wastewater (CIVL-408).

Civil and Environmental Engineering Design Electives

Each Civil and Environmental Engineering major must complete one of the following design courses in the spring of the senior year. Each course provides students an opportunity to:

- Function with multi-disciplinary teams
- Identify, formulate, and solve realistic engineering problems where economic, environmental, sustainability, and manufacturability are considered
- Understand professional and ethical responsibilities
- Communicate effectively
- Understand the political, global, and social impacts of engineering solutions
- Understand the regulatory review process

CIVL-422—Comprehensive Project Design in Environmental Engineering

Three Credit Hours

Application to civil engineering principles, through group studies and lecture, to develop a solution for a comprehensive engineering problem devoted to water resources/environmental engineering.

Lecture: Two hours; Laboratory: Two hours.

Prerequisites: Senior standing in Civil and Environmental Engineering, Water and Wastewater Systems (CIVL-408).

CIVL-423—Comprehensive Project Design in Structural Engineering

Three Credit Hours

Application of civil engineering principles, through group studies and lecture, to develop a solution for a comprehensive Structural Engineering problem involving other aspects of civil engineering.

Lecture: Two hours; Laboratory: Two hours.

Prerequisite: Senior standing in Civil and Environmental Engineering, Reinforced Concrete Design (CIVL 404);
Corequisite: Steel Design (CIVL 406).

CIVL-424—Comprehensive Project Design in Geotechnical Engineering

Three Credit Hours

Application of civil engineering principles, through group studies and lecture, to develop a solution for a comprehensive Geotechnical engineering problem involving other aspects of civil

engineering.

Lecture: Two hours; Laboratory: Two hours.

Prerequisite: Senior standing in Civil and Environmental Engineering

CIVL-425—Comprehensive Design Project in Engineering Practice

Three Credit Hours

Application of civil engineering principles, through group studies and lecture, to develop a solution for a comprehensive problem of general engineering practice involving many aspects of civil engineering.

Lecture: Two hours; Laboratory: Two hours.

Prerequisite: Senior standing in Civil and Environmental Engineering. Site developmental projects require Subdivision Planning and Design (CIVL 421) as a prerequisite. Highway transportation projects require Highway Engineering (CIVL 302) as a prerequisite.

CIVL-450—Civil and Environmental Engineering Internship

Three Credit Hours

This course gives Civil and Environmental Engineering students real-world experience to complement the classroom education that they have previously received. Interns will learn about the variety of issues facing today's practicing engineer. Interns will spend at least five hours each week working alongside senior-level managers in Charleston area engineering firms or engineering-related regulatory agencies coordinating these activities through the Department of Civil and Environmental Engineering.

Prerequisite: Permission of Department Head.

CIVL-453—Special Topics in Civil Engineering

Three Credit Hours

Selected topics in civil engineering. The offering of this course will depend upon the interest of the student, the availability of an instructor, and the approval of the department Head. Since the content of the course may change, a student may repeat the course for credit with consent of the department head.

Prerequisite: Permission of the Department Head

CIVIL & ENVIRONMENTAL ENGINEERING MAJOR

HOURS REQUIRED FOR GRADUATION: 133

CIVIL ENGINEERING:

TTC First Year

ENG 101/102
MAT 140/141/240
CHM 110/111
PHY 221/PSY 201
EGR 270/275/282

Citadel Third Year

CIVL 301/302
CIVL 304/327
CIVL 305/309
CIVL 307/320
CIVL 321/322
CIVL 314/317
ELEC 308
CIVL 330

TTC Second Year

MAT 242
PHY 222
HIS 101/102
ENG 205/2XX
EGR 260/285/295/286/296

Citadel Fourth Year

CIVL 404/402
CIVL 408/410
CIVL 409/406
CIVL 418/419
Technical Elective****
Hum/Soc Sci Elective***
CIVL 42X

*** To be selected from an approved list of courses in the humanities or social sciences

**** Elective to be an approved Engineering or Science course

All freshman and sophomore level engineering and science courses must be successfully completed prior to enrolling in senior level classes

Bachelor of Science in Electrical Engineering

Department of Electrical and Computer Engineering

Dr. John Peebles: 843.953.5057

john.peeples@citadel.edu

General Information:

In 1941 the Board of Visitors authorized the establishment of a Department of Electrical Engineering at The Citadel. Because World War II intervened, the first electrical engineering degrees were awarded to the class of 1948. The electrical engineering program is offered in two modes—day mode and the two-plus-two evening mode. The day mode is coeducational and open only to members of the South Carolina Corps of Cadets and enlisted active duty students assigned to one of The Citadel's ROTC Departments. The two-plus-two evening mode is coeducational, is open to transfer students and does not require ROTC or Health and Physical Education. Otherwise curricula, faculty, textbooks, laboratory equipment, course content, classrooms, and laboratories are the same for both modes.

The Electrical and Computer Engineering Department is located in Grimsley Hall, a first-tier engineering education facility that provides a great learning environment. Modern, fully equipped laboratories, classrooms, and faculty offices are logically arranged on the third floor. The related Departments of Mathematics and Computer Science, Physics, and Civil and Environmental Engineering are housed adjacent to the department, creating a "micro-campus" of science and technology.

The electrical engineering program is accredited by the Engineering Accreditation Commission (EAC) of the Accreditation Board for Engineering and Technology (ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202-4102 - Telephone: (410) 347-7700.

Mission:

The mission of the Department of Electrical and Computer Engineering is: To prepare the individual for professional work or for graduate study in the fields of electrical and computer engineering and to provide as many of the elements of a broad education as can be included in a program of professional study leading to the degree of Bachelor of Science in Electrical Engineering.

In addressing its mission, the department strives, through small classes, and hands-on experience in laboratories closely monitored by full-time faculty, to provide an environment highly conducive both to learning and to the development of close student-faculty relationships.

The electrical engineering curriculum places emphasis on a broad liberal education base, a strong background in mathematics and basic sciences, and a logical sequence of electrical and computer engineering courses that provide the breadth and depth necessary for continuous professional growth in today's technological society.

By the end of the junior year, the electrical engineering student normally selects an area of professional emphasis such as computer engineering, control systems, communication systems, electronics, or power systems. Integral to the program is the design component that develops the student's ability to address practical engineering problems. Engineering design problems and concepts are included throughout the curriculum and the experience is capped by a mandatory two-semester senior design course in which the students undertake significant design projects.

Convinced of the great value of practical experience, the department encourages its majors to obtain gainful employment in electrical engineering or a related field for at least one summer, preferably between the junior and senior years.

Admission Requirements:

1. Complete the designated courses with Trident Technical College or equivalent with a grade of C or higher.
2. Maintain a minimum 2.0 GPA.
3. Submit all official transcripts directly from the source to the CGC office.
4. Complete and return an undergraduate application to the The Citadel Graduate College (CGC), Bond Hall Room 101.

Program Requirements: Two-Plus-Two Evening Mode

The Citadel through The Citadel Graduate College offers an undergraduate Bachelor of Science degree in Electrical Engineering (BSEE). This program is offered in cooperation with Trident Technical College where the student completes the first two years of study. The junior and senior years of study are completed at The Citadel by attending evening classes. The program is designed and offered to enable the full-time student to complete the upper two years of the program and receive a BSEE within two academic years and two summers. Students are required to be advised for each semester of enrollment at The Citadel.

Program Objectives:

The Citadel Department of Electrical and Computer Engineering program prepares graduates to:

- Succeed in the practice of electrical engineering, by ethically and judiciously applying knowledge of science, mathematics and engineering methods to solve problems facing a technologically complex society.
- Apply and operate current hardware and software tools, equipment and development environments to conduct and/or lead engineering analysis, design and research.
- Value and pursue lifelong learning, not only to keep current in electrical and computer engineering fields, but also to sustain awareness of engineering-related issues facing contemporary society.
- Pursue graduate education and/or professional registration as desired or required.
- Be principled leaders with strong communications and team building skills.

Methods used to evaluate the program's success in meeting these objectives include:

1. Periodic surveys of graduates and employers to gauge our graduates' success, advancement and technical contributions in the workplace, and to identify potential gaps or areas requiring improvement in the curriculum.
2. Annual evaluation by an ECE Advisory Board sub-committee of hardware and software tools, equipment, development environments and laboratory plans, to ensure currency and/or identify requirement gaps.
3. Periodic evaluation of our graduates' membership and roles in professional organizations, participation in formal continuing education opportunities and other activities relating to lifelong learning.
4. Monitoring of our graduates' involvement and success in graduate study of engineering and related disciplines.
5. Annual review of our graduate's success in efforts to become professionally licensed.

Electrical Engineering Program:

The initial year of study includes engineering fundamental courses designed to develop the basic skills and good teaming habits through case studies requiring the communication of creative ideas. Electrical engineering topics studied in the sophomore year include 6 credit hours of electrical circuit analysis, 1 credit hour of electrical circuits laboratory, and 3 credit hours of computer applications pertinent to the field. Theory is combined with application, demonstration, and experimental verification. In addition, the first two years include 19 credit hours of mathematics, 8 credit hours of chemistry, 8 credit hours of physics, 18 credit hours of English and history and 3 credit hours of social science to provide the foundation necessary for an engineering education. Specific course requirements, using Trident Technical College course numbers, are outlined later under **Required Program for 2+2**.

The junior year requires a total 21 credit hours of electrical engineering course work. Breadth of coverage is provided by courses in linear system analysis, electronics, systems (automatic controls), digital systems, electromagnetics, and electromechanical energy conversion. Many of these courses include engineering design problems drawn from the experience of the faculty. First semester juniors complete their sixth mathematics course, MATH 335 (Applied Mathematics II), providing coverage of mathematical topics required in upper division electrical engineering courses. The junior year includes a single elective course that must be technical in nature but outside the mainstream of electrical engineering.

The senior year provides depth in electrical and computer engineering by requiring five out of a specified set of 400-level electrical engineering elective courses and at least one approved Computer Science elective. The elective courses are ELEC 401 (Electronics II), ELEC 403, (Electric Power Systems), ELEC 405 (Electrical Measurements) and ELEC 415 (Electrical Measurements Laboratory), ELEC 407 (Systems II), ELEC 413 (Advanced Topics in Electrical Engineering) ELEC 414 (System Simulation), ELEC 416 (Communications Engineering), ELEC 418 (Advanced Digital Systems), ELEC 419 (Computer Network Architecture), ELEC 423 (Digital Signal Processing), ELEC 424 (Solid-State Devices), ELEC 425, (Interference Control in Electronics), ELEC 426 (Antennas

and Propagation) and CSCI 420 (Software Engineering). These electives provide the student the opportunity to pursue an area of interest. While narrow specialization is neither possible nor desirable at the undergraduate level, these three-credit electives provide depth in both design and theory in their specialized areas. Below are several examples of possible areas of concentration available to the student.

Computer Engineering

- CSCI 223 Data Structures
- CSCI 420 Software Engineering
- ELEC 418 Advanced Digital Systems
- ELEC 419 Computer Network Architecture
- ELEC 423 Digital Signal Processing
- ELEC 416 Communications Engineering

Power Engineering

- CIVL 310 Statics and Mechanics of Materials For Non-Civil Engineers
- ELEC 307 Nuclear Engineering
- ELEC 403 Electric Power Systems
- ELEC 407 Systems II
- ELEC 405 Electrical Measurements
- ELEC 415 Electrical Measurements Laboratory
- ELEC 426 Antennas and Propagation

Communications

- PHYS 308 Optics
- ELEC 401 Electronics II
- ELEC 416 Communication Engineering
- ELEC 419 Computer Network Architecture
- ELEC 423 Digital Signal Processing
- ELEC 426 Antennas and Propagation

Electronics

- PHYS 410 Thermodynamics
- ELEC 401 Electronics II
- ELEC 418 Advance Digital Systems
- ELEC 423 Digital Signal Processing
- ELEC 424 Solid State Devices
- ELEC 405 Electrical Measurements
- ELEC 415 Electrical Measurements Laboratory

Electrical Engineering Design Experiences:

Engineering design is distributed throughout the electrical engineering curriculum. Introduction to the design process and the initial design experience occur in the freshman courses. The engineering profession and the ethical responsibilities of professional engineers are discussed. Design problems are posed that require little or no in-depth engineering knowledge. For example, a first design problem might ask the student to design a dormitory room workplace. Functionality, aesthetics, and cost of implementation are a few of the issues to be considered. Case studies are assigned that provide an opportunity for the students to work in teams. The emphasis is on the synthesis of a product that meets broad requirements. The students are introduced to the concept of design in which there is no single right answer and where there are relatively few limits placed on the creative process.

Techniques of analysis, synthesis, iteration, and approximations are studied in the sophomore and junior electrical engineering courses. Specialized design exercises are used to illustrate the use of these techniques in the areas of circuits, systems, electronics, electric machines, and digital circuits and systems.

The senior year provides the opportunity for the student to begin to focus on design techniques in a particular area of interest through the choice of at least five senior electrical engineering elective courses. Examples range from the use of a load flow program to determine operational conditions of a small power system in a contingency situation (ELEC 403), to the design of a state estimator (ELEC 407), to the design and implementation of digital filters (ELEC 423).

The design experience culminates in the required senior design courses, ELEC 421 and ELEC 422. This two-semester design sequence provides students the opportunity to work on a project of interest and provides the faculty the opportunity to guide students in their first major design experiences and emphasize once more the various constraints that may come into play in a design. The students are taught several different structured design approaches. Project definition and documentation are stressed. Design teams of three to four students are formed at the beginning of the first semester. Students are instructed on various practical aspects of design, such as layout considerations, safety, functionality, and documentation of design.

The student design teams select and propose a major design project to be completed by the end of second semester. They must enlist a faculty project advisor to guide their project. At the end of the first semester the design teams present their design proposals (written and oral) that include their preliminary design (block diagram level), a schedule for the following semester, and a cost estimate. In the second semester, the teams do the detailed design, and build, test, refine, demonstrate, and document their design projects. In addition to the technical aspects, project management and presentation techniques are taught and applied. A detailed project specification is developed and placed under tight change control. Financial and scheduling aspects of the project are tracked. A final presentation in both written and oral form is required at the end of the semester, along with a working demonstration.

Required program for 2+2:

Lower two years of study offered at Trident Technical College.

TTC First Year

ENG 101/102
HIS 101/102
CHM 110/111
MAT 140/141/132
ECE 201
EGR 273/275

Citadel Third Year

MATH 335
ELEC 306/313
ELEC 309/312/301
ELEC 311/330
ELEC 316/302
ELEC 318
CIVL 314/TECH ELEC

TTC Second Year

ENG 205/2XX
PSY 201
PHY 221/222
MAT 240/242
ECE 221/222/205
EGR 270

Citadel Fourth Year

HUMANITIES ELECTIVE
ELEC 421/422
ELEC 412/4XX *
ELEC 4XX/4XX *
ELEC 4XX/4XX *

Credit hours required for graduation: 128 for evening students
Technical Electives: One of the following courses: Optics, PHYS 308; Thermodynamics, PHYS 410; Statics and Mechanics of

Materials For Non-Civil Engineers, CIVL 310; Data Structures, CSCI 223; Engineering Management, CIVL 411; Deterministic Methods of Operational Research, MATH 381; Mathematical Models and Applications, MATH 470

**Advanced humanities or social science courses.

*Approved Departmental Electives must be selected from among the following courses: Nuclear Engineering (ELEC 307), Electronics II (ELEC 401), Electric Power Systems (ELEC 403), Electrical Measurements (ELEC 405), Systems II (ELEC 407), Advanced Topics in Electrical Engineering (ELEC 413), System Simulation (ELEC 414), Electrical Measurements Laboratory (ELEC 415), Communication Engineering (ELEC 416), Advanced Digital Systems (ELEC 418), Computer Network Architecture (ELEC 419), Digital Signal Processing (ELEC 423), Solid-State Devices (ELEC 424), Interference Control in Electronics (ELEC 425), Antennas and Propagation (ELEC 426) and Software Engineering (CSCI 420) *Note: ELEC 405 and ELEC 415 must be taken together*

Note: Advanced Topics in Electrical Engineering (ELEC 413) is offered only occasionally. The Engineering science and engineering design credits are a function of the topics studied.

Course Descriptions:

ELEC-104—Engineering Fundamentals I

One Credit Hour

Required of electrical engineering freshmen.

An introduction to the engineering profession, branches and functions of engineering, professional ethics, and the role of engineers in society. Fundamentals of engineering problem solving and the use of calculators and computers as tools to aid in problem solving.

Lecture: One hour; Laboratory: One hour.

ELEC-105—Engineering Fundamentals II

Two Credit Hours

Required of electrical engineering freshmen.

Continuation of Engineering Fundamentals I to include the introduction of subject areas common to most engineering disciplines, such as mechanics, energy, engineering economy, electrical theory, and material balance. Introduction to the design process to include preliminary design team exercises.

Lecture: Two hours.

ELEC-201—Electric Circuit Analysis I

Three Credit Hours

Prerequisites: Analytic Geometry & Calculus 1 (MATH 131) or permission of the department head to allow it as a co-requisite; prerequisite or co-requisites: Engineering Fundamentals 1 (ELEC 104), Physics with Calculus 1/Laboratory for Physics with Calculus 1 (PHYS 221/271.).

ELEC-202—Electric Circuit Analysis II

Required of electrical engineering sophomores.

Basic electrical elements and sources, Ohm's and Kirchhoff's Laws, techniques of DC circuit analysis, sinusoidal analysis and phasors, power, three-phase circuits; and transient response of simple circuits, uses of SPICE to aid circuit analysis.

Lecture: Three hours, two semesters.

Prerequisites: Analytic Geometry & Calculus II (MATH 132) or permission of the department head to allow it as a co-requisite, a grade of “C” or better in ELEC 201; prerequisite or co-requisites: Engineering Fundamentals (ELEC 105), Electrical Laboratory (ELEC 204), Computer Applications for Electrical Engineers (ELEC 206).

ELEC-204—Electrical Laboratory

One Credit Hour

Required of electrical engineering sophomores.

An introduction to the experimental method in electrical engineering. Laboratory exercises are designed to supplement the material presented in ELEC 201 and ELEC 202.

Laboratory: Two hours.

Prerequisites or co-requisite: Elecyric Circuit Analysis II (ELEC 202) or Elements of Electrical Engineering (ELEC 308), Computer Applications for Electrical Engineers (ELEC 206).

ELEC-206—Computer Applications for Electrical Engineers

Three Credit Hours

Required of electrical engineering sophomores.

The computer is presented as a tool for the solution of electrical engineering problems. High level language programming of computers; the use of application programs for the study of electrical circuits in the time and frequency domains; data manipulation, data plotting, and equation solving using application programs such as MATLAB.

Lecture: Three hours.

Prerequisites or co-requisite: Electric Circuit Analysis (ELEC 202) or Elements of Electrical Engineering (ELEC 308).

ELEC-301—Linear Systems Laboratory

One Credit Hour

Required of all electrical engineering juniors. A laboratory course to accompany ELEC 312.

Laboratory: Two hours.

Prerequisite: Electrical Laboratory (ELEC 204), Signals and Systems (ELEC 309). *Corequisite:* Systems I (ELEC 312).

ELEC-302—Electrical Machinery Laboratory

One Credit Hour

Required of electrical engineering juniors.

A laboratory course to accompany ELEC 316.

Laboratory: Two hours.

Prerequisite or corequisite: Electromechanical Energy Conversion (ELEC 316)

ELEC-306—Electronics I

Three Credit Hours

Required of all electrical engineering juniors.

Characteristics of solid-state devices, theory and design of low-frequency amplifiers, transistor biasing and stabilization, design of multistage and feedback amplifiers utilizing bipolar and MOS devices.

Lecture: Three hours.

Prerequisites: Electric Circuit Analysis II (ELEC 202), Electrical Analysis (ELEC 204), Computer Applications for Electrical Engineers (ELEC 206); prerequisite or corequisite: Electronics Laboratory (ELEC 313).

ELEC 307—Nuclear Engineering

Three Credit Hours

An introduction to the theory and application of nuclear energy. Topics include fission and the chain reaction; nuclear fuels; nuclear reactor principles, concepts, examples, construction, operation, and ecological impact; heat transfer and fluid flow; radiation hazards and shielding; nuclear propulsion; and controlled fusion. Lecture: Three hours.

Prerequisites: Physics with Calculus II/Laboratory for Physics with Calculus II (PHYS 222/272).

ELEC-308—Elements of Electrical Engineering

Three Credit Hours

Required of civil engineering juniors.

Fundamental electrical concepts and units; basic laws of electrical circuits; equivalent circuits; DC and steady-state AC circuit analysis; and effective current, average power, and three-phase power.

Lecture: Three hours.

Prerequisite: Analytic Geometry and Calculus II (MATH 132).

ELEC-309—Signals and Systems

Three Credit Hours

prerequisites or co-requisites: MATH 335 Required of electrical engineering juniors. The study of continuous and discrete systems utilizing Laplace, Fourier, and z-transform theory.

Lecture: Three hours.

Prerequisites: Electric Circuit Analysis (ELEC 202), Electrical Laboratory (ELEC 204), Computer Applications for Electrical Engineers (ELEC 206), Applied Engineering Mathematics (MATH 234).

ELEC-311—Digital Logic and Circuits

Three Credit Hours

Introduction to Boolean algebra; digital data coding; digital arithmetic; design of combinational and sequential circuits; design, construction and evaluation of digital circuits using industry-standard digital integrated circuits. Employs HDL and other S/W design tools.

Lecture: Three hours.

Prerequisite or corequisite: Introduction to Discrete Structures (MATH 206) or consent of department head.

ELEC-312—Systems I

Three Credit Hours

Required of electrical engineering juniors.

An introduction to feedback control systems, system representation, stability, root-locus and frequency response, and compensation.

Lecture: Three hours.

Prerequisites: Signals and Systems (ELEC 309)

Co-requisites: Linear Systems Laboratory (ELEC 301)

ELEC-313—Electronics Laboratory

One Credit Hour

Required of electrical engineering juniors.

Experimental studies coordinated with the subjects introduced in ELEC 306.

Laboratory: Two hours.

Prerequisite: Electric Circuit Analysis (ELEC 202), Electric Laboratory (ELEC 204), Computer Applications for Electrical

Engineers (ELEC 206).
Co-requisite: Electronics I (ELEC 306).

ELEC-316—Electromechanical Energy Conversion

Three Credit Hours

Required of electrical engineering juniors.

Analysis of transformers; fundamentals of electromechanical energy conversion; and study of DC, induction, and synchronous machines.

Lecture: Three hours.

Prerequisite: Signals and Systems (ELEC 309), or consent of the department head; *prerequisite or co-requisite:* Electrical Machinery Laboratory (ELEC 302).

ELEC-318—Electromagnetic Fields

Three Credit Hours

Required of electrical engineering juniors.

Static and magnetic fields; experimental laws and their relation to Maxwell's equations; Laplace and Poisson's equations; boundary value problems; and time varying fields, plane waves, and transmission line phenomena.

Lecture: Three hours.

Prerequisites: Electric Circuit Analysis (ELEC 202), Electrical Laboratory (ELEC 204), Computer Applications for Electrical Engineers (ELEC 206), Physics with Calculus II/Laboratory for Physics with Calculus II (PHYS 222/272), Applied Engineering Mathematics I (MATH 234), Applied Engineering Mathematics II (MATH 335).

ELEC-330—Digital Systems Engineering

Three Credit Hours

Required of electrical engineering juniors.

Characteristics, specifications, and design of digital systems; analysis and synthesis of sequential circuits; microprocessor interfacing. Design projects required.

Lecture: Three hours.

Prerequisite: Digital Logic and Circuits (ELEC 311).

ELEC-401—Electronics II

Three Credit Hours

Characteristics and applications of modern linear and digital integrated circuits. CMOS digital logic, differential amplifiers, power amplifiers, oscillators and filter circuits.

Lecture: Three hours.

Prerequisite: Electronics I (ELEC 306), Electronics Laboratory (ELEC 313).

ELEC-403—Electric Power Systems

Three Credit Hours

A study of electrical power generation, transmission, and distribution; load flow, faults, system stability, and system economics. Design project required.

Lecture: Three hours.

Prerequisites: Computer Applications for Electrical Engineers (ELEC 206), Electromechanical Energy Conversion (ELEC 316), and Electromagnetic Fields (ELEC 318).

ELEC-405—Electrical Measurements

Two Credit Hours

An introduction to modern electrical instrumentation and measurements. Topics include: measurement theory, analog and

digital signal conditioning, noise, transducers, instrumentation system design, digital interfaces, and computer based instrumentation and measurements..

Lecture: Two hours.

Prerequisite: Any two 300-level electrical engineering laboratory courses; *prerequisite or corequisite:* Electrical Measurements Laboratory (ELEC 415).

ELEC-407—Systems II

Three Credit Hours

A continuation of Systems I with primary emphasis on digital control systems. Topics include: state-variable analysis, simulation techniques, controllability, state-variable feedback, observability, and state estimator design.

Lecture: Three hours.

Prerequisite: Systems I (ELEC 312).

ELEC-412—Applied Probability and Statistics for Engineers

Three Credit Hours

Required for electrical engineering majors. Application of the theory of probability and statistics in modeling random phenomena and signals; in the calculation of system responses; and in making estimates, inferences and decisions in the presence of chance and uncertainty. Applications will be studied in areas such as communications, power systems, device modeling, measurements, reliability, and quality control.

Lecture: Three hours.

Prerequisites: Analytic Geometry and Calculus III (MATH 231), Computer Applications for Electrical Engineers (ELEC 206).

ELEC 413—Advanced Topics in Electrical Engineering

Three Credit Hours

Advanced topics in electrical engineering. Offered occasionally when the special interests of students and faculty coincide. The syllabus must be approved by the Electrical Engineering Faculty. This course may be taken only once for credit.

Lecture: Three hours.

ELEC-414—System Simulation

Three Credit Hours

An introduction to system concepts, mathematical models of systems, and simulation methods applied to a broad range of systems. Design project required.

Lecture: Three hours.

Prerequisite: Systems (ELEC 312).

ELEC-415—Electrical Measurements Laboratory

One Credit Hour

A laboratory course to complement ELEC 405.

Laboratory: Two hours.

Prerequisite or corequisite: Electrical Measurements (ELEC 405).

ELEC-416—Communications Engineering

Three Credit Hours

Principles of amplitude, frequency, and pulse modulation; signal flow and processing in communications systems; and analog and digital communication systems.

Lecture: Three hours.

Prerequisites: Electronics I (ELEC 306), Systems I (ELEC 312), and Electromagnetic Fields (ELEC 318), Digital Systems Engineering (ELEC 330)

ELEC-418—Advanced Digital Systems

Three Credit Hours

Experience in advanced digital design techniques and exposure to the development tools used in the design of advanced digital systems. Topics include the design of digital systems using VHDL, industry standard FPGA devices and software, and microprocessor hardware components.

Lecture: Three hours.

Prerequisite: Digital Systems Engineering (ELEC 330).

ELEC-419—Computer Network Architecture

Three Credit Hours

This course will cover network architecture and protocols. Included are transmission technologies, encoding/decoding schemes, packet switching, frame relay, ISDN, ATM and performance modeling techniques.

Lecture: Three hours.

Prerequisite: Digital Logic and Circuits (ELEC 311).

ELEC-421—Design I

Three Credit Hours

Required of electrical engineering seniors.

Initiation, design, scheduling, documentation and reporting on a major design project. Normally accomplished by students working in small groups. All students will make written and oral presentations on their contribution to the project. Financial, legal, ethical, societal, regulatory, environmental, manufacturability, and quality issues will be discussed and will constrain the designs as appropriate.

Lecture: One hour; Laboratory: Four hours.

Prerequisites: Electrical Machinery Laboratory (ELEC 302), Electronics I (ELEC 306), Systems I (ELEC 312), Electromechanical Energy Conversion (ELEC 316), Digital Systems Engineering (ELEC 330) and Electromagnetic Fields (ELEC 318) or consent of the department head.

ELEC-422—Design II

Three Credit Hours

Continuation of the major design project begun in ELEC 421. Project implementation, documentation, and reporting. Normally to be accomplished by students working in the small groups formed in ELEC 421. The impact of the practical, societal, and governmental issues raised in ELEC 421 will be assessed. Each student will make written and oral presentations on their contributions to the project. A prototype demonstration and presentation of final results in a symposium format is required.

Lecture: One hour; Laboratory: Four hours.

Prerequisite: Design I (ELEC 421) taken the preceding semester. Required of all electrical engineering seniors.

ELEC-423—Digital Signal Processing

Three Credit Hours

Introduction to the characteristics, design, and applications of discrete time systems using digital signal processors. Discrete time Fourier Transforms, FIR and IIR systems, and the design of FIR and IIR filters.

Lecture: Three hours.

Prerequisite: Systems I (ELEC 312), Digital Systems Engineering (ELEC 330).

ELEC-424—Solid-State Devices

Three Credit Hours

Basic principles governing the operation of solid-state devices are developed from fundamental concepts. P-N junction theory is developed and applied to the analysis of devices such as bipolar transistors, solar cells, detectors, and photo devices. The theory of field-effect devices is developed.

Lecture: Three hours.

Prerequisites: Electronics I (ELEC 306), and Electromagnetic Fields (ELEC 318).

ELEC-425—Interference Control in Electronics

Three Credit Hours

An introduction to the control and measurement of interference between electronic devices. Analysis methods and practical design techniques to minimize both radiated and conducted emissions and susceptibility. Enhancing signal integrity in high-speed circuits and reducing crosstalk. Laboratory exercises and demonstrations will be used to reinforce the material.

Lecture: Three hours.

Prerequisites: Signals and Systems (ELEC 309), Electromagnetic Fields (ELEC 318), Digital Systems Engineering (ELEC 330).

ELEC-426—Antennas and Propagation

Three Credit Hours

Transmission, radiation, and propagation of electromagnetic waves by means of transmission lines, waveguides, optical fibers, and antennas. Design project required.

Lecture: Three hours.

Prerequisites: Electromagnetic Fields (ELEC 318).

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