Allied Programs

The following courses and programs are available to students enrolled in Tulane College and Newcomb College. Minors listed under Allied Programs are offered through the Schools of Architecture, Engineering, Business, and University College. All courses **not** marked by a double asterisk are counted as Supplementary Program Credits (SPCs). Students may earn toward graduation a maximum of fifteen SPCs, and no more than nine of these credits may be taken in courses listed exclusively as University College courses. Consequently, courses in Exercise and Sport Sciences listed as EXSS will count toward the 15-credit SPC limit; courses listed as UESS will count toward the nine-credit SPC limit on University College courses.

** *LAS course and does not count as SPC.*

Architecture

Office: School of Architecture

303 Richardson Memorial

Phone: (504) 865-5389

Fax: (504) 862-8798

Website: www.tulane.edu/~tsahome/

Peggy Messina, Academic Programs Coordinator

ARCHITECTURAL STUDIES MINOR

The purpose of the minor in Architectural Studies is to encourage and give official recognition to students who study architecture beyond the introductory level but who do not wish to pursue a major or a professional degree in the field. The requirements are designed to allow students as much flexibility as possible in pursuing their individual interests while also providing a basic overview of the discipline. Students wishing to minor in architectural studies should meet with the Director of Academic Affairs of the School of Architecture to establish a curriculum conforming to the following requirements. (The alphanumeric code in parenthesis following each course title is the course identification code.)

A minor in architectural studies requires that at least four courses and a minimum of 15 hours of course work within the School of Architecture. The only specifically required course is Introduction to Architecture for Non-majors (HTEL 230) [Instead of this course, students may substitute Introduction to Architecture (HSTA 111), but the later course is normally taken in conjunction with its co-requisite, Architecture Studio (DSGN 101). Students do not normally receive credit for both HTEL 230 and HSTA 111.]

In addition to the introduction course, the minor requires two courses from the design, history, structures, technology, and/or theory curricula (courses with designations DSGN, HSTA, STEC, and THRY). Some of these courses have prerequisites, and in order to enroll in them minors must satisfy the prerequisites or have permission of the instructor. [There is one exception to the co-requisite requirement; students who have completed Introduction to Architecture for Non-Majors and wish to take the beginning studio course (DSGN 101) do not have to take Introduction to Architecture.] Students may satisfy the remainder of the credit requirement for a minor with any courses offered within the School of Architecture.

LAS students take 15 credits of Architecture courses; 12 credits count as free options in LAS leaving three credits as an overload. Students should be advised by the Architecture Director of Academic Affairs about the minor and the Director will certify the architecture studies minor. The following chart summarizes the two ways to fulfill the requirement for the minor in architectural studies.

Alternative A

HTEL 230 Introduction to Architecture for Non-majors	(3)
Elective*	(3)
Elective*	(3, 4 or 6)
Elective	(3, 4 or 6)
Elective (if necessary to complete 15 credits)	(3, 4 or 6)

Alternative B

HSTA 111 Introduction to Architecture	(3)
DSGN 101 Architecture Studio	(6)
Elective*	(3, 4 or 6)
Elective	(3, 4 or 6)

**These electives must be from the design, history, structures, technology, and/or theory curricula (courses with designations DSGN, HSTY, STEC, and THRY). In Alternative A, the remaining electives, if necessary, may be courses with any designation within the School of Architecture. Students should see the Architecture Director of Academic Affairs for permission to register in Architecture courses.*

Business

Office: A. B. Freeman School of Business

200B Goldring/Woldenberg Hall

Phone: (504) 865-5418

Fax: (504) 862-8733

Website: freeman.tulane.edu

Program Administrator
Paulette Douglas, Director of Undergraduate Education

MINOR

For students in Newcomb College and Tulane College, the following selection of seven courses leads to a minor recognized by the Freeman School. Group I must be taken as a prerequisite to Group II.

I. Required courses:

**ECON 101 Microeconomics

ACCT 203 Financial Accounting

II. Any four of the following eight Freeman School core courses:

ACCT 301 Managerial Accounting

FINC 352 Financial Management

ISDS 375 Introduction to Information Systems

MCOM 335 Management Communications

MKTG 382 Marketing Management

OBHR 331 Organizational Behavior

PERS 321 Managerial Perspectives

PSOM 371 Operations Management

III. One elective Freeman course

The additional elective may be any Freeman course for which the student has the necessary prerequisites. The Freeman School recommends, however, that minors select their additional course from the list above. Students may substitute both semesters of TIDB 101 and 111 More Than Just Business for the Freeman elective. Only freshmen may enroll in TIDB 101 and 111.

Students should see the Director of Undergraduate Education for permission to register in Freeman courses at the 300 level or above. Students should be advised by Freeman advisors about the minor, and the advisor will certify the business minor.

Students may not receive transfer credit for any of the eight Freeman core courses.

** *LAS course and does not count toward SPC.*

Computer Science

Office: 204 Stanley Thomas Hall

Phone: (504) 865-5785

Fax: (504) 862-3293

Email: info@eecs.tulane.edu

Website: www.eecs.tulane.edu

School of Engineering
Mark Benard, Ph.D., Yale, Undergraduate Program Director

Parviz Rastgoufard, Ph.D., Michigan State (Chair)

For students in Newcomb College and Tulane College, the following selection of courses leads to a minor in computer science. These computer science courses, as well as many others, are offered by the electrical engineering and computer science department in the School of Engineering.

The Electrical Engineering and Computer Science department offers B.S. and B.S.E. degrees in the School of Engineering. Students interested in these programs should see the Computer Science and Computer Engineering listings in the Engineering section of this catalog.

MINOR

Computer Science

Six courses including:

CPSC 101 Software Design and Programming

CPSC 102 Object-oriented Design and Programming

CPSC 118 Data Structures

CPEN 201 Computer Organization

and at least two courses at the 300 or 400 level.

Mathematics

**MATH 121-122 Calculus I and II

** MATH 217 Discrete Mathematics

The 300 and 400 level courses must be three or four credit CPSC courses excluding 497 and 498. Students must meet all prerequisites for these courses.

** *LAS course and does not count toward SPC.*

Education

Office: 419 Newcomb Hall

Phone: 504-865-5342

Website: www.teacher.tulane.edu

Program Administrator
Teri C. Davis, Ed.D., Kansas State

TEACHER CERTIFICATION – SECONDARY EDUCATION LEVEL

In addition to the B.A., B.S., or B.F.A. degree from Tulane University, students through a collaborative program with Loyola University, may earn Teacher Certification in Secondary Education (grades 7-12) from the Louisiana State Department of Education which can then be transferred to other states. Students must fulfill all Tulane degree and major requirements, general education requirements of the state, content teaching fields, and teacher certification course work. Students should consider the "content teaching fields" requirements in choosing a major.

I. State General Education Requirements

All of the following:

English	(6)
Mathematics	(6)

PSYC 212 may be taken in lieu of the second mathematics course for teacher certification. PSYC 212 does not count towards the mathematics requirement for the Tulane B.S. degree.

Sciences	(9)
Social Sciences	(9)
Arts	(3)

II. Content Teaching Fields Requirements

Two of the following teaching fields: 31 credits in the primary teaching area and 19 credits in the secondary teaching area.

English, Mathematics, Social Studies (combination of economics, history, political science), French, Spanish, Italian, German, General Science (combination of chemistry, physics, biology), Environmental Science, Biology, Chemistry. Courses taken to fulfill general education requirements and major in content field requirement count towards the Primary and Secondary teaching certification area requirements.

III. Teacher Certification Coursework (34 credits)

Knowledge of the Learner and the Learning Environment (16 credits)

EDUC 200 Introduction to Education	(3)
EDUC 389 Service Learning in Public School	(1)
PSYC 320 Educational Psychology	(3)
PSYC 334 Childhood Behavior Disorders	(3)
PSYC 339 Adolescent Psychology	(3)
Loyola EDSE A343 Classroom Management	(3)

Methodology and Teaching (18 hours)

EDUC 608 Secondary School Methods of Teaching	(3)
Loyola EDSE 610 Methods of Teaching in the Content Field	(3)
Loyola EDSE A305 Secondary Methods of Reading Instruction	(3)
Loyola EDSE A410 Student Teaching	(9)

PRAXIS Requirements

Praxis I (PPST) – Complete prior to enrolling in courses at Loyola/admission to program.

Praxis II – Complete before Student Teaching

Of the 18 credit hours of required Loyola course work, nine credits of Loyola course work will be transferred to Tulane as Supplementary Program Credits (SPC); three credits of student teaching will be transferred to Tulane as SPC; and six credits of student teaching will be transferred as equivalent to the LAS internship.

EDUC 200 Introduction to Education (3)
Staff. Corequisite: EDUC 389. An introductory course for those preparing for certification to teach. This course examines the historical, philosophical, sociological, psychological, organizational and socio-cultural bases of American education and the political influences as they relate to contemporary issues in education in the United States. It is designed to assist students in determining if they want to pursue teaching as a career and it helps perspective teachers to gain a valid and comprehensive knowledge of what is involved in a teaching career. Emphasis is placed upon reflection, inquiry and personal involvement in planning an effective and successful career in education.

EDUC 389 Service Learning (1)
Staff. Prerequisite: approval of program administrator. This course provides opportunities for observation and participation for students who are exploring an interest in teacher preparation. Students observe and participate in a variety of school and classroom settings, including urban, suburban, and inner city schools in grades seven through twelve for a total of forty hours. Students meet for debriefing sessions during the semester and complete a final project.

EDUC 608 Secondary Education Methods (3)
Staff. Prerequisite: EDUC 200. This course provides the opportunity for inquiry into prominent methodological issues and for the development of core teaching skills. Students will analyze information from a variety of sources, synthesize such information, and draw/ defend conclusions. In addition, students will interpret and demonstrate their understanding and general teaching practices and opportunity to apply that information in a laboratory setting.

Engineering Science

Office: School of Engineering
200 Lindy Boggs Center
Phone: (504) 865-5764
Fax: (504) 862-8747
Website: www.eng.tulane.edu/undergrad/IDM/IDM_new.htm
For students enrolled in Tulane College or Newcomb College.

MINOR

I. Prerequisite LAS Courses:

**MATH 121 Calculus I	4
**MATH 122 Calculus II	4
**MATH 221 Calculus III	4
**MATH 224 Introduction to Applied Mathematics	4
and either	
**CHEM 107/117; CHEM 108/118 General Chemistry I and II	4, 4
or	
**PHYS 131; PHYS 132 4, 4 General Physics I and II	4,4
	24

II. School of Engineering Courses:

Required of all Engineering Science minors:	
ENGR 100 Seminar	1
MCEN 229 Engineering Design	3
Elective 300-400 level elective in the School of Engineering	3
	7

Plus one course chosen from the following list:

CPSC 101 Software Design and Programming	4
MCEN 201 Computer Aided Engineering	3
CENG 221 Chemical Engineering Design I	3
CPSC 300 Principles of Computer Science	3
	3-4

And three courses chosen from the following list:

(appropriate for students who have taken Physics 131 and Physics 132)

ENGR 201 Electric Circuits I	3
ENGR 241 Statics	3
ENGR 242 Dynamics	3
ENGR 243 Mechanics of Materials	3
ENGR 344 Fluid Mechanics	3
	9

(appropriate for students who have taken Chemistry 107/117 and Chemistry 108/118)

ENGR 201 Electric Circuits I	3
ENGR 213 Thermodynamics	3
ENGR 312 Materials Science and Engineering	3
MCEN 302 Heat Transfer	3
	9

*** LAS course and does not count toward SPC.*

Exercise and Sport Sciences

Office: 105 Reily Center

Phone: (504) 865-5301

Fax: (504) 862-8754

Website: www.tulane.edu/~exersci/

Associate Professor
Lance B. Green, Ed.D., Northern Colorado (Chair)

Assistant Professors
Michael J. Dancisak, Ph.D., Minnesota

Melanie H. Morris, M.S., Southern Mississippi

Loretta Quinnan Wilson, Ph.D., Virginia

The courses listed below are approved for credit for students in the liberal arts and sciences. These courses, as well as many others, are offered by the Department of Exercise and Sport Sciences in University College. The Department of Exercise and Sport Sciences offers B.S. degrees through University College as well as a minor program available to all students. Students interested in these programs should consult with the department.

LECTURE COURSES

EXSS 202 Physiology of Exercise (3)
Ms. Wilson. This course provides a detailed understanding of the physiology of exercise, e.g., how the body responds and adapts to exercise and physical activity at the skeletal, muscular, and neurohormonal level. An integrative systems approach to exercise will be presented. The bioenergetics of muscular work and the cellular mechanisms of muscle contraction will be emphasized and applied to issues of health and performance.

EXSS 303 Human Anatomy and Physiology I (3)
Mr. Dancisak. Prerequisites: CELL 101/111, EEOB 101/111, CHEM 107/117, CHEM 108/118 or approval of instructor. Corequisite: EXSS 313. The first of two sequenced courses intended to address human anatomy and physiology. Special emphasis is given to the chemical basis of life; cells and cellular metabolism; histology and tissues; the endocrine, skeletal, and neurological systems.

EXSS 304 Human Anatomy and Physiology II (3)
Mr. Dancisak. Prerequisites: EXSS 303/313 or approval of instructor. Corequisite: EXSS 314. The second in a sequence of courses intended to address human anatomy and physiology. Special emphasis is given to the respiratory, digestive, cardiovascular, lymphatic and reproductive systems; nutrition and metabolism; water, electrolyte, and acid base balance; human growth and development.

EXSS 310 Biomechanics of Exercise and Sport (3)
Mr. Dancisak. Prerequisites: EXSS 303/313, 304/314 or approval of instructor. Corequisite: EXSS 312. An investigation of the principles of physics, e.g. Newtonian mechanics, as they relate to human movement. Topical areas include force and motion relationships, mechanics of projectile motion, applications of fluid mechanics in aquatics, applications to instrumentation.

EXSS 311 Mental and Behavioral Aspects of Sport (3)
Mr. Green. Prerequisite: PSYC 100, 101 or 102. This course presents an overview of exercise and sport psychology and is composed of three sections: the social psychology of sport, performance enhancement techniques, and health psychology. Topics such as group dynamics, motivation, team cohesion, self-regulation, self-talk, concentration, exercise adherence, stress management, and self-conceptualization are included.

EXSS 402 Advanced Exercise Physiology (3)
Ms. Wilson. Prerequisite: EXSS 202 or approval of instructor. Corequisite: EXSS 413. A continuation of EXSS 202, the major focus of the course is on cardiovascular and respiratory physiology. Additional topics include exercise in extreme environments, exercise during pregnancy, exercise and aging. Students will gain understanding of the integrative nature and broad application of exercise physiology as well as the principles and techniques applicable to athletic, clinical, and sedentary populations. Service learning component available.

EXSS 407 Motor Learning, Development and Control (3)
Mr. Dancisak. Prerequisite: EXSS 304 or approval of instructor. Corequisite: EXSS 417. This course explores the observable movement behavior patterns of humans from early infancy to late adulthood. Concomitant physiological, psychological and anatomical stages of human development will serve as the foundation of the investigation. Students will study the various methods of learning movement skills and the latest theories about the manner in which humans control their musculoskeletal system.

EXSS 418 Philosophy of Sport (3)
Mr. Green. This course is intended to assist the student in the development of his or her own philosophy toward sport. The content of the course will include three main sections: (1) how to do philosophy (2) an overview of various philosophical camps (e.g., dualism, materialism, humanism, Zen, and existentialism), and (3) the application of philosophy to sport. The ultimate objective of developing one's own philosophy will be realized through library/internet research, introspection, and the acquisition of knowledge.

EXSS 472 Seminar in Sports Medicine (3)
Mr. Green. Prerequisites: EXSS 303/313, 304/314. Methods and procedures in restoring and ameliorating the physically handicapped with corrective exercises for specific disabilities and adapted sports. Emphasis is placed on the treatment of injuries, both new and recurring, sustained as a result of sports participation. The course is taught by a physician.

LABORATORY COURSES

EXSS 312 Biomechanics of Exercise and Sport Laboratory (1)
Mr. Dancisak. Corequisite: EXSS 310. The laboratory provides the opportunity for students to construct and experience qualitative and quantitative methods for assessing movement; design and apply mechanical principles toward improving movement quality or reducing injury in sport and work place settings; develop knowledge and experience using kinetic and kinematic data collection instrumentation.

EXSS 313 Human Anatomy & Physiology Laboratory I (1)

Mr. Dancisak. Corequisite: EXSS 303. The laboratory is designed to actively involve students in learning the gross anatomy of the musculoskeletal system supporting structures. Dissection and exploration of human cadavers are integral components of the lab experience. Subject matter will include but not be limited to the following: levels of organization, metabolism, histology, the integumentary, skeletal, muscular, and endocrine systems.

EXSS 314 Human Anatomy & Physiology Laboratory II (1)
Mr. Dancisak. Corequisite: EXSS 304. The laboratory is designed to actively involve students in learning the principles and applications of anatomy and physiology. Gross dissection and exploration of human cadavers are integral components of the lab experience. Subject matter will include the following: blood, the cardiovascular system, the lymphatic system, the digestive system, and the reproductive system.

EXSS 413 Advanced Exercise Physiology Laboratory (1)
Ms. Wilson. Prerequisite: EXSS 202 or approval of instructor. Corequisite: EXSS 402. This course is designed to provide students with the knowledge and skills necessary to perform laboratory testing used in the study of exercise physiology. Students will learn to operate equipment used to assess fitness and athletic performance, e.g., metabolic cart, electrocardiograph, lactate analyzer, oxygen saturation body composition analysis. In addition, students will learn to develop exercise programs as well as risk assessment and safety procedures involved in exercise testing.

EXSS 417 Motor Learning, Development and Control Laboratory (1)
Mr. Dancisak. Corequisite: EXSS 407. This laboratory explores and documents observable movement patterns of humans, from early infancy to late childhood. The exploratory process begins by having each student write a “movement autobiography.” The self-history will be referenced throughout the semester with the specific topics addressed in the companion lecture series. Each lab experience is designed to give course participants an opportunity to observe, collect, and analyze data. Results will be presented to the entire lab group during presentation periods.

SPECIAL PROJECTS AND TOPICS COURSES

EXSS 399 Directed Study in Exercise and Sport Sciences (1-3)
Staff. For study, research, and projects in programs of special interest not covered in normal course offerings. Liberal arts and sciences credit by petition only.

EXSS 496, 497 Special Topics in Exercise and Sport Sciences (3)
Staff. Courses offered by visiting professors or permanent faculty. For specific course offerings see the *Schedule of Classes*. For description, consult the department. Liberal arts and sciences credit by petition only.

Less Commonly Taught Languages

Office: 311 Newcomb Hall

Phone: (504) 865-5115 or 862-3121

Fax: (504) 865-5367

Program Administrator
Thomas Klingler, French and Italian (Director)

Faculty Advisory Committee
Harry Howard, Spanish and Portuguese

William Lennon, International Students' Center

Students who enroll in LCTL courses should normally have completed the language requirements for graduation. Classes meet once a week, and are conducted by instructors who, in most cases, are native speakers of the language. Students are expected to work independently with the text books and an audio-taped program. Grades are assigned by the instructor in consultation with the program directors.

LCTL 121 Hungarian (2)
Staff. Introduction to essential skills in Hungarian

LCTL 151 Swahili (2)
Staff. Introduction to essential skills in Swahili.

LCTL 161 Special Language Offerings (2)
Staff. To be offered as demand arises and resources permit. Currently includes elementary Hindi and intermediate Swahili.

Please note that Haitian Creole and Arabic, which were formerly offered through the Less Commonly Taught Languages program, are now offered as 3-credit LAS courses (HACR 111 and ARBC 111 & 112) through the Department of French and Italian.

Pharmacology

Note: minor program only

Office: 1430 Tulane Avenue, John Bennett Johnston Bldg. room 371

Phone: (504) 584-2631

Fax: (504) 588-5283

Website: www.tmc.tulane.edu/departments/pharmacology/pharm.html

Program Administrator
Barbara Beckman, Ph.D., Johns Hopkins School of Medicine (Director)

The interdisciplinary minor in pharmacology is open to students majoring in biology, chemistry or psychology. Courses at the 700-level may be taken by junior and senior undergraduates by special permission. Prerequisites include Chemistry 241 and 243 Organic Chemistry I and Laboratory, Chemistry 242 and 244 Organic Chemistry II and Laboratory, and Ecology and Evolutionary Biology 333 Human Physiology.

MINOR

A minor in pharmacology requires the successful completion of 15 credits of required and elective courses. All students working toward the minor will be required to take Chemistry 305 Drugs and Their Actions (same as Cell and Molecular Biology 305, Pharmacology 605). No more than one of the courses counting toward a pharmacology minor will count toward a departmental major.

The four electives are to be selected from among the approved list. Electives other than those listed may be substituted upon approval of the Chair of the Department of Pharmacology under special conditions. Medical School courses count as SPC in LAS.

ELECTIVE COURSES

Cell and Molecular Biology

**CELL 331 Cellular Neuroscience

**CELL 608 Advanced Developmental and Cell Biology

**CELL 633 Cellular Gene Regulation and Expression

**CELL 663 Cellular Neurophysiology

Ecology and Evolutionary Biology

**EEOB 201 Evolution in Human Health and Disease

**EEOB 245 Darwinian Medicine

Chemistry

**CHEM 383 Introduction to Biochemistry

**CHEM 384 Intermediate Biochemistry

Psychology

**PSYC 651 Biological Psychology

**PSYC 653 Psychopharmacology

**PSYC 655 Behavioral Neuroendocrinology

**PSYC 657 Cognitive Neuroscience

Pharmacology

GPHR 703 Clinical Toxicology

GPHR 704 Physiological and Biochemical Bases of Neuropharmacology

GPHR 717 General Principles of Toxicology

GPHR 718 Special Topics in Pharmacology

GPHR 719, 720 Seminar in Pharmacology

GPHR 721, 722 Advances in Pharmacology

GPHR 723, 724 Principles in Pharmacology

GPHR 750 Research in Pharmacology

GPHR 756 Mechanisms of Hormone Action

GPHR 706 Endocrine Pharmacology

*** LAS course and does not count toward SPC.*

ROTC

AEROSPACE STUDIES (AIR FORCE)

Office: 207 Monk Simons Building

Phone: (504) 865-5394

Fax: (504) 865-5390

Web site: http://www.afrotc@tulane.edu

Professor
John S. Chilstrom, Colonel, USAF, Master of Airpower Art & Science, Air University (Chair)

Assistant Professors
Brandon B. Fisher, Captain, USAF, B.S., U.S. Air Force Academy

Ghia P. Simmons, Captain, USAF, B.S., Texas Christian

The Air Force Reserve Officer Training Corps (ROTC) provides the opportunity to become an Air Force officer while completing a bachelors or masters degree. All coursework includes the study of the profession of arms, communication skills, leadership, and military/international security issues. Aerospace Studies 100- and 200-level courses meet an hour each week for one credit hour and comprise the General Military Course (GMC). The GMC courses are open to non-ROTC students and no obligation for military service is incurred. Three hundred and 400-level courses comprise the Professional Officer Course (POC) and meet for three hours each week. The POC courses are open only to ROTC cadets, or to students by specific department approval. In addition, all cadets attend two hours of leadership laboratory weekly.

AERO 101 Foundations of the U.S. Air Force I (1)
Staff. A survey course introducing students to the United States Air Force and Air Force Reserve Officer Training Corps. Topics include: mission and organization of the Air Force, officership and professionalism, military customs and courtesies, Air Force officer opportunities, and an introduction to communication skills.

AERO 102 Foundations of the U.S. Air Force II (1)
Staff. A continuation survey course, introducing students to the United States Air Force and Air Force Reserve Officer Training Corps. Topics include: US Air Force installations, and professions; introduction to flight; geographical awareness, U.S. defense policy; military balance; terrorism and a study of other branches of the Armed Forces; and communication skills.

AERO 201 The Evolution of USAF Air and Space Power I (1)
Staff. The course examines general aspects of air and space power through a historical perspective, from the first balloons and dirigibles to World War II. Historical examples are used to show the development of present day Air Force capabilities and missions. Also covered are doctrine, principles of war, and tenets of air and space power.

AERO 202 The Evolution of USAF Air and Space Power II (1)
Staff. The course examines general aspects of air and space power through a historical perspective, from World War II to the modern day conflicts, including terrorism and combat in Afghanistan. Historical examples are used to show the development of present day Air Force capabilities and missions. Also covered are doctrine, principles of war, and tenets of air and space power.

AERO 301 Leadership Studies I (3)
Staff. Prerequisite: approval of department. A study of leadership, followership, management fundamentals, personnel and evaluation systems, feedback and counseling, ethics, and communication skills required of Air Force officers. Case studies examine leadership and management situations as a means of demonstrating and exercising practical application of the concepts studied.

AERO 302 Leadership Studies II (3)
Staff. Prerequisite: approval of department. A continuation course on leadership, followership, management fundamentals, personnel and evaluation systems, feedback and counseling, ethics, and communication skills required of Air Force officers. Case studies examine leadership and management situations as a means of demonstrating and exercising practical application of the concepts studied.

AERO 401 National Security Affairs I (3)
Staff. Prerequisite: approval of department. The course examines the national security process, regional studies, advanced leadership ethics, and Air Force doctrine. Special topics of interest focus on the military as a profession, officership, responsibilities of command, military justice, civilian control of the military, preparation for active duty, and current issues affecting military professionalism. Continued emphasis is given to refining communication skills.

AERO 402 National Security Affairs II (3)
Staff. Prerequisite: approval of department. A continuation course examining the national security process, regional studies, advanced leadership ethics, and Air Force doctrine. Special topics of interest focus on the military as a profession, officership, responsibilities of command, military justice, civilian control of the military, preparation for active duty, and current issues affecting military professionalism. Continued emphasis is given to refining communication skills.

MILITARY SCIENCE (ARMY)

Office: 104 Monk Simons Building

Phone: (504) 865-5594

Fax: (504) 865-6798

Professor
Benjamin A. Kirkland, Sr., M.S., Georgia Institute of Technology (Chair)

Assistant Professors
Floyd Dickson, Major, M.B.A., Western New England

Robert Ballagh, Major, B.A., University of West Florida

Michael Kazmierzak, B.S., Purdue

Gilberto Harris, Master Sergeant

Ralph Buford, Sergeant First Class

Ezzard Pickett, Sergeant First Class

Army Reserve Officers' Training Corps (ROTC) is a comprehensive program of studies through which a student can qualify to be commissioned as an officer in the United States Army, the National Guard, or the United States Army Reserve. Students learn leadership and management skills that will help in any profession. The Army ROTC program consists of a two-year Basic Course, which is open to freshmen and sophomores only, and a two-year Advanced Course. Non-scholarship students participating in the first two years of ROTC do not incur any obligation to the U.S. Army.

MILS 101 Foundations of Officership (1)
Introduces students to issues and competencies that are central to a commissioned officer's responsibilities. Establish framework for understanding officership, leadership, and Army values followed and "life skills" such as physical fitness and time management. Course includes periodic field trips. Two hours of lecture and one hour of laboratory. Fall semester.

MILS 102 Basic Leadership (1)
Establishes foundation of basic leadership fundamentals such as problem solving, communications, briefings and effective writing, goal setting, techniques for improving listening and speaking skills and an introduction to counseling. Course includes periodic field trips. Two hours of lecture and one hour of laboratory. Spring semseter.

MILS 201 Individual Leadership Studies (1)
Students identify successful leadership characteristics through observation of others and self through experiential learning exercises. Students record observed traits (good and bad) in a dimensional leadership journal and discuss observations in small group settings. Course includes training in physical conditioning and periodic field trips. Two hours of lecture and one hour of laboratory. Fall semester.

MILS 202 Leadership & Teamwork (1)
Staff. Prerequisite: passing grade in MILS 201 or approval of department. Study examines how to build successful teams, various methods for influencing action, effective communication in setting and achieving goals, the importance of timing the decision, creativity in the problem solving process, and obtaining team buy-in through immediate feedback. Course includes training in physical conditioning and periodic field trips. Two hours of lecture and one hour of laboratory. Spring semester.

MILS 301 Leadership & Problem Solving (2)

Staff. Prerequisite: approval of department. Students conduct self-assessment of leadership style, develop personal fitness regimen, and learn to plan and conduct individual/small unit tactical training while testing reasoning and problem-solving techniques. Students receive direct feedback on leadership abilities. Course includes training in physical conditioning and periodic field trips. Three hours of lecture and one hour of laboratory. Fall semester.

MILS 302 Leadership & Ethics (2)
Staff. Prerequisite: MILS 301. Examines the role communications, values, and ethics play in effective leadership. Topics include ethical decision-making, consideration of others, spirituality in the military, and survey Army leadership doctrine. Emphasis on improving oral and written communication abilities. Course includes training in physical conditioning and periodic field trips. Three hours of lecture and one hour of laboratory. Spring semester.

MILS 401 Leadership and Management (1)
Staff. Prerequisite: MILS 302. Develops student proficiency in planning and executing complex operations, functioning as a member of a staff, and mentoring subordinates. Students explore training management, methods of effective staff collaboration, and developmental counseling techniques. Course includes training in physical conditioning and periodic field trips. Three hours of lecture and one hour of laboratory. Fall semester.

MILS 402 Officership (1)
Staff. Prerequisite: MILS 401. Study includes case study analysis of military law and practical exercises on establishing an ethical command climate. Students must complete a semester long Senior Leadership Project that requires them to plan, organize, collaborate, analyze, and demonstrate their leadership skills. Course includes training in physical conditioning and periodic field trips. Three hours of lecture and one hour of laboratory. Spring semester.

MILS 492 Independent Studies (1)
Staff. Prerequisite: Open only to those students who have completed Military Science requirements and have extended scholarship benefits. Approval of the department chair required.

NAVAL SCIENCE (NAVY)

Office: Navy Building

Phone: (504) 865-5104

Fax: (504) 862-8768

Professor
Richard E. Davis, Jr. CAPT, USN, M.A., Salve Regina

Associate Professor
Michael P. Hallal, CDR, USN, M.S., Naval Postgraduate School

Assistant Professors
Timothy W. Thomasson, CAPT, USMC, B.S., North Carolina State

Richard J. Gorman, LT, USN, B.S., University of Florida

Erik J. Powell, LT, USN, B.S., Montana State

Brian R. Weisker, LT, USN, B.S., United States Naval Academy

The Naval ROTC curriculum leads to commissions in the U.S. Naval Reserve or U.S. Marine Corps Reserve.

Candidates for commissions in the Naval Reserve are required to complete Naval Science 101, 102, 200, 201, 301, 302, 401, and 402. Candidates for commission in the Marine Corps Reserve take Naval Science 101, 102, 200, 303, 402, and 403. Up to 15 credits of naval science course work may be counted in the credits required for graduation.

In addition to required naval science courses, all Navy-option scholarship students must complete two semesters each in calculus prior to completion of their sophomore year and calculus-based physics prior to completion of their junior year. All NROTC students attend naval science laboratories at 7 a.m. Thursday.

Non-NROTC students may be admitted to any of the naval science courses.

NAVS 101 Introduction to Naval Science (3)
Staff. A general introduction to the Navy and Marine Corps. The instruction places particular emphasis on the mission, organization, regulations, and broad warfare components of the Navy. Included is an overview of officer and enlisted rank and rating structures, the basic tenets of naval courtesy and customs, discipline, Navy Core Values, naval leadership, and ship's nomenclature. The course also provides a conceptual framework/working vocabulary for NROTC students to use on Summer Cruise. The student is made cognizant of the major challenges facing today's naval officer.

NAVS 102 Seapower and Maritime Affairs (3)
Staff. Designed to develop the student's knowledge and interest in sea power and maritime affairs, this course is oriented towards the influence of sea power upon history and the implementation of sea power as an instrument of national policy. The survey begins with the age of galley warfare and concludes with an analysis of current military operations.

NAVS 200 Leadership and Management (3)
Staff. Comprehensive study of organizational behavior and management. Topics include survey of management functions of planning, organizing, and controlling; an introduction to individual/group behavior in organizations; and extensive study of motivation/leadership. Major behavior theories explored in detail. Practical applications explored through using experiential exercises, case studies, and laboratory discussions. Other topics include decision making, communication, responsibility, authority, accountability, and total quality leadership.

NAVS 201 Naval Ships Systems I (3)
Staff. An introduction to the principles of ship design and operation. Ship stability, structure, main propulsion system, and auxiliary subsystems are carefully examined with emphasis on the interdependency of the subsystems which comprise the overall ship system.

NAVS 301 Navigation (3)
Staff. A comprehensive study designed to introduce the theory and practical applications of marine navigation. Topics include an understanding of the marine environment, terrestrial and celestial navigation theory, navigational equipment, visual navigation aids, nautical charts and publications, and electronic navigation theory.

NAVS 302 Navigation II (3)
Staff. A comprehensive study of relative motion, vector-analysis theory, formation tactics, and ship employment. Also included are introductions to naval operations and operations analysis, ships behavior and characteristics in maneuvering, applied aspects of shiphandling, afloat communications, and command and control.

NAVS 303 Evolution of Warfare (3)
Staff. This course traces the development of warfare from the dawn of recorded history to present, focusing on the impact of major military theorists, strategists, tacticians, and technological developments. Students acquire a basic sense of strategy, develop an understanding of military alternatives, and see the impact of historical precedence on military thought and actions. This course concludes with a review of the various modern warfare concepts and principles outlined in the National Command Authorities Joint Vision 2010, and briefly explores the future of armed conflict.

NAVS 401 Naval Ships Systems II (3)
Staff. This course provides an introduction to theory and principles of operation of naval weapons systems. It includes coverage of types of weapons and fire control systems, capabilities and limitations, theory of target acquisition, identification and tracking, trajectory principles, and basics of naval ordinance.

NAVS 402 Leadership and Ethics (3)
Staff. Completes final preparations of NROTC ensigns/2nd Lieutenants for their first fleet assignments as division officers or platoon commanders. Topics of discussion include: military leadership, values/professional ethics; the Uniform code of Military Justice and Navy regulations emphasizing Navy/Marine Corps junior officer's typical application of law; and separate discussions of Navy and Marine Corps personnel policies and practices relating to the roles of enlisted members, junior and senior officers, personnel counseling, evaluation, advancement, career planning, personal finances, drug and alcohol abuse, fraternization and sexual harassment, and reporting aboard to their first command.

NAVS 403 Amphibious Warfare (3)
Staff. This course surveys the historical development of amphibious doctrine and the conduct of amphibious operations. Emphasis is placed on the evolution of amphibious warfare in the 20th century, especially during World War II. The course explores present day capabilities, limitations, and force structure of current amphibious forces, and establishes a foundation for understanding the future of littoral warfare.