

COLLEGE OF ARTS AND SCIENCES

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The College of Arts and Sciences provides students the opportunity to develop a personal philosophy, a knowledge of society, and the analytic and communication skills that are the hallmarks of an educated person. The program prepares graduates to use knowledge of the past and an understanding of the world in which they live to approach problems in a logical manner, to make informed decisions, and to develop reasonable projections of the future.

The college is committed to giving all students a broad understanding of the liberal arts academic disciplines. The faculty, in their roles as teachers, researchers, and advisers, work closely with students and endeavor to share their enthusiasm for their disciplines.

The college also offers advanced courses and undergraduate research opportunities designed to prepare graduates for challenging professional careers or for graduate study.

The College of Arts and Sciences consists of 15 academic departments offering more than 40 areas of study. The college is responsible for more than 80 percent of the 50 semester hours of general education required in every undergraduate program of study. Recognizing the importance of this general education component, the faculty, chairpersons and dean of the college work with all departments of the university to ensure maximum support for all university programs and to enhance the development

of each student as a broadly educated, contributing citizen.

Undergraduates in the college may earn a Bachelor of Arts or a Bachelor of Science. The college offers bachelor's degrees in 20 undergraduate majors, the master's degree in six areas, and the Educational Specialist degree in School Psychology. Many of the majors offer several concentrations from which the student may choose. (These degrees are listed beginning on p. 4)

The College of Arts and Sciences includes the following departments:

Biology	p. 97
Chemistry and Physics	p. 101
Communication	p. 107
Criminal Justice	p. 110
English	p. 114
Foreign Languages and Literatures	p. 116
Geography	p. 119
Geology	p. 122
History	p. 125
Mathematics and Statistics	p. 132
Media Studies	p. 134
Philosophy and Religious Studies	p. 139
Political Science	p. 141
Psychology	p. 144
Sociology and Anthropology	p. 149

In addition to the 15 academic departments, there are 10 specialized areas within the college:

The Appalachian Studies Program offers a minor in Appalachian studies and maintains an extensive schedule of events reflecting Appalachian heritage. (p. 92)

The Interdisciplinary Minor in Cinematic Arts, jointly supported by the College of Arts and Sciences and the College of Visual and Performing Arts, provides students with a solid foundation in the historical, critical, and aesthetic aspects found in the area of cinema. (p. 137)

The Interdisciplinary Minor in Social Gerontology allows students to obtain specialized knowledge about adult development and aging as they live and work with

the rapidly aging population of the 21st Century. (p. 151)

Students who desire to complement their foreign language skills with a cultural focus may obtain an Intercultural Studies minor. (p. 118)

Interdisciplinary Studies is the required major for students planning to teach at the elementary or middle education level. For other students, this major provides breadth, through general education and an interdisciplinary core of courses, and depth in two different academic concentrations. (p. 126)

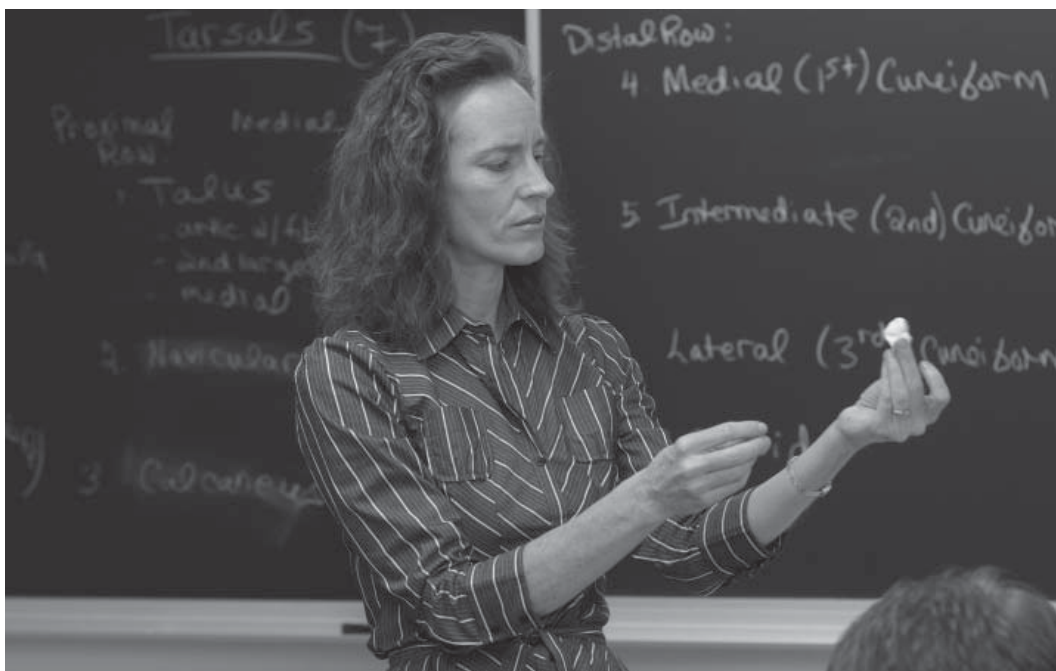
The International Studies Program, which offers a minor in international studies, prepares students to participate in an increasingly interdependent world. The program emphasizes understanding other countries through studies of their arts, language, history, and geography as well as their political and economic systems. (p. 93)

The Peace Studies Program offers an interdisciplinary minor in the study of world conflicts and explores strategies for creating a more peaceful world. (p. 95)

The Race, Class and Gender Studies Program offers a minor in race, class and gender studies. The minor examines the roots and effects of these social forces and encourages students to incorporate cultural diversity into their curriculum. (p. 145)

The ROTC Program, staffed by Army commissioned and noncommissioned officers, offers students an opportunity for scholarships and a career in the regular Army, the Army Reserve, or the National Guard. (p. 138)

The Women's Studies Minor allows students to explore interdisciplinary perspectives on women's experiences and to use gender as a way of analyzing a variety of social and interpersonal issues. (p. 96)



Dr. Donna Boyd, Eminent Professor of Anthropology, was named U.S. Professor of the Year for master's level universities and colleges by the Council for Advancement and Support of Education and the Carnegie Foundation for Advancement of Teaching in 2006. That same year she received a Virginia Outstanding Professor Award from the State Council of Higher Education for Virginia, the highest honor given to college and university professors in the Commonwealth.

Of approximately 250 faculty members in the College of Arts and Sciences, over 80 percent hold the doctoral degree.

Both undergraduate and graduate programs within the college provide close student-faculty relationships designed to meet the needs of individual students.

ADVISING

Advising Center

127 Russell, (540) 831-6366

Each student in the College of Arts and Sciences is assigned an adviser. In addition, the College Advising Center (Russell Hall 127) provides professional assistance for students who have questions about such things as curricula, academic procedures, or graduation requirements. Students are expected to become familiar with the information contained in the College of Arts and Sciences Undergraduate Advisee Manual, available from the Advising Center.

DEGREE REQUIREMENTS

All students majoring in fields of study in the College of Arts and Sciences must meet university general education requirements. (p. 79)

Requirements of individual academic majors are listed under department headings.

INTERDISCIPLINARY MINORS

Radford University offers four interdisciplinary minors that are administered outside the context of a single academic department. These minors have a number of features in common: all afford students a wonderful opportunity to explore in depth special areas of interest that do not fit neatly within disciplinary boundaries; all are excellent complements to any academic major; all require students to take courses in a variety of subjects; all are administered by a director or chairperson, in conjunction with

a advisory group of faculty from a variety of disciplines; and all require students to receive special advising services so that they meet graduation requirements. Specific and detailed information about the four interdisciplinary minors—Appalachian Studies, International Studies, Peace Studies, and Women's Studies—is provided below. For more information, contact the director or the chairperson noted.

◆APPALACHIAN STUDIES

Grace Toney Edwards*, Chairperson
www.radford.edu/~arsc/

UNDERGRADUATE PROGRAM

The Appalachian Studies Program provides students with an understanding of the heritage, environment, and culture of the Appalachian region. Appalachian life of the past and present is stressed. Students who plan to live and work within the Appalachian region will find the Appalachian Studies minor a valuable addition to their major fields of study. The academic program is supported by the Appalachian Regional Studies Center, located in Buchanan House, where faculty and support personnel are available to assist student research. The center houses an archive of original field projects, a collection of journals, books, and other print materials, and a collection of audio and video recordings. The academic program is also supplemented by cultural activities such as folklife programs, concerts, and literary readings that are sponsored by the Appalachian Events Committee, a student/faculty/staff group operating under the aegis of Student Life.

APPALACHIAN STUDIES MINOR (18 semester hours)

The minor in Appalachian Studies includes required courses on various aspects of the Appalachian region and field research courses which guide the student into first-hand experience in Appalachia. Elective

courses from a variety of disciplines give the student a broader understanding of Appalachia.

The program is administered through the interdisciplinary Appalachian Studies Program. Students who wish to minor in Appalachian Studies must consult with the chair or one of the members of the Appalachian Studies faculty for advising.

The minor in Appalachian Studies consists of 18 semester hours, as follows:

Required Courses	15
APST 200. Introducing Appalachia.	3
ANTH 411. Appalachian Cultures.	3
ENGL 447. Appalachian Literature.	3
HIST 310. Appalachian History.	3
APST 460. Seminar in Appalachian Studies.	3
Field Research Course	3

Three semester hours to be chosen from among the following courses; student's field research project must center on an Appalachian topic:

ANTH 480. Practicing Ethnographic Methods.	4
GEOG 490. Field Research Methods.	3
ENGL 446. Appalachian Folklore.	3
or from among the following courses, but only when the topic includes Field Research in Appalachia:	
ANTH 495. Anthropology Seminar.	1-4
ART 427. Special Topics in Art History.	3
ENGL 314. Topics in Literature.	
ENGL 490. Summer Workshop: Appalachian Culture and Writing.	3
GEOG 203. Appalachian Geography.	3
GEOG 480. Seminar.	3
HIST 405. Selected Topics in Appalachian History.	3
POSC 490. Seminar.	3
APST 480. Appalachian Studies Internship.	3-15
APST 490. Summer Workshop: Appalachia in the Cinema.	3
APST 495. Topical Seminar in Appalachian Studies.	3

◆INTERNATIONAL STUDIES

James H. Radford, Director
704B Clement St., #8
(540) 831-6458

Committee on International Studies

Joe Flickinger, Joseph Flory, Prahlad Kasturi*, Mary B. LaLone*, Halide Salam*, Philip D. Sweet, Karma Castleberry*, Hsin-Ming Tong*

* Graduate Faculty

The Committee on International Studies, although centered in the College of Arts and Sciences, is an interdisciplinary committee with membership drawn from all six of the university's colleges. The committee collaborates closely with the Office of International Education in encouraging Radford University students to see study abroad as an integral and essential component of their undergraduate education. The committee also works closely with individual departments and faculty advisers on campus to design programs of study that are both vital and relevant to their majors.

MINOR IN INTERNATIONAL STUDIES

(18 semester hours)

The Minor in International Studies is an interdisciplinary minor meant to complement any major on campus either by adding an international component to that major or by strengthening an existing international emphasis. The minor provides a broad overview of international issues while also permitting some degree of specialization on a particular issue or region of the world. These objectives are accomplished not only through a flexible selection of courses outside the major, but also through direct engagement that might include study abroad, internships, homestays, the study of foreign language, and the development of a final senior project that allows the student to integrate learning from both major and minor into a project with an international focus.

The International Studies Minor is administered and supervised by the Committee on International Studies (CIS), an interdisciplinary faculty committee centered in the College of Arts and Sciences. Programs of study and senior projects must be approved by the committee.

Students entering the program may be advised by any member of the Committee on International Studies or by their major adviser in collaboration with the CIS. The Program of study should have either a topical or regional focus and courses in the Core Requirements should be selected from at least two disciplines outside the student's major. Study abroad is an important component of this minor and students are strongly encouraged to take advantage of the many opportunities for overseas study offered by Radford University or other institutions.

The content of the minor will vary with each student. The following suggest some of the possibilities, but are not fully inclusive: The Role of Dance in Culture, Economics of Developing Countries, Japanese (or European) Studies, Educational Systems in Africa, the Politics of Fundamentalist Islam.

Requirements

Requirements for the Minor in International Studies total 18 semester hours, including the following four areas:

Introductory Course	3
Choose one of the following:	
INST 101. Introduction to International Studies.	3
ANTH 121. Cultural Anthropology.	3
HIST 101. World History to 1650.	3
HIST 102. World History After 1650.	3
Experience in a Target Culture No Credit	

This introductory requirement may be met in any number of ways, including study abroad, internships, homestays, or service learning projects. While the study abroad option is not required, it is strongly encouraged. Students receive no specific credit for the study abroad experience, but courses taken overseas and transferred to Radford University may be used to meet the require-

ments of a student's General Degree program, those in the student's major, or the International Studies Minor, if appropriate.

Required Core

12

Hours should be chosen from at least two disciplines outside the student's major and reflect in some fashion the topical or regional focus of the student's minor in International Studies.

Senior Project	3
INST 488. International Studies: Senior Project.	3

Ideally, this course is taken during the student's last semester and is a culmination of the international knowledge and experiences gained. The project may be a research paper, a work of art or multi-media presentation, a film, series of articles, etc. A senior project proposal must be submitted to the Committee on International Studies for approval in the semester prior to the student's enrollment. The project is supervised and graded by a designated faculty member, preferably in the student's major department. Students must earn a grade of "A" or "B" in the course to have met the requirements for the minor. Students are encouraged to give a public presentation of their work in some forum.

Recommended

The following elective coursework is recommended in conjunction with the minor in International Studies:

Foreign Language

COMM 200. Intercultural Communication.

The study of foreign language is important in the understanding of other cultures, and as such, students are encouraged to complement their minor with foreign language study, particularly as part of a study abroad experience.

SAMPLE PROGRAMS OF STUDY IN INTERNATIONAL STUDIES

Below are two actual examples of completed Programs of Study for recent Radford University graduates. Each program reflects the different majors, experiences, and interests of the individual student.

Focus: Japanese Studies (IDSL Major)

Intro.: HIST 102. World History After 1650	3
Target Culture: One year in student exchange program in Japan	
Core: Language study in Japanese	8
Transferred to RU: Japanese culture	3
Transferred to RU: Economies of East Asia	3
Senior Project: INST 488. Comparative Research on Systems of Elementary Education in Japan and the United States	3

Focus: Islamic North Africa

(ANTH major)	
Intro.: ANTH 121. Cultural Anthropology	3
Target Culture: Summer experience with archaeological dig in Tunisia	
Core: HIST 319. The Middle East	3
HIST 308 Ancient Greece and Rome	3
HIST 498. Independent Study: Readings in Islamic Culture	3
ART 498. Independent Study: Islamic Art and Architecture	3
Senior Project: INST 488. Comparative Research on the Changing Roles of Women in Modern Iran and Saudi Arabia	3

◆PEACE STUDIES

Glen T. Martin, Chairperson
709 Howe Street
(540) 831-5897

UNDERGRADUATE PROGRAM

The Peace Studies (PEAC) minor provides students with an opportunity to complement a wide range of major courses of study with systematic examination of the causes of

world conflict and the possible means of both managing that conflict and creating a more peaceful world. The minor is interdisciplinary in nature and allows the student to design a program of study that focuses on particular issues relating to world peace and security. Students who wish to enroll should consult a PEAC faculty member.

PEACE STUDIES MINOR

Students minoring in Peace Studies design their programs of study in consultation with a rotating committee of PEAC advisers. The program is administered by the PEAC Committee which must approve all programs of study.

A student's course of study must have a clearly stated focus and the courses selected must be justified in terms of that focus. Examples: procedures for international conflict management; alternative views on the causes of war and conditions of peace; the role of science and technology in war and peace; the history of peace movements; military history; the variety of potential world order systems; regional conflicts and their management; international law and organization; nuclear weapons and world security; international conflict and human rights; causes and resolutions of human conflict; relationships between inner and outer peace; international environmental policy; economic causes for conflict; international economic development; etc.

REQUIRED AND ELECTIVE COURSES

The minor consists of 18 semester hours. Many courses within existing university departmental curricula are potentially relevant to the minor, and it is the responsibility of the student to design a program (in consultation with PEAC faculty) based on his or her own interests and field of specialization prior to submission of the program to the PEAC Committee for approval. Six hours of the minor must be devoted to the two required courses: Introduction to Peace Studies (PEAC 200) and the interdisciplinary

Senior Seminar (PEAC 487) or, in years the seminar is not offered, a senior thesis appropriate to the student's area of specialization (PEAC 489). The thesis will be supervised by an interdisciplinary PEAC committee which may be chaired in the student's major department. Courses taken for other majors or minors may not be counted with this minor.

◆WOMEN'S STUDIES

Buchanan House

(540) 831-6143

Moira P. Baker, Director

www.radford.edu/~wstudies/

UNDERGRADUATE PROGRAM

The Minor in Women's Studies offers students a range of courses forming a program with an interdisciplinary emphasis on women, the contributions they have made to society, and the effects of gender inequality. The program provides opportunities to become acquainted with the scholarship that has developed during the last 25 years focusing on both the specifics of women's lives and gender as a category of analysis. Students will also have the opportunity to carry out an internship in a setting or agency that addresses issues related to women and gender.

MINOR IN WOMEN'S STUDIES

The Women's Studies Minor is administered by the Director of Women's Studies in concert with the Women's Studies Committee. Programs of study and internship projects must be approved by the committee. The Minor in Women's Studies requires 18 hours of coursework.

Requirements	3
WMST 101. Women in the World.	3

Electives	15
Any five of the following courses:	
COMM 457. Diversity in Communication.	3

CRJU 365. Diversity Issues in the Criminal Justice System.	3
ENGL 453. The Female Literary Tradition	3
HIST 306. History of Women.	3
PSYC 250. Psychology of Diversity.	3
PSYC 391. Psychology of Women.	3
RELN 305. Religion and Women.	3
SOCY 326. Men and Women in Society.	3
ANTH 333. Experiencing Cultural Diversity.	3
SOCY 441. Global Inequalities.	3
WMST 290. Special Topics in Women's Studies.	3
WMST 490. Special Topics Seminar in Women's Studies.	3
WMST 499. Internship in Women's Studies.	3

In particular years, certain courses, such as ART 427, ENGL 314, ENGL 470, FDSN 400, HLTH 450, MGNT 471, MKTG 471, MUSC 491, NURS 450, SOCY 495 and SOWK 480, may be designed to focus on the study of women or gender issues. When such courses are available with this focus, they will be eligible for inclusion in the minor. In addition, special topics 490 courses and independent studies 498 courses focusing on women can, with approval, be used to fulfill electives, though not more than six of the 15 elective hours may be 290, 490 and/or 498 courses.

PROGRAMS OF STUDY

◆APPALACHIAN STUDIES

Grace Toney Edwards*, Chairperson

www.radford.edu/~arsc/

For more information about the Minor in Appalachian Studies, see p. 92.

◆BIOLOGY

J. Orion Rogers, Chairperson

www.radford.edu/~biol-web/BioIndex.html

UNDERGRADUATE PROGRAM

The Biology Department provides students with the opportunity to select, in consultation with a faculty adviser, courses of study suitable for a wide variety of educational and career goals. This department offers a Bachelor of Arts degree or Bachelor of Science degree. Students may pursue a major in either biology or medical technology (clinical laboratory sciences).

Students in the Bachelor of Science program may prepare for state licensure to teach biology at the secondary level by completing courses in professional education in addition to General Education courses and requirements in their major.

Students not majoring in biology who desire an endorsement to teach biology in secondary schools must complete 24 semester hours of biology course work, including BIOL 121 and 122. Students also must have preparation in inorganic and organic chemistry, physics, and mathematics.

PREPROFESSIONAL DEGREE PROGRAMS

Students interested in a career in medicine, dentistry, pharmacy, physical therapy or veterinary medicine may obtain either the Bachelor of Science or Bachelor of Arts degree. An adviser in the Biology Department will assist students in choosing electives for these programs.

ARTICULATION AGREEMENT BETWEEN RADFORD UNIVERSITY AND MEDICAL COLLEGE OF VIRGINIA

The Department of Clinical Laboratory Sciences, School of Allied Health Professions, Medical College of Virginia Campus/Virginia Commonwealth University agrees to guarantee admission into the Master of Science program in clinical laboratory sci-

ences for students with the following criteria: Baccalaureate degree in Medical Technology (Clinical Laboratory Sciences) Biology or Chemistry, minimum GPA 3.25 and a minimum science GPA of 3.0. Minimum TOEFL of 570 is required for students whose native language is not English.

TRANSFER PROGRAMS

Courses are available which meet the requirements for admission to schools of physical therapy, medical technology, and other allied health sciences. Students interested in such programs should consult with an adviser in the Biology Department.

B.A. OR B.S. DEGREE

BIOLOGY MAJOR

All requirements for a biology major are outlined below. All majors must complete the same Required Core courses in Biology, Chemistry and Statistics, and must complete additional requirements and/or electives in one of three concentrations.

General Education Requirements (see p. 79) **50**

Required Biology Courses	23*
*BIOL 121. General Biology.	4
*BIOL 122. General Biology.	4
BIOL 221. Genetics.	4
BIOL 222. Cell Biology.	4
BIOL 423. General Ecology.	4
BIOL 425. Evolution.	3

*Declared biology majors must earn a grade of "C" or better in BIOL 121 and 122 before admission to BIOL 221, 222 or 300 and 400 level courses in the department.

Special Note: Declared biology majors normally take BIOL 121 and 122. Students who receive a grade of "B" or higher in BIOL 105, or an equivalent transfer course and decide to become biology majors may substitute BIOL 105, or the equivalent transfer course for BIOL 121. Similarly, students who receive a grade of B or higher in BIOL

103, BIOL 104, or an equivalent transfer course may substitute BIOL 103, BIOL 104, or the equivalent transfer course for BIOL 122.

Other Required Core Courses 19

CHEM 101:102. General Chemistry 4:4
CHEM 301:302. Organic Chemistry 4:4
STAT 200. Introduction to Statistics. 3

Concentration 19-30

All majors must choose one of the three concentrations described below and fulfill all additional requirements for their chosen concentration.

B.A./B.S. REQUIREMENTS

B.A. Requirements 6-12

The Bachelor of Arts degree requires completion of the B.A. language requirements described on p. 84 of this catalog.

B.S. Requirements 8

All Biology majors are expected to complete CHEM 301:302 (8 hrs) to fulfill their Bachelor of Science degree requirement.

Electives

Students should consult with their academic advisers in selecting elective courses to complete the 120 semester hours required for graduation.

Total Credits Needed for Degree 120

CONCENTRATIONS

GENERAL BIOLOGY CONCENTRATION

This concentration is appropriate for students desiring a broad foundation in biology, including those students planning to enter graduate, medical, dental, or veterinary schools and those students planning to seek teacher licensure. Students planning to enter graduate school programs specifically in Biotechnology or Environmental Biology

should consider those concentrations rather than the General Biology Concentration.

Science Electives 19-23

Students must select either five additional biology courses totaling at least 19 semester hours or four biology courses totaling at least 15 hours and 8 hours of physics courses.

TEACHING LICENSURE

A biology major in the General Biology Concentration seeking teacher licensure should contact the College of Education and Human Development for information concerning the necessary courses.

BIOTECHNOLOGY CONCENTRATION

This concentration is appropriate for students seeking employment in the biotechnology industry. It would also be appropriate for students planning to enter graduate school and to specialize specifically in biotechnology or molecular biology.

Required Courses 23-30

BIOL 301. Bioethics. 2
or
PHIL 310. Professional Ethics
(Prerequisite: 3 hrs PHIL). 3
BIOL 334. Microbiology. 4
BIOL 450. Molecular Biology. 4
BIOL 471:472 (CHEM 471:472)
Biochemistry. 4:3
BIOL 495. Internship in Biology. 6-12

To count towards the Concentration, BIOL 495 must be an internship with an organization working in the area of biotechnology.

Recommended Electives

A total of 7-14 additional hours are required to reach the 120 hours needed for graduation. The following electives are recommended for students in the Biotechnology Concentration:

BIOL 337. Immunology. 4
BIOL 430. Developmental Biology. 4
PHYS 111:112 or 221:222. Physics. 4:4
BIOL 491 and/or BIOL 492. Research. 1-6

ENVIRONMENTAL BIOLOGY CONCENTRATION

This concentration is recommended for students specifically interested in a career in environmental biology or related fields. It would also be appropriate for students planning to enter graduate school and to specialize specifically in environmental biology.

Required Courses: 19-25

BIOL 390. Conservation Biology.	3
BIOL 392. Pollution Biology.	4
GEOG 250. Introduction to GIS.	3
GEOG 241. Environmental Regulation.	3
BIOL 495. Internship in Biology.	6-12

To count towards the Concentration, BIOL 495 must be an internship with an organization working in the area of environmental biology.

Recommended Electives

A total of 12-18 additional hours are required to reach the 120 hours needed for graduation. The following electives are recommended for students in the Environmental Biology Concentration to choose from in completing these additional hours.

BIOL 215. General Botany.	4
BIOL 216. General Zoology.	4
BIOL 334. Microbiology.	4
BIOL 353. Comparative Behavior.	3
BIOL 361. Parasitology.	4
BIOL 380. Ornithology.	4
BIOL 462. Invertebrate Zoology.	4
BIOL 464. Vertebrate Zoology.	4
BIOL 476. Field Botany.	4
BIOL 481. Special Topics.	1-6

(BIOL 481 is recommended when it focuses on a topic in Environmental Biology.)

CHEM 215. Environmental Chemistry	3
CHEM 424. Instrumental Methods of Analysis.	4
GEOG 340. International Environmental Problems.	3
GEOG 335. Biogeography.	3
GEOG 492. Land Use.	3
GEOG 493. Planning Techniques.	3

GEOL 100. Earth Resources and Natural Hazards.	4
GEOL 365. Oceanography.	4
GEOL 474. Hydrogeology.	
PHYS 111:112. General Physics.	4:4
PHYS 221:222. Physics.	4:4

GRADUATION REQUIREMENTS

To graduate with a major in biology a student must attain an overall major grade point average of 2.0 or higher. Major GPA is calculated by using BIOL 121, BIOL 122, all biology courses 200 level or higher, all courses outside of biology used as electives (including CHEM 471:472, Physics if used as an elective, Geography used as an environmental concentration elective), and any course used as an elective by academic petition.

BIOLOGY MINOR (24 semester hours)

A student may earn a minor in biology by completing 24 semester hours selected by the student from the department offerings. Grade point average in the minor is calculated by using all biology courses and courses cross listed with biology courses.

HONORS PROGRAM IN BIOLOGY

This department offers honors courses, honors contracts and BIOL 488. Final Honors Project. For a general description of the Honors Academy at Radford, see p. 88. For specific requirements, contact the Honors Academy or department chair.

B.S. DEGREE

MEDICAL TECHNOLOGY (CLINICAL LABORATORY SCIENCES) MAJOR

Medical technology majors take three years of academic courses at Radford University and spend their senior year (12 months) working and studying in the

clinical facilities of one of the hospitals affiliated with Radford University.

For entrance into the clinical year of study students must apply to the hospital. Because the number of clinical spaces in the hospitals is limited and the number of applicants is large, students must have a high scholastic average to be considered.

All requirements for medical technology majors are outlined below. Among the requirements are Required Courses, Core Requirements, and Clinical Courses to be taken while working in a hospital.

General Education Requirements
(see p. 79) **50**

Required Courses (Included in General Education requirements) **11**
CHEM 101:102. General Chemistry. 4:4
STAT 200. Introduction to Statistics. 3

Core Requirements **26**
*BIOL 121. General Biology. 4
BIOL 221. Genetics 4
BIOL 322. Human Anatomy and Physiology. 6
BIOL 334. Microbiology. 4
BIOL 337. Immunology. 4
CHEM 424. Instrumental Methods of Analysis. 4

*Special Note: Declared medical technology majors normally take BIOL 121. Students who receive a grade of "B" or higher in BIOL 105, or an equivalent transfer course and decide to become medical technology majors may substitute BIOL 105, or the equivalent transfer course for BIOL 121.

B.S. Requirements **8**
CHEM 301:302 Organic Chemistry. 4:4

Electives **8**
Eight semester hours to be chosen from among:
BIOL 222, BIOL 361, BIOL 405, CHEM 471 and CHEM 474, CHEM 201, PHYS 111:112.

Clinical Courses **36**

BIOL 401, 402, 403.

Clinical Courses to be taken in hospital:

Blood Banking
Hematology and Coagulation
Chemistry (clinical)
Serology
Bacteriology
Parasitology/Clinical Microscopy

Total Credits Needed for Degree **128**

AFFILIATED CLINICAL HOSPITALS IN MEDICAL TECHNOLOGY, PROGRAM DIRECTORS AND ADJUNCT FACULTY

- **Augusta Medical Center School of Clinical Laboratory Science-Fishersville, VA**
Dr. Wayne P. Jessee, M.D., Medical Director
Bernadette Bekken, CLS(NCA), MT(ASCP)BB, Program Director
- **Carilion Medical Center School of Clinical Laboratory Science-Roanoke, VA**
Maribeth Greenway, M.Ed., MT(ASCP) SH, Program Director
Melanie Minnix, B.S. MT (ASCP), Educator
Janet Hiler Bowman, M.Ed., MT (ASCP), CLS (NCA), Advisory Board
Randall Vandevander, B.A., MT(ASCP), Advisory Board
Robert White M. D., Advisory Board
- **Inova-Fairfax Hospital School of Clinical Laboratory Science-Falls Church, VA**
C. Barrie Cook, M.D., Medical Director
Amy Shoemaker, MBA, MT(ASCP), DLM, Program Coordinator
Nancy Vandel, MPH MT(ASCP) SM, Program Coordinator
- **Rockingham Memorial Hospital School of Medical Technology-Harrisonburg, VA**
Warren D. Bannister, M.D., Medical Adviser
Sue Lawton, MT (ASCP), M.A., M.S., Program Director

ASSOCIATED CLINICAL HOSPITAL PROGRAMS IN MEDICAL TECHNOLOGY, MEDICAL ADVISOR AND ADJUNCT FACULTY

- **Wake Forest University Baptist Medical Center-Winston-Salem, NC**
Marcus B. Simpson, M. D., Program Adviser
Julie H. Simmons, MT(ASCP)SBB, BSMT, MPH, Program Director

◆CHEMISTRY AND PHYSICS

Walter S. Jaronski*, Chairperson
www.radford.edu/~chem-web/

INTRODUCTION

The Department of Chemistry and Physics offers two majors, one in Chemistry and one in Physics. Within the Physics major, students may choose a Physical Science concentration. A minor program in Astronomy is also offered.

The department offers a departmental honors program for students in either major. For a general description of the Honors Program at Radford University, see p. 88. For specific requirements of this program, contact the department chairperson or the director of the Honors Program.

Students majoring in the department who plan to pursue postgraduate training in medicine, pharmacy, dentistry or physical therapy are urged to work closely with their advisers in choosing elective courses appropriate to their career objectives. More specific information on such courses can be found in the sections describing undergraduate programs. Students may pursue licensure to teach Earth Science, Chemistry, or Physics in the Bachelor of Science program.

COLLABORATIVE PROGRAMS IN ENGINEERING

The Department of Chemistry and Physics at Radford University and the College

of Engineering at Virginia Polytechnic Institute and State University (Virginia Tech) offer joint programs in chemistry and chemical engineering, and in physics and engineering. These are dual degree programs in which the student will receive a B.S. in chemistry or physics from Radford University and a B.S. in engineering from Virginia Tech. The approximate time required for a student to complete these programs is five years. During the first three years, the student completes the major requirements in chemistry or physics, as well as most or all of the general education requirements at Radford. Some introductory engineering courses should also be completed while the student is at Radford; some of these may be taken during the summer. The student then transfers to Virginia Tech and, in two additional years, completes the requirements for a degree in engineering. Participants in this program who have a grade point average of 3.0 or above are guaranteed admission to the College of Engineering at Virginia Tech. All degree requirements for both Radford University and Virginia Tech should be satisfied by the end of the fifth year. The student then receives a degree from each institution.

The dual degree program in chemistry is specific to chemical engineering. The student should be prepared to take general chemistry (CHEM 101:102) and calculus (MATH 151:152) during the first year. In the second year, organic chemistry (CHEM 301:302), courses in analytical chemistry (CHEM 201, CHEM 424), the calculus-based physics sequence (PHYS 221:222), and additional calculus courses (MATH 251:252) should be completed. In the third year, the student takes physical chemistry (CHEM 401:402), an integrated laboratory course (CHEM 403: 404), additional mathematics courses, and two engineering courses (5 semester hours of credit) at Virginia Tech. Courses in general education during these three years will be chosen in consultation with a faculty adviser. After transferring to Virginia Tech, the student will complete any remaining general education requirements and the re-

quirements for the chemical engineering degree. Further details about this program can be obtained by contacting the department chairperson.

For the dual degree program in physics, the student should choose, early in the program, the intended engineering major at Virginia Tech. This choice will affect the physics curriculum that the student undertakes at Radford. All students in this program must be prepared to take PHYS 221:222 and MATH 151:152 during the first year. MATH 251:252 will be taken during the second year. Chemistry (CHEM 101:102), upper-level physics courses, and additional mathematics courses will be completed during the second and third years of the program. The upper-level physics courses will be chosen, with the assistance of a faculty adviser, to fulfill the requirements of the major in physics, as well as to complement the student's intended engineering curriculum. Appropriate courses in general education will also be selected with the aid of an adviser. The student will be encouraged to take an introduction to engineering course at Virginia Tech as early as the summer between the first and second years of the program. The remaining requirements of the chosen engineering major will then be completed after the student has transferred to Virginia Tech. Further details about this program can be obtained by contacting the department chairperson.

UNDERGRADUATE PROGRAM

A wide variety of career opportunities are available to persons trained in chemistry. Chemists work in research, industrial production, quality control, sales, management, environmental control, safety engineering, science reporting, teaching, and many other areas. Training in chemistry is also a valuable background for such professions as medicine, pharmacy, dentistry, and environmental and patent law. Many students who enter medical and dental schools do their undergraduate work as chemistry majors.

Chemistry majors are required to take courses in general, analytical, organic, and physical chemistry, as well as physics and calculus. Students are encouraged to take elective courses in biochemistry, advanced inorganic chemistry, advanced organic chemistry, polymer chemistry, and other related areas. Premedical and pre dental students majoring in chemistry should use their elective hours to take general biology and additional biology courses. Students may pursue licensure to teach chemistry in the Bachelor of Science degree program.

B.S. DEGREE

CHEMISTRY MAJOR

All requirements for chemistry majors are outlined below. All majors must take the same Required Core Courses and must complete coursework in one of two concentrations.

General Education Requirements (see p. 79) 50

Required Courses 22	
CHEM 101:102. General Chemistry.	4:4
CHEM 216. Inorganic Chemistry	3
CHEM 301:302. Organic Chemistry.	4:4
CHEM 401. Physical Chemistry.	3
*Satisfy the General Education science requirement	

PROFESSIONAL CHEMIST CONCENTRATION

This concentration is a rigorous four-year program that provides a strong background in chemistry for those students who plan to become professional chemists. It provides an excellent foundation for graduate study in chemistry or related fields and will prepare students for careers in industrial, academic or governmental settings.

Other Required Courses	20
CHEM 201. Quantitative Analysis.	4
CHEM 424. Instrumental Analysis.	4
CHEM 402. Physical Chemistry II.	3
CHEM 403:404. Integrated Lab I and II.	3:3
*CHEM Elective.	3

*Chemistry elective must be chosen from courses 200 level or above.

Related Requirements	17
PHYS 111:112. General Physics.	4:4
or PHYS 221:222. Physics.	4:4
*MATH 151:152. Calculus and Analytic Geometry I and II.	3:3
MATH 251. Calculus and Analytic Geometry III.	3

*Satisfy the General Education Math requirement.

B.S. REQUIREMENTS

B.S. (Non Teaching) Requirements 8

Bachelor of Science degree without a professional licensure in secondary education requires the following:

BIOL 105. Biology for Health Science	
or	
BIOL 121. General Biology	4
BIOL 471. Biochemistry	4

Total credits needed for this option 103

Total Credits Needed For Degree 120

(Includes General Education courses, required courses and electives. Students should consult with their academic advisers in selecting elective courses to complete the 120 semester hours required for graduation.)

PRE-PROFESSIONAL CONCENTRATION

This concentration is a rigorous four-year program recommended for students plan-

ning a career in pharmacy, medicine, dentistry or veterinary medicine. The first three years are designed to optimally prepare students for the pre-entrance aptitude examination (PCAT, MCAT, DAT or GRE). By carefully choosing electives, this concentration can also be used to prepare for graduate study in biochemistry, pharmacology or related fields.

Other Required Courses	26
CHEM 201. Quantitative Analysis.	4
or	
CHEM 424. Instrumental Analysis.	4
CHEM 471. Biochemistry.	4
BIOL 121:122. General Biology.	4:4
BIOL 322. Human Anatomy/Physiology.	6
BIOL 221. Genetics.	4
or	
BIOL 334. Microbiology.	4

Related Requirements	14
PHYS 111:112. General Physics.	4:4
or	
PHYS 221:222. Physics.	4:4
*MATH 151:152. Calculus and Analytic Geometry I and II.	3:3

*Satisfy the General Education Math Requirement.

B.S. REQUIREMENTS

B.S. (Non-Teaching Requirements) 7-8

A Bachelor of Science degree without a professional licensure in secondary education requires the following:

One Chemistry course taken from the following list:	3-4
CHEM 201. Quantitative Analysis.	4
CHEM 424. Instrumental Analysis.	4
CHEM 402. Physical Chemistry.	3
CHEM 461. Advanced Organic Chemistry.	3
CHEM 472. Biochemistry.	3

One Biology course taken from the following list:	4
BIOL 222. Cell Biology.	4
BIOL 334. Microbiology.	4
BIOL 221. Genetics.	4
BIOL 337. Immunology.	4
BIOL 361. Parasitology.	4
BIOL 405. Histology.	4
BIOL 430. Developmental Biology.	4
BIOL 450. Molecular Biology.	4
BIOL 464. Vertebrate Zoology.	4

Total credits needed for this option **105-6**

Total Credits Needed for Degree 120

(Includes General Education courses, required courses, and electives. Students should consult with their academic advisers in selecting elective courses to complete the 120 semester hours required for graduation.)

GRADUATION REQUIREMENTS

To graduate with a major in chemistry, a student must have a grade point average of 2.0 or higher in all chemistry courses attempted in the major and in the overall undergraduate major.

TEACHING LICENSURE

Students preparing to teach chemistry in the secondary schools are required to take courses in professional education in addition to general education courses and courses required by the chemistry major. A complete listing of the courses required for chemistry teachers and suggested semester schedules are available from all faculty advisers in the department.

Students obtaining initial licensure in a science area other than chemistry can obtain licensure to teach chemistry by taking 22 semester hours in chemistry, to include courses in general (inorganic) chemistry, analytical, organic, and physical chemistry.

Licensure in chemistry also requires courses in biology, physics, and mathematics, including one semester of calculus.

ENVIRONMENTAL SCIENCE OPTION

The Department of Chemistry and Physics suggests the following Environmental Science Option for its majors who intend to seek employment in the rapidly growing environment field.

CHEM 424. Instrumental Methods of Analysis.	4
Two of the following Departmental courses:	
CHEM 215. Environmental Chemistry.	3
PHSC 431. Energy and the Environment.	3
PHYS 406 (GEOL 406). Geophysics.	4
One of the following Biology courses:	
BIOL 390. Conservation Biology.	3
BIOL 392. Pollution Biology.	4
BIOL 423. General Ecology.	4

And the following Geology courses:	
GEOG 241. Environmental Regulation.	3
GEOL 100. Earth Resources and Natural Hazards.	4
GEOL 472. Environmental Aqueous Geochemistry.	3

Total **23-25**

The following course is recommended:
STAT 200. Introduction to Statistics. 3

Note: Most courses listed above are upper-level ones and have prerequisites. Students must consult with their academic advisers to carefully plan their schedules.

CHEMICAL AND PHARMACEUTICAL SALES

Chemistry majors who wish to pursue a career in technical sales are advised to take a 15-semester-hour minor in Marketing.

In order to be competitive for a position in international sales, a second minor in a foreign language is highly recommended. With careful planning, chemistry majors can obtain both of these minors within a 120-hour Bachelor's Degree program.

CHEMISTRY MINOR (20 semester hours)

A chemistry minor requires any 20 hours of chemistry, chosen in consultation with an adviser in the department.

PREPHARMACY PROGRAM

Students who wish to enter a pharmacy school should register as chemistry majors; a designated faculty member from the department will be assigned to advise pre-pharmacy students. For admission to the School of Pharmacy at the Medical College of Virginia, students must have completed two years of college work that includes the following courses: one year each of general biology, general chemistry, organic chemistry, general physics, and English; six semester hours of mathematics including at least three semester hours of calculus; three semester hours of public speaking; three semester hours of ethics/logic; six semester hours of social sciences; twelve semester hours of electives. Other pharmacy schools may have somewhat different entrance requirements and it is the responsibility of the student to fulfill these requirements.

PHYSICS PROGRAM

This program leads to a B.A. or B.S. degree in physics. Students may select a concentration in physical science. The physics major is the appropriate curriculum for a student contemplating a career in physics or engineering. The physical science concentration of the physics major is a more general program, suitable for a student

planning a career in industry or as a high school teacher. Both programs develop analytic and problem-solving skills which will be valuable in any future occupation.

PHYSICS MAJOR **B.A. OR B.S. DEGREE**

All 42 semester hour requirements for students in this concentration are outlined below. These include 12 semester hours of Math Requirements, 36 semester hours of Required Courses, and at least 6 hours of Other Courses.

General Education Requirements 50 (See p. 79)

Math Requirements 12 MATH 151:152 and 251:252. Calculus and Analytic Geometry I, II, III and IV. 3:3:3:3

Required Courses 36 PHYS 221:222. Physics. 4:4 CHEM 101:102. General Chemistry. 4:4 PHYS 305. Modern Physics. 4 PHYS 306. Intermediate Mechanics. 3 PHYS 307. Electricity and Magnetism. 4 PHYS 320. Mechanics. 3 PHYS 421. Electromagnetic Theory I. 3 PHYS 430. Quantum Mechanics. 3

Other Courses 6 A minimum of 6 semester hours must be selected from the following:

PHYS 310. Optics. 4
PHYS 330. Thermodynamics and
Statistical Mechanics. 3
PHYS 422. Electromagnetic Theory II. 3
PHYS 450. Selected Topics in Physics. 3-4

B.A./B.S. Requirements 6-12 (see next page)

Electives

Students should consult with their academic advisers in selecting elective courses to complete the 120 semester hours required for graduation.

Total Credits Needed For Graduation 120

PHYSICS MAJOR

PHYSICAL SCIENCE CONCENTRATION

B.A. OR B.S. DEGREE

General Education Requirements **50**
(See p. 79)

Math Requirements **6**
MATH 151:152. Calculus and Analytic
Geometry I and II. 3:3

Required Courses **22**
PHYS 111:112. General Physics.
or
PHYS 221:222. Physics. 4:4
PHYS 305. Modern Physics. 4
PHYS 306. Intermediate Mechanics. 3
PHYS 307. Electricity and Magnetism. 4
One PHYS course at the 300 level or above
(except PHYS 470). 3

Other Courses **15**
Any PHYS (except PHYS 470) or ASTR
course at the 300 level or above.
ASTR 111:112.
CHEM 101:102.
No more than 3 semester hours of PHYS
481, and no more than 4 semester hours of
PHYS 481 and PHYS 498 combined may
count in this category.

B.A./B.S. Requirements **6-12**
(see below)

Electives

Students should consult with their academic advisers in selecting elective courses

to complete the 120 semester hours required for graduation.

Total Credits Needed For Graduation 120

B.A./B.S. REQUIREMENTS

B.A. Requirement **6-12**

The Bachelor of Arts degree requires completion of the B.A. language requirement described on p. 84 of this catalog.

B.S. Requirement **6**

MATH 151:152 (Calculus and Analytical Geometry I and II), required for all Physics majors, fulfills the requirement for the B.S. degree.

GRADUATION REQUIREMENTS

To graduate with a major in Physics, a student must attain an overall grade point average of 2.0 or higher in all courses attempted in the major including Calculus and Analytic Geometry.

TEACHING LICENSURE

Students seeking endorsements to teach physics must take appropriate courses in education. (Contact the College of Education and Human Development for information concerning these courses.)

ASTRONOMY MINOR (22 semester hours)

The minor in Astronomy consists of 22 semester hours selected from the following:

PHYS 111:112. General Physics.
or
PHYS 221:222. Physics. 4:4
ASTR 111,112. General Astronomy
I and II. 4,4

ASTR 421. Solar System Astronomy.	3
ASTR 422. Galactic Astronomy and Cosmology.	3

PHYSICS MINOR (17 semester hours)

The minor in Physics consists of eight semester hours from the following:

PHYS 111:112. General Physics.	4:4
or	
PHYS 221:222. Physics.	4:4
and a minimum of nine additional semester hours in physics, except PHYS 231.	

◆COMMUNICATION

Kristin Froemling*, Acting Chairperson
www.radford.edu/~spch-web/

UNDERGRADUATE PROGRAM

The Department of Communication prepares undergraduate students for the future in two ways. First, students are prepared to become professional communicators. The professional communicator role involves, but is not limited to, public relations, training, investor relations, human relations, human resources, community relations, crisis management, and governmental or legislative relations. Second, students are prepared to make contributions to a variety of organizations from a communication perspective. Students have the opportunity to develop special knowledge and skill with regard to conflict, groups, leadership, relationships, intercultural communication, listening, political campaigns, etc. Whichever path students choose, they can be assured that communication knowledge and skills are highly valued.

Communication majors choose one of two concentrations leading to the Bachelor of Arts or the Bachelor of Science degree. The concentrations are Public Relations and Communication Studies.

Registration in 300- and 400-level courses is limited to students who have completed 45 hours.

COMMUNICATION MAJOR

All majors in Communication must complete: 1) 50 hours of General Education requirements; 2) the 6-hour B.S. requirement or the 6 to 12-hour B.A. requirement; 3) the core requirements and a concentration in Public Relations or Communication Studies for a total of 42 hours in Communication; and 4) elective courses for a total of 120 hours. A minor or a 15-hour concentration of conceptually related courses taken outside the department is strongly recommended.

While the Department of Communication does not require an international experience, it is strongly recommended as an essential component of an outstanding undergraduate education. The Department of Communication regularly offers international study and travel opportunities designed to provide important intercultural learning experiences along with a focused study of the theory and practice of communication in intercultural and international contexts. Students should meet with their adviser and plan their experience at the earliest possible time.

General Education Requirements 50 (see p. 79)

All Communication majors are required to take Public Speaking (COMM 114) and are advised to take it as part of their General Education requirements.

Communication Core	12
COMM 230. Introduction to Communication Theory.*	3
COMM 231. Communication Research Methods.*	3
COMM 240. Teamwork and Communication.	3
COMM 250. Interpersonal Communication.	3

*A grade of "C" or better is required in COMM 230 and 231 in order to enroll in 300- and 400-level communication (COMM) courses.

Concentrations 30
Majors must choose one of the two concentrations listed below.

Electives 13-22
Students should consult with their academic advisers in selecting elective courses to complete the 120 semester hours required for graduation. Students are strongly encouraged to take a minor or a 15-hour concentration of conceptually related courses outside the department as a portion of their elective credit.

Total Credits Needed for Degree 120

CONCENTRATIONS

COMMUNICATION STUDIES CONCENTRATION 30

The Communication Studies concentration is designed to offer students a broad understanding of communication along with practical education. It offers a selection of courses and allows students to focus their curriculum in areas of individual interest and/or areas of preparation for their future occupations in a variety of careers. Students interested in professions as varied as human resources, education, public administration, and social services will find courses in this concentration that provide both skills and knowledge necessary for success. Students should work closely with their advisers to select appropriate coursework to meet their individual goals.

In addition to the required core, students are required to take the following:

Message Production and Reception Skills (choose two) 6
COMM 236. Writing for Public Relations. 3
COMM 332. Argumentation and Advocacy. 3
COMM 414. Critical Analysis of Public Discourse. 3

COMM 416. Business and Professional Presentations. 3
COMM 440. Listening and Nonverbal Communication. 3
ENGL 306. Professional Writing. 3
ENGL 307. Business Writing. 3

Audience Analysis and Adaptation (choose two) 6
COMM 327. Politics and the Media. 3
COMM 333. Persuasion. 3
COMM 413. Political Communication. 3
COMM 415. Communication Training and Development. 3
COMM 433. Communication and Social Change. 3
COMM 457. Diversity and Communication. 3
COMM 465. Communication and Health Care. 3

Group Processes (choose one) 3
COMM 314. Organizational Communication. 3
COMM 439. Leadership and Group Communication. 3
COMM 459. Communication in Conflict Management. 3

Communication Electives 15
15 credit hours of electives in the Department of Communication (excluding COMM 114).

PUBLIC RELATIONS CONCENTRATION 30

The Public Relations Concentration prepares students for positions as professional communicators in business, government, associations, health care, public relations firms, and educational and cultural organizations. Professional communicators scan the organizational environment, identify problems, identify solutions to problems, analyze audiences, design and execute message campaigns, and counsel other members of management concerning strategic communication. The sequence is designed to provide

students with a combination of technical communication skills and theoretic knowledge necessary to make them competitive for entry-level positions and prepared for a career as a professional communicator.

In addition to the required core, students are required to take the following:

COMM 226. Introduction to Public Relations.	3
COMM 236. Writing for Public Relations.	3
COMM 314. Organizational Communication.	3
COMM 408. Public Relations Case Studies.	3
COMM 411. Public Relations Media and Campaigns.	3
COMM 438. Communication Internship.	3
12 credit hour electives in the Department of Communication (excluding COMM 114)	12

*No more than 6 hours of internship credit may be used to meet requirements for the major.

B.A./B.S. REQUIREMENTS

B.A. Requirements 6-12

The Bachelor of Arts degree requires completion of the B.A. language requirements described on p. 84 of this catalog.

B.S. Requirements 6-8

The Bachelor of Science degree requires six semester hours, in addition to general education requirements, selected from any of the following areas:

Math, statistics, computer science, or natural science (including GEOG 100, 303, 335 and 350). In addition, the following courses may be used to meet the B.S. requirement:

PHIL 112. Introduction: Ethics and Society
PHIL 113. Introduction: Reasoning and Argument
PHIL 310. Topics in Professional Ethics*
PHIL 390. Ethical Theory*
MSTD 400. Media Law and Ethics*

PSYC 201. Psychological Research I
PSYC 202. Psychological Research II*
PSYC 445. Psychological Tests and Measurements*
SOCY 380. Introduction to Social Research Methods*
SOCY 480. Survey Research Methods*
SOCY 481. Research and Evaluative Methods*
ANTH 480. Practicing Ethnographic Methods*
ART 250. Photography
ART 280. Introduction to Graphic Design
BLAW 203. Legal Environment of Business
ITEC 110. Principles of Information Technology
*denotes prerequisites exist for these courses

COMMUNICATION MINOR

The minor in Communication consists of 18 semester hours in COMM courses, including COMM 114 and 15 additional hours of courses from the Department of Communication.

INTERNSHIPS

Internships are available at approved agencies for qualified students. Students work under departmental supervision in private corporations, public organizations, advertising and public relations agencies, lobbying groups, and other organizations that will provide a suitable environment for learning. To qualify for an internship, a student must be a major in the department and must be in good academic standing with 75 hours of credit completed. Communication majors have interned at Burson-Marsteller Public Relations, Frankfurt, Germany; Edleman Public Relations, Washington, D.C.; Gray and Rice Public Relations, Boston, Massachusetts; Stanton Communications, Washington, D.C.; United Way, Roanoke, Virginia; Pulaski Rangers Minor League

Baseball, Pulaski, Virginia; Police Department, Roanoke, Virginia; Virginia Department of Motor Vehicles; Virginia Tourism; Spartanburg Regional Healthcare System, Spartanburg, South Carolina; Blue Ridge Hospice, Winchester, Virginia; The Children's Museum, Washington, D. C.; Carilion Health Care System; Crawford Long Medical Center; United Network for Organ Sharing, Richmond, Virginia; and the International Association of Travel Agencies.

MASTER OF SCIENCE IN CORPORATE AND PROFESSIONAL COMMUNICATION

The Master of Science degree in Corporate and Professional Communication is an applied degree designed to prepare students for a variety of careers in the public and private sector. Students will be prepared to seek careers as communication professionals in human services and in management positions, as public relations specialists, and as training/development coordinators. Graduates of our program demonstrate the broad range of career possibilities. For example, our graduates currently hold positions in fields as diverse as health care, public relations, computer software, media, higher education, non-profit services, and government. Additionally, students are prepared to pursue doctoral degrees. The degree provides a foundation of course work in both internal and external organizational communication and also allows students to focus their studies in their specific areas of interest. Please consult the *Radford University Graduate Catalog* for details.

ACCELERATED MASTER'S PROGRAM

The accelerated Bachelor's/Master's degree program in Corporate and Professional Communication provides an opportunity for exceptional undergraduate students at

Radford University to complete the requirements for both the Baccalaureate and Master's degrees at an accelerated pace.

Students accepted for the Bachelor's/Master's accelerated programs may take up to 9 hours of graduate credits and these may count toward both the Bachelor's and Master's degrees. Courses taken at the 400 level may not be repeated at the 500 level for undergraduate/graduate credit. To be eligible for participation in the accelerated degree program, students must have completed a minimum of sixty (60) and a maximum of ninety-six (96) credit hours in their undergraduate programs. Transfer students must have completed a minimum of two semesters as a full-time student at Radford University, a minimum of 24 hours. Students must have a minimum-accumulated grade point average of 3.00.

Students who meet the eligibility requirements described above should set up a meeting with the Graduate Program Coordinator to their application.

◆CRIMINAL JUSTICE

Isaac T. Van Patten*, Chairperson
www.radford.edu/~crju-web/

UNDERGRADUATE PROGRAM

Criminal justice involves the study of crime from a systems perspective. Far from being a narrowly-defined law enforcement or correctional program, criminal justice is an interdisciplinary and professionally-oriented academic discipline concentrating on many aspects of crime and the concepts that impact on our system of justice. Accordingly, to prepare students for the various positions within criminal justice as well as graduate school, the program seeks to develop a broad foundation of knowledge pertaining to crime and its ancillary issues.

The curriculum for criminal justice majors is interdisciplinary in nature and includes courses that will provide students with the research and analytical skills necessary for

understanding the nature of justice and the issues that affect its implementation. Majors may pursue either a Bachelor of Arts or Bachelor of Science degree.

The program also offers a minor that allows for the interdisciplinary study of the interface of a student's primary discipline with the civil and criminal justice system. The program examines the general field of forensic science and the role of the forensic scientist in the judicial system. While emphasizing mastery of a student's primary field of study, the Interdisciplinary Minor in Forensic Studies allows the student the opportunity to explore allied fields as well as the operation of the judicial system. The minor complements majors in the liberal arts disciplines as well as professional fields such as Business, Nursing, and Social Work.

For students desiring to teach criminal justice at the secondary level, the teacher licensure option is offered in the Bachelor of Science program.

Criminal Justice courses offered by the community colleges may substitute for various courses in the criminal justice major at Radford. A maximum of 21 hours transfer credit may be applied toward the major. A minimum of 21 hours of course work with CRJU prefixes must be taken at Radford University.

B.A. OR B.S. DEGREE

CRIMINAL JUSTICE MAJOR

All requirements for the criminal justice major are outlined below. Among the requirements are Core Requirements, Other Major Courses, and Related Requirements. In order to graduate with a major in Criminal Justice, students must complete all CRJU prefix courses with a grade of "C" or better.

General Education Requirements **50**
(see p. 79)

Majors are required to take the following four courses and are advised to take them as part of their General Education requirements:

POSC 120. Introduction to American Government.	3
PSYC 121. General Psychology.	3
SOCY 110. Introduction to Sociology.	3
STAT 200. Introduction to Statistics.	3

Core Requirements: **27**

CRJU 150. Crime, Law and Justice.	3
CRJU 233. Courts and Criminal Process.	3
CRJU 235. Police and Society.	3
CRJU 238. Corrections.	3
CRJU 345. Historical Perspectives on Criminal Justice.	3
CRJU 365. Diversity Issues in the Criminal Justice System.	3
CRJU 430. Comparative Criminal Justice Systems.	3
CRJU 485. Research Methods in Criminal Justice.	3
CRJU 495. Critical Perspectives in Criminal Justice.	3

Other Major Courses: **9**

Three courses for a total of nine hours of classes with a CRJU prefix are required. CRJU 100, core requirements, independent studies, and internship hours do not satisfy this requirement. More than one CRJU 490. Seminar will count towards the nine hours provided that the topic of the seminar varies.

Related Requirements: **6**

One course will be chosen from:	
PSYC 343. Social Psychology.	3
PSYC 439. Abnormal Psychology.	3

One course will be chosen from:	
CRJU 475. Crime and Criminal Behavior.	3
SOCY 350. Criminology.	3
SOCY 443. Deviance.	3
SOCY 444. Juvenile Delinquency.	3

B.A./B.S. Requirements **6-12**
(See below)

B.A./B.S. REQUIREMENTS

Students should consult with their academic advisers as to which degree option best suits their needs.

B.A. Requirements **6-12**

The Bachelor of Arts degree requires completion of the B.A. language requirements described on p. 84 of this catalog.

B.S. Requirements **6-12**

The Bachelor of Science requirements for criminal justice majors consists of six (6) semester hours chosen from the following list of courses. See university policy regarding the use of credit to fulfill multiple requirements. Courses with asterisks (*) can be used for only one requirement, i.e. B.S., major, minor, option, or general education.

BLAW 203. Legal Environment of Business.	3
COMM 114. Public Speaking.*	3
COMM 314. Organizational Communication.	3
COMM 332. Argumentation and Advocacy.	3
COMM 333. Persuasion.	3
ECON 391. Law and Economics.	3
GEOG 250. Introduction to GIS.	3
HLTH 451. Drug Use and Drug Abuse Education.*	3
ITEC 100. Introduction to Information Technology.*	3
MSTD 400. Media Law and Ethics.	3
PHIL 112. Introduction: Ethics and Society.	3
PHIL 113. Introduction: Reasoning and Argument.	3
PHIL 310. Professional Ethics.	3
PHIL 390. Ethical Theory.	3
POSC 300. Public Administration.	3
POSC 438. Constitutional Law-Government Powers.	3

POSC 439. Constitutional Law-Civil Liberties.	3
PSYC 218. Adolescent Psychology.	3
PSYC 405. Forensic Psychology.*	3
SOCY 265. Society and the Individual.	3
SOCY (ANTH) 333. Experiencing Cultural Diversity.	3
SOCY 457. Law and Social Injustice.	3

GRADUATION REQUIREMENTS

In order to graduate with a major in criminal justice, a letter grade of "C" or higher must be earned in all "CRJU" prefix courses. See p. 59 for course repeat policy.

CRIMINAL JUSTICE MINOR
(18 semester hours)

In order to complete a minor in criminal justice, students must do the following:

1. Complete a total of 18 hours in criminal justice (CRJU prefix) coursework;
2. 12-18 credit hours must be taken from the list of required courses for the major;
3. 0-6 credit hours may be taken from other courses with CRJU prefix;
4. Letter grade of "C" or higher must be earned in all "CRJU" prefix courses.

INTERDISCIPLINARY MINOR IN FORENSIC STUDIES

A minimum of 18 credit hours is required for the completion of the Interdisciplinary Minor in Forensic Studies. The program is administered by the interdisciplinary forensic studies committee (to be named by the dean). Students who wish to enroll in the minor must consult with one of the members of this committee for advising. It is the responsibility of the student to design his/her program of study from among the available options, subject to approval of the committee. Regularly offered courses, special topic courses, seminars and honors courses may be selected.

Required Courses

CRJU 320. Criminal Investigative Theory.
CRJU 341. Introduction to Forensic Science.
CRJU 481. Forensic Evidence.

9 of at least 21 hours in the criminal justice major; a 2.5 grade point average overall and in the major; and departmental approval. The internship program offers 6 to 15 hours credit.

Required Electives

Choose 9 hours from the following:

ANTH 220. Physical Anthropology. 3
ANTH 320. Human Osteology. 4
ANTH 420. Forensic Anthropology. 4
BIOL 221. Genetics. 4
BIOL 310:333. Human Structure and Function. 4:4
BIOL 322. Human Anatomy and Physiology. 6
BIOL 450. Molecular Biology. 4
CHEM 301:302. Organic Chemistry. 4:4
CHEM 471:472. Biochemistry. 4:3
*CRJU 360. Criminal Law and Evidence. 3
CRJU 490. Seminar (must be an appropriate forensic topic). 3
HLTH 451. Drug Use and Drug Abuse Education. 3
PSYC 405. Forensic Psychology. 3
PSYC 439. Abnormal Psychology. 3

In planning elective forensic studies coursework, students must be aware of three requirements:

1. Students must select their elective courses so that upon completion of the minor they have taken coursework in at least two disciplines.
2. Criminal Justice majors may not take the asterisked (*) courses for credit towards the minor.
3. Students must earn a letter grade of "C" or higher in all courses for credit towards the Forensic Studies minor.

INTERNSHIP PROGRAM

The criminal justice major offers an internship program (CRJU 484) that may be taken during the junior or senior year. Requirements for the course are: completion

HONORS PROGRAM

For a general description of the Honors Program at Radford, see p. 88. For specific requirements of the departmental honors program, contact the department Honors Program Liaison.

ACCELERATED MASTER'S PROGRAM

The objective of an accelerated Bachelor's/Master's degree program in Criminal Justice is to provide a means whereby exceptional undergraduate students at Radford University may complete requirements for a Baccalaureate and Master's degrees more efficiently, in five rather than six years.

Students accepted for the Bachelor's/Master's accelerated program may take up to 12 hours of graduate credit, which may count for both the Bachelor's and Master's degrees. To be eligible for participation in an accelerated degree program, students must have completed at least 60 undergraduate credits and a maximum of 96 undergraduate credits. Transfer students must have completed a minimum of two semesters (at least 24 credits) at Radford University. A student must have a cumulative GPA of at least 3.0 to be eligible.

A prospective student who meets the eligibility requirements above should arrange a meeting with the Graduate Program Coordinator to review the requirements for the accelerated Bachelor's/Master's degree program. Students in the accelerated program must submit the standard application for admission to the Graduate College, including an application form, application fee, transcripts, test scores, letters of recommendation, and a short essay addressing why he

or she wishes to undertake graduate study in Criminal Justice and his or her plans for a career in Criminal Justice. In addition, the student must submit the Accelerated Degree application form. Upon review of the materials submitted, a letter of acceptance (or denial) to the Master's program, contingent on meeting the accelerated requirements and completing the bachelor's degree, will be sent to the student.

Students must complete the Bachelor's degree prior to entering the Master's program. Students in the accelerated program may not elect to bypass the Bachelor's degree. Students must receive a grade of "B" or better in the double-counted graduate level courses. Courses with a grade of "C" or below may not be double-counted toward the graduate degree. No more than 12 hours of graduate work may be counted toward the requirements of both degrees.

Students must complete the Master's degree within six (6) years of the start of their first graduate course. If the Master's program is not completed within those time limits, none of the graduate courses taken as an undergraduate will be counted toward the Master's degree. Permission to pursue the accelerated program does not guarantee admission to the Graduate College. Admission is contingent on meeting eligibility requirements at the time of entering the graduate program.

A student may at any time withdraw from the accelerated program by informing the Graduate Program Coordinator in writing. A copy of this will be sent to the Graduate College. If a student completes the Baccalaureate degree requirements with a GPA of less than 3.0, he or she is no longer eligible to pursue the accelerated program. A student who does not follow the accelerated degree requirements may become ineligible to participate in the accelerated program. A student who is ineligible to participate in or who withdraws from the accelerated program may not double count any courses for the Bachelor's and Master's degrees.

GRADUATE PROGRAM

The graduate program in criminal justice allows students to prepare for management and other careers in criminal justice and related fields. The program leads to the Master of Arts or the Master of Science degree in criminal justice. For more information, consult the *Radford University Graduate Catalog*.

◆ENGLISH

Rosemary Fithian Guruswamy*,
Chairperson
www.radford.edu/~engl-web/

UNDERGRADUATE PROGRAM

Designed to afford students an integrated, comprehensive learning program, the English major teaches students the fundamental ways of organizing knowledge in the discipline. Majors may earn either a Bachelor of Arts or a Bachelor of Science degree; both degrees prepare students for continued study in advanced programs, for teaching, or for entry into various professions where critical and creative thinking, writing and other communication and problem solving skills are valued and employed.

The major incorporates a writing-intensive requirement which integrates instruction in writing and the use of writing as a powerful learning tool into the whole curriculum, following a sequenced and coordinated plan. Students take four writing-intensive courses throughout the major, three as indicated by "WI" below and one additional course of their choice that is designated "writing intensive" in the schedule and will also serve as one of the English electives or requirements for the major.

B.A. OR B.S. DEGREE

ENGLISH MAJOR

All requirements for English majors are outlined below. Among the requirements is a minimum of 45 semester hours of upper division English courses. All courses for the English major must be completed with a grade of “C” or higher.

General Education Requirements 50 (see p. 79)

Required Courses 33

- ENGL 300. Introduction to English Studies. (WI) 3
Prerequisite for all 400-level literature courses.
- ENGL 330. British Literary History I. or
ENGL 331. British Literary History II. 3
ENGL 340. American Literary History. 3
ENGL 420. Introduction to Literary Criticism. 3
ENGL 463, 464, or 465. (language study) 3
One of the following American period courses:
ENGL 442, 443, 444, 445, 451 3
One of the following British period courses:
(must be in area not covered by choice of 330/331)
ENGL 431, 433, 434, 435, 437, 438, 439, or 451. 3
ENGL 470. Author in Context. (WI) 3
ENGL 472. Readings in Shakespeare. 3
One of the following multicultural literature courses:
ENGL 446, 447, 449, 450, 453, 454, or appropriate 314. 3
ENGL 496. Senior Seminar. (WI) 3

Additional Upper Division English Courses 12

Twelve additional semester hours from any 300- or 400-level English.

B.A./B.S. Requirements 12 (See below)

Electives

Students should consult with their academic advisers in selecting elective courses to complete the 120 semester hours required for graduation.

Total Credits Needed for Degree 120

B.A./B.S. REQUIREMENTS

B.A. Requirements 6-12

The Bachelor of Arts degree requires completion of the B.A. language requirement described on p. 84 of this catalog.

B.S. Requirements 6-8

The Bachelor of Science non-teaching degree requires six to eight hours beyond the general education requirements in courses selected from the following departments: Mathematics, Statistics, Media Studies, Information Science and Technology, any social science, and any natural/physical science. Students who begin but do not complete the B.S. teaching degree will be allowed to use up to eight hours with a College of Education and Human Development departmental prefix toward the B.S. non-teaching requirements.

GRADUATION REQUIREMENTS

To graduate with a major in English, a student must have a grade point average of 2.0 or higher in all courses taken with an ENGL prefix, except those which satisfy general education requirements.

TEACHER LICENSURE

English majors who wish to earn licensure to teach English must take ENGL 463 to fulfill the language study requirement and also

complete the English Education concentration (see below) as part of the major. They also must take ENGL 428 concurrently with student teaching. This counts as part of the professional education core but not as part of the major. To be licensed, a student must also take one of the following: COMM 114, Public Speaking; COMM 230, Introduction to Communication Theory; or COMM 240, Team-work and Communication. In addition, appropriate courses in education must be taken. (Contact an English Education adviser for information concerning these courses.)

CONCENTRATIONS

Students seeking one of the pre-professional concentrations will fulfill all the requirements for the English major core and use their elective hours to complete the concentration.

ENGLISH EDUCATION CONCENTRATION

Three courses taken as English electives; students must also complete all courses for licensure including ENGL 426 in the field experience semester.

ENGL 402. Teaching Writing.	3
ENGL 425. Adolescent Literature.	3
One additional 300- or 400-level writing course with ENGL prefix.	3
One additional 300- or 400-level course with ENGL prefix.	3

TECHNICAL AND BUSINESS WRITING CONCENTRATION

Four courses taken as English electives:	
ENGL 306. Professional Writing.	3
ENGL 403. Grammar and Style for Writers.	3
ENGL 406. Advanced Technical Writing.	3
ENGL 407. Technical Editing.	3

MINORS

ENGLISH MINOR 21

The minor requires 21 semester hours, at least 12 of which must be 300- and 400-level courses. The minor in English does not provide licensure to teach.

TECHNICAL AND BUSINESS WRITING MINOR 21

The minor requires 21 semester hours, which include the 3 general education English courses and the 4 courses listed in the technical and business writing concentration above.

GRADUATE PROGRAM

The graduate program in English leading to a Master of Arts or Master of Science degree prepares students for teaching at the secondary and college levels, for continued study in pursuit of the doctoral degree and for entry into various professions where critical thinking and writing are valued and employed. For further information, consult the *Radford University Graduate Catalog*.

◆FOREIGN LANGUAGES AND LITERATURES

Philip D. Sweet, Chairperson
www.radford.edu/~forl-web/

UNDERGRADUATE PROGRAM

The foreign languages program is designed to teach a command of a foreign language, to teach students to analyze language and literature, and to make students aware of the heritage of another culture. Students may earn either a Bachelor of Arts or a Bachelor of Science degree; the degree programs prepare students to become language teachers or to work in business or government.

All majors in modern foreign languages are required to show satisfactory participation in an intensive immersion experience in the language of their major. This may be in the form of a study abroad program, a service project, or intensive upper-level language instruction in the United States. In all cases, this experience may not be less than four calendar weeks and must be approved by the department prior to departure. Radford offers a summer study program abroad in France and Spain and a semester or year's study at the University of Kassel in Germany, at the Estudio Internacional Sempere in Spain, at the International University in Cuernavara, Mexico, and at the Catholic University of the West in Angers, France.

FOREIGN LANGUAGES MAJOR

Students pursuing a Foreign Languages major choose the Modern Foreign Languages Concentration.

General Education Requirements 50
(see p. 79)

MODERN FOREIGN LANGUAGE CONCENTRATION

Required Courses 30

Majors must choose one of the following:

- 30 semester hours with at least 24 hours above the intermediate level of French, which must include FREN 361 or FREN 362, and at least one course on the 400 level; or
- 30 semester hours with at least 24 hours above the intermediate level of German, which must include at least one course on the 400 level; or
- 30 semester hours with at least 24 hours above the intermediate level of Spanish, which must include SPAN 320 and at least two courses on the 400 level.

B.A./B.S. Requirements 6-12
Electives

Students should consult with their academic advisers in selecting elective courses to complete the 120 semester hours required for graduation.

Total Credits Needed for Degree 120

B.A./B.S. REQUIREMENTS

B.A. Requirements

Foreign Language majors fulfill all language requirements for the Bachelor of Arts degree. Foreign Language majors in the Bachelor of Arts program must also complete either a minor or a second major.

B.S. Requirements

For the Bachelor of Science degree, eight hours in education toward the endorsement in secondary education are required.

GRADUATION REQUIREMENTS

To graduate with a major in Foreign Languages and Literatures, a student must have a grade point average of 2.0 or higher in all courses attempted in the major.

MINORS

FOREIGN LANGUAGES MINOR (18 semester hours)

A student seeking a minor in Foreign Languages must complete 18 semester hours in a specific language with at least one course on the 300 or 400 level. Latin minors may include CLSS 110. A minimum grade point average of 2.0 is required.

CLASSICAL HUMANITIES MINOR (18 semester hours)

This minor requires 18 semester hours: nine hours chosen from CLSS 110, CLSS

120, CLSS 210 and CLSS 220; and nine hours chosen from CLSS 460, CLSS 110, CLSS 120, CLSS 210, CLSS 220, HIST 308, HIST 309, HIST 311, PHIL 114, POSC 110, POSC 370, THEA 375 and any Greek or Latin courses (up to six hours, including courses taken to satisfy the Bachelor of Arts degree language requirement). A minimum grade point average of 2.0 is required.

INTERCULTURAL STUDIES MINOR (21 semester hours)

Students who desire to complement their foreign language skills with a cultural focus may obtain an Intercultural Studies Minor. A student seeking a minor in Intercultural Studies must complete 21 semester hours, which must include Cultural Anthropology (ANTH 121) and at least one course in the Department of Foreign Languages and Literatures.

No more than nine hours or three courses from the same department can be applied to the minor. No more than six hours in the Intercultural Studies Minor can be also used to meet either general education requirements or requirements for a major or another minor program. Three hours must be in 300 and 400 level courses. Students must choose one of three fields of specialization: Classics, Latin America, or Western Europe. The other required core courses for each field of concentration are listed below. Appropriate electives must be chosen to complete the 21 semester hours required for the minor.

A minimum grade point average of 2.0 is required.

The program of all Intercultural Studies minors must be approved by the Chair of the Department of Foreign Languages and Literatures. Elective courses also must relate to the field of specialization.

Required Core in Classics

Two college-level language courses in Latin (a minimum of six semester hours), or three years of high school instruction in Latin and one college-level language course in

Latin (a minimum of three semester hours), and:

CLSS 110. Classical Mythology.	3
HIST 308. Ancient Greece and Rome.	3
PHIL 114. The Origins of Western Philosophy.	3

Required Core in Latin America

Two college-level language courses in Spanish (a minimum of 6 semester hours), or three years of high school instruction in Spanish and one college-level language course in Spanish (a minimum of three semester hours), and:

GEOG 280. Regional Geography.	3
HIST 316. Colonial Latin America.	
or	
HIST 317. National Latin America.	3
POSC 461. Government and Politics of Latin America.	3

Required Core in Western Europe

Two college-level language courses in either French, German or Spanish (a minimum of six semester hours), or three years of high school instruction in one of these languages and one college-level language course in that same language (a minimum of three semester hours), and:

GEOG 280. Regional Geography.	3
HIST 342. Revolutionary Europe, 1789 to 1870.	3
or	
HIST 343. Europe Since 1870.	3
POSC 341. Western European Government and Politics.	3

CREDIT GRANTING POLICY

ADVANCED PLACEMENT

Students who score three or four on an Advanced Placement examination in Spanish will receive six hours of credit; students who score a three or four in French, German, or Latin will receive eight semester hours of

credit toward graduation; those who score a five in Spanish will receive nine hours of credit, and those who score a five in French, German, or Latin will receive twelve semester hours of credit. However, students are required to complete at least one three semester hour course on the second year level or higher at Radford University in order to satisfy the B.A. requirement.

Students who have taken a foreign language in high school and who begin their college level study of that language above the first eight hours of language instruction (above the first nine hours in Spanish) will receive an additional six semester hours of elementary language credit in that same language if the following conditions are met:

a. The student's first two college courses in that language at Radford University are completed on the above mentioned level or beyond.

b. A GPA of 2.4 or better is received for those two courses. Students already receiving AP credit for a foreign language are ineligible to receive this additional credit in that same language.

ELIGIBILITY FOR ENROLLMENT IN LANGUAGE COURSES

To provide the best learning environment in language classes, it is essential that students enroll in courses appropriately suited to their current abilities. Placement is determined by the faculty, based on the student's previous learning, interviews, and placement testing. The decision of the Chair of the Department of Foreign Languages and Literatures is final. Students who have successfully completed four or more years of a foreign language in high school may not enroll in the first semester of that language for credit, and those who have successfully completed three or more years are normally placed above the first semesters of language instruction.

No student may take a first year language course for credit toward graduation after successful completion of a second year or higher level course in that language.

◆GEOGRAPHY

Bernd H. Kuennecke*, Chairperson
www.radford.edu/~geogweb/

UNDERGRADUATE PROGRAM

The Geography Department, while stressing breadth of geographical preparation, provides specialized course work for students who seek careers in planning or with environmental agencies, or who seek admission to a graduate program; training in digital cartographic techniques; and training in geospatial information systems and their applications.

The department, which offers programs leading to a Bachelor of Science or Bachelor of Arts degree, focuses on environmental studies, including biogeography, land use and watershed issues; regional and international studies, especially in North America, Latin America, Europe, and Russia; and cultural and economic geography. Technical strengths include digital cartographic techniques, geospatial information systems, and digital image processing.

B.A. OR B.S. DEGREE

GEOGRAPHY MAJOR

All requirements for geography majors are outlined below. All majors must take the same Required Core courses and must complete course work in one of four concentrations.

General Education Requirements	50	in teaching or pursuing graduate studies in geography or wanting more flexibility than provided in other concentrations.
(see p. 79)		
Required Courses	21	
GEOG 101. Europe and the Americas [World Geography].		Required Geography Courses 18
or		GEOG 101 or 102. 3
GEOG 102. Africa and Asia [World Geography].	3	(whichever was not taken to meet core requirements)
GEOG 125. Introduction to Geospatial Data.	3	GEOG 103. Human Geography. 3
GEOG 130. Physical Geography.	3	200 level regional geography course 3
GEOG 211. Perspectives in Geography.	3	GEOG 302. Economic Geography. 3
GEOG 214. Introduction to Cartography	3	GEOG 305. Population Geography. 3
GEOG 250. Introduction to GIS.	3	GEOG 322. Cultural Geography. 3
GEOG 496. Senior Capstone.	3	One upper division physical geography course 3-4
		Chosen from the following:
Concentration	27-48	GEOG 334. Climatology. 3
Majors must choose one of the four concentrations shown below.		GEOG 335. Biogeography. 3
		GEOG 336. Human Ecology. 3
		GEOG 350/GEOL 360. Geomorphology. 4
B.A./B.S. Requirements	12	One upper division technical course 3-4
For all concentrations, the Bachelor of Arts degree requires completion of the B.A. language requirements described on p. 65 of this catalog. Bachelor of Science degree requirements for each concentration are described within the concentration.		Chosen from the following:
		GEOG 314. Digital Cartography. 3
		GEOG 410. Advanced GIS. 3
		GEOG 425. Digital Image Processing. 4
		GEOG 490. Field Research Techniques. 3
Electives		Required Non-Geography Course 3
Students should consult with their academic advisers in selecting elective courses to complete the 120 semester hours required for graduation.		STAT 200. Introduction to Statistics. 3
Total Credits Needed For Degree	120	

CONCENTRATIONS

GENERAL CONCENTRATION (27-29 semester hours)

The General Concentration is designed for students who wish a broad overview of geography as an academic discipline. Students are encouraged to use electives to gain competency in a particular region, topic, or technique of their interest and/or to pursue a minor or second major. The concentration is appropriate for students interested

ENVIRONMENTAL STUDIES CONCENTRATION (42-48 semester hours)

The environmental studies concentration allows students to integrate the interdisciplinary focus and analytic skills of geography with an understanding of contemporary environmental problems.

Required Courses	15
GEOG 140. Introduction to Environmental Studies.	3
GEOG 241. Environmental Regulation.	3

GEOG 305. Population Geography.	3
GEOG 335. Biogeography.	3
ECON 272. Natural Resource Economics. or	
ECON 375. Environmental Economics.	3

Majors must then choose one of the following tracks to complete the concentration:

Track 1 28-30

(for students interested in land management or environmental planning)

GEOG 302. Economic Geography.	3
GEOG 336. Human Ecology.	3
GEOG 361. Public Lands.	3
GEOG 410. Advanced GIS.	3
GEOG 425. Digital Image Processing.	4
GEOG 492. Land Use.	3
GEOG 493. Planning Techniques.	3

Two upper division courses in geography or a complementary field with approval of adviser.

6-8

Track 2 24-28

(for students interested in advocacy, policy, and education)

200 level regional course in geography	3
GEOG 340. International Environmental Problems.	3

Two upper division courses in geography or a complementary field selected from among the following:

BIOL 390. Conservation Biology.	
COMM 332. Argumentation and Advocacy.	
CRJU 360. Criminal Law and Evidence.	
ENGL 306. Professional Writing.	
ENGL 453. Literature and the Environment.	
MSTD 407. Science and Environmental Writing.	
POSC 438. Constitutional Law: Governmental Powers.	
POSC 463. International Political Economy.	
SOCY 370. Environmental Sociology.	

Four additional courses chosen from geography or complementary disciplines, with approval of adviser. Geography courses selected to meet this requirement must be upper-division courses.

12-16

B.S. Requirements 6-8

CHEM 101 or 115 and statistics. (if already taken as part of General Education Program, then 6-8 hours of additional science.)

Note: A minor in a complementary field is strongly encouraged.

PLANNING CONCENTRATION (40 semester hours)

The Planning Concentration emphasizes the development of planning skills by combining 28 semester hours of physical, cultural and technical geography courses with related courses from other disciplines.

Required Geography Courses 28

GEOG 302. Economic Geography.	3
GEOG 305. Population Geography.	3
GEOG 361. Public Lands.	3
GEOG 425. Digital Image Processing.	4
GEOG 492. Land Use.	3
GEOG 493. Planning Techniques.	3

One of the following regional courses 3

GEOG 201. North America.	
GEOG 202. Commonwealth of Virginia.	
GEOG 203. Appalachian Geography.	

In additional 6 credit hours in geography selected from the following:

GEOG 140. Introduction to Environmental Studies.	3
GEOG 241. Environmental Regulations.	3
GEOG 314. Digital Cartography.	3
GEOG 340. International Environmental Problems.	3
GEOG 336. Human Ecology.	3
GEOG 410. Advanced GIS.	3

Required Courses Outside Geography 12

Twelve credit hours outside of geography selected from the following in consultation with an adviser:

ACTG 416. Governmental and Not-for-profit Acct.	3
COMM 114. Public Speaking.	3
ECON 203. Public Finance.	3

ECON 313. Public Planning.	3	ITEC 220. Principles of Computer Science II.	4
ENGL 306. Professional Writing.		ITEC 430. Computer Graphics.	3
or		MATH 137. College Algebra.	3
ENGL 307. Business Writing.	3	MATH 138. Precalculus Function Analysis.	3
FINC 336. Principles of Real Estate.	3	MATH 151:152. Calculus and Analytic Geometry I and II.	3:3
POSC 300. Public Administration.	3	STAT 200. Introduction to Statistics.	3
POSC 330. State and Local Government.	3		
POSC 331. Urban and Metropolitan Politics.	3		

B.S. Requirements

6-8

Six to eight additional semester hours of mathematics, computer science, statistics and science courses. (MATH 325 does not meet requirements.)

NOTE: Internships are strongly recommended. Credit for internships may be gained through GEOG 499.

B.S. Requirements

6-8

Six to eight additional hours of mathematics, computer science, statistics and science courses. (MATH 325 does not meet requirements.)

Note: Internships are strongly recommended. Credit for internships may be gained through GEOG 499. Internships are taken pass/fail and cannot be used to fulfill requirements of the concentration.

TECHNICAL CONCENTRATION

(28-30 semester hours)

The Technical Concentration emphasizes the development of skills in cartography, remote sensing, and computer applications, such as GIS. Requirements are 19 hours of geography and 12-14 semester hours to be selected from courses listed in mathematics, statistics, computer science, and English.

GRADUATION REQUIREMENTS

To graduate with a major in geography, a student must have a grade point average of 2.3 in all courses taken for major requirements including those from departments other than geography.

Required Geography Courses

16

GEOG 103. Introduction to Human Geography.	3
GEOG 314. Digital Cartography.	3
GEOG 410. Advanced GIS.	3
GEOG 412. Advanced Geoprocessing.	3
GEOG 425. Digital Image Processing.	4

GEOGRAPHY MINOR

(18 semester hours)

A minor in geography consists of 18 hours of geography, subject to approval by the department. GEOG 103 and GEOG 130 are required.

Required Courses Outside

Geography

12-14

Four courses chosen from:

ART 250. Photography.	3
ART 280. Introduction to Graphic Design.	3
ENGL 306. Professional Writing.	3
ENGL 406. Advanced Technical Writing.	3
ITEC 120. Principles of Computer Science I.	4
ITEC 122. Discrete Mathematics.	3

◆GEOLOGY

Stephen W. Lenhart*, Chairperson

www.radford.edu/~geol-web/

UNDERGRADUATE PROGRAM

The program in geology provides students with a basic framework for a professional career in the field of geology, for graduate studies in geology, or for licensure to teach earth and space science. A student may

pursue a curriculum leading to a Bachelor of Science degree.

B.S. DEGREE

GEOLOGY MAJOR

All requirements for geology majors are outlined below. All majors must take the same Required Core courses and must complete course work in one of three concentrations.

General Education Requirements 50
(see p. 79)

Required Core Courses 29
GEOL 100. Earth Resources and Natural Hazards.* 4
GEOL 105. Exploring Earth.* 4
GEOL 106. The Earth Through Time.* 4
GEOL 212. Mineralogy. 5
GEOL 312. Petrology. 5
GEOL 440. Structural Geology. 4
GEOL 441. Geologic Field Methods. 3

* Students who have successfully completed GEOL 103 may not take GEOL 100 for credit. Students who have successfully completed GEOL 101 may not take GEOL 105 for credit. Any two of these three courses (GEOL 100, GEOL 105, and GEOL 106) satisfy the General Education science requirement.

CONCENTRATIONS

(Majors must choose one of the three concentrations shown below).

GENERAL GEOLOGY CONCENTRATION (41 semester hours)

The General Geology Concentration is designed for students who wish a broad, traditional overview of geology as an academic discipline. Students are encouraged to use electives to gain competency in particular

topics. The concentration is appropriate for students interested in pursuing graduate studies in geology.

Required Geology Courses 16
GEOL 205. Professional Skills in Geology. 4
GEOL 320. Sedimentation and Stratigraphy. 4
GEOL 335. General Paleontology. 4
GEOL 261. Geology of Virginia. 4
or
GEOL 360. Geomorphology. 4
or
GEOL 461. Regional Geology of the United States. 4

Related Requirements 25
ITEC 100. Introduction to Information Technology. 3
MATH 151:152. Calculus and Analytic Geometry I and II. 6
CHEM 101:102. General Chemistry. 8

B.S. Requirements 8
Bachelor of Science students must take eight hours of physics courses.

Total Credits Needed for Degree 120
(Includes General Education courses, required courses, and electives.)

ENVIRONMENTAL AND ENGINEERING GEOSCIENCE CONCENTRATION (45 semester hours)

The Environmental and Engineering Geology concentration is designed for students wishing to emphasize the engineering and hydrological aspects of geology as they pertain to addressing practical problems in society.

Required Geology Courses 20
GEOL 205. Professional Skills in Geology. 4
GEOL 406. Geophysics. 4

GEOL 408. Spatial Data Applications in Geology. 4
 GEOL 455. Principles of Engineering Geology. 4
 GEOL 474. Hydrogeology. 4

Related Requirements 25

ITEC 100. Introduction to Information Technology. 3
 MATH 151:152. Calculus and Analytic Geometry I and II. 6
 CHEM 101:102. General Chemistry. 8

B.S. Requirements 8

Bachelor of Science students must take eight hours of physics courses.

Total Credits Needed for Degree 120

(Includes General Education courses, required courses, and electives.)

**EARTH SCIENCES
 CONCENTRATION
 (TEACHING LICENSURE)
 (62 semester hours)**

The Department of Geology offers courses which will qualify prospective teachers for licensure to teach earth and space science. The appropriate courses in education must be taken. (Contact the Associate Dean of the College of Education and Human Development for information concerning these courses.)

Required Geology Courses 8

GEOL 261. Geology of Virginia. 4
 or
 GEOL 461. Regional Geology of the United States. 4
 GEOL 365. Oceanography. 4

Other Required Courses 10

ITEC 100. Introduction to Information Technology.* 3
 MATH 140. Trigonometry and Analytic Geometry.* 3
 or

MATH 151. Calculus and Analytic Geometry I.* 3
 PHSC/PHYS 301. Meteorology. 4

* These two chosen courses satisfy the General Education mathematics requirement.

Related Requirements 4

An additional four semester hours selected from the following:

BIOL 105. Biology for Health Science. 4
 CHEM 101. General Chemistry. 4
 ASTR 112. General Astronomy II. 4
 GEOL 335. General Paleontology. 4

B.S. Requirements 8

Bachelor of Science students must take the following two courses:

ASTR 111. General Astronomy I. 4
 PHYS 111. General Physics. 4

Education Courses 32

(Contact the Associate Dean of the College of Education and Human Development for information concerning these courses.)

Total Credits Needed for Degree 127

(Includes General Education courses, required courses, and electives.)

FOR ALL CONCENTRATIONS

Electives

Students should consult with their academic advisers in selecting elective courses to complete 120 semester hours required for graduation. Additional courses in calculus, computer science and statistics (beyond those required) are recommended for geology majors.

Total Credits Needed for Degree 120

GRADUATION REQUIREMENTS

To graduate with a major in geology, a student must attain an overall grade point average of 2.0 or higher in all courses in geology, and in the required courses in chemistry, physics, and mathematics.

GEOLOGY MINOR (20 semester hours)

A student who wishes to elect a minor in geology is required to take GEOL 100, 105, and 106, plus a minimum of eight additional semester hours from geology courses other than GEOL 498.

◆HISTORY

Sharon A. Roger Hepburn, Chairperson
www.radford.edu/~hist-web/index.html

UNDERGRADUATE PROGRAM

The Department of History offers preparation for teachers of history in the public schools and for students who want a well-rounded liberal arts education as a background for a wide range of future careers.

History majors may earn either a Bachelor of Science or a Bachelor of Arts degree. The Bachelor of Science degree prepares students for varied employment opportunities in business, law, or government. The Bachelor of Arts degree prepares the student for similar careers and is recommended specifically for students planning graduate work in history or other social science fields. Careful planning of the undergraduate program, with supplementary courses in other fields, can equip the student for future positions in libraries, museums, archives or similar institutions and for research oriented occupations.

The department also offers basic courses in American and world history to meet general education requirements as well as supplementary courses of general interest for non-majors, including American and non American courses in regional/national history, political/social/military history and ethnic/gender history.

B.A. OR B.S. DEGREE

HISTORY MAJOR

All requirements for the history major are outlined below. Among the requirements are 39 credit hours of Required Courses.

General Education Requirements 50
(see p. 79)

Required Courses 39
HIST 101, 102. World History. 6
HIST 111, 112. U. S. History. 6
HIST 295/305. The Historians Craft/
Introduction to Historical
Research. (to be taken in sophomore
year) 3
HIST 495. Senior Seminar (to be taken
during the senior year) 3

Other required History courses
(exclusive of HIST 295 and HIST 495) 21
3 courses from Group A (United States) 9
2 courses from Group B (Europe) 6
2 courses from Group C (Africa, Asia,
Latin America, Middle East) 6
(Students may not count any one
course for more than one group)

Group A courses include:
300, 302, 303*, 306*, 320, 330, 331, 352,
354, 355, 356, 360, 361, 364, 365, 368, 370,
371, 373, 374, 381, 392*, 498*

Group B courses include:
300, 302, 303*, 306*, 308, 309, 311, 337,
338, 339, 341, 342, 343, 345, 346, 349, 350,
392*, 498*

Group C courses include:
300, 303*, 306*, 311, 313, 314, 316, 317,
319, 320, 325, 326, 345, 346, 392*, 498*

*The group designation for these courses
depends on the content

Other Requirements

Completion of a senior writing project (to
be completed as part of HIST 495).

B.A./B.S. REQUIREMENTS

B.A. Requirements 6-12

The Bachelor of Arts degree requires completion of the B.A. language requirements described on p. 84 of this catalog. History majors, particularly those planning graduate work in history, are strongly urged to pursue a B.A. Degree.

B.S. Requirements 6-8

To complete a Bachelor of Science degree, History majors must complete (with the approval of their advisers) two courses in one of the following areas:

ANTH: any 200-400 level course except 220, 320, 330, 420, 488-499.

ART: 412, 422, 424, 428, 444, 445, 462, 482, 486.

ECON: 203, 271, 309, 311, 408, 442, 461, 480.

ENGL: 306, 431, 433, 434, 435, 437, 438, 439, 442, 443, 444, 445, 446, 447, 449, 450, 451, 453.

GEOG: 101, 102, 103, 201, 202, 203, 280, 302, 322.

PHIL: 114, 201, 202, 203.

POSC: any 300-400 level course except 485, 488, 498.

SOCY: 331, 334, 337, 339, 340, 361, 430, 433, 441, 446.

Any mathematics (except MATH 312), statistics, information technology or computer science, science or geography (physical science division) courses.

GRADUATION REQUIREMENTS

To graduate with a major in History, a student must have a grade point average of 2.0 or higher in all courses taken with a HIST prefix. A grade of "C" or better is required in HIST 295 (or HIST 305) and HIST 495.

TEACHING

Students wishing to teach History should declare a Social Science major. (See p. 147

for details). To strengthen credentials as a History teacher, students should consider a double major in both Social Science and History.

HISTORY INTERNSHIPS

Students wishing to earn academic credit for an Internship in History should consult with the Office of Experiential Learning or the Department's faculty liaison.

HISTORY MINOR (21 semester hours)

HIST 101, 102, 111, 112 12

One course from each of the course designation groups (Group A, U.S.; Group B, Europe; Group C, Africa, Asia, Latin America, Middle East). Students may not count any one course for more than one Group. 9

HONORS PROGRAM

The History Department offers a departmental honors program. For a general description of the Honors Academy at Radford, see p. 88. For specific requirements of this department's program, contact the department chairperson or the director of the Honors Academy.

◆INTERDISCIPLINARY STUDIES

UNDERGRADUATE PROGRAM

Interdisciplinary Studies is the required major for those students planning to teach early childhood education/early childhood special education, elementary education (grades PreK-6 option), middle education (grades 6-8 option), special education (deaf and hard of hearing; high incidence—ED, LD, MR). Other students who desire a broader major that cannot be met with

existing majors and minors also should consider Interdisciplinary Studies, pursuing the liberal arts non-teaching option.

B.A. OR B.S. DEGREE

INTERDISCIPLINARY STUDIES

MAJOR TEACHING OPTION

All requirements for this major are outlined below. Among the requirements are a 19 semester-hour Interdisciplinary Core, a 24 semester-hour Concentration, and one 32-39 semester hour Option.

General Education **50**
(see p. 79 as well as the department for specific requirements)

Interdisciplinary Core **19**

The Interdisciplinary Core consists of 19 semester hours of course work. Students pursuing teaching licensure will be advised to enroll in specific courses in the interdisciplinary core by their adviser or department adviser and the core will vary based on the specific teacher education program being pursued by the student. Students pursuing the liberal arts non-teaching options must complete a minimum of three semester hours of course work from each of the following areas, in addition to courses required for general education:

Visual and Performing Arts
Humanities
Mathematics/Computer Science/Statistics
Science
Social Science

Concentration **24-30**

The concentration is composed of at least 24 semester hours of course work beyond the general education requirement. Courses are to be chosen from two different areas to develop an appropriate concentration of 15 hours of course work in each area. The 15 hours in an area may include 6 semester hours of courses taken to satisfy the Interdisciplinary Core.

NOTE: Students must select the concentrations based on their option as described below. Elementary Education and Special Education: High Incidence students must select concentrations from the following areas: English, science, social science, foreign language, math/stat, or special education. Middle Education students must select concentrations from English, science, social science, or math/stat/computer science. Courses taken to complete the 15 hour social science concentration must be selected from at least two of the following areas: economics, history, geography, or political science.

For each of the education options, the Core and Concentration constitute a minimum 43 semester-hour major which requires a 2.5 grade point average except for elementary education which requires a 2.75 grade point average.

Option **32-36**

(Select one, see details below)

Elementary Education Licensure

Middle Education Licensure

Early Childhood Education/Early
Childhood Special Education

Non-Licensure Pre-Professional

Early Childhood Education/Early

Childhood Special Education Fifth Year
Licensure

Special Education: Deaf/Hard of
Hearing Licensure

Special Education: High Incidence
Disabilities Non-Licensure

Pre-Professional

Special Education: Fifth Year High
Incidence Disabilities Licensure

Liberal Arts NonTeaching

B.A./B.S. Requirements **0-12**

Electives

Students should consult with their academic advisers in selecting elective courses to complete the 120 semester hours required for graduation.

Total Credits Needed for Degree **132**

OPTIONS

ELEMENTARY EDUCATION LICENSURE OPTION (Grades PreK-6)

See the College of Education and Human Development information for details on the program and admission to the Teacher Education Program.

Required Courses in Professional Education	39
EDEF 320. Introduction to Professional Education.	3
*EDSP 361. Curriculum Trends in Education of Exceptional Individuals.	
HUMD 300. Human Growth and Development Birth through Adolescence.	3
EDUC 310. Teaching and Learning Elementary Science.	3
EDRD 314. Reading I.	3
EDUC 404. Teaching Language Arts and Children's Literature in the Elementary Classroom.	3
EDUC 410. Teaching and Learning Elementary Mathematics.	3
EDRD 414. Reading II.	3
EDUC 425. Assessment-Based Instruction and Adaptations for Young Children (PreK-3rd Grade).	4
EDUC 430. Field Applications of Professional Studies in the Elementary Classroom.	6
EDUC 450. Student Teaching: Grades PreK-6.	12
*Satisfied in the Interdisciplinary Core	

Students must select two concentrations from the following areas: science, English, social science, math/statistics, foreign languages, or special education. Courses taken to complete the 15 hour social science concentration must be selected from at least two of the following areas: economics, history, geography, or political science.

MIDDLE EDUCATION LICENSURE OPTION (Grades 5-8)

See the College of Education and Human Development information for details on the program and admission to the Teacher Education Program.

Required Courses in Professional Education	36
EDEF 320. Introduction to Professional Education.	3
*EDSP 361. Curriculum Trends in Education of Exceptional Individuals.	3
EDME 408. Approaches to Teaching.	3
EDME 409. The Middle School Learner.	2
EDME 410. Community: A Middle School Perspective.	2
EDME 413. Conceptualizing, Planning and Teaching.	2
EDRD 415. Interdisciplinary Connections through Reading and Writing.	3
EDME 432. Middle Level Teacher Assistant Program.	6
EDUC 451. Student Teaching.	12
*Satisfied in the Interdisciplinary Core	

Students must select two concentrations from the following areas: science, English, math/statistics/computer science, or social science.

Courses taken to complete the 15-hour social science concentration must be selected from at least two of the following areas: economics, history, geography, or political science.

EARLY CHILDHOOD EDUCATION AND EARLY CHILDHOOD SPECIAL EDUCATION OPTION

Pre-Professional Option: B.S. in Interdisciplinary Studies with Concentrations in Early Childhood Education and Early Childhood Special Education (IDEC) with 5th Year M.S. Leading to Teacher Licensures (Early Childhood Education, PreK-3, and Early Childhood Special Education, Birth-Age 5, All Disabilities).

For students interested in teaching young children, the College of Education and Human Development offers a unified early childhood education and early childhood special education concentration within the Interdisciplinary Studies major. This concentration leads to Virginia licensure in early childhood education (pre-kindergarten through third grade) and early childhood special education (children with disabilities from birth through age five). Students must complete EDSP 360 as part of the Interdisciplinary Core.

Completion of the 5th year M.S. in Education program, which includes a semester-long internship experience, is required for Virginia licensure in early childhood education (PreK-3) and early childhood special education (birth to age 5, all disabilities). Students must meet all requirements for admission to the College of Graduate and Extended Education before being enrolled in the graduate portion of the program.

Students are expected to complete the graduate admissions process during the fall of their senior year (see the Radford University Graduate Catalog for further details). In addition, students must apply to the Teacher Education Program by the fourth Friday in the spring semester of their junior year. They must meet the requirements for admission and retention as outlined on p. 167 of this catalog. Upon admission to the Teacher Education Program, graduate students will do their student teaching experience with children in early childhood and early childhood special education settings.

Course Requirements

See the College of Education and Human Development information for details on admission to the Teacher Education Program and of the Early Childhood Education/Early Childhood Special Education program.

Required Courses in Professional Education 22

EDRD 413. Early Literacy and Learning.	3
EDEC 425. Assessment-Based Instruction and Adaptations for Young Children (PreK-3rd grade).	4
EDEC 430. Practicum in Early Childhood Education.	6
EDSP 440. Practicum in Early Intervention.	3
EDSP 445. Adaptive Strategies in Arithmetic.	3

Students not seeking licensure must take:

EDSP 462. Behavior Management.	3
--------------------------------	---

and may take

EDEC 485. Practicum in Administration of Programs For Young Children

DEAF/HARD OF HEARING OPTION (IDHH)

Licensure Option (Hearing Impairment, preK-12): B.S. in Interdisciplinary Studies with Concentrations in Special Education and Communication Sciences and Disorders.

For students interested in teaching students who are deaf/hard of hearing, the College of Education and Human Development offers a Special Education: Hearing Impairment PreK-12 licensure option within the Interdisciplinary Studies major. In addition to General Education requirements, the Interdisciplinary Core, and Professional Education coursework, students complete concentrations in Communication Sciences and Disorders and Special Education. Students must complete EDSP 361 as part of the Interdisciplinary Core. Upon admission to the Teacher Education Program, students will do their student teaching experience at two age levels with children and youth who are deaf/hard of hearing.

Course Requirements

See the College of Education and Human Development information for details on admission to the Teacher Education Program and of the Special Education Deaf and Hard of Hearing program.

Required Courses in Professional Education

	24
EDEF 320. Introduction to Professional Education.	3
EDET 445. Integration of Educational Technology.	2
EDSP 428. Development and Remediation of Reading, Writing, and Discourse for the Deaf and Hard of Hearing.	3
EDSP 432. Practicum in Deaf/Hard of Hearing.	4
EDSP 455/456. Student Teaching (Deaf/Hard of Hearing) (Elementary and Secondary).	12

HIGH INCIDENCE DISABILITIES OPTION

Pre-Professional Option: B.S. in Interdisciplinary Studies with a Concentration in Special Education and an Academic Area (IDHI) with 5th Year M.S. leading to teacher licensure (emotional/behavioral disorders, learning disabilities, and mental retardation, K-12).

This option within the Interdisciplinary Studies major is designed for students interested in teaching children and youth with any of the high-incidence disabilities (emotional/behavioral disorders, learning disabilities, and mental retardation). In addition to General Education requirements, the Interdisciplinary Core, and Professional Education coursework, students complete concentrations in Special Education and a second academic area (English, Math, Science, or selected Social Sciences). Students complete EDSP 361 as part of the Interdisciplinary Core.

Completion of the 5th year M.S. program, which includes a semester-long practicum experience, is required for Virginia licensure in special education with endorsements in emotional/behavioral disorders, learning disabilities, and mental retardation (K-12). Students must meet all requirements for admission to the College of Graduate and Extended Education before being enrolled in the graduate portion of the program. Students are expected to complete the admissions process during the fall of their senior year (see the Radford University Graduate Catalog for further details). In addition, students must apply to the Teacher Education Program by the fourth of Friday in the spring semester. They must meet the requirements for admission and retention as outlined on p. 165 of this catalog. Upon admission to the Teacher Education Program, graduate students will do their student teaching experience at two age levels with children and youth who have high incidence disabilities.

Course Requirements

See the College of Education and Human Development information for details on admission to the Teacher Education Program and Special Education High Incidence program.

Required Courses in Professional Education

	21
EDEF 320. Introduction to Professional Education.	3
EDRD 314. Reading I.	3
EDRD 414. Reading II.	3
EDSP 429. Practicum I: High Incidence Disabilities, Secondary.	2
EDSP 430. Practicum II: High Incidence Disabilities, Elementary.	4
EDSP 466. Teaching Students with Individualized Adapted Curriculum.	3
EDSP Elective.	3

NON-ENDORSEMENT CONCENTRATION

This option provides a common set of knowledge and skills for elementary teachers of students with exceptionalities who do not seek the endorsement in Special Education. This option consists of the following courses for a concentration within the Elementary Education Licensure Option of the Interdisciplinary Studies major:

Course Requirements

See the College of Education and Human Development information for details of the program.

INTERDISCIPLINARY STUDIES MAJOR, LIBERAL ARTS NON-TEACHING OPTION

The Interdisciplinary Studies Major, Liberal Arts Option (IDSL) degree is intended for students who have a clearly defined educational goal that cannot be met by another degree program or combination of majors and minors at RU. The flexibility offered by this program should be aimed at accomplishing unique and specifically defined sets of learning goals. Students must submit an application for admission to the IDSL program. Applications are available in the College of Arts and Sciences Advising Center. In their application for admission to the IDSL program, students must complete an essay explaining why they want to enter the IDSL program by noting their educational and career goals and discussing why their goals cannot be met by existing majors and minors.

General Education **50**
(see p. 79)

Major Requirements **36**

The major consists of at least 36 semester hours of coursework from at least two departments with no more than 24 semester hours from any one department. At least 18 semester hours in the major must be at

the 300-400 level. The student must take a minimum of 15 semester hours after declaring the major. The courses used for the major must not come from the College of Business and Economics. A minimum grade point average of 2.000 is required in the collection of courses comprising the major.

Each student who is accepted for admission into the IDSL program must have a curriculum plan on file before he/she registers for the next semester's courses. The curriculum plan for the major should be a creative and focused course of study, chosen in conjunction with a faculty advisor of the student's choice and a professional advisor in the College of Arts and Sciences Advising Center. The curriculum plan must be approved by the Dean of the College of Arts and Sciences or the Dean's designee. As part of the curriculum plan, the student must explain how each course fits into the whole course of study. Any changes in the curriculum plan must be recommended by the faculty adviser and approved by the Dean of the College of Arts and Sciences or the Dean's designee.

IDSL majors are strongly recommended to pursue a minor in addition to their major. There are sufficient elective hours for a minor, and having the minor appear on the transcript would be an advantage. The courses used for the IDSL major may not be applied toward a minor. For students who want some business background, a minor from the College of Business and Economics is recommended.

B.A. Requirements

The Bachelor of Arts degree requires completion of the B.A. language requirements described on p. 84 of this catalog.

B.S. Requirements

B.S. requirements are 6-8 semester hours selected, in consultation with advisors, from mathematical and computer sciences, natural and physical sciences, social and behavioral sciences or any combination of these.

Total Credits Needed for Degree **120**

◆INTERNATIONAL STUDIES

James H. Radford, Director
704B Clement Street, #8
(540) 831-5147

For detailed information about the Minor in International Studies, see page 93.

◆MATHEMATICS AND STATISTICS

M. Jill Stewart, Chairperson
www.radford.edu/~math-web/

UNDERGRADUATE PROGRAM

The Department of Mathematics and Statistics offers a broad curriculum leading to a Bachelor of Arts or Bachelor of Science degree. Concentrations in Applied Mathematics, Statistics, and Teaching Licensure are available. Depending upon the particular course of study taken, the student will be prepared for a career in industry, government, or education.

B.A. OR B.S. DEGREE

MATHEMATICS MAJOR

The major is available with a choice of three concentrations: Applied Mathematics, Statistics, and Teaching.

To graduate with a major in Mathematics, a student must have a grade point average of 2.0 in all courses required for the major, including courses satisfying the B.S. requirements, where applicable.

General Education Requirements **50** (see p. 79)

Six hours of mathematics courses required for the major may be included as part of the 50-hour general education requirement. Students in the Applied Mathematics concentration may count PHYS 221:222 as part of their general education requirement as well.

Required Courses **12**

All majors in mathematics must take Calculus and Analytic Geometry I, II, III and IV (MATH 151:152:251:252). A grade of at least a "C" is required in each course in the calculus sequence. Any departmental majors receiving credit for MATH 252 cannot subsequently receive credit for any 100-level mathematics course.

B.A./B.S. REQUIREMENTS

B.A. Requirements **6**

The Bachelor of Arts degree requires completion of the B.A. language requirements described on p. 84 of this catalog.

B.S. Requirements **6**

To satisfy the B.S. requirement, students in the Applied Mathematics and Statistics concentrations must take courses from among the following. See the descriptions of those concentrations for details.

PHIL 340. Symbolic Logic.	3
ITEC 122. Discrete Mathematics.	
ENGL 306. Professional Writing.	3
ENGL 406. Advanced Technical Writing.	3
GEOL 405. Computer Applications in Geology.	3
GEOL 455. Principles of Engineering Geology.	3
MATH 423:424. Abstract Algebra.	3
MATH 445:446. Operations Research.	3
STAT 430. Statistical Packages.	3

Any ITEC course numbered 200 or above with the exception of ITEC 202 and ITEC 250.

Any physics course numbered 300 or above.

Any of the following Finance (FINC) courses: 331, 332, 335, 341, 381, 438, 439, 441.

Any chemistry course. Any biology course.

CONCENTRATIONS

Courses required for each concentration are as follows:

APPLIED MATHEMATICS CONCENTRATION

33

MATH 260. Applied Linear Algebra and Matrices

or

MATH 460. Linear Algebra.

3

MATH 430:431. Advanced Calculus.

6

MATH 436:437. Numerical Analysis: Differential Equations.

6

STAT 410:411. Probability and Statistics I and II.

6

ITEC 120. Principles of Computer Science.

4

PHYS 221:222. Physics.*

8

B.S. Requirements

6

To satisfy the B.S. requirement, majors with a concentration in Applied Mathematics must take at least six hours from the courses listed under B.S. Requirements above.

STATISTICS CONCENTRATION

28

MATH 260. Applied Linear Algebra and Matrices.

or

MATH 460. Linear Algebra.

3

MATH 430:431. Advanced Calculus.

6

STAT 410:411. Probability and Statistics I and II.

6

STAT 430. Statistical Packages.

3

STAT 431. Statistical Consulting.

3

Three additional hours chosen from among 300- or 400-level Statistics courses.

3

ITEC 120. Principles of Computer Science.

4

B.S. Requirements

To satisfy the B.S. requirement, majors with a Statistics concentration must take ENGL 306 (Professional Writing) and at least three additional hours chosen from the

list given under B.S. Requirements above, except STAT 430.

TEACHING LICENSURE

27

MATH 135. Fundamentals of Geometry. 3

MATH 142. Discrete Mathematics. 3

MATH 260. Applied Linear Algebra and Matrices. 3

MATH 300. Mathematical Foundations.

MATH 321. History of Mathematics. 3

MATH 325. Special Methods- Secondary Mathematics Education. 3

MATH 412. Theory of Numbers. 3

MATH 423. Abstract Algebra I. 3

STAT 410. Probability and Statistics I. 3

There is no departmental B.S. requirement for students seeking teaching licensure. However, students must take appropriate courses in education. (Contact the Dean of the College of Education and Human Development for information concerning these courses.)

*Satisfies the General Education science requirement.

Electives

Students should consult with their academic advisers in selecting elective courses to complete the 120 semester hours required for graduation.

Total Credits Needed for Degree 120

GRADUATION REQUIREMENTS

To graduate with a major in Mathematics, a student must have a grade point average of 2.0 or higher in all required courses plus three hours which the student submits on the student checklist.

MINORS

MATHEMATICS MINOR

(18 semester hours)

MATH 151, MATH 152, MATH 251 and MATH 260 and at least two courses chosen from among MATH 252, MATH 300, MATH 321, any 400 level mathematics course or any 300 or 400 level statistics course.

STATISTICS MINOR

(18 semester hours)

Eighteen semester hours are required in mathematics or statistics, including at least three semester hours in a calculus course (MATH 126 or 151). At least 12 of the 18 hours must be in statistics.

◆MEDIA STUDIES

Clayland H. Waite, Interim Chairperson
www.radford.edu/~mstd-web/

UNDERGRADUATE PROGRAM

The Media Studies major is designed for students with an interest in media or other related communication fields. Majors may earn either a Bachelor of Arts or a Bachelor of Science degree and, in addition to core courses, must select one of four concentrations: Advertising, Journalism, Production Technology, or Web Design. Students are encouraged to select one of the concentrations no later than the second semester of their sophomore year.

B.A. OR B.S. DEGREE

MEDIA STUDIES MAJOR

The Media Studies curriculum is based on strong writing ability, historic and social awareness, technical expertise, and practical application in the work place. Given the re-

ality of continual innovation and the convergence of mass media technologies, students are offered some flexibility or choice within the curriculum.

General Education Requirements **50**
(see p. 79)

Core Requirements **15**

MSTD 101. Introduction to Media Studies.	3
MSTD 226. Digital Imaging.	3
MSTD 300. Media History.	3
MSTD 335. Media and Society.	3
MSTD 400. Media Law and Ethics.	3

Concentration **21-22**

In addition to 15 semester hours in core courses, Media Studies majors must choose one of four concentrations shown below. Each concentration requires 21-22 semester hours.

B.A. / B.S. Requirements **6-12**
(see below)

Electives

Students should consult with their academic advisers in choosing elective courses to complete the 120 semester hours required for graduation. In addition to B.S. and B.A. requirements (6-12 credit hours) approximately 22 to 28 elective hours are necessary to complete the degree program. Some of these credits may be used to earn a minor (usually 18 credit hours). Students are encouraged to take 300 level and above courses for their electives.

Total credits needed for degree **120**

CONCENTRATIONS

ADVERTISING CONCENTRATION (21 Semester Hours)

The Advertising Concentration is intended for students who wish to study advertising in

media. Attention is paid to both theoretical and aesthetic elements of advertising, as well as production of advertisements in a variety of media. Though the need for thorough marketing strategies is recognized, marketing as a discipline is taught by the Marketing Department in the College of Business and Economics. Many students major in one discipline and minor in the other.

In addition to the 15 semester hours of core courses, Advertising students are required to take 21 semester hours. Students are also encouraged to choose from the non-media courses listed under the heading Recommended Courses to satisfy their elective hours. Working closely with their advisers, students should make sure that their academic interests and career goals are met.

Required Courses 15

All Advertising students must take the following courses:

MSTD 173. Introduction to Advertising.	3
MSTD 223. Advertising Copywriting.	3
MSTD 273. Advertising Analysis.	3
MSTD 373. Advertising Media Planning.	3
MSTD 473. Advertising Production.	3

Internship/Advertising Campaigns 6

All Advertising students must earn at least three hours of MSTD 483: Advertising Campaigns. In addition, they must earn another three hours in an internship and/or Advertising Campaigns course, in any combination.

MSTD 483. Advertising Campaigns.	3
This course may be repeated up to a maximum of nine credits.	
MSTD 499. Internship.	1-6

Recommended Courses

(some of which may satisfy general education requirements)

ART 250, 280, 281, 302, 350, 370, 480, 483
 COMM 226, 333, 408, 411, 433
 ENGL 306, 307, 309, 406, 407, 409
 MKTG 340, 341, 343, 442, 452
 MSTD 434, 444, 451
 PSYC 282, 343, 361, 377

JOURNALISM CONCENTRATION (21 Semester Hours)

The Journalism Concentration is intended for students who wish to pursue careers in researching, writing, preparing and disseminating public information through conventional and digitally transmitted media, including newspapers, magazines, the Internet, radio, television and cable.

Students entering the program should have some familiarity with computers. Most equipment is supplied in laboratories, but students who own computers, microphones, portable audio cassette recorders and camcorders will have an advantage. Students can expect to incur some extra expenses for audio and video tape, computer disks and other supplies.

In addition to the 15 semester hours of core courses, Journalism students are required to take 21 semester hours. Students are also encouraged to choose from the non-media courses, listed under the heading of Recommended Courses, to satisfy their elective hours. Working closely with their advisers, students should make sure that their academic interests and career goals are met.

Required Courses 21

All Journalism students must take the following courses:

MSTD 104. Basic News Writing.	3
MSTD 204. News Reporting.	3
MSTD 146. Media Performance.	
or	
MSTD 236. Print Production.	3
MSTD 304. Electronic News Gathering.	3
MSTD 326. Web Production.	3
MSTD 404. Specialized Journalism.	3
MSTD 481. Journalism Portfolio.	3

Recommended Courses

(some of which may satisfy general education requirements)

CRJU 100, 233, 235, 241, 315, 320, 360
 ECON 101, 105, 106
 ENGL 306, 307, 406, 407
 GEOG 100, 103, 241, 322, 323
 HIST 316, 355, 364

MSTD 451
 POSC 110, 330, 331, 333, 335, 350
 SOCY 350, 443, 444

**PRODUCTION TECHNOLOGY
 CONCENTRATION**
(21 semester hours)

Production Technology is intended for students interested in creative production in corporate, industrial and professional environments, utilizing the World Wide Web, multimedia, radio, television and film. Attention is given to both studio and field production.

Students entering the program should have some familiarity with computers. Most equipment is supplied in laboratories, but students who own computers, microphones, portable audio cassette recorders and camcorders will have an advantage. Students can expect to incur some extra expenses for audio and videotape, computer disks, and other supplies.

In addition to the 15 semester hours of core courses, Production Technology students are required to take 21 semester hours. Students are also encouraged to choose from the non-media courses listed under the heading Recommended Courses to satisfy their elective hours. Working closely with their advisers, students should make sure that their academic interests and career goals are met.

Required Courses 21

All Production Technology students must take the following courses:

MSTD 106. Script Writing.	3
MSTD 146. Media Performance.	3
MSTD 246. Basic Audio Production.	3
MSTD 346. Electronic Field Production.	3
MSTD 347. Video Editing and Effects.	3
MSTD 446. TV Studio Production.	3
MSTD 482. Production Technology Portfolio.	3

Recommended Courses

(some of which may satisfy general education requirements)

ART 250, 280, 281, 302, 350, 360, 370, 380, 480, 483
 ENGL 306, 307, 406, 407
 MUSC 104, 127, 208, 227, 373
 MSTD 434, 444, 445, 446, 493
 THEA 101, 102, 103, 135, 180, 236, 331, 332, 335, 350, 380, 480

WEB DESIGN CONCENTRATION
(22 Semester Hours)

The Web Design concentration is designed for students who are pursuing careers involving the creation of news, information, entertainment and other content for the Web and related interactive media. The Department of Media Studies offers this concentration in cooperation with the College of Information Sciences and Technology.

The program combines Computer Science and Media Studies courses, blending Web programming and Web content creation areas of study. The Web programming courses include traditional problem solving, information systems, database, network and program language skills from the Computer Science field. The Web content creation areas of study include the aesthetic, ethical, legal, historical and social responsibility issues traditionally associated with the production of media content within a liberal arts curriculum.

Web Design incorporates audio visual, information and interactive design theory; the practical use of a wide variety of application for Web content creation; the use of Web related programming languages (e.g., Java) to enhance content interactivity and communication flexibility; and the use of a variety of hardware, network types and system platforms to reach Web audiences.

In addition to the 15 semester hours of Media Studies core courses, Web Design students are required to take 22 hours of courses listed below.

Required Courses 22

All Web Design students must take the following courses:

MSTD 104. Basic News Writing.	3	MSTD 101. Introduction to Media Studies.	3
ITEC 110. Principles of Information Tech.	3	MSTD 335. Media and Society.	3
ITEC 120. Principles of Computer Science.	4	MSTD 400. Media Law and Ethics.	3
ITEC 225. Web Programming I.	3	The remaining nine semester hours may be chosen from any other courses offered by the Media Studies Department.	9
MSTD 326. Web Production.	3		
MSTD 427. Advanced Web and Multimedia Production.			
MSTD 484. Web Design Portfolio.	3		

Recommended Electives

Web design students may earn additional hours of elective credit towards the degree through additional practicum hours (maximum of six hours after taking the three required credit hours) or through an internship (1-6 credit hours). The following courses are recommended: CIST 137, 198, 220, 330, 360, 430, 440; ENGL 306, 406, 407; GEOG 314, 425; MSTD 246, 328, 346, 347, 445, 446.

B.A./B.S. REQUIREMENTS

B.A. Requirements 12

The Bachelor of Arts degree requires completion of the B.A. language requirements described on p. 84 of this catalog.

B.S. Requirements 6-8

Working closely with their advisers, students will understand the Bachelor of Science degree requires six to eight semester hours (in addition to the general education requirements) selected from any of the following: mathematical science, natural and physical sciences, social and behavioral sciences, in any combination.

MINORS

MEDIA STUDIES MINOR (18 Semester Hours)

The minor in Media Studies consists of 18 semester hours and includes the following nine semester hours of core courses:

CINEMATIC ARTS

INTERDISCIPLINARY MINOR (18 Semester hours)

Offered by the departments of Theatre and Cinema and Media Studies, the interdisciplinary minor in Cinematic Arts consists of 18 semester hours and includes the following 12 semester hours of core courses:

Cinematic Arts Core 12

THEA 180. Introduction to World Cinema.	3
THEA 280. Foundations of Cinema Aesthetics.	3
MSTD 335. Media and Society.	3
THEA 480. Film Theory and Criticism.	3

Electives* 6

FREN 320. French Cinema.	3
MSTD 106. Script Writing.	3
THEA 370. Playwriting.	3
THEA 380. Documentary/Non-Fiction Film.	3
MSTD 434. Media Literacy.	3
MSTD 451. Intercultural/International Communication.	3
MSTD 452. International Film and Electronic Media.	3
THEA 485. Latin American Cinema.	3

Additional Special Topics course(s) may be chosen in consultation with the director(s) of the Cinematic Arts program.

*All students minoring in Cinematic Arts must select six additional credit hours of course work from the above list of electives. The course selections must be approved by the director(s) of the Cinematic Arts minor

prior to registration. Some courses may have departmental prerequisites or require permission of the instructor before registration. Students declaring Cinematic Arts as a minor will be exempt from any prerequisites for Theatre and Media Studies courses.

WEB DESIGN MINOR (19 Semester Hours)

The Media Studies Minor in Web Design consists of 19 semester hours in the following courses:

ITEC 110. Principles of Information Technology.	3
ITEC 120. Principles of Computer Science.	4
MSTD 400. Media Law and Ethics.	3
MSTD 226. Digital Imaging.	3
MSTD 326. Web Production.	3
MSTD 427. Advanced Web Production.	3
Also recommended for students who are not Computer Science majors:	
ITEC 225. Web Programming I.	3

◆MILITARY SCIENCE (ARMY ROTC)

Major Kevin Anderson, Chairperson
www.radford.edu/~arotc

UNDERGRADUATE PROGRAM

The Department of Military Science provides a program of leadership development which prepares college men and women for service as officers in the United States Army. After graduation, they serve as commissioned officers on active duty, or as an officer in an Army Reserve unit. To accomplish this, the Department of Military Science:

- Prepares cadets to be commissioned as second lieutenants through a curriculum which develops leadership and management skills and provides opportunities to utilize these skills in a variety of practical applications.

- Provides an understanding of how to lead and influence small organizations, with a strong emphasis on personal integrity, ethical decision making, goal setting, and mission accomplishment.
- Offers adventure training, such as rappelling, land navigation, marksmanship, and, for selected cadets, airborne and air assault training as well as the opportunity to serve with active Army units, worldwide, during the summer.
- Provides programs and experiences which increase self confidence, self-discipline, physical stamina, poise, and other attributes essential to the development of a leader of character who is prepared to serve the nation or the Commonwealth both in and out of uniform.

The curriculum and leader development programs of the Department of Military Science are both mentally and physically challenging. Cadets learn individual soldier skills and undergo physical conditioning beginning in the freshman year. On-campus instruction is done both in the classroom and in the field environment. Field trips expand the general knowledge of cadets and provide opportunities for practical leadership experience.

Summer Leadership Evaluations occur between the junior and senior years at Fort Lewis, Washington.

Army ROTC offers the conventional four-year program for students entering as freshmen. A three-year program for sophomores is also available. Additionally, a two-year program is offered for students who have been unable to participate as freshmen or sophomores. Placement credit may be requested by students currently serving in the Army Reserve or National Guard, or by those who have had prior active service.

Cadets enrolled in the junior and senior years of ROTC and cadets on scholarship are paid a tax-free monthly stipend of \$250 for ten months during each school year for a total of \$2,500. The department also offers two and three-year competitive scholarships. Four-year competitive scholarships

are offered by the U.S. Army during the senior year of high school. Applications for these scholarships are available through the department.

◆PEACE STUDIES

Glen T. Martin, Chairperson
709 Howe Street
(540) 831-5897

For more information about the Minor in Peace Studies, see p. 95.

◆PHILOSOPHY AND RELIGIOUS STUDIES

Sharon E. Hartline, Chairperson
www.radford.edu/~phre/index.html

UNDERGRADUATE PROGRAM

The department offers both a major and a minor in which students may concentrate in either philosophy or religious studies. Philosophy and Religious Studies majors may earn either a Bachelor of Arts or a Bachelor of Science degree.

A concentration in philosophy provides students with a broad understanding of the history and dynamics of Western thought, a detailed knowledge of moral and theoretical issues in this tradition, and training in critical and analytic thinking skills. This concentration prepares students for graduate study in philosophy, law, and other humanities disciplines, and enhances performance in virtually any occupation in which critical thinking and conceptual analysis are integral.

A concentration in religious studies provides students with a broad understanding of the world's major religions (including Hinduism, Buddhism, Daoism, Judaism, Christianity, and Islam); a knowledge of the common elements and themes in religion; and a familiarity with the various approaches and methods used to study the substance and functioning of religion. This concentration prepares students for any vocation concerned with human motivations and values,

such as social services or cross-cultural endeavors, and for graduate study in religion in universities or seminaries.

More than vocational preparation, the Philosophy and Religious Studies major provides an education in the broad liberal arts tradition. In different ways, each concentration introduces students to the most profound and universal questions humans have asked, and to their most thoughtful and enduring answers.

B.A. OR B.S. DEGREE

PHILOSOPHY AND RELIGIOUS STUDIES MAJOR

All department majors must complete the requirements for at least one of two concentrations offered by the department.

PHILOSOPHY CONCENTRATION

All requirements for students in this concentration are outlined below. Among the requirements are 21 semester hours of required philosophy courses and 12 hours of program-specific electives.

General Education Requirements	50
(see p. 79)	
Required Courses	21
PHIL 114. The Origins of Western Philosophy.	3
PHIL 201. Medieval and Renaissance Philosophy.	3
PHIL 202. Early Modern Philosophy.	3
PHIL 203. History of Late Modern Philosophy.	3
PHIL 340. Symbolic Logic.	3
PHIL 390. Ethical Theory.	3
PHIL 421. Topics in Philosophy.	3

Program-specific Electives 12
 Twelve hours of courses chosen from the following:
 PHIL courses at the 300- 400-level
 RELN courses at the 300- 400-level
 BIOL 301. Bioethics.
 BIOL 302. Science, Technology and Society.
 HIST 350. Modern European Intellectual History.
 POSC 370:371:372. History of Political Philosophy.

B.A./B.S. Requirements 6-12

Electives

Students should consult with their academic advisers in selecting elective courses to complete 120 semester hours required for graduation.

Total Credits Needed for Degree 120

**RELIGIOUS STUDIES
 CONCENTRATION**

All requirements for students in this concentration are outlined below. Among the requirements are 21 semester hours of required religious courses and 12 hours of program-specific electives.

General Education Requirements 50
 (see p. 79)

Required Courses 21

RELN 112. Survey of World Religions. 3
 RELN 200. Survey of the New Testament.
 or
 RELN 320. Jesus and the Gospels.
 or
 RELN 330. History of Christianity. 3
 RELN 202. Survey of the Old Testament.
 or
 RELN 380. Old Testament Topics. 3
 RELN 205. Religion and Culture.
 or

RELN 206. Survey of Religious Experiences.
 or
 RELN 370. American Sects and Cults. 3
 RELN 350. Religion in India.
 or
 RELN 360. Religion in China and Japan. 3
 PHIL 350. Philosophy of Religion. 3
 RELN 420. Topics in Religious Studies. 3

Program-specific Electives 12

Twelve hours of courses chosen from the following:

RELN courses at the 200-, 300- or 400-level
 PHIL courses at the 200-, 300- or 400-level
 ANTH 421 Anthropology of Religion.
 HIST 319. The Middle East
 HIST 356. History of American Religious Thought.
 HIST 311. Ancient Near East.
 HIST 313. History of East Asia.
 HIST 341. Renaissance, Reformation and Revolution.

B.A./B.S. Requirements 6-12

Electives

Students should consult with their academic advisers in selecting elective courses to complete 120 semester hours required for graduation.

Total Credits Required for Degree 120

B.A./B.S. REQUIREMENTS

B.A. Requirements 6-12

The Bachelor of Arts degree requires completion of the B.A. language requirements described on p. 84 of this catalog.

B.S. Requirements 6-8

Candidates for the Bachelor of Science degree in philosophy and religious studies can choose to take six to eight hours beyond the general education requirements in courses

from the following departments: Mathematics and Statistics, Information Technology, Biology, Chemistry and Physics, and Geology. Or, they can elect to take six to eight hours of 300-400 level courses in one of the following disciplines:

For the Philosophy Concentration: Anthropology, Art, English, History, or Political Science.

For the Religious Studies Concentration: Anthropology, English, History, Political Science, Psychology, or Sociology.

GRADUATION REQUIREMENTS

To graduate with a major or minor in Philosophy and Religious Studies, a student must have a grade point average of 2.0 or higher in all courses taken with a PHIL or RELN prefix.

PHILOSOPHY MINOR (18 semester hours)

The minor consists of 18 hours of philosophy courses as outlined below:

PHIL 114. Introduction: The Origins of Western Philosophy.	3
Two of the following three courses:	6
PHIL 201. Medieval and Renaissance Philosophy.	3
PHIL 202. Early Modern Philosophy.	3
PHIL 203. History of Late Modern Philosophy.	3
PHIL 340. Symbolic Logic.	3
PHIL 390. Ethical Theory.	3
PHIL 421. Topics in Philosophy.	3

RELIGIOUS STUDIES MINOR (18 semester hours)

The minor consists of 18 hours of religious studies courses as outlined below:

RELN 112. Survey of World Religions.	3
Two religious studies or philosophy courses at the 200-level or above	3,3
Two 300-level RELN courses	3,3
RELN 420. Topics in Religious Studies.	3

◆POLITICAL SCIENCE

Matthew J. Franck*, Chairperson

<http://posc-web.asp.radford.edu>

UNDERGRADUATE PROGRAM

Political Science involves the study of politics and government. The political science curriculum at Radford is intended to provide undergraduates with a broad background in the discipline within the broader context of a liberal education. The major and minor requirements in political science are intended to develop students' analytical and communication skills as well as a knowledge of politics and government.

Given its objectives, the curriculum covers six areas corresponding with the sub-fields of modern political science:

- 1) American politics;
- 2) Public administration;
- 3) Comparative politics;
- 4) International relations;
- 5) Methodology; and
- 6) Political philosophy.

For students desiring to teach political science at the secondary level, the teacher licensure option is offered in the Bachelor of Science program. Students may pursue either a Bachelor of Arts or Bachelor of Science degree.

B.A. OR B.S. DEGREE

POLITICAL SCIENCE MAJOR

All requirements for political science majors are outlined below. In addition to the core of required courses, all students must complete course work in one of the five concentrations.

General Education Requirements 50
(see p. 79)

Required Core 15

POSC 110. Introduction to Politics. 3

POSC 120. Introduction to American Government. 3

POSC 130. Introduction to Comparative Government. 3

POSC 140. Introduction to International Relations. 3

POSC 290. Seminar in Political Science. 3

Concentration 18-27
(see below)

B.A./B.S. Requirements 6-12
(see below)

Electives

Students should consult with their academic advisers in selecting elective courses to complete 120 semester hours required for graduation.

Total Credits Needed for Degree 120

CONCENTRATIONS

GENERAL CONCENTRATION 18

Students must complete one upper-level course (other than POSC 485, 488, 490, or 498) in each of the following areas: American Government (AG), Comparative Government (CG), International Relations (IR), and Political Theory (PT). In addition, students must complete either POSC 490, Seminar, or POSC 491, Scope and Methods in Political Science. The total hours earned in political science must be a minimum of 33.

AMERICAN GOVERNMENT
CONCENTRATION 27

Students must complete one upper-level course (other than POSC 485, 488, 490 or 498) in each of the following areas: Comparative Government (CG), International

Relations (IR), and Political Theory (PT). Students must also complete 15 hours in upper-level American Government courses. In addition, students must complete both POSC 490, Seminar (preferably on an American Government topic, which may then be counted toward the 15 hours in the concentration), and POSC 491, Scope and Methods in Political Science. Three hours each in POSC 485, Internship credit and/or POSC 498, Independent Study (or POSC 488 Final Honors Project) credit may be counted toward the 15 hours in the concentration if approved as appropriate by a student's adviser. The total hours earned in political science must be a minimum of 42.

**COMPARATIVE GOVERNMENT/
INTERNATIONAL RELATIONS
CONCENTRATION** 27

Students must complete one upper-level course (other than POSC 485, 488, 490, or 498) in each of the following areas: American Government (AG), and Political Theory (PT). Students must also complete 15 hours in upper-level Comparative Government and International Relations courses. In addition, students must complete both POSC 490, Seminar (preferably on a Comparative Government or International Relations topic, which may then be counted toward the 15 hours in the concentration field), and POSC 491, Scope and Methods in Political Science. Three hours each in POSC 485 Internship credit and/or POSC 498 Independent Study (or POSC 488 Final Honors Project) credit may be counted toward the 15 hours in the concentration if approved as appropriate by a student's adviser. Students in this concentration are also required to graduate with a B.A. degree in order to receive credit for the concentration. The total hours earned in political science must be a minimum of 42.

**POLITICAL THEORY
CONCENTRATION 27**

Students must complete one upper-level course (other than POSC 485, 488, 490, or 498) in each of the following areas: American Government (AG), Comparative Government (CG), and International Relations (IR). Students must also complete 15 hours in upper-level Political Theory courses. In addition, students must complete both POSC 490, Seminar (preferably on a Political Theory topic, which may then be counted toward the 15 hours in the concentration field), and POSC 491, Scope and Methods in Political Science (which may also be counted toward the 15 hours in this concentration field). Three hours each in POSC 485 Internship credit and/or POSC 498, Independent Study (or POSC 488 Final Honors Project) credit may be counted toward the 15 hours in the concentration if approved as appropriate by a student's adviser. The total hours earned in political science must be a minimum of 42.

**PUBLIC ADMINISTRATION
CONCENTRATION 27**

Students must complete one upper-level course (other than POSC 485, 488, 490, or 498) in each of the following areas: American Government (AG), Comparative Government (CG), International Relations (IR), and Political Theory (PT). Students must also complete 15 hours in upper-level Public Administration (PA) courses, one of which may be counted as the required upper-level course in American Government (AG). In addition, students must complete both POSC 490, Seminar (preferably on a Public Administration topic, which may then be counted toward the 15 hours in the concentration field), and POSC 491, Scope and Methods in Political Science. Three hours each in POSC 485 Internship credit and/or POSC 498, Independent Study (or POSC 488 Final Honors Project) credit may be counted toward the 15 hours in the concentration if approved as appropriate by a

student's adviser. The total hours earned in political science must be a minimum of 42.

B.A./B.S. REQUIREMENTS

B.A. Requirements 6-12

The Bachelor of Arts degree requires completion of the B.A. language requirements described on p. 84 of this catalog.

B.S. Requirements 6

Bachelor of Science requirements for political science majors consist of six semester hours chosen from the following:

ITEC 100. Introduction to Information Technology.	3
STAT 200. Introduction to Statistics.	3
ECON 101. Survey of Economics.	3
ECON 105, 106. Principles of Economics I and II.	3, 3
GEOG 102. Africa and Asia.	3
GEOG 201. North America.	3
GEOG 280. Regional Geography.	3

Students should consult with their academic advisers to determine which degree option best suits their needs. The department strongly encourages students to take a foreign language, but also recognizes that there is no one program of study that is equally suited to every student. Regardless of whether students pursue the Bachelor of Arts or Bachelor of Science degree, they are encouraged to include some of the above courses in their elective curricula.

GRADUATION REQUIREMENTS

To graduate with a major in Political Science, a student must have a grade point average of 2.0 or higher in all courses taken with a POSC prefix.

TEACHING LICENSURE

Licensure in political science requires 18 semester hours credit in political science. An applicant for separate endorsement in

political science must also complete ECON 105, Principles of Economics I. In addition, appropriate courses in education must be taken. (Contact the associate dean of the College of Education and Human Development for information concerning these courses.)

POLITICAL SCIENCE MINOR (18 semester hours)

The minor in political science consists of two courses from among POSC 110, 120, 130, and 140; POSC 290; and nine additional hours in the department, at least six of which are at the 300- or 400-level.

HONORS PROGRAM

For a general description of the Honors Academy at Radford, see p. 88. For specific requirements of the departmental honors program, contact the department chairperson or the director of the Honors Academy.

◆PSYCHOLOGY

Hilary M. Lips*, Chairperson
www.radford.edu/~psyc-web/

UNDERGRADUATE PROGRAM

The program in psychology is designed to provide a basic foundation for entry into graduate programs in psychology or education fields and careers involving human services or research. Department majors may earn either a Bachelor of Arts or a Bachelor of Science degree.

B.A. OR B.S. DEGREE

PSYCHOLOGY MAJOR

All requirements for psychology majors are outlined below.

Prerequisite Survey	3
PSYC 121. Introductory Psychology.	3

Foundation Courses	7
PSYC 201 and 202: Research Methods in Psychology I and II	6
PSYC 222: Orientation to the Psychology Major.	1

Core Courses (pick two from each area)	12
Area I: Social Sciences (SS)	
PSYC 317. Child Psychology.	3
PSYC 343. Social Psychology.	3
PSYC 361. Psychology of Personality.	3
PSYC 439. Abnormal Psychology.	3

Area II: Natural Sciences (NS)	
PSYC 320. Introduction to Cognitive Psychology.	3
PSYC 333. Principles of Learning.	3
PSYC 377. Introduction to Sensation and Perception.	3
PSYC 378. Brain and Behavior.	3

Integrative Research Experience – Lab Courses (pick one)	3
PSYC 420. Research in Human Cognition.	3
Prerequisites: 202, 320	
PSYC 434. Research in Learning.	3
Prerequisites: 202, 333	
PSYC 443. Research in Social Psychology.	3

Prerequisites: 202, 343	
PSYC 461. Research in Personality.	3
Prerequisite: 202, 361	
PSYC 477. Research in Sensation and Perception.	3
Prerequisites: 202, 377	
PSYC 478. Research in Physiological Psychology.	3
Prerequisites: 202, 378	

Integrative Capstone Course	3
PSYC 470. History and Systems of Psychology.	3

Elective Psychology Courses 9

Any of the courses listed above beyond the minimum requirements or any other psychology courses not listed above but which are in the catalog, including independent studies.

Total minimum hours for the major 37

(This does not include STAT 200 which is a required course to be counted toward general education OR B.S. degree requirements). STAT 205, 208, or 211 will also count as meeting this requirement, but a student may not receive credit for both STAT 200 and STAT 205/208/211.

Electives

Students should consult with their academic advisers in selecting elective courses to complete the 120 semester hours required for graduation.

Total Credits Needed for Degree 120**B.A./B.S. REQUIREMENTS****B.A. Requirements 6-12**

The Bachelor of Arts degree requires completion of the B.A. language requirements described on p. 84 of this catalog.

B.S. Requirements 6-8

The Bachelor of Science degree requires an additional six to eight semester hours to be selected from courses in the following departments:

Mathematics and statistics, computer science, biology, chemistry and physics, geology, physical science, and from geography courses designated "PS." Photography classes, PHSC 410 and MATH 325 will not meet these requirements.

A student is advised to meet the science and mathematics general education requirements during the freshman year. Biology is the recommended science, and Statistics 200 is recommended as part of the mathematics requirement.

GRADUATION REQUIREMENTS

To graduate with a major in Psychology, a student must have a grade point average of 2.0 or higher in all courses taken with a PSYC prefix.

**PSYCHOLOGY MINOR
(18 semester hours)**

The psychology minor requires 18 semester hours of psychology including PSYC 121, one course from each of the core areas (two courses total), and three additional courses in psychology.

GRADUATE PROGRAM

The Psychology Department offers graduate courses designed primarily for those students who wish to concentrate their studies in experimental, clinical, counseling, industrial-organizational, or school psychology. For a complete description of the graduate program, consult the *Radford University Graduate Catalog*.

CENTER FOR GENDER STUDIES**Hilary M. Lips, Director**

The objective of the center is to create a resource for and a model of excellence in gender-related teaching and research. The research activities of the center provide an important resource for teaching students about gender. Students receive training in conducting research on gender-related issues. Through the activities of the center, opportunities for research experience are provided to undergraduate students.

The center also provides a resource for information about gender research to other departments in the university and to the extra-university community.

**◆RACE, CLASS AND
GENDER STUDIES****Nelda K. Pearson*, Chairperson****UNDERGRADUATE PROGRAM**

The program offers a minor that incorporates race, class and gender in a global perspective as interacting social forces that affect individual lives. The program examines

the social, economic, political and religious/philosophical dimensions of racism, classism, and sexism. A major emphasis is put on the innovative theoretical perspectives and contributions of women and people of color. The study of race, class and gender challenges disciplines to reexamine their traditional bodies of knowledge and to incorporate the full breadth of cultural diversity. Particular emphasis is placed on community outreach and experiential learning.

The minor complements majors in the liberal arts disciplines as well as in such professional fields as business, social work, nursing, fashion design, recreation and teaching. Each student's course of study must be approved by the Committee on Race, Class and Gender Studies. No more than six hours from any major may count toward the minor. A student may take only one independent study as part of the minor.

ADMINISTRATION OF THE MINOR

The program is administered by the interdisciplinary Race, Class and Gender Studies Committee. Students who wish to enroll in the minor must consult with one of the members of this committee for advising. It is the responsibility of the student to design his or her own program from among the available options, subject to the approval of the committee. Regularly offered courses, as well as Special Topics courses, seminars and Honors courses may be selected.

MINOR IN RACE, CLASS AND GENDER STUDIES (18 semester hours)

Required Core Courses

RCGR 495. Seminar in Race, Class and Gender. 3
SOCY 250. Social Inequality. 3

Other Core Courses

Three hours to be chosen from:
PSYC 250. Psychology of Minority Groups. 3

SOCY 331. Race and Ethnic Relations. 3
Three hours to be chosen from:
HIST 306. History of Women. 3
PSYC 391. Psychology of Women. 3
SOCY 326. Men and Women in Society. 3

Additional Requirements

6
Six hours to be chosen from one of the following clusters:

Gender Cluster

COMM 433. Communication and Social Change. 3
CRJU 365. Criminal Justice System: Issues of Race and Gender. 3
ENGL 453. The Female Literary Tradition. 3
RELN 305. Religion and Women. 3
RCGR 498. Independent Study. 3

Race and Ethnic Cluster

ANTH 430. Native American Cultures. 3
ENGL 449. African American Literature. 3
ENGL 314. Topics in Literature. 3
HIST 370. The Old South. 3
HIST 371. The New South. 3
RCGR 498. Independent Study. 3

Class Cluster

ECON 101. Survey of Economics. 3
ECON 482. Industrial Relations. 3
HIST 373. Appalachian History. 3
HIST 330. African American History to 1865. 3
HIST 331. African American History from 1865. 3
SOCY 210. Social Problems 3
SOCY 457. Law and Social Injustice. 3
SOWK 320. History of Social Welfare. 3
RCGR 498. Independent Study. 3

General Cluster

COMM 200. Intercultural Communication. 3
ECON 480. Labor Problems. 3
FDSN 314. Community and Cultural Nutrition. 3
POSC 439. Constitutional Law: Civil Liberties. 3
RCGR 498. Independent Study. 3

SOCY 430. Social Movements.	3
SOCY 446. Social Change.	3
SOWK 300. Human Behavior in the Social Environment.	3
SOWK 321. The Foundations of Social Policy.	3
RELN 205. Religion and Culture.	3

◆SOCIAL SCIENCE

Sharon A. Roger Hepburn,
Chair of History

UNDERGRADUATE PROGRAM

The Social Science major is administered by the Department of History in collaboration with the Social Science Program Oversight Committee. The major is an interdisciplinary program offering both Teaching (45 semester hours) and Non-Teaching (51 semester hours) options as part of either a Bachelor of Science or Bachelor of Arts degree. Students wishing to be licensed to teach history, political science, geography or economics must select the Teaching option. The Non-Teaching option provides a basic background for future graduate work in any of the social science areas and a well-rounded liberal education for careers in business, government and other similar fields.

B.A. OR B.S. DEGREE

SOCIAL SCIENCE MAJOR

All requirements for social science majors (both options) are outlined below.

General Education Requirements 50
(see p. 79)

NON-TEACHING OPTION 51

Required Core Courses 18
History *
HIST 101, 102, 111, 112. In addition, students will take six semester hours of HIST at the 300-400 level, including one non-American course.

Political Science * 12
POSC 120. In addition, students will take nine semester hours of Political Science (excluding POSC 290), six of which must be at the 300-400 level.

Core 6

In addition to the History and Political Science requirements specified above, majors will select a core in either History or Political Science and take six additional semester hours at the 300-400 level in that field. If the core is in History, those courses must be divided between American (group A) and Non-American (groups B, C) courses.

Other Requirements 6
GEOG 101 or 102 3
ECON 105 3

Concentration 9

Majors must take nine additional semester hours in one of the following disciplines:

Sociology, Anthropology, Geography (courses designated SS only), or Economics. At least six of these hours must be in courses at the 300-400 level.

Electives

Students needing additional electives to meet their final degree requirements should consult their academic advisers for careful selection of appropriate course work.

TEACHING OPTION 45

Required Core Courses
History 18
HIST 101, 102, 111, 112. In addition, students will take six semester hours at the 300-400 level, including one Non-American course.

Political Science 12
POSC 120. In addition, students will take nine semester hours at the 300-400 level.

Geography 6

Students must take one U.S. designated and one Non-U.S. designated course from the following list:

U.S. Geography: GEOG 101, 201, 202, or 203

Non-US Geography: GEOG 102 or 280

Economics 3

ECON 105

Concentration 6

Students must take six additional semester hours in one of the following disciplines: History, Political Science, Geography (courses designated SS only) or Economics. No more than three of these semester hours can be taken at the 100 level.

*In selecting upper-level History and Political Science Courses, students are encouraged to choose courses from a program recommended list in consultation with their advisers.

TEACHER LICENSURE

In addition to completing requirements in the social science major, those intending to teach in the public schools must also complete all specified courses and requirements in the department of Education. See page 167 for details. Future teachers are also encouraged to take COMM 114 (Public Speaking).

B.A./B.S. REQUIREMENTS 6-12**B.A. Requirements**

Majors seeking the B.A. degree in Social Science (both options) must complete B.A. language requirements described on page 84 of this catalog.

B.S. Requirements

Majors seeking the B.S. degree in Social Science (Non-Teaching option) must complete 6-8 semester hours in one discipline

chosen in consultation with their academic adviser from the approved list below. Those selecting the Teaching option do not have to meet this requirement.

ANTH: Any 200-400 level course except 220, 320, 330, 420, 488-499.

ART: 412, 422, 424, 428, 444, 445, 462, 482, 486.

ENGL: 306, 431, 433, 434, 435, 437, 438, 439, 442, 443, 444, 445, 446, 447, 449, 450, 451, 453.

PHIL: 114, 201, 202, 203.

PSYC: 250, 343, 391.

SOCY: 331, 334, 337, 339, 340, 361, 430, 433, 446.

Any Math (except 315), statistics, information technology or computer science or science courses.

Total Credits Needed for Degree 120

GRADUATION REQUIREMENTS

To graduate with a major in Social Science, a student must have a grade point average of 2.0 or higher in all courses with departmental prefixes associated with their particular Social Science option. In addition, students in the Non-Teaching option who choose a concentration in either SOCY or ANTH must include all courses with that prefix in calculating the GPA in the major.

INTERNSHIP

Students may use Internship credit towards their elective requirements in the major. They should consult with the Office of Experiential Learning or the faculty liaison in the appropriate social science department.

MINOR

No minor exists.

◆SOCIOLOGY AND ANTHROPOLOGY

Paula S. Brush, Chairperson
www.radford.edu/~soc-anth/

UNDERGRADUATE PROGRAM

The Department of Sociology and Anthropology provides students with a wide variety of courses designed to further their understanding and perception of social problems, social processes and differing cultures within and outside of this country. A central goal is to have students gain insight into how their own lives are greatly influenced by the social relationships around them.

The department offers Bachelor of Arts or Bachelor of Science degree programs in sociology and anthropology. The two majors provide knowledge and skills useful in a large number of occupations. Both are excellent preparations for such graduate professional programs as law, urban and rural planning, public administration, corrections and others. A primary concern of the department is to assist students in planning for careers suited to their particular interests and talents. Upon request, faculty advisers will assist students in the development of plans of study that will include groups of courses with some commonality of focus. Anthropology offers courses that help the student understand global human cultural and biological diversity in its various aspects. Cultural anthropology describes and analyzes living cultures. Physical anthropology studies biological aspects of humans and other primates and explores the interactions between biology and culture. A third subfield of anthropology, archaeology, reconstructs human cultures of the past by finding and analyzing things prehistoric peoples have left behind.

B.A. OR B.S. DEGREE

SOCIOLOGY MAJOR

All requirements for sociology majors are outlined below. Among the requirements are

27 semester hours of Required Courses and 15 hours of department electives.

General Education Requirements **50**
(see p. 79)

Required Courses	27
SOCY 110. Introduction to Sociology.	3
SOCY 120. Sociological Analysis.	3
SOCY 250. Social Inequality.	3
SOCY 265. Individual and Society.	3
SOCY 340. Classical Sociological Theory.	3
SOCY 380. Introduction to Social Research Methods.	3
SOCY 450. Contemporary Sociological Theory.	3
SOCY 480. Survey Research Methods.	3
SOCY 497. Senior Seminar in Sociology.	3

Sociology Electives **15**
Courses selected must include at least three courses at the 400-level.

B.A./B.S. Requirements **6-12**
(see below)

Electives **16-22**
Students should consult with their academic advisers in selecting elective courses to complete 120 hours required for graduation.

Total Credits Needed for Degree **120**

B.A. OR B.S. DEGREE

ANTHROPOLOGY MAJOR

All requirements for anthropology majors are outlined below. Among the requirements are 19 semester hours of Required Courses and 18 hours of department electives.

General Education Requirements **50**
(see p. 79)

Required Courses	19	ECON 203. Public Finance.	3
ANTH 121. Cultural Anthropology.	3	ENGL 306. Professional Writing.	3
ANTH 220. Physical Anthropology.	3	ENGL 446. Appalachian Folklore.	
ANTH 222. Introduction to Archaeology.	3	(ANTH majors only)	3
ANTH 441. Anthropological Theory.	3	GEOG 250. Introduction to GIS.	3
ANTH 480. Practicing Ethnographic Methods.	4	GEOL 320. Sedimentation and Stratigraphy.	4
ANTH 497. Senior Seminar in Anthropology.	3	GEOL 335. General Paleontology.	4
Anthropology Electives	18	HIST 295. The Historian's Craft.	3
ANTH courses at the 300- or 400-level.		ITEC 100. Introduction to Information Technology.	3
		POSC 335. American Public Policy.	3
		SOCY 380. Introduction to Social Research Methods. (ANTH majors only)	3
		PHIL 150. Critical Thinking.	3
B.A./B.S. Requirements (see below)	6-12		

Electives

Students should consult with their academic advisers in selecting elective courses to complete 120 hours required for graduation.

Total Credits Needed for Degree **120**

B.A./B.S. REQUIREMENTS

B.A. Requirements

The Bachelor of Arts degree requires completion of the B.A. language requirements described on p. 84 of this catalog.

B.S. Requirements

Department majors pursuing the Bachelor of Science degree must complete six to eight semester hours beyond the General Education requirements in courses chosen from the following:

ANTH 300- or 400-level class. (SOCY major only)	3
APST 200. Introducing Appalachia.	3
APST 460. Seminar: Current Issues in Appalachian Studies.	3
BIOL 301. Bioethics.	2
BIOL 302. Science, Technology and Society.	2
BIOL 322. Human Anatomy.	6
COMM 114. Public Speaking.	3
COMM, MSTD, or POSC 327. Politics and the Media.	3

GRADUATION REQUIREMENTS

To graduate with a major in Sociology or Anthropology, a student must have a grade point average of 2.0 or higher in all courses taken with a SOCY or ANTH prefix. Majors must complete all required courses in the major curricula listed above with a grade of "C" or better.

All majors in the department must successfully complete STAT 200: Introduction to Statistics. This course is a prerequisite for SOCY 380. It may be used to fulfill partially the general education requirements in Area 6, Mathematical Sciences.

MINORS

SOCIOLOGY MINOR (18 semester hours)

This minor consists of a minimum of 18 semester hours in sociology, including SOCY 110, SOCY 120 and either SOCY 210 or SOCY 250. The remaining hours must include two sociology courses at the 300- or 400-level. Three semester hours in anthropology at the 300- or 400-level may count toward a minor in sociology.

ANTHROPOLOGY MINOR (18 semester hours)

This minor consists of a minimum of 18 semester hours in anthropology, including ANTH 121, ANTH 220 and ANTH 222. Three semester hours in sociology at the 300- or 400-level may count toward a minor in anthropology.

◆INTERDISCIPLINARY MINOR IN SOCIAL GERONTOLOGY (18 semester hours)

Students who desire specialized knowledge about the elderly may obtain an interdisciplinary minor in social gerontology. This minor, which is coordinated and directed by the Department of Sociology and Anthropology, consists of a minimum of 18 semester hours:

Required Courses	12
FDSN 214. Introduction to Nutrition.	3
PSYC 429. Maturity and Aging.	3
SOCY 422. Sociology of Death and Dying.	3
SOCY 320. Sociology of Aging.	3

Elective Courses (minimum) 6

At least six semester hours chosen from:

ANTH 480. Practicing Ethnographic Methods.	4
HLTH 450. Current Health Problems: Gerontology.	3
NURS 346. Nursing in the Aging Process.	3
PSYC 439. Abnormal Psychology.	3
SOCY 341. Sociology of Health and Medicine.	3
SOWK 200. Introduction to Professional Practice.	3
SOWK 425. Gerontology: Social Welfare Aspects.	3

HONORS PROGRAM

In Sociology and Anthropology, the department currently offers a departmental honors program. For a general description of the Honors Academy at Radford, see p. 88 of this catalog. For specific requirements of the departmental honors program, contact the department chairperson or the director of the Honors Academy.

◆WOMEN'S STUDIES

Moira P. Baker, Director

341 Russell Hall

(540) 831-6143

www.radford.edu/~wstudies/

For more information about the Minor in Women's Studies, see page 96.