# The College of Arts and Sciences 

## Debra C. Boyd, Dean

Sarah F. Stallings, Associate Dean

## Undergraduate Degree Programs and Requirements

The College of Arts and Sciences provides educational opportunities for students to gain knowledge, insights, and skills in order to grow more sensitive to the significance of the human heritage, to participate and contribute knowledgeably and effectively as citizens, and to lead rewarding, productive, and enriched lives within the contemporary world.

Providing the liberal arts foundation for all Winthrop University students, the College of Arts and Sciences offers a broad spectrum of general education courses so undergraduate students may be afforded the central core of knowledge enjoyed by well-educated citizenry.

Some of the degree programs in Arts and Sciences prepare majors directly for professional employment; others prepare them for admission to professional and graduate schools; others, combined with an appropriate minor from Arts and Sciences or one of the professional schools, provide a valuable basis for a career.

The College of Arts and Sciences offers the Bachelor of Arts, Bachelor of Science, Bachelor of Social Work, Master of Arts, Master of Liberal Arts, Master of Science, Master of Social Work, and Specialist in School Psychology degrees with the following majors:

Bachelor of Arts Degree: English, environmental studies, general communication disorders, history, mass
communication, mathematics, modern languages, philosophy and religion, political science,
psychology and sociology.
Bachelor of Science Degree: biology, chemistry, environmental sciences, human nutrition, integrated marketing communication, mathematics, and science communication.
Bachelor of Social Work Degree: social work.
Master of Arts Degree: English, history, and Spanish.
Master of Liberal Arts Degree: liberal arts.
Master of Science Degree: biology, human nutrition, and school psychology.
Master of Social Work
Specialist in School Psychology Degree: school psychology.
Minors for undergraduate degrees are offered through the College of Arts and Sciences in African-American studies; anthropology; applied physics; biology; chemistry; English; environmental studies; French; general science; geography; geology; German; gerontology; history; human nutrition; international area studies; mathematics; philosophy; philosophy and religion; peace, justice, and conflict resolution studies; political science; psychology; religion; secondary education; social sciences; social welfare; sociology; Spanish; women's studies; and writing. See the section on Minors for requirements.

Winthrop's undergraduate program in human nutrition is accredited by the Commission on Accreditation for Dietetics Education (CADE) of The American Dietetic Association. The Bachelor of Social Work program is accredited by the Council on Social Work Education. The Department of Mass Communication is accredited by the Accrediting Council of Education in Journalism and Mass Communications.

## Pre-major Advising Center--University College

Students who do not declare majors are assigned advisers in the Pre-major Advising Center. Advising is provided by faculty members representing a variety of academic departments in the College of Arts and Sciences who help resolve issues that pre-majors tend to encounter. The Pre-major Advising Center is administered by University College and is located in 106 Kinard.

## Pre-College Credit and Dual Credit

Qualified high school students may enroll for university courses at Winthrop during the regular academic year or summer session. To qualify, students must be recommended by their high school counselors or principals. Credit earned can count towards a high school diploma, for college credit at Winthrop or both. However, this dual credit option is limited to secondary schools with which Winthrop has dual credit agreements.

## College of Arts and Sciences Requirements

Foreign Language Requirements: A candidate for a BA or BS degree in the College of Arts and Sciences must demonstrate proficiency in a foreign language at or above the second semester college level. This requirement may be met by a satisfactory score on a recognized proficiency examination or by passing a foreign language course numbered 102 or any foreign language course with 102 as a prerequisite. A maximum of three semester hours of foreign language courses may be applied to Logic/Language/Semiotics area of the Winthrop University General Education requirements. Non-native speakers of English can petition the College of Arts and Sciences Curriculum Committee for possible exemption from the foreign language requirement. Native speakers of a foreign language will not receive CLEP credit for the 101, 102, 201, or 202 courses in that language. Students who are fluent in a language other than their native language or English may receive CLEP credit in that language, but may not enroll in 101, 102, 201, or 202 courses in the second language in which they are fluent.

Students may obtain credit fo French, German, or Spanish 101 and/or 102 upon completion of the appropriate
course (see below) with a grade of B or higher. Credit will not be given for courses for which university credit has been awarded previously. No grade is assigned to this credit. A grade is received only for the course taken at Winthrop. The course credits that can be earned are summarized below. For further information, contact the Chair of the Department of Modern Languages.

## Course taken at Winthrop with an earned grade of B or higher

French 102
French 201
German 102
German 201
Spanish 102
Spanish 201

## Foreign Language Credit may be received for FREN 101 <br> FREN 101 and/or 102 <br> GERM 101 <br> GERM 101 and/or 102 <br> SPAN 101 <br> SPAN 101 and/or 102

Grade Point Average (GPA) Requirement: A minimum grade-point average of 2.0 cumulative is required for courses taken at Winthrop, as well as for courses counted toward the major program. All students pursuing degrees that require a minor must achieve a minimum cumulative GPA average of at least 2.0 in courses counted toward the minor.
B.A. Degree Requirements: All B.A. degree programs require students to complete a minor. Not more than 36 semester hours in any one subject designator may be applied toward the major for a Bachelor of Arts degree. A student may elect to apply up to 6 additional semester hours in the same subject designator toward general electives, general education distribution requirements, or a minor with the exception of the social sciences minor, unless limited by the major program.
B.S. and B.S.W Degree Requirements: Although not required, students enrolled in B.S. and B.S.W. degree programs may complete a minor. In such cases, students may use courses required in the major to also satisfy minor requirements. Students pursuing the B.S. degree in Integrated Marketing Communication can not minor in business or mass communication.

Teacher Certification: Certification is available in the following areas: biology, English, French, mathematics, Spanish, and social studies. Social studies includes additional study in anthropology, economics, geography, history, political science and sociology. Students interested in social studies certification must follow the social studies certification track in the history or political science major. Students must meet all requirements for admission to and completion of the Teacher Education Program and its core curriculum. All phase-in information as explained in the College of Education section of this catalog will be applicable.

## BIOLOGY

## Faculty

## Professors

Janice B. Chism
Dwight D. Dimaculangan
James W. Johnston, Chair
Paula L. Mitchell
William Rogers
Associate Professors
Susan Marks
Peter C. Phillips
Julian Smith III

## Assistant Professors

Eric Birgbauer
Lee Anne Cope
Laura Glasscock
John M. Schmidt
Pravda Stoeva-Popova
Kristi Westover

| Lecturers | Instructor |
| :--- | :--- |
| Jack Bagwell | Cassie Bell |
| Nancy Chappell |  |
| Peter Cumbie |  |
| Deborah R. Curry |  |
| Luckett V. Davis, Professor Emeritus |  |
| John Dillé, Professor Emeritus |  |
| Steven E. Fields |  |
| Janie Manning |  |
| Charles Neilson |  |
| Aarti Pardhanani |  |
| Lynn Snyder |  |
| Jen Wearly |  |
| Kimberly Wilson |  |
| Silvia Wozniak |  |
| Almaz Yilma |  |

## Bachelor of Science in Biology

The biology major is frequently chosen by students with career interests related to medicine, environmental science, biological research and teaching, and secondary education in the sciences. Qualified Winthrop students in biology are accepted for postgraduate study in many fields, including medicine, dentistry, veterinary medicine, physical therapy, physiology, microbiology, ecology, environmental science, botany, zoology, and medical technology.

Students majoring in biology should take BIOL 202, 203, 204 and 205 or 206, CHEM 105-106 and 107-108 and a

## COLLEGE OF ARTS \& SCIENCES--BIOLOGY

MATH elective in the freshman year. Students are required to take at least one 500-level course in Biology.

$\dagger$ Students completing the required program for the BS degree in Biology must demonstrate proficiency in a foreign language at or above the second semester college level. This requirement may be met by a satisfactory score on a recognized examination or by passing any foreign language course numbered 102 or any course with 102 as a prerequisite. A maximum of one course may be applied to the Logic/Language/Semiotics Area.
${ }^{* *} 11$ hours mathematics and science electives must be chosen from: MATH (except $291 \mathcal{E} 292$ and any course used to satisfy the Quantitative Reasoning Area); CHEM (except 101, 340A, B, C, 461, 462, or 463); PHYS (except 101/102); GEOL; AND QMTH 205, 206 (if MATH 141 not selected).

The student must attain a cumulative grade-point average of 2.00 or better in courses taken at Winthrop and included in the 67 semester hours of the required program. The student must complete a minimum of 12 semester hours of BIOL courses in residence at Winthrop University. Within the 124 semester hours required for this degree, the student must include a minimum of 40 semester hours in courses numbered above 299. No more than 3 semester hours of credit may be awarded toward a degree in Biology for a student completing any combination of BIOL 461, 463 and 340 A, B, C.

## Bachelor of Science in Biology - Certification as Secondary School Teacher

Program Coordinator: Cassie Bell
Students desiring certification as teachers of biology should consult with the department's certification adviser and Student Academic Services in the Richard W. Riley College of Education for specific requirements for admission to the Teacher Education Program. See section on College of Education Admission Requirements, page 96.

| General Education Courses |  | Semester Hours |
| :---: | :---: | :---: |
| ACAD 101 | Principles of the Learning Academy | 1 |
| Critical Skills |  |  |
| Writing and Critical Thinking |  |  |
| WRIT 101, CRTW 201 | Composition; Crit Reading, Thinking, Writing | 6 |
| Quantitative Skills | Met in major requirements | 0 |
| Logic/Language/Semiotics |  |  |
| MATH | Met by major requirements | 0 |
| Foreign Language |  | 3-4 $\dagger$ |
| Oral Communication | Met in major by BIOL 480 | 0 |
| Technology | Met by major requirements | 0 |
| Skills for Common Experience and Thinking | g Across Disciplines |  |
| HMXP 102 | The Human Experience: Who Am I? | 3 |
| Global/Multicultural Perspectives | See approved lists, p. 37. | 3 |
| Historical Perspectives | See approved list, p. 37. | 3 |
| Developing Critical Skills and Applying the | em to Disciplines |  |
| Natural Science | Met by major requirements | 0 |
| Social Science | See approved list, p. 37; must include 2 designators | 6-9* |
| Humanities and Arts <br> *Must take 15 hours from these two catego | See approved list, p. 38; must include 2 designators ories. | 6-9* |
| Intensive Writing | Met by major requirements | 0 |
| Constitution Requirement | See approved list, p. 38; may be met by other req | 0-3 |
| Subtotal |  | 34-38 |
| Requirements in Major |  | 71 |
| BIOL 202, 203, 204, 205, 206, 300, 307, 308, 3 | 310, 315, 317, 318, 480, 491, 492, 513, and 403 or 515 | 46 |
| CHEM 105, 106, 107, and 108 | General Chemistry I \& II | 8 |
| MATH (excluding 291 and 292) or CTQR 15 |  | 6 |
| PHYS 201, 202 and GEOL (except 120) | General Physics I \& II; Geology | 11 |
| Professional Education Sequence |  | 33 |
| EDUC 110, 210, 250, 275, 310, 390, 475, 490 |  | 29** |
| SCIE 391, 392 |  | 4 |
| Foreign Language Requirement |  | 0-4 |
| General Electives |  | 0 |
| Total |  | 138-146 |

$\dagger$ Students completing the required program for the BS degree in Biology must demonstrate proficiency in a foreign language at or above the second semester college level. This requirement may be met by a satisfactory score on a recognized examination or by passing any foreign language course numbered 102 or any course with 102 as a prerequisite. A maximum of one course may be applied to the Logic/Language/Semiotics Area.
${ }^{* *} A$ grade of C or better is required in EDUC 110, 210, 250, 275, 310, and 390.
In addition to the requirements for their major, students must meet requirements for the Teacher Education Program, which include the requirements for Admission to Teacher Education, Entry to the Professional Stage, and Program Completion. For information on these requirements, consult the Student Academic Services in the College of Education. A satisfactory score on the PRAXIS II subject area/specialty area tests is required prior to registration for EDUC 475. For up to date information on the PRAXIS test, please see page 104 in the College of Education section of this catalog.

The student must attain a cumulative grade-point average of 2.75 or better in courses taken at Winthrop and a minimum of a 2.0 in the 71 hours of the required program. The student must complete a minimum of 12 semester hours of BIOL courses in residence at Winthrop University. Within the 138-146 hours required for the degree, the student must include a minimum of 40 hours in courses numbered above 299. No more than 3 semester hours of credit may be awarded toward a degree in Biology for a student completing any combination of BIOL 461, 463, and $340 \mathrm{~A}, \mathrm{~B}$, and C.

## Certification as a Medical Technologist - Bachelor of Science in Biology <br> Program Director: Dr. Lee Anne Cope

Students desiring national certification as a Medical Technologist should consult with the department's Med-Tech advisor for specific details about this program. Qualified graduates must be accepted by a School of Medical Technology for a year ( 12 months) of hospital training before being certified.

| General Education Courses |  | Semester Hours |
| :---: | :---: | :---: |
| ACAD 101 | Principles of the Learning Academy | 1 |
| Critical Skills |  |  |
| Writing and Critical Thinking |  |  |
| WRIT 101, CRTW 201 | Composition; Crit Reading, Thinking, Writing | 6 |
| Quantitative Skills | Met in major requirements | 0 |
| Logic/Language/Semiotics |  |  |
| MATH | Met by major requirements | 0 |
| Foreign Language |  | 3-4 $\dagger$ |
| Oral Communication | Met in major by BIOL 480 | 0 |
| Technology | Met by major requirements | 0 |
| Skills for Common Experience and Thinking Across Disciplines |  |  |
| HMXP 102 | The Human Experience: Who Am I? | 3 |
| Global Perspectives | See approved list, p. 37 | 3 |
| Historical Perspectives | See approved list, p. 37 | 3 |
| Developing Critical Skills and Applying them to Disciplines |  |  |
| Natural Science | Met by major requirements | 0 |
| Social Science | See approved list, p. 37; must include 2 designators | 6-9* |
| Humanities and Arts | See approved list, p. 38; must include 2 designators | 6-9* |
| *Must take 15 hours from these two categories. |  |  |
| Intensive Writing | Met by major requirements | 0 |
| Constitution Requirement | See approved list, p. 38; may be met by other req | 0-3 |
| Subtotal |  | 34-38 |
| Requirements in Major |  | 66-68 |
| BIOL 202, 203, 204, 205, 206, 300 |  | 19 |
| BIOL 310, 317, 522 |  | 11 |
| BIOL Electives - select two courses from each of the following areas: |  |  |
| Ecology, Evolution, Field Biology |  |  |
| BIOL 303, 304, 323, 403, 404, 505, 508, 510, 511, 513, 515, 518, 524, 525, 527 and 560 |  |  |
| Cells, Genes and Developmen | by the required program) | 0 |
| BIOL 307, 308, 310, 315, $317 / 318,321,322,507,517,519,522,530$ and 555 |  |  |
| BIOL 340 (A, B, C), 440, 450H, 461, 463, 471 and 540 <br> (Students must complete at least one 500-level BIOL course) |  |  |
|  |  |  |
| CHEM 105, 106, 107, 108 | General Chemistry I \& II | 8 |
| CHEM 301, 302, 303, 304 | Organic Chemistry I \& II | 8 |
| MATH (excluding 291 and 292) | 150 | 6 |
| Mathematics, CTQR or Science | Select additional courses from the following list: | 3 |
| CHEM 313, 314, 523, 524 and 525; CSCI 101 and CSCI 101A, B, and C; |  |  |
| MATH 141 (or QMTH 205 and 206); CTQR 150. |  |  |
| Students are advised (optional) to complete CHEM 313 and 314. |  |  |
| General Electives |  | 14-24 |
| Total |  | 124 |

$\dagger$ Students completing the required program for the BS degree in Biology must demonstrate proficiency in a foreign language at or above the second semester college level. This requirement may be met by a satisfactory score on a recognized examination or by passing any foreign language course numbered 102 or any course with 102 as a prerequisite. A maximum of one course may be applied to the Logic/Language/Semiotics Area.

The student must attain a cumulative grade-point average of 2.0 or better in courses taken at Winthrop and included in the 67 semester hours of the required program. The student must complete a minimum of 12 semester hours of BIOL courses in residence at Winthrop University. Within the 124 semester hours required for this degree, the student must include a minimum of 40 semester hours in courses numbered above 299. No more than 3 semester hours of credit may be awarded toward a degree in Biology for a student completing any combination of BIOL 461, 463, and 340A, B, C.

Although Winthrop University is formally affiliated with the schools of medical technology of Carolinas Medical Center in Charlotte, NC and McLeod Regional Medical Center in Florence, SC, students may apply to any NAACLS accredited hospital program in the US. Although specific admission requirements vary among accredited hospitals, students are normally required to have a cumulative grade-point average of at least 3.0 for acceptance into the hospital program.

## Bachelor of Science in Biology, Biomedical Research Track

This concentration within the biology major is designed to prepare students for admission into post-graduate research programs in the biomedical sciences. Students will complete a year-long research internship. Students majoring in this concentration should take BIOL 202, 203, 204 and 205 or 206 and CHEM 105-106 and 107-108 and MATH 201 in the freshman year. Students are required to take at least one 500 -level course in Biology.


## CHEMISTRY, PHYSICS, AND GEOLOGY

## Faculty

## Professors

Marsha Bollinger
Lennart Hans Kullberg
Ponn Maheswaranathan
Patrick M. Owens, Chair
Mesgun Sebhatu
Associate Professors
Irene Boland
Clifton P. Calloway

## Assistant Professors

Gwen M. Daley
T. Christian Grattan

Jay Hanna
Aaron M. Hartel
Jason C. Hurlbert
Robin K. Lammi
Chasta Parker
Takita F. Sumter
Scott Wertz

## Instructors

Kathie Snyder
Lecturers
Tristram Bethea
Flora Brooks
Kristin Kull
Tom Lipinski
William McGuinness
Gregg McIntosh
William A. Quarles
David Whitley

## Bachelor of Science in Chemistry

Students major in chemistry to pursue industrial or graduate opportunities in medicine, environmental science, computational molecular modeling, forensics, plastics, chemistry, textiles, health sciences, materials science, energy production, biotechnology, chemical engineering, pharmaceutical sciences, ceramics, environmental engineering, or toxicology. Chemists represent the largest group of industrial scientists in the United States; approximately $50 \%$ of all research and development positions in this country are filled by professionals with chemistry or chemical engineering backgrounds.

Students majoring in chemistry can select one of six programs of study to tailor their curricula to meet their long-term professional objectives. Four programs of study focus on chemistry (ACS Approved), biochemistry (ACS approved), environmental chemistry, and forensic chemistry. A chemistry-engineering program of study is designed for students interested in obtaining engineering and science degrees. The multidisciplinary chemistry program of study is designed for maximum flexibility to meet a broad array of students interests or needs.

## Premedical Program with a Bachelor of Science in Chemistry

Students who wish to prepare for application to medical school should acquire a broad foundation in the natural sciences, mathematics, humanities, and the social sciences. Chemistry is a popular major for such students since it allows them to complete the premed requirements without taking a large number of courses outside the major. In addition, the percentage of chemistry majors applying and being accepted to medical school is higher than observed for most other majors. Medical schools generally require two semesters of each of the following courses:

Inorganic Chemistry, Organic Chemistry, General Biology, Physics, Mathematics, and English Composition and Literature. (Biochemistry, anatomy and physiology, genetics, and microbiology are strongly recommended.) All of the courses listed above can be used to fulfill requirements necessary for a major in chemistry.

## Bachelor of Science in Chemistry

General Education Courses
ACAD 101
Critical Skills
Writing and Critical Thinking
WRIT 101
CRTW 201
Quantitative Skills
Oral Communication
Logic/Language/ Semiotics

| COLLEGE OF ARTS \& SCIENCES--CHEMIST |  |  |
| :---: | :---: | :---: |
| Technology | See approved list, p. 37; may be met by another req | 0-3 |
| Skills for a Common Experience and Thinking Across Disciplines |  |  |
| HMXP 102 | The Human Experience: Who Am I? | 3 |
| Global Perspectives | See approved list, p. 37 | 3 |
| Historical Perspectives | See approved list, p. 37 | 3 |
| Developing Critical Skills Applying them to Disciplines |  |  |
| Natural Science | Met by major requirements | 0 |
| Social Science | See approved list, p. 37. Must include 2 designators* | 6-9 |
| Humanities and Arts | See approved list, p. 38. Must include 2 designators* | 6-9 |
| *Must have 15 hours within these two categories. |  |  |
| Intensive Writing | May be satisfied through other requirements | 0-3 |
| Constitution Requirement | May be satisfied through other requirements | 0-3 |
| Subtotal |  | 33-47 |
| Requirements in Major: Complete Core and one of five Programs of Study (ACS-Approved Chemistry, |  |  |
| ACS-Approved Biochemistry, Forensic Chemistry, Multidisciplinary Chemistry, or Environmental Chemistry) |  |  |
| Required Core Program |  | 35 |
| MATH 201-202 | Calculus I \& II | 6 |
| CHEM 105-108 | General Chemistry I \& II | 8 |
| CHEM 301-304 | Organic Chemistry I \& II | 8 |
| CHEM 312 | Introductory Chemometrics | 1 |
| CHEM 313-314 | Quantitative Analysis | 4 |
| CHEM 407-410 | Physical Chemistry I \& II | 8 |
| CHEM 491-494 | Department Seminar | 0 |
| Choose one of five programs of study listed below: |  |  |
| American Chemical Society | ved Chemistry Program of Study | 36 |
| (Students completing this pr | will be Winthrop-certified ACS chemistry graduates.) |  |
| BIOL 203-204 | Principles of Biology | 4 |
| PHYS 211-212 | Physics with Calculus I \& II | 8 |
| CHEM 305 | Chemical Hygiene and Safety | 1 |
| CHEM 330, 332 | Introductory Inorganic Chemistry | 4 |
| CHEM 502-503 | Instrumental Analysis | 4 |
| CHEM 523, 525 | Biochemistry I | 4 |
| CHEM 526 or CHEM 570 | Adv Investigative Biochemistry, Chemical Synth | 2 |
| CHEM 530 | Inorganic Chemistry | 3 |
| CHEM 551-552 | Individual Research | 6 |
| American Chemical Society | ved Biochemistry Program of Study | 37-38 |
| (Students completing this program of study will be Winthrop-certified ACS biochemistry graduates.) |  |  |
| BIOL 203-204 | Principles of Biology | 4 |
| PHYS 211-212 | Physics with Calculus I \& II | 8 |
| CHEM 305 | Chemical Hygiene and Safety | 1 |
| CHEM 330, 332 | Introductory Inorganic Chemistry | 4 |
| CHEM 523-525 | Biochemistry I, II, \& Lab Techniques | 7 |
| CHEM 551, 552 | Research I \& II | 6 |
| BIOL 315 | Cell Biology | 4 |
| BIOL 310 or 317 | Microbiology, Genetics | 3-4 |
| Environmental Chemistry Program of Study |  | 44 |
| BIOL 203-204 | Principles of Biology | 4 |
| PHYS 211-212 | Physics with Calculus I \& II | 8 |
| CHEM 305 | Chemical Hygiene and Safety | 1 |
| CHEM 330, 332 | Introductory Inorganic Chemistry | 4 |
| CHEM 502-503 | Instrumental Analysis | 4 |
| CHEM 517 | Advanced Environmental Chemistry | 4 |
| CHEM 523, 525 | Biochemistry I | 4 |
| CHEM 527 | Biochemical Toxicology | 3 |
| CHEM 551-552 | Individual Research | 6 |
| GEOL 335 | Fundamentals of Geochemistry | 3 |
| GEOL 340 | Hydrogeology | 3 |


| Forensic Chemistry Program of Study |  | $\mathbf{5 1}$ |
| :--- | :--- | :--- |
| BIOL 203-204 | Principles of Biology | 4 |
| BIOL 317 | Genetics | 3 |
| MATH 141 | Statistics | 3 |
| PHYS 211-212 | Physics with Calculus I \& II | 8 |
| CHEM 330 | Introductory Inorganic Chemistry | 4 |
| CHEM 495-496 | Forensic Chemistry Seminar | 0 |
| CHEM 502-503 | Instrumental Analysis | 4 |
| CHEM 505-506 | Forensic Analytical Chemistry | 4 |
| CHEM 523, 525 | Biochemistry I | 4 |
| CHEM 551-552 | Research I \& II | 6 |
| CHEM 575 | Forensic Chemistry Internship | 6 |
| PHIL 320 | Professional Ethics | 3 |
| SPCH 201 | Public Speaking | 3 |
| Total |  | $\mathbf{1 2 4 - 1 3 8}$ |
|  |  | $\mathbf{3 4}$ |
| Multidisciplinary Chemistry Program of | 8 |  |
| CHEM (>299) | Chemistry electives | 8 |
| PHYS 211-212 | Physics with Calculus I \& II | 8 |
| or PHYS 201-202 | General Physics I \& II |  |
| Approved math or science electives (15 hours >299, BIOL, CHEM, CSCI, QMTH, PHYS, MATH) | 18 |  |
| Foreign Language Requirement |  | $\mathbf{0 - 4}$ |
| General Electives  <br> Total  | $\mathbf{4 - 1 9}$ |  |

## Chemistry-Engineering Dual Degree Program

(Students must simultaneiously complete engineering degree at Clemson University to be eligible for this Winthrop degree.)

| MATH 201, 202 | Calculus I \& II | 6 |
| :---: | :---: | :---: |
| MATH 301, 302 | Calculus III \& IV | 6 |
| MATH 305 | Differential Equations | 3 |
| PHYS 211, 212 | Physics with Calculus I \& II | 8 |
| CHEM 105-108 | General Chemistry I \& II | 8 |
| CHEM 301, 303 | Organic Chemistry I | 4 |
| CHEM 312 | Introductory Chemometrics | 1 |
| CHEM 313-314 | Quantitative Analysis | 4 |
| CHEM 330, 332 | Introductory Inorganic Chemistry | 4 |
| CHEM 407, 409 | Physical Chemistry I | 4 |
| CHEM 491, 492 | Department Seminar | 0 |
| CHEM (above 299) | Approved Chemistry Course | 3 |
| Approved math, science, or engineering courses <br> (15 hours>299, may be taken at Winthrop or at the Engineering school) |  |  |
| Subtotal <br> (51 hours required at Winthrop) |  | 69 |
| Foreign Language Requirement |  | 0-4 |
| General Electives |  | 4-18 |
| Total |  | 124 |

$\dagger$ Students completing the required program in Chemistry must demonstrate proficiency in a foreign language at or above the second semester college-level. This requirement may be met by a satisfactory score or a recognized examination or by passing any foreign language course numbered 102 or any course with 102 as a prerequisite. A maximum of one course may be applied to the Logic/Language/Semiotics Area.

The student must attain a cumulative grade-point average of 2.0 or better in courses taken at Winthrop and included in the 69-79 semester hours of the required program. A cumulative grade-point average of 2.0 or better is also required in CHEM courses. The student must complete a minimum of 12 semester hours of CHEM courses in residence at Winthrop University. Within the 124 semester hours required for this degree, the student must include a minimum of 40 hours in courses numbered above 299.

## ENGLISH

Faculty

| Professors | Assistant Professors | Lecturers |
| :--- | :--- | :--- |
| John Bird | Siobhan Brownson | Leslie Calandra |
| William F. Naufftus | Jack DeRochi | Judy Corbett |
| David L. Rankin, Professor Emeritus | Litasha Dennis | Casey Cothran |
| Jane B. Smith | Cindy Furr | Jennifer Jewett |
| Margaret Tebo-Messina | Amy Gerald | Ann Jordan |
|  | Kelly Richardson | Jeannine Hogue |
| Associate Professors |  | Cynthia Macri |
| Debra C. Boyd | Instructors | Tracey Perez |
| Max L. Childers | Leslie W. Bickford |  |
| J. Scott Ely | Clara Kulmacz |  |
| Matthew A. Fike | Mary Martin |  |
| Gloria G. Jones, Chair | Norma McDuffie |  |
| Josephine A. Koster | Marilyn Montgomery |  |
| Marquerite Quintelli-Neary | Evelyne Weeks |  |

## Bachelor of Arts in English, Language and Literature Track

The Bachelor of Arts in English with a literature and language concentration is designed for those students who want to focus on world, British, and American literature, in preparation for advanced study of literature as well as other professional careers.


| COLLEGE OF ARTS \& SCIENCES--ENGLISH |  |
| :--- | :--- |
| Electives from ENGL above 299 | 9 |
| HIST 308, 310, $313,314,315,343,344,346,347,507,509,525,540$, or 542 | 6 |
| Foreign Language Requirement | $\mathbf{0 - 8}$ |
| Minor | $\mathbf{1 5 - 2 4}$ |
| General Electives | $0-36$ |
| Total | $\mathbf{1 2 4 - 1 2 7}$ |

$\dagger$ Students completing the required program for the BA degree in English must demonstrate proficiency in a foreign language at or above the third semester college level. This requirement may be met by a satisfactory score on a recognized examination or by passing any foreign language course numbered 201 or any course with 201 as a prerequisite. A maximum of one course may be applied to the Logic/Language/Semiotics Area.
*Students must take at least one ENGL course numbered above 499.


#### Abstract

The student must attain a cumulative grade-point average of 2.00 or better in courses taken at Winthrop and included in the 42-51 semester hours of the required program. The student must complete a minimum of 12 semester hours of ENGL courses in residence at Winthrop University. In addition to the 42-51 semester hours of the required program, the student must select and complete a minor, attaining no less than a 2.0 GPA in the minor. Within the 124 semester hours required for this degree, the student must include a minimum of 40 hours in courses numbered above 299.


## Bachelor of Arts in English Certification as Secondary School Teacher

Students desiring Certification as teachers of English should consult with the department's teacher certification advisor and the College of Education section of the catalog for specific requirements for admission to the Teacher Education Program. All English Education majors must have a cumulative 2.75 GPA in ENGL 203, 208, 211, 300, 303, 305, 507; ENGE 391, 392, 519; and WRIT 350 prior to the internship.

| General Education Courses |  | Semester Hours |
| :---: | :---: | :---: |
| ACAD 101 | Principles of the Learning Academy | 1 |
| Critical Skills |  |  |
| Writing and Critical Thinking Skills |  |  |
| WRIT 101 | Composition | 3 |
| CRTW 201 | Critical Reading, Thinking, \& Writing | 3 |
| Quantitative Skills |  |  |
| CTQR 150 or MATH 105 or MATH 201 or any MATH course |  |  |
| Logic/Language/Semiotics |  |  |
| Foreign Language |  | $3 \dagger$ |
| CSCI; PHIL 220, 225; SPCH | MTH; ARTS 281 or VCOM 261 | 3 |
| Oral Communication | Met by major | 0 |
| Technology | Met by major | 0 |
| Skills for a Common Experience and Thinking across Disciplines |  |  |
| HMXP 102 | The Human Experience: Who Am I? | 3 |
| Global Perspectives | Met by major | 0 |
| Historical Perspectives | Met by major | 0 |
| Developing Critical Skills Applying them to Disciplines |  |  |
| Natural Science (must take a total of 7 semester hours in Natural Sciences courses) |  |  |
| Laboratory science in life sc |  | 3-4 |
| Laboratory science in earth or physical sciences |  | 3-4 |
| Social Science | See approved list, p. 37; must include 2 designators | 6 |
| Humanities and Arts | 6 hours met in the major; select at least 1 course from a different subject area. | 3 |
| Intensive Writing | Met by major | 0 |
| Constitution Requirement | See approved list, p. 38 | 0-3 |
| Subtotal |  | 35-38 |
| Requirements in Major |  | 36 |
| ENGL 203, 208, 211, 305 |  | 12 |
| ENGL 300*, 303*, 507* |  | 9 |
| ENGL 491 | Departmental Seminar | 0 |
| ENGE 519 | Adolescent Literature | 3 |
| WRIT 350* | Intro to Comp Theory \& Pedagogy | 3 |
| Electives from ENGL above (only 3 hours may be from | $\begin{aligned} & 307,316 \text {, or } 500 \\ & \text { RIT 316) } \end{aligned}$ | 9 |


| Professional Education Sequence |  | 33 |
| :---: | :---: | :---: |
| EDUC 110*, 210*, 250*, 275*, 31 | 475*~, 490*~ | 29 |
| ENGE 391*~, 392*~ | Princ of Teaching Engl; Field Exp in Teaching Engl | 4 |
| Foreign Language requirement |  | 0-8 |
| General Electives |  | 9-20 |
| Total |  | 124 |
| *A grade of $C$ or better must be earned. |  |  |
| $\sim$ Restricted to students admitted to the Teacher Education Program. |  |  |
| $\dagger$ Students completing the required program for the BA degree in English must demonstrate proficiency in a foreign langu or above the third semester college level. This requirement may be met by a satisfactory score on a recognized proficiency |  |  |

In addition to the requirements for their major, students must meet requirements for the Teacher Education Program, which include the requirements for Admission to Teacher Education, Entry to the Professional Stage, and Program Completion. For information on these requirements, consult the Office of Student Academic Services in the Richard W. Riley College of Education.

The PRAXIS II Series is required prior to graduation: 1) Subject Assessment/Specialty Area Tests and 2) Principles of Learning and Teaching (PLT) Test. For up to date information on the PRAXIS test, please see page 104 in the College of Education section of this catalog.

Teacher education students must select one course from the Multicultural Perspectives list identified by the Richard W. Riley College of Education.

The student must attain a cumulative grade-point average of 2.75 or better in courses taken at Winthrop and a GPA of 2.0 or better in the 36 hours of the required program. The student must complete a minimum of 12 semester hours in the major in residence at Winthrop University. Within the 124 semester hours required for the BA degree, the student must also include a minimum of 40 semester hours in courses numbered above 299. No more than three hours of Cooperative Education Experience can count toward the major.

## Bachelor of Arts in English, Writing Track

The Bachelor of Arts in English with a writing concentration is designed for those students who wish to combine their love of reading with a close study of the elements of writing in preparation for a future in which writing will play a central role.

| General Education Courses |  | Semester Hours |
| :---: | :---: | :---: |
| ACAD 101 | Principles of the Learning Academy | 1 |
| Critical Skills |  |  |
| Writing and Critical Thinking |  |  |
| WRIT 101 | Composition | 3 |
| CRTW 201 | Critical Reading, Thinking, \& Writing | 3 |
| Quantitative Skills |  |  |
| CTQR 150 or MATH 105 or MATH 201 or a | a MATH course with 201 as a prerequisite | 3 |
| Logic/Language/Semiotics |  |  |
| Foreign Language |  | $3 \dagger$ |
| CSCI; PHIL 220 or 225; SPCH 201; MATH; | QMTH; ARTS 281 or VCOM 261 | 3 |
| Oral Communication | May be met through other requirement* | 0-3 |
| Technology | May be met through other requirement** | 0-3 |
| Skills for a Common Experience and Thinki | ing Across Disciplines |  |
| HMXP 102 | The Human Experience: Who Am I? | 3 |
| Global Perspectives | Met by major requirements | 0 |
| Historical Perspectives | May be met by major requirements | 0-3 |
| Developing Critical Skills Applying them to | o Disciplines |  |
| Natural Science | From two categories and one must be a lab science | 7 |
| Social Science | See approved list, p. 37. Must include 2 designators | 6 |
| Humanities and Arts | 6 met in major, remaining 3 from other designators | 3 |
| Intensive Writing | Met in major | 0 |
| Constitution Requirement | See approved list, p. 38; may be met by another req | 0-3 |
| Subtotal |  | 35-47 |
| Requirements in Major |  |  |
| The English Core: |  | 15 |
| ENGL 203 | Survey of British Literature | 3 |
| ENGL 208 | Survey of World Literature | 3 |
| ENGL 211 | Survey of American Literature | 3 |


| COLLEGE OF ARTS \& SCIENCES--ENGLISH |  |  |
| :---: | :---: | :---: |
| ENGL 300 | Approaches to Literature | 3 |
| ENGL 305 | Shakespeare | 3 |
| ENGL 491 | Departmental Seminar | 0 |
| The Elements of Writing: Rhetoric, Language, and Audience 12 |  |  |
| Select from WRIT 300, 350, 351, 465, 500, 501, 510; ENGL 303, 507; IMCO 105; MCOM 302 |  |  |
| Select one of the following opt |  | 12 |
| Creative Writing |  | 9-12 |
| Select at least two from WRIT 307, $316,507,516,530$; and no more than two from |  |  |
| ENGL 317, $325,501,504$, CSCI 101 and 3 of CSCI 101A, B, C, or P; or if focused on an appropriate topic, ENGL 310, 311, 320, or 321 |  |  |
| ENGL/WRIT 431, 432, or 433 | Internship | 0-3 |
| Writing for Business and Tec |  | 9-12 |
| Select from WRIT 366, 566, VCOM 261, ARTS 281, 305, 311, |  |  |
| 371, BADM 180, 411, CSCI 101 and 3 of CSCI 101A, B, C, or P; MCOM 241, 340, 341, 370, 471, MGMT 355, or MKTG 380. |  |  |
| ENGL/WRIT 431, 432, or 433 | Internship | 0-3 |
| Foreign Language Requirement |  | 0-8 |
| Minor |  | 15-24 |
| General Electives |  | 6-35 |
| Total |  | 124 |

Students majoring in English with a writing concentration may not minor in Writing.
$\dagger$ Students completing the required program for the BA degree in English must demonstrate proficiency in a foreign language at or above the third semester college level. This requirement may be met by a satisfactory score on a recognized examination or by passing any foreign language course numbered 201 or any course with 201 as a prerequisite. A maximum of one course may be applied to the Logic/Language/Semiotics Area.
*Can be met within the major if students take WRIT 465 or WRIT 566.
${ }^{* *}$ Can be met within the major if students take WRIT 501 or CSCI 101.
The student must attain a cumulative grade-point average of 2.0 or better in courses taken at Winthrop and included in the 39 semester hours of the required program. The student must complete a minimum of 12 semester hours of ENGL courses in residence at Winthrop University. In addition to the 39 semester hours of the required program, the student must select and complete a minor, attaining no less than a 2.0 GPA in the minor. Within the 124 semester hours required for this degree, the student must include a minimum of 40 hours in courses numbered above 299. No more than three hours of Cooperative Education Experience or Academic Internship or a combination of the two can count toward the major in English.

## Bachelor of Science in Science Communication



| Constitution Requirement | See approved list, p. 38; may be met by another req | 0-3 |
| :---: | :---: | :---: |
| Subtotal |  | 31-45 |
| Requirements in Major |  | 68-70 |
| Writing Core: |  |  |
| WRIT 300, 351, 566 | Rhet Theory; Adv Non-Fict; Tech/Sci Writing | 9 |
| WRIT 461, 462 | Science Communication Internship | 6 |
| ENGL 380 | Literature of Science | 3 |
| ENGL or WRIT above 299*** (***WRIT 465 or WRIT 566 required if | 300 not taken) | 6 |
| ENGL 492 | Seminar in Science Communication | 0 |
| MCOM 241, 340, and either 333 or 343 | Media Writ; Pub Prod; News Ed; Feature Writ | 9 |
| Technology: |  |  |
| ARTS 305 or 311 | Intro to Photography; Photo Communication | 3 |
| CSCI 110 or 151 | Intro to Comp \& Programming; Overview of CSCI | 3 |
| BADM 411 | Info Tech in Business Admin | 3 |
| Science Methods/Statistics: |  | 11-12 |
| PSYC 101, 301, and 302 (WRIT 465 or W | T 566 required with this option) |  |
| OR |  |  |
| BIOL 203, 204, 205, or 206; and BIOL 300 (oral intensive elective required with this option) |  |  |
| Additional Science Courses |  | 15-16 |
| Choose from areas below and at least 8 hours from one designator: |  |  |
| Life Sciences: BIOL above 199; ANTH 202, 350; NUTR 201; SCIE 202, 301; |  |  |
| Physical Sciences: CHEM, PHYS, GEOL, SCIE 201B, 201C |  |  |
| Foreign Language Requirement |  | 0-4 |
| General Electives |  | 5-25 |
| Total |  | 124 |

$\dagger$ Students completing the required program for the BS in Science Communication must demonstrate proficiency in a foreign language at or above the second semester college level. This requirement may be met by a satisfactory score on a recognized examination or by passing any foreign language course numbered 102 or any course with 102 as a prerequisite. A maximum of one course may be applied to the Logic/Language/Semiotics Area.
*Some students may meet Oral Communication in the WRIT core.
The student must attain a cumulative grade-point average of 2.0 or better in courses taken at Winthrop and included in the 61-66 semester hours of the required program. The student must complete a minimum of 12 semester hours of ENGL and/or WRIT courses in residence at Winthrop University. Within the 124 semester hours required for the BS degree, the student must include a minimum of 40 hours in courses numbered above 299.

## ENVIRONMENTAL SCIENCES/STUDIES

Program Coordinator, Dr. Marsha Bollinger, Professor

## Bachelor of Arts in Environmental Studies

The BA degree in Environmental Studies will provide students with a broad introduction to the scientific, social, political, cultural, economic, and policy aspects of environmental issues. BA students will minor in a discipline linked to their major and will be prepared to pursue careers with environmental groups, policy groups, and consulting firms and to continue studies in graduate programs in environmental studies and law.

| General Education Courses |  | Semester Hours |
| :---: | :---: | :---: |
| ACAD 101 | Principles of the Learning Academy | 1 |
| Critical Skills |  |  |
| Writing and Critical Thinking |  |  |
| WRIT 101, CRTW 201 | Comp; Critical Reading, Thinking, \& Writing | 6 |
| Quantitative Skills |  |  |
| CTQR 150 or MATH 105 or MATH 201 or a | a MATH requiring MATH 201 as prerequisite | 3 |
| Logic/Language/Semiotics |  |  |
| MATH 141 | Finite Probablity \& Statistics | 3 |
| Foreign Language |  | 3-4† |
| Oral Communication | See approved list, p. 37 | 0-3 |
| Technology |  |  |
| CSCI 101 \& 3 of 101A, B, C, or P | Intro to Comp \& Info Processing | 3 |
| Skills for Common Experience and Thinking Across Disciplines |  |  |
| HMXP 102 | The Human Experience: Who Am I? | 3 |

Human Geography or Geog of World Regions
3
May be met in major; see approved list, p. 37 0-3
Historical Perspectives
Developing Critical Skills and Applying them to Disciplines
Natural Science
Met in major by BIOL 203/204 and CHEM 1010
May be met in major; see approved list, p. 37 0-6
Intro to Political Econ, Microeconomics 3
May be met in major; see approved list, p. 38 0-9
Met in major by ENVS $520 \quad 0$
May be met in major; see approved list, p. 38 0-3
28-53
Subtotal
Requirements in the Major
BIOL 203/204
ENVS 101, 520
CHEM 101
Social Science/Humanities Electives (select five courses from the following) 31-32
Principles of Biology/Lab 4
Intro to Environ Issues, Seminar in Environ 6
Applying Chem to Society 3
15
ANTH 540, ECON 343, ENVS 510, GEOG 305, HIST 530, PHIL 340, PLSC 325, PSYC 311, SOCL 310
Science Electives (select one from the following)
BIOL 205, 206, 303, 304, 323, CHEM 105/107, GEOG 500, GEOL 110/113, 201, 220, PHYS 105, 201
Foreign Language
0-4
Minor 15-24
General Electives 11-51
Total
124
$\dagger$ Students completing the required program in Environmental Studies must demonstrate proficiency in a foreign language at or above the second semester college-level. This requirement may be met by a satisfactory score or a recognized examination or by passing any foreign language course numbered 102 or any course with 102 as a prerequisite. A maximum of one course may be applied to the Logic/Language/Semiotics Area.

## Bachelor of Science in Environmental Sciences

The BS degree in Environmental Sciences will educate students in the scientific, social, political, ethical, and policy aspects of environmental issues in preparation for scientific careers in industry, government, and consulting, and for graduate programs in environmental sciences.

| General Education Courses | Semester Hours |  |
| :---: | :---: | :---: |
| ACAD 101 | Principles of the Learning Academy | 1 |
| Critical Skills |  |  |
| Writing and Critical Thinking |  |  |
| WRIT 101, CRTW 201 | Comp; Critical Reading, Thinking, \& Writing | 6 |
| Quantitative Skills |  |  |
| MATH 105 or 201 | Calc for Mgr \& Life Sci; Calculus I | 3 |
| Logic/Language/Semiotics |  |  |
| MATH 141 | Finite Probablity \& Statistics | 3 |
| Foreign Language |  | 3-4† |
| Oral Communication | See approved list, p. 37 | 0-3 |
| Technology | See approved list, p. 37-CSCI 101 and three of CSCI 101 A, B, C or P recommended | 3 |
| Skills for Common Experience and Thinking Across Disciplines |  |  |
| HMXP 102 | The Human Experience: Who Am I? | 3 |
| Global Perspectives | See approved list, p. 37; may be met in major | 0-3 |
| Historical Perspectives | See approved list, p. 37; may be met in major | 0-3 |
| Developing Critical Skills and Applying them to Disciplines |  |  |
| Natural Science | Met in major by BIOL 203/204, GEOL 110 | 0 |
| Social Science | May be met in major; see approved list | 0-9* |
| Humanities and Arts | May be met in major; see approved list | 0-9* |
| *Must have 15 hours in these two categories and include at leat two designators in each. |  |  |
| Intensive Writing | Met in major by ENVS 520 | 0 |
| Constitution Requirement | May be met by other requirements; see approved list, p. 38 | 0-3 |
| Subtotal |  | 22-50 |
| Requirements in the Major |  | 45 |
| ENVS 101, 520 | Intro to Environmental Issues, Seminar in Environ | 6 |
| BIOL 203/204 | Principles of Biology/Lab | 4 |
| BIOL 205 or 206 | General Botany, Zoology | 4 |
| BIOL 300 | Scient Process | 4 |


| BIOL 403 or 515 | Ecology, Environmental Biol | 4 |
| :--- | :--- | :--- |
| CHEM 105/107,106/108 | General Chem I \& II | 8 |
| CHEM 301/303 or 310/311 | Organic Chem I, Essential of Organic Chem | 4 |
| GEOL 110/113, 340 | Physical Geol/Lab, Hydrogeology | 7 |
| PHYS 201 or 211 | General Physics, Physics with Calculus | 4 |
| Science/Math Electives (select from the following, at least 2 designators) | $\mathbf{4}$ |  |
| ANTH 540 | Ecological Anthropology |  |
| BIOL 205 or 206 | Botany, Zoology |  |
| BIOL 310, 323 | Microbiology, Tropical Watershed |  |
| CHEM 302/304 | Organic Chemistry II |  |
| CHEM 312/313/314, 315 | Chemometrics/Quant Analysis/Lab/Envir Chem |  |
| ENVS 495, 510 | Independ Res in Environ, Special Topics |  |
| GEOG 500 | Global Environment \& Sustainable Development |  |
| GEOL 201, 220, 335 | Nat Disasters, Oceanography, Fundamentals of Geochemistry |  |
| MATH 202, 300, 305,546 | Calc II, Linear Algebra, Diff Equa, Appl Stats |  |
| PHYS 202 or 212 | Gen Physics II, Physics with Calc II |  |
| Environmental humanities and social sciences electives | $\mathbf{1 2}$ |  |
| Select at least three designators from the following: |  |  |
| ECON 103 or 215, and 343 | Polit Econ, Prin of Microecon, Envir Econ |  |
| GEOG 101 or 201, and 305 | Human Geography, World Geog, Geog Info Systems |  |
| HIST 530 | World Environmental Hist |  |
| PHIL 340 | Environmental Ethics |  |
| PLSC 325 | Environmental Politics |  |
| PSYC 311 | Ecological Psychology |  |
| SOCL 310 | Soc of Environ |  |
| Foreign Language Requirement |  | $\mathbf{0 - 4}$ |
| General Electives |  | $\mathbf{0 - 3 7}$ |
| Total |  |  |

$\dagger$ Students completing the required program in Environmental Sciences must demonstrate proficiency in a foreign language at or above the second semester college-level. This requirement may be met by a satisfactory score on a recognized examination or by passing any foreign language course numbered 102 or any course with 102 as a prerequisite. A maximum of one course may be applied to the Logic/Language/Semiotics Area.

## HISTORY

## Faculty

## Professors

Jason H. Silverman

## Associate Professors

Rory T. Cornish, Chair
L. Andrew Doyle

Lynne Dunn
Edward S. Haynes
J. Edward Lee

Virginia S. Williams

## Assistant Professors

Michael S. Aradas
Opolot Okia
David Pretty
Lecturers
Mary Catherine Griffin
Robert Sturgis

## Bachelor of Arts in History

The history major is frequently chosen by students who wish to pursue careers in such fields as teaching, law, library and archival work, and journalism, as well as in areas less directly related to the study of history, including fields in business and industry.

| General Education Courses | Semester Hours |  |
| :--- | :--- | :---: |
| ACAD 101 | Principles of the Learning Academy | 1 |
| Critical Skills |  |  |
| Writing and Critical Thinking Composition <br> WRIT 101 Critical Reading, Thinking, \& Writing <br> CRTW 201  <br> Quantitative Skills 3 <br> CTQR 150 or MATH 105, or 201 or a MATH course with MATH 201 prerequisite 3 |  |  |


| COLLEGE OF ARTS \& SCIENCES--HISTORY |  |  |
| :---: | :---: | :---: |
| Logic/Language/Semiotics |  |  |
| Foreign Language |  | 3-4 $\dagger$ |
| CSCI, PHIL 220 or 225, SPCH 2 | QMTH | 3 |
| Oral Communication | Met in major by HIST 300 | 0 |
| Technology | See approved list, p. 37; may be met by another req | 0-3 |
| Skills for a Common Experience and Thinking Across Disciplines |  |  |
| HMXP 102 | The Human Experience: Who Am I? | 3 |
| Global Perspectives | Met in major | 0 |
| Historical Perspectives | Met in major | 0 |
| Developing Critical Skills Applying them to Disciplines |  |  |
| Natural Science | From 2 categories and one must be a lab science | 7 |
| Social Science | See approved list, p. 37; must include two designators | 6-9* |
| Humanities and Arts | 3 met in major, remaining 6 from two designators on approved list, p. 38 | 3-6* |
| *A total of 12 hours must be met from these two categories. |  |  |
| Intensive Writing | Met in major by HIST 300 | 0 |
| Constitution Requirement | Met in major | 0 |
| Subtotal |  | 38-42 |
| Requirements in the Major |  | 15 |
| 2 of HIST 111, 112, 113 | World Civ to 950, Wld Civ 950-1750, Wld Civ Since 1750 | 6 |
| HIST 211 | US History to 1877 | 3 |
| HIST 212 | US History since 1877 | 3 |
| HIST 300 | Historiography and Methodology | 3 |
| HIST electives, including 6 hours at the 500 level and at least 3 semester hours from each of the |  |  |
| following groupings: |  | 15 |
| United States: |  |  |
| HIST 308, 310, 313, 314, 315, 321, 501, 505, 507, 509, 515, 518, 521, 524, 525, 527; |  |  |
| Europe: |  |  |
| HIST 343, 344, 345, 346, 347, 540, 542, 547, 548; |  |  |
| Asia, Africa and Latin America: |  |  |
| HIST 331, 332, 337, 338, 351, 352, 551, 552, 553, 560, 561. |  |  |
| HIST 350, 355A, B, C, 450, 463, 471/472, and 550 may also be taken as electives and would be applied to groupings as above in which the particular subject matter applies. |  |  |
| Foreign Language Requirement |  | 0-4 |
| Minor |  | 15-24 |
| General Electives |  | 24-41 |
| Total |  | 124 |

$\dagger$ Students completing the required program in BA History must demonstrate proficiency in a foreign language at or above the second semester college-level. This requirement may be met by a satisfactory score on a recognized examination or by passing any foreign language course numbered 102 or any course with 102 as a prerequisite. A maximum of one course may be applied to the Logic/Language/Semiotics Area.

## Bachelor of Arts in History <br> Certification as Secondary School Teacher of Social Studies

Students desiring Certification as teachers of secondary social studies should consult with the department's teacher certification adviser and the College of Education section of the catalog for specific requirements for admission to the Teacher Education Program.

| General Education Courses | Semester Hours |  |
| :--- | :--- | :---: |
| ACAD 101 | Principles of the Learning Academy | 1 |
| Critical Skills |  |  |
| Writing and Critical Thinking  <br> WRIT 101 Composition <br> CRTW 201 Critical Reading, Thinking, \& Writing <br> Quantitative Skills  <br> CTQR 150 or MATH 105, MATH 201 or any MATH with 201 prerequisite 3 <br> Logic/Language/Semiotics 3 <br> Foreign Language  <br> CSCI; PHIL 220-225; SPCH 201; MATH; QMTH; ARTS 281 or VCOM 261 3 <br> Oral Communication Met in major <br> Technology Met in major |  |  |


| Skills for a Common Experience and Thinking Across Disciplines |  |
| :---: | :---: |
| HMXP 102 The Human Experience: Who Am I? | 3 |
| Global Perspectives Met in major | 0 |
| Historical Perspectives Met in major | 0 |
| Developing Critical Skills Applying them to Disciplines |  |
| Natural Science | 7 |
| Laboratory science in life sciences |  |
| Laboratory science in earth or physical sciences |  |
| Social Science Met by major | 0 |
| Humanities and Arts <br> 3 hours met in major; select 3 hours from another designator on approved list, p. 38. | 3 |
| Intensive Writing Met by major | 0 |
| Constitution Requirement Met by major | 0 |
| Subtotal | 29-30 |
| Requirements in the Major | 54 |
| ANTH 201; ECON 215, 216, GEOG 101, 306; PLSC 201, 202; SOCL 101 | 24 |
| Select 2 from HIST 111, 112, \& 113 | 6 |
| HIST 211, 212, 300 | 9 |
| HIST electives | 15 |
| Including at least 6 hours at the 500 level and at least 3 semester hours from each of the following groupings: |  |
| United States |  |
| HIST 308, 310, 313, 314, 315, 321, 501, 505, 507, 509, 515, 518, 521, 524, 525, 527; |  |
| Europe |  |
| HIST 343, 344, 345, 346, 347, 540, 542, 547, 548; |  |
| Asia, Africa, and Latin America |  |
| HIST 331, 332, 337, 338, 351, 352, 551, 552, 553, 560, 561. |  |
| HIST 350, 355A, B, C; 450, 463, 471/472 and 550 may also be taken as electives and would be applied to the groupings above in which the particular subject matter applies. (Six hours of Global Perspectives and/or European, and 6 hours of US and/or SC are strongly recommended.) |  |
| Professional Education Sequence: | 33 |
| EDUC 110*, 210*, 250*, 275*, 310*, 390*, 475, 490 | 29 |
| SCST 391, 392 | 4 |
| Foreign Language Requirement | 0-4 |
| General Electives | 3-8 |
| Total | 124 |

$\dagger$ Students completing the required program for the BA in History, Certification as a secondary school teacher of social studies must demonstrate proficiency in a foreign language at or above the second semester college level. This requirement may be met by a satisfactory score on a recognized proficiency examination or by passing any foreign language course numbered 102 or any course with 102 as a prerequisite. A maximum of one course may be applied to the Logic/Language/Semiotics Area.
*A grade of $C$ or better is required.
In addition to the requirements for their major, students must meet requirements for the Teacher Education Program, which include the requirements for Admission to Teacher Education, Entry to the Professional Stage, and Program Completion. For information on these requirements, consult the Student Academic Services in the College of Education.

The PRAXIS II Series is required prior to graduation: 1) Subject Assessment/Specialty Area Tests and 2) Principles of Learning and Teaching (PLT) Test. For up to date information on the PRAXIS test, please see page 104 in the College of Education section of this catalog.

The student must attain a cumulative grade-point average of 2.75 or better in courses taken at Winthrop and a minimum of a 2.0 in the 54 semester hours of the required program. The student must complete a minimum of 12 semester hours of HIST courses in residence at Winthrop University. Within the 124 semester hours required for this BA degree, the student must also include a minimum of 40 semester hours in courses numbered above 299. No more than three hours of Cooperative Education Experience can count toward the major.

## HUMAN NUTRITION

Faculty

## Professsors

Sarah F. Stallings
Patricia Giblin Wolman, Chair
Associate Professors
R. Carlton Bessinger
E. Jean Silagyi Rebovich

Instructors
Christine H. Goodner
Christopher Storie (Geography)
Judy Harper Thomas

Lecturers
Lauren Brightwell
Stephanie Nielsen
Anuradha Manthripragada
Mildred Strother-Davis
Alice Sutton
Bryan Townsend (Geography)
Elizabeth Weikle
Leslie Young

## Bachelor of Science in Human Nutrition <br> (Didactic Program in Dietetics Option)

## CADE Accredited Didactic Program in Dietetics

Students completing Winthrop University's Didactic Program in Dietetics meet or exceed the minimum academic requirements of the Commission on Accreditation for Dietetics Education (CADE) of the American Dietetic Association. CADE is a specialized accrediting body recognized by the Council on Higher Education Accreditation and the United States Department of Education. The address and phone number of CADE are: 120 South Riverside Plaza, Suite 2000, Chicago, IL 60606-6995, (312) 899-4876. Students will be prepared to work as entry-level dietitians after completing an accredited internship. CADE Didactic Program in Dietetics verification from Winthrop University requires completion of the BS degree in Human Nutrition with a minimum grade of C in all NUTR courses completed at Winthrop and a grade point average greater than or equal to 2.5 in all NUTR courses.

At least 32 semester hours of NUTR courses above the 299 level must be completed at Winthrop University. A maximum of 12 hours of NUTR-equivalent courses above the 199 level may be transferred into the major from another accredited institution with approval from the Director of the Didactic Program in Dietetics. No credit will be accepted for NUTR courses greater than ten years old unless the student earns a grade of " $75 \%$ " or better on an examination administered by the instructor of record for the equivalent Winthrop course.

| General Education Courses |  | Semester Hours |
| :---: | :---: | :---: |
| ACAD 101 | Principles of the Learning Academy | 1 |
| Critical Skills |  |  |
| Writing and Critical Thinking Skills |  |  |
| WRIT 101 | Composition | 3 |
| CRTW 201 | Critical Reading, Thinking, \& Writing | 3 |
| Quantitative Skills |  |  |
| CTQR 150 or MATH 105 or MATH 201 or any MATH with |  |  |
| MATH 201 as a prerequisite |  | 3 |
| Logic/Language/Semiotics |  |  |
| Foreign Language |  | 3-4† |
| MATH 141 | Finite Probability and Statistics | 3 |
| Oral Communication |  |  |
| SPCH 201 | Public Speaking | 3 |
| Technology | See approved list, p. 37; may be met by major | 0-3 |
| Skills for a Common Experience and Thinking across Disciplines |  |  |
| HMXP 102 | The Human Experience: Who Am I? | 3 |
| Global Perspectives | See approved list, p. 37 | 3 |
| Historical Perspectives | See approved list, p. 37 | 3 |
| Developing Critical Skills Applying them to Disciplines |  |  |
| Natural Science (must take a total of 7 semester hours in Natural Sciences courses) |  |  |
| NUTR 221 | Human Nutrition | 3 |
| CHEM 105/107 | Gen Chemistry I/Lab | 4 |
| Social Science (must include two designators) |  |  |
| SOCL 201 or ANTH 201 | Princ of Soc or Cultural Anthropology | 3 |
| PSYC 101 | General Psychology | 3 |

ACAD 101
Writing and Critical Thinking Skills
WRIT 101 Composition
3
CRTW $201 \quad$ Critical Reading, Thinking, \& Writing 3
Quantitative Skills
CTQR 150 or MATH 105 or MATH 201 or any MATH with
MATH 201 as a prerequisite
$3-4 \dagger$
MATH 141 Finite Probability and Statistics 3
Oral Communication
SPCH 201 Public Speaking 3
Technology See approved list, p. 37; may be met by major 0-3
Skills for a Common Experience and Thinking across Disciplines
HMXP 102 The Human Experience: Who Am I? 3
Global Perspectives See approved list, p. 37 3
Historical Perspectives See approved list, p. 37 3
Developing Critical Skills Applying them to Disciplines
Natural Science (must take a total of 7 semester hours in Natural Sciences courses)
Social Science (must include two designators)
PSYC 101 General Psychology 3

ECON 215
Microeconomics
3
Humanities and Arts 6
Select at least two courses from two different subject areas. See approved list, p. 38.
Intensive Writing
NUTR 534 Seminar in Human Nutrition 3
Constitution Requirement See approved list, p. 38; may be met by other requirements 0-3
Subtotal
Requirements in Major 63-65
NUTR 226, 227, 231/232, 340A or C, 370, 371, 421, 427, 471, 480,521,522,523/524,527 38-40
BIOL 308, 310 8
CHEM 106/108, 310/311, 521 11
PSYC 206 Developmental Psychology 3
ACCT 280
Acct info for Bus Decisions I 3
Foreign Language Requirement 0-4
General Electives 0-8
$\begin{array}{ll}\text { Total } & \text { 124-129 }\end{array}$
$\dagger$ Students completing the required program in BS Human Nutrition must demonstrate proficiency in a foreign language at or above the second semester college-level. This requirement may be met by a satisfactory score on a recognized examination or by passing any foreign language course numbered 102 or any course with 102 as a prerequisite. A maximum of one course may be applied to the Logic/Language/Semiotics Area.

## Bachelor of Science in Human Nutrition (Nutrition Science Option)

Students completing Winthrop University's Nutrition Science Option meet or exceed the minimum academic requirements for graduate study in medicine, dentistry, physical therapy, pharmacy, and physician assistant programs. At least 21 semester hours of NUTR courses above the 299 level must be completed at Winthrop University. A maximum of 12 hours of NUTR-equivalent courses above the 199 level may be transferred into the major from another accredited institution with approval from the Department Chair. No credit will be accepted for NUTR courses greater than ten years old unless the student earns a grade of " $75 \%$ " or better on an examination administered by the instructor of record for the equivalent Winthrop course.


Select at least two courses from two different subject areas. See approved list, p. 38.

| COLLEGE OF ARTS \& SCIENCES--HUMAN NUTRITION |  |  |
| :---: | :---: | :---: |
| Intensive Writing |  |  |
| NUTR 534 | Seminar in Human Nutrition | 3 |
| Constitution Requirement | See approved list, p. 38 | 0-3 |
| Subtotal |  | 53-60 |
| Requirements in Major |  | 68 |
| NUTR 227, 231/232, 370, 421, 427, 521, 522, | 523/524, 527 | 27 |
| BIOL 307, 308, 310 | Human Anatomy, Physiology, Microbiology | 12 |
| CHEM 106/108, 301/303, 302/304, 521 | Gen Chem, Organic Chem I \& II, Nutri Biochem | 15 |
| PHYS 201, 202 | General Physics I \& II | 8 |
| PSYC 206 | Developmental Psychology | 3 |
| HCMT 200 | Intro to Health Care Mgmt | 3 |
| Foreign Language Requirement |  | 0-4 |
| General Electives |  | 0 |
| Total |  | 124-132 |

$\dagger$ Students completing the required program in BS Human Nutrition must demonstrate proficiency in a foreign language at or above the second semester college-level. This requirement may be met by a satisfactory score on a recognized examination or by passing any foreign language course numbered 102 or any course with 102 as a prerequisite. A maximum of one course may be applied to the Logic/Language/Semiotics Area.

## Bachelor of Science in Human Nutrition <br> (Food Systems Management Option)

Students completing Winthrop University's Food Systems Management Option are prepared for entry-level positions in food systems administration. Career opportunities are available in both institutional and commercial food service settings. Graduates are recruited by food systems management companies. Sales positions with food and equipment companies offer additional career opportunities.

At least 22 semester hours of NUTR courses above the 299 level must be completed at Winthrop University. A maximum of 12 hours of NUTR-equivalent courses above the 199 level may be transferred into the major from another accredited institution with approval from the Department Chair. No credit will be accepted for NUTR courses greater than ten years old unless the student earns a grade of " $75 \%$ " or better on an examination administered by the instructor of record for the equivalent Winthrop course.



## MASS COMMUNICATION

## Faculty

## Professors

J. William Click, Chair

William A. Fisher

## Associate Professors

D. Haney Howell

Marilyn S. Sarow
Lawrence C. Timbs

## Assistant Professors

Padmini Patwardhan
Guy S. Reel
Instructor
Mark S. Nortz

## Bachelor of Arts in Mass Communication

Students majoring in mass communication are interested in careers in newspaper journalism, broadcast journalism, broadcast production, media management, magazine journalism, public relations, advertising, business journalism, or online journalism.

By the time of graduation, mass communication graduates are expected to be able to gather, organize and process information; conduct interviews; write to a professional level of competence; and edit and produce, either in printed or broadcast form; all while meeting standards of professional ethics.

Students will be classified as pre-majors (MCMP) in the department until they have completed WRIT 101, HMXP 102 , CTQR 150 or MATH 105 or 201 or a MATH course with 201 as a prerequisite, ECON 103 or 215 , MCOM 205 and 241, and have attained a 2.0 or higher grade-point average, at which time they can apply for admission to the program. Students are required to earn a "C-" or better in each MCOM course as well as at least a 2.0 GPA in the major.
Admission to MCOM 241 requires completion of the quantitative skills requirement (CTQR 150 or MATH 105 or 201) or a MATH course with 201 as a prerequisite; a grade of B- or better in WRIT 101 and HMXP 102; keyboard proficiency; and a 2.0 or higher cumulative GPA. Keyboard proficiency tests are administered each semester before registration. Students who fail the test must wait until the following semester to take the test again and are advised to take the course involving keyboard use before attempting the proficiency test again. Students are required to type all written assignments.

The mass communication major is limited to 37 hours of MCOM courses. Students who exceed 37 hours in MCOM will not be allowed to apply those additional hours toward the 124 hours required for the degree program. Students are expected to complete courses generally in numerical order; for example, MCOM 205, 241, 333, 342, 410, 412, 441, 499.

At least 21 semester hours of the major must be completed at Winthrop University. A maximum of 12 semester hours may be transferred into the major from another accredited institution; additional transfer hours in journalism or mass communication will not apply toward the degree. MCOM 241 must be taken at Winthrop.

Students must complete at least 65 hours in the basic liberal arts and sciences.
General Education CoursesSemester Hours
ACAD $101 \quad$ Principles of the Learning Academy ACAD 101 ..... 1
Critical Skills
Writing and Critical ThinkingWRIT 101, CRTW 201
Composition, Crit Reading, Thinking, \& Writing ..... 6
Quantitative Skills
CTQR 150 or MATH 105 or 201 or a MATH course with 201 as a prerequisite ..... 3
Technology Met by major, MCOM 205 and 241 ..... 0
Oral Communication Met by major ..... 0
Logic/Language/Semiotics
Foreign Language ..... 3-4 $\dagger$
SPCH 201 Public Speaking ..... 3
Skills for a Common Experience and Thinking Across Disciplines
HMXP 102 The Human Experience: Who Am I? ..... 3
Global Perspectives See approved list, p. 37 ..... 3
Historical Perspectives
HIST 212 or 308 or 507 or 509 ..... 3
Developing Critical Skills and Applying them to Disciplines
Social Science See approved list, p. 37. ..... 0-3*
PLSC 202, ECON 103 or 215 State and Local Gov't, Pol Economy, Princ of Microecon ..... 6
Humanities and Arts See approved list, p. 38; 3 hours may be met in major. ..... 6-9*
*Must take 9 hours from these two categories.
Natural Science 2 designators from two of three categories - earth, life sci, physical sci-must be chosen ..... 7
Intensive Writing Met in major by MCOM 412 ..... 0
Constitution Requirement See approved list, p. 38; may be met by other req ..... 0-3Subtotal
47-51Requirements in Major
37-41
MATH 145 ..... 3
MCOM 205, 241, 410, 412, 441, 499 ..... 16
Complete one of the following sequences:
Journalism:
MCOM 333, 342; one from MCOM 331 or 343 or 471 or 510; and ARTS 305 or 311 ..... 12
MCOM Electives ..... 9
Broadcast:
MCOM 325, 346, 425, 446; and 444 or 447 ..... 15
MCOM Electives ..... 3
Foreign Language Requirement ..... 0-4
Minor ..... 15-24
General Electives ..... 4-25
Total ..... 124
$\dagger$ Students completing the required program for the B.A. degree in Mass Communication must demonstrate proficiency in a foreign language at or above the second semester college level. This requirement may be met by a satisfactory score on a recognized proficiency examination or by passing any foreign language course numbered 102 or any course with 102 as a prerequisite. A maximum of one course may be applied to the Logic/Language/Semiotics Area.

In addition to the required major, the student must select and complete a minor or a second major, attaining no less than a 2.0 GPA in the minor or second major. Within the 124 semester hours required for this degree, the student must also include a minimum of 40 semester hours in courses numbered above 299. The student must attain a cumulative grade-point average of 2.0 or better in courses taken at Winthrop and in those courses included in the major.

## Bachelor of Science in Integrated Marketing Communication

Students majoring in integrated marketing communication are interested in careers in the various communication professions that support the marketing of products and services to consumers and business organizations, including advertising, public relations, integrated marketing communication, and corporate communication.

By the time of graduation, integrated marketing communication graduates are expected to be able to gather, organize and process information and data, conduct interviews, write in professional style to a professional level of competence, and produce marketing communication messages and materials in printed, electronic or multimedia form, all while meeting standards of professional ethics.
Students will be classified as pre-majors (IMCP) in the program until completion of 19 hours of coursework (CTQR 150, WRIT 101, GNED 102, ECON 215, CSCI $101 \& 101$ ABC, IMCO 105, and MCOM 241) with a minimum GPA of 2.0.

Students must apply to the Integrated Marketing Communication Committee for admission into the program.
Students are required to earn a "C-" or better in each course in IMCO, MCOM, MGMT and MKTG.
Keyboard proficiency is required for MCOM 241.
The integrated marketing communication major is limited to 36 hours of MCOM and IMCO courses and 30 hours of business administration courses. Students who exceed these maxima will not be allowed to apply those additional hours toward the required degree program.

Students are expected to complete courses in the major in the prescribed order. Assigned academic advisers should be consulted regarding course selection and sequencing.

At least 35 semester hours of the 47 required hours in mass communication and business administration must be completed at Winthrop University. A maximum of 12 semester hours may be transferred into the major from other accredited institutions; additional transfer hours in journalism, mass communication, marketing and management will not apply toward the major and will not apply toward the degree if they exceed the maxima of 36 hours in MCOM and IMCO or 30 hours in business administration. Students must complete at least 65 hours in the basic liberal arts and sciences.

$\dagger$ Students completing the required program for the B.S. degree in Integrated Marketing Communication must demonstrate proficiency in a foreign language at or above the second semester college level. This requirement may be met by a satisfactory score of a recognized examination or by passing any foreign language course numbered 102 or any course with 102 as a prerequisite. A maximum of one course may be applied to the Logic/Language/Semiotics Area.

Within the 124 semester hours required for this degree, the student must also include a minimum of 40 semester hours numbered above 299. The student must attain a cumulative grade-point average of 2.0 or better in courses taken at Winthrop and included in the required courses in the integrated marketing communication program.

## MATHEMATICS

Faculty

| Professors | Assistant Professors | Instructors |
| :--- | :--- | :--- |
| Gary T. Brooks, Chair | Carlos E. Caballero | Nanette Altman |
| Ronnie C. Goolsby | Beth G. Costner | Iris Coleman |
| Heakyung Lee | Trent Kull | Ovid Mentore |
| Thomas W. Polaski | Dawn Strickland | Marion Setien |
| Danny W. Turner |  | Rudolph Wiegand |
|  |  |  |
| Associate Professor |  |  |
| Frank B. Pullano |  |  |

## Bachelor of Arts in Mathematics

This degree program is designed for students who wish to major in mathematics as liberal arts students or for students wishing to pursue careers as mathematics teachers. Students who expect to become professional mathematicians or to do graduate work in mathematics should select the Bachelor of Science in mathematics program.


The student must attain a cumulative GPA of 2.0 or better in courses taken at Winthrop and in the 44 semester hours of the required program. The student must complete a minimum of 12 semester hours of MATH courses in residence at Winthrop University. In addition to the 44 hours of the required program, the student must select and complete a minor, attaining no less than a 2.0 GPA in the minor. Within the 124 hours required for this degree, the student must also include a minimum of 40 hours in courses numbered above 299. No more than three hours of Cooperative Education Experience can count toward the major. Students desiring certification as teachers of mathematics should consult the specific program requirements listed in the next section.

## Bachelor of Arts in Mathematics - Certification as Secondary School Teacher


$\dagger$ Students completing the required program for the BA degree in mathematics must demonstrate proficiency in a foreign language at or above the second semester college level. This requirement may be met by a satisfactory score on a recognized examination or by passing any foreign language course numbered 102 or any course with 102 as a prerequisite. A maximum of one course may be counted in the Logic/Language/Semiotics Area.
**Teacher education students must select one course from Multi-Cultural Perspectives. See list on page 39.
*** A grade of C or better is required in EDUC 110, 210, 250, 275, 310, and 390.
In addition to the requirements for their major, students must meet requirements for the Teacher Education Program, which include the requirements for Admission to Teacher Education, Entry to the Professional Stage, and Program Completion. For information on these requirements, consult the Student Academic Services in the College of Education. A satisfactory score on one of the PRAXIS Ii subject area/specialty area tests is required prior to registration for EDUC 475. The PRAXIS II Series is required prior to graduation: 1) Subject Assessment/Specialty Area Tests and 2) Principles of Learning and Teaching (PLT) Test. For up to date information on the PRAXIS test, please see page 104 in the College of Education section of this catalog.
The student must attain a cumulative grade-point average of 2.75 or better in courses taken at Winthrop and a minimum of a 2.0 in the 43 semester hours of the required program. The student must complete a minimum of 12 semester hours of MATH courses in residence at Winthrop University. Within the 124-126 semester hours required for this degree, the student must also include a minimum of 40 semester hours in courses numbered above 299. No more than three hours of cooperative education experience can count toward the major.

## Bachelor of Science in Mathematics

This degree program is designed for students whose career goals require a strong, comprehensive preparation in mathematics. Such careers include engineering, physics, computer technology and other areas of the sciences. Students pursuing careers as professional mathematicians and those who expect to do graduate work in mathematics are advised to choose this program for their undergraduate major in mathematics.

| General Education Courses | Semes | Hours |
| :---: | :---: | :---: |
| ACAD 101 | Principles of the Learning Academy | 1 |
| Critical Skills |  |  |
| Writing and Critical Thinking |  |  |
| WRIT 101 | Composition | 3 |
| CRTW 201 | Critical Reading, Thinking, \& Writing | 3 |
| Quantitative Skills | Met by major | 0 |
| Logic/Language/Semiotics |  |  |
| Foreign Language |  | 3-4 $\dagger$ |
| Oral Communication | See approved list, p. 37 | 0-3 |
| Technology | Met in major by CSCI 151 | 0 |
| Skills for a Common Experience and Thinki | ing Across Disciplines |  |
| HMXP 102 | The Human Experience: Who Am I? | 3 |
| Global Perspectives | See approved list, p. 37 | 3 |
| Historical Perspectives | See approved list, p. 37 | 3 |
| Developing Critical Skills and Applying the | em to Disciplines |  |
| Natural Science--See approved list; must in | include a course from the life or earth sciences; |  |
| lab science requirement met by PHYS 211 |  | 3 |
| Social Science | See approved list, p. 37; must include 2 designators | 6-9* |
| Humanities and Arts | See approved list, p. 38; must include 2 designators | 6-9* |
| *Must have a total of 15 hours in these two | categories. |  |
| Intensive Writing | See approved list, p. 38; may be met by other requirements | 0-3 |
| Constitution Requirement | See approved list, p. 38; may be met by other requirements | 0-3 |
| Subtotal |  | 37-47 |
| Required Program |  | 58 |
| MATH 201, 202, 300, 301, 302, 351, 375, 522, | , 541 | 27 |
| MATH 509, 551, or 553 |  | 3 |
| MATH $542,543,545$, or 575 |  | 3 |
| MATH $509,542,543,545,551,553$, or 575 |  | 3 |
| MATH courses above 300 |  | 6 |
| MAED 200 | Intro to Mathematica | 1 |
| CSCI 151, 207, 208 | Overview of Comp Sci, Intro to Comp Sci I\& II | 11 |
| PHYS 211 | Physics with Calculus I | 4 |
| Foreign Language Requirement |  | 0-4 |
| General Electives |  | 15-29 |
| Total |  | 124 |

$\dagger$ Students completing the required program for the BS degree in mathematics must demonstrate proficiency in a foreign language at or above the second semester college level. This requirement may be met by a satisfactory score on a recognized examination or by passing any foreign language course numbered 102 or any course with 102 as a prerequisite. A maximum of one course may be counted in the Logic/Language/Semiotics Area.

The student must attain a cumulative grade-point average of 2.0 or better in courses taken at Winthrop and included in the 64 hours of the required program. The student must complete a minimum of 12 semester hours of MATH courses in residence at Winthrop University. Within the 124 semester hours required for this degree, the student must also include a minimum of 40 semester hours in courses numbered above 299. No more than three hours of Cooperative Education Experience can count toward the major.

## Bachelor of Science in Mathematics - Certification as Secondary School Teacher

Students desiring certification as teachers of mathematics should consult with the department's teacher certification adviser and the College of Education section of the catalog for specific requirements for admission to the Teacher Education Program.

| General Education Courses |  | Semester Hours |
| :---: | :---: | :---: |
| ACAD 101 | Principles of the Learning Academy | 1 |
| Critical Skills |  |  |
| Writing and Critical Thinking |  |  |
| WRIT 101 | Composition | 3 |
| CRTW 201 | Critical Reading, Thinking, \& Writing | 3 |
| Quantitative Skills | Met by major | 0 |
| Logic/Language/Semiotics |  |  |
| Foreign Language | See additional requirements in major | 3-4† |
| Oral Communication | Met by major by MAED 391 | 0 |
| Technology | Met by major by EDUC 275 | 0 |
| Skills for a Common Experience and Thinki | ng Across Disciplines |  |
| HMXP 102 | The Human Experience: Who Am I? | 3 |
| Global Perspectives* | See approved list, p. 37 | 3 |
| Historical Perspectives* | See approved list, p. 37 | 3 |
| Developing Critical Skills and Applying the | m to Disciplines |  |
| Natural Science (met in major by biological | lab science and PHYS 211) | 0 |
| Social Science | See approved list, p. 37; must include 2 designators | 6-9* |
| Humanities and Arts | See approved list, p. 38; must include 2 designators | 6-9* |
| *Must have a total of 15 hours in these two | categories. |  |
| Intensive Writing | Met by major by MAED 548 | 0 |
| Constitution Requirement | See approved list, p. 38 | 0-3 |
| Subtotal |  | 35-38** |
| Requirements in Major |  | 61 |
| MATH 201, 202, 300, 301, 302, 351, 375, 522, | , 541 | 27 |
| MATH 509, 551, or 553 |  | 3 |
| MATH 542 or 545 | Probability \& Stats II, Stat Theory \& Methods II | 3 |
| MATH 509, $542,543,545,551,553$, or 575 |  | 3 |
| MATH 520, MAED 548 | Foundations of Geom, Sec Math Curriculum | 6 |
| MAED 200 | Intro to Mathematica | 1 |
| CSCI 151, 207, 208 | Overview of Comp Sci, Intro to Comp Sci I\& II | 11 |
| PHYS 211 | Physics with Calculus I | 4 |
| Lab Science in life science |  | 3 |
| Professional Education Sequence |  | 33 |
| EDUC 110, 210, 250, 275, 310, 390, 475, 490** |  | 29 |
| MAED 391, 392 | Prin of Teaching Math, Field Exp in Teach Math | 4 |
| Foreign Language Requirement |  | 0-4 |
| Total |  | 127-136 |

$\dagger$ Students completing the required program for the BS degree in mathematics must demonstrate proficiency in a foreign language at or above the second semester college level. This requirement may be met by a satisfactory score on a recognized examination or by passing any foreign language course numbered 102 or any course with 102 as a prerequisite. A maximum of one course may be counted in the Logic/Language/Semiotics Area.
** Teacher education students must select one course from Multi-Cultural Perspectives. See list on page 39.
${ }^{* * *} A$ grade of $C$ or better is required in EDUC 110, 210, 250, 275, 310, and 390.
In addition to the requirements for their major, students must meet requirements for the Teacher Education Program, which include the requirements for Admission to Teacher Education, Entry to the Professional Stage, and Program Completion. For information on these requirements, consult Student Academic Services in the College of Education. A satisfactory score on one of the FRAXIS II subject area/specialty area tests is required prior to registration for EDUC 475. The PRAXIS II Series is required prior to graduation: 1) Subject Assessment/Specialty Area Tests and 2) Principles of Learning and Teaching (PLT) Test. For up to date information on the PRAXIS test, please see page 104 in the College of Education section of this catalog.

The student must attain a cumulative grade-point average of 2.75 or better in courses taken at Winthrop and a minimum of a 2.0 GPA in the 61 hours of the required program. The student must complete a minimum of 12 semester hours of MATH courses in residence at Winthrop University. Within the 128-136 semester hours required for this degree, the student must also include a minimum of 40 semester hours in courses numbered above 299 and complete PLSC 201 or ECON 103 or HIST 211 and 212. No more than three hours of Cooperative Education Experience can count toward the major.

## MODERN LANGUAGES

Faculty

## Professors

Donald Flanell Friedman
Kenneth Gordon, Chair
Pedro M. Muñoz
Associate Professors
Barbara Esquival-Heinemann
Cecile Leung

## Instructor

Catalina Adams
Victoria Uricoechea

Lecturers
Adelheid Carpenter
Natasha L. Carrillo
Guillermo I. Castillo-Feliú, Professor Emeritus
Catherine D'Agostino
Elizabeth Diaz
Darlene Hegel
Shelia Hill-Carter
Steve Johnson
Robert Lucas
Charlene G. Rodriguez

Assane Sam<br>Deann M. Segal<br>Tom Shealy, Professor Emeritus<br>Jialin Shen<br>Martine Simmons

## Bachelor of Arts in Modern Languages

The Department of Modern and Classical Languages offers a BA in Modern Languages with two specializations, Spanish and French. Students majoring in foreign language have gone on to graduate school in advanced language study or international business, have entered the teaching profession, or have obtained positions in translation services and bilingual capacities in business and industry and in travel agencies.

The beginning courses (101-102), or the equivalent, are prerequisites for all other courses; however, they may not be applied toward fulfillment of the required program in any language. Beginning courses (101-102) in another language may be applied to the six hours required in the second language.

Students may obtain credit for French, German, or Spanish 101 and/or 102 upon completion of the appropriate course with a grade of B or higher. Credit will not be given for courses for which university credit has been awarded previously. No grade is assigned to this credit. A grade is received only for the course taken at Winthrop. The course credits that can be earned are summarized on page 41. For further information, contact the Chair of the Department of Modern Languages.

## Bachelor of Arts in Modern Languages - French

| General Education Courses |  | Semester Hours |
| :---: | :---: | :---: |
| ACAD 101 | Principles of the Learning Academy | 1 |
| Critical Skills |  |  |
| Writing and Critical Thinking |  |  |
| WRIT 101 | Composition | 3 |
| CRTW 201 | Critical Reading, Thinking, \& Writing | 3 |
| Quantitative Skills |  |  |
| CTQR 150 or MATH 105 or 201 or a MATH Logic/Language/Semiotics <br> Foreign Language | I course with 201 as a prerequisite | 3 |
|  |  |  |
|  | Met by major | 0 |
| CSCI; PHIL 220 OR 225; SPCH 201; MATH; | ; QMTH; ARTS 281 or VCOM 261 | 3 |
| Oral Communication | See approved list, p. 37; may be met by another req | 0-3 |
| Technology | See approved list, p. 37 ; may be met by another req | 0-3 |
| Skills for a Common Experience and Thinking Across Disciplines |  |  |
| HMXP 102 | The Human Experience: Who Am I? | 3 |
| Global Perspectives | See approved list, p. 37; may be met by major | 3 |
| Historical Perspectives | See approved list, p. 37 | 3 |
| Developing Critical Skills Applying them to Disciplines |  |  |
| Natural Science | See approved list, p. 38; select from 2 categories and one must be a lab science | 7 |
| Social Science | See approved list, p. 37; select from 2 designators | 6-9* |
| Humanities and Arts | See approved list, p. 38; select from 2 designators | 6-9* |
| *A total of 15 semester hours must be taken from these two categories. |  |  |
| Intensive Writing | See approved list, p. 38; may be met by other requirement | 0-3 |
| Constitution Requirement | See approved list, p. 38; may be met by other requirement | 0-3 |
| Subtotal |  | 44-56 |
| Requirements in Major |  | 35-37 |
| FREN 201, 202, 250, 301 or 302, 310, 401 or 402 | 402, 499 | 19 |

FREN electives above 202 (excluding 575; may include MLAN 330A or 530A) 7
FREN 500-level electives 3
Second Foreign Language (excluding 575) 6-8
Minor 15-24
$\begin{array}{ll}\text { General Electives } & \text { 7-30 }\end{array}$
Total 124

## Bachelor of Arts in Modern Languages - Spanish



A competency exam on the basic skills may be administered to all majors, minors and any interested students after completion of the intermediate sequence $(201,202,250)$. The exam is diagnostic, and remedial work, if needed, will be recommended.

Students should enroll in 499 and will be tested individually, after completion of 18 semester hours above 102, usually no later than the second semester of the junior year, and before enrollment in any 500-level course. Remedial work, if needed, will be recommended. A grade of $S$ is required for graduation.

The student must complete a minimum of 12 semester hours in the major in residence at Winthrop University. In addition to the 36 semester hours of the required program, the student must select and complete a minor, attaining no less than a 2.0 GPA in the minor. Within the 124 semester hours required for this degree, the student must also include a minimum of 40 semester hours in courses numbered above 299. No more than three hours of Cooperative Education Experience can count toward the major.

## Bachelor of Arts in Modern Languages Certification as School Teacher (K-12) (French or Spanish Emphasis)

Students desiring Certification as teachers of French or Spanish should consult with the department's teacher certification advisor and the College of Education section of the catalog for specific requirements for admission to the Teacher Education Program.

Writing and Critical Thinking
WRIT 101 Composition 3
CRTW $201 \quad$ Critical Reading, Thinking, \& Writing
Met by major 0
CSCI; PHIL 220-225; SPCH 201; MATH; QMTH; ARTS 281 or VCOM 2613
Oral Communication Met by major 0
Technology Met by major 0
Skills for a Common Experience and Thinking across Disciplines
HMXP 102 The Human Experience: Who Am I?
Met by major for Spanish; French, see approved list, p. 37 0-3
See approved list, p. 37
Developing Critical Skills Applying them to Disciplines
Natural Science
See approved list, p. 37; must include 2 designators 6-9*
Humanities and Arts $\quad$ Select at least 2 courses from 2 different subj areas 6-9*
*A total of 15 hours must be taken from these two areas.
Intensive Writing See approved list, p. 38; may be met by other requirement 0-3
Constitution Requirement See approved list, p. 38; may be met by other requirement
41-50
Requirement in Major (Select one emphasis from the following.) 35-37
French Emphasis: FREN 201, 202, 250, 301 or 302, 310, 401 or 402, 499
Select courses from FREN above 202 to include at least 3 hours at the 500 level 10
Electives in a second foreign language (excluding 575) 6-8
Spanish Emphasis: 201, 202, 225, 250, 301 or 302, 310, 401or 402, $499 \quad 19$
Select courses from SPAN above 202 to include at least 3 hours at the 500 level 10
Electives in a second foreign language (excluding 575) 6-8
Professional Education Sequence 33
EDUC 110**, 210**, 250**, 275**, 310**~, 390**~, 475~, 490~ 29
MLAN 391~, 392~ Prin of Teach and Field Exp in Teach Mod Lang 4
General Electives
124
${ }^{* *} A$ grade of $C$ or better must be earned and may not be taken for $S / U$ credit.
$\sim$ Restricted to students admitted to the Teacher Education Program.
In addition to the requirements for their major, students must meet requirements for the Teacher Education Program, which include the requirements for Admission to Teacher Education, Entry to the Profession Stage, and Program Completion. For information on these requirements, consult the Student Academic Services in the Richard W. Riley College of Education.

The PRAXIS II Series is required prior to graduation: 1) Subject Assessment/Specialty Area Tests and 2) Principles of Learning and Teaching (PLT) Test. For up to date information on the PRAXIS test, please see page 104 in the College of Education section of this catalog.

The student must attain a cumulative grade-point average of 2.75 or better in courses taken at Winthrop and a GPA of 2.0 or better in the 36 hours of the required program. The student must complete a minimum of 12 semester hours in the major in residence at Winthrop University. Within the 124 semester hours required for the BA degree, the student must also include a minimum of 40 semester hours in courses numbered above 299. No more than three hours of Cooperative Education Experience can count toward the major.

## PHILOSOPHY AND RELIGIOUS STUDIES

Faculty

Associate Professor
Peter J. Judge, Chair

Assistant Professors<br>Kristin Beise Kiblinger<br>William P. Kiblinger<br>David Meeler<br>M. Gregory Oakes

Professors Emeriti
Houston Craighead
William W. Daniel

## Bachelor of Arts in Philosophy and Religion

The study of Philosophy and Religion develops the skills of critical analysis at the most fundamental levels of human understanding. Students trained in philosophy and religion have pursued careers in teaching, ministry, law, medicine, management, publishing, sales, criminal justice and other fields.
Students may concentrate in either subject depending on career goals. Those planning graduate study in philosophy or religious studies would select the appropriate concentration.
The major program requires a total of 36 semester hours, including a required program of 18 hours and selection of 18 hours from one of three tracks.


| COLLEGE OF ARTS \& SCIENCES--POLITICAL SCIENCE |  |
| :--- | :--- |
| B. Religious Studies Track | Reading Biblical Texts |
| RELG 220 |  |
| Elect from other RELG courses | $\mathbf{1 8}$ |
| C. Combined Track | $\mathbf{3}$ |
| Elect from PHIL or RELG courses | $\mathbf{1 8}$ |
| Foreign Language | $\mathbf{1 8}$ |
| Minor | $0-4$ |
| General Electives | $\mathbf{1 5 - 2 4}$ |
| Total | $\mathbf{2 1 - 4 1}$ |

$\dagger$ Students completing the required program for the BA degree in Philosophy and Religious Studies must demonstrate proficiency in a foreign language at or above the second semester college level. This requirement may be met by a satisfactory score on a recognized examination or by passing any foreign language course numbered 102 or any course with 102 as a prerequisite.

The student must attain a cumulative grade-point average of 2.00 or better in courses taken at Winthrop and included in the 36 semester hours of the required program. The student must complete a minimum of 12 semester hours of PHIL and/or RELG courses in residence at Winthrop University. In addition to the 36 semester hours of the required programs, the student must select and complete a minor, attaining no less than a 2.00 GPA in the minor. Within the 124 semester hours required for this degree, the student must also include a minimum of 40 semester hours in courses numbered above 299.

## POLITICAL SCIENCE

## Faculty

## Professors

Karen M. Kedrowski, Chair
Stephen S. Smith
Melford A. Wilson, Jr.

## Associate Professors

Timothy S. Boylan
Scott Huffmon
Christopher Van Aller

## Assistant Professors

Adolphus G. Belk, Jr. Jennifer Leigh Disney
Michael Lipscomb
Lecturer
Katarina Moyon
David Vehaun

## Bachelor of Arts in Political Science

The study of political science provides students with an understanding of politics, law, international relations, government and public administration. Recent graduates have gone to work for local, state and national organizations as well as the United Nations. A large percentage of our graduates go to graduate or law school.


| Humanities and Arts | 3 may be met in major, 3-6 from other designators | 6-9* |
| :---: | :---: | :---: |
| *a total of 12 semester hours from these two categories must be taken |  |  |
| Intensive Writing | May be met in major | 0-3 |
| Constitution Requirement | Met in major by PLSC 201 | 0 |
| Subtotal |  | 40-54 |
| Required Program |  | 33-39 |
| PLSC 201 | American Government | 3 |
| PLSC 350 | Scope and Methods | 3 |
| PLSC 490, 450H, or HONR 450H | Sr Capstone, Thesis Research | 3 |
| American Government |  |  |
| Select from PLSC 202, 302, 305, 3 | $0,311,312,313,314,315,317,371$, or 518 | 3 |
| Comparative Government and International Relations |  |  |
| Select from PLSC 205, 207, 260, 3 | 7, 338, 345, 504, 505, 506, 508 or 532 | 3 |
| Political Theory |  |  |
| Select from PLSC 351, 352, 355, 3 | 553 | 3 |
| Public Administration |  |  |
| Select from PLSC 320, 321, 323, 3 | 524H | 3 |
| PLSC electives |  | 12-18 |
| Foreign Language Requirement |  | 0-4 |
| Minor |  | 15-24 |
| General Electives |  | 3-36 |
| Total |  | 124 |

Note: Students are limited to a total of nine hours in the major in PLSC 450H, 471, 472, 473, 498, 501, 502, and 503 combined.
$\dagger$ Students completing the required program for the BA degree in Political Science must demonstrate proficiency in a foreign language at or above the second semester college level. This requirement may be met by a satisfactory score on a recognized examination or by passing any foreign language course numbered 102 or any course with 102 as a prerequisite. A maximum of one course may be counted in the Logic/Language/Semiotics Area.

The student must attain a cumulative grade-point average of 2.0 or better in courses taken at Winthrop and included in the 30-36 semester hours of the required program. The student must complete a minimum of 12 semester hours of PLSC courses in residence at Winthrop University. In addition to the 30-36 semester hours of the required program, the student must select and complete a minor, attaining no less than a 2.0 GPA in the minor. Within the 124 semester hours required for this degree, the student must also include a minimum of 40 semester hours in courses numbered above 299.

## Bachelor of Arts in Political Science

## Certification as Secondary School Teacher for Social Studies

Students desiring Certification as teachers of social studies should consult with the social studies teacher certification adviser and the College of Education section of the catalog for specific requirements for admission to the Teacher Education Program.


| COLLEGE OF ARTS \& SCIENCES--POLITICAL SCIENCE |  |
| :---: | :---: |
| Intensive Writing See approved list, p. 38; may be met in major | 0-3 |
| Constitution Requirement Met in major by PLSC 201 | 0 |
| Subtotal | 29-39 |
| Requirements in Major | 60 |
| PLSC 201, 350, 490 or 450 H or HONR 450H | 9 |
| ANTH 201; ECON 215, 216; GEOG 101; GEOG 201 or 303 or 304 or 306; |  |
| HIST 211, 212, and 2 of 111, 112, 113; SOCL 101 | 30 |
| American Government |  |
| Select from PLSC 202, 302, 305, 306, 307, 310, 311, $312,313,314,315,317,371$ or 518 | 3 |
| Comparative Government and International Relations |  |
| Select from PLSC 205, 207, 260, 335, 336, 337, 338, 345, 504, 505, 506, 508 or 532 | 3 |
| Political Theory |  |
| Select from PLSC 351, 352, 355, 356, 551 or 553 | 3 |
| Public Administration |  |
| Select from PLSC 320, 321, 323, 325, 512, or 524H | 3 |
| PLSC electives | 9-15 |
| Professional Education Sequence: |  |
| EDUC 110, 210, 250, 275, 310, 390, 475, 490; SCST 391-392 | 33* |
| Foreign Language Requirement | 0-4 |
| General Electives | 0-3 |
| Total | 124-139 |

Note: Students are limited to a total of nine hours in the major in PLSC 450H, 471, 472, 473, 498, 501, 502, and 503 combined.
$\dagger$ Students completing the required program for the BA degree in Political Science must demonstrate proficiency in a foreign language at or above the second semester college level. This requirement may be met by a satisfactory score on a recognized examination or by passing any foreign language course numbered 102 or any course with 102 as a prerequisite. A maximum of one course may be counted in the Logic/Language/Semiotics Area.

* A grade of C or better is required in EDUC 110, 210, 250, 275, 310, and 390.

In addition to the requirements for their major, students must meet requirements for the Teacher Education Program, which include the requirements for Admission to Teacher Education, Entry to the Professional Stage, and Program Completion. For information on these requirements, consult the Student Academic Services in the College of Education.

The PRAXIS II Series is required prior to graduation: 1) Subject Assessment/Specialty Area Tests and 2) Principles of Learning and Teaching (PLT) Test. For up to date information on the PRAXIS test, please see page 104 in the College of Education section of this catalog.

The student must attain a cumulative grade-point average of 2.75 or better in courses taken at Winthrop and a minimum of a 2.0 in the $60-66$ semester hours of the required program. The student must complete a minimum of 12 semester hours of PLSC courses in residence at Winthrop University. Within the 124-139 semester hours required for the BA degree, the student must include a minimum of 40 hours in courses numbered above 299.

## Bachelor of Arts in Political Science Concentration in Public Policy and Administration

| General Education Courses |  | Semester Hours |
| :---: | :---: | :---: |
| ACAD 101 | Principles of the Learning Academy | 1 |
| Critical Skills |  |  |
| Writing and Critical Thinking |  |  |
| WRIT 101 | Composition | 3 |
| CRTW 201 | Critical Reading, Thinking, \& Writing | 3 |
| Quantitative Skills |  |  |
| CTQR 150 or MATH 105 or 201 or a MA | I course with 201 as a prerequisite | 3 |
| Logic/Language/Semiotics |  |  |
| Foreign Language |  | 3-4 $\dagger$ |
| MATH 145 | Statistical Meth for Commun the Analysis of Data | 3 |
| Oral Communication | May be met in major | 0-3 |
| Technology |  |  |
| CSCI 101 \& 3 of CSCI 101 A, B, C, or P | Intro to Comp \& Info Processing and labs | 3 |
| Skills for a Common Experience and Thinking Across Disciplines |  |  |
| HMXP 102 | The Human Experience: Who Am I? | 3 |
| Global Perspectives | Met in major | 0 |
| Historical Perspectives | See approved list, p. 37 | 3 |
| Developing Critical Skills/Applying them to Disciplines |  |  |
| Natural Science | Select from 2 categories and one must be a lab science | e 7 |

COLLEGE OF ARTS \& SCIENCES--PRE-PROFESSIONAL PROGRAMS


Note: Students are limited to a total of nine hours in the major in PLSC 450H, 471, 472, 473, 498, 501, 502, and 503 combined.
$\dagger$ Students completing the required program for the BA degree in Political Science with a Concentration in Public Policy and Administration must demonstrate proficiency in a foreign language at or above the second semester college level. This requirement may be met by a satisfactory score on a recognized examination or by passing any foreign language course numbered 102 or any course with 102 as a prerequisite. A maximum of one course may be counted in the Logic/Language/ Semiotics Area.

The student must attain a cumulative grade-point average of 2.0 or better in courses taken at Winthrop and included in the $30-36$ semester hours of the required program. The student must complete a minimum of 12 semester hours of PLSC courses in residence at Winthrop University. In addition to the 30-36 semester hours of the required program, the student must select and complete a minor, attaining no less than a 2.0 GPA in the minor. Within the 124 semester hours required for this degree, the student must also include a minimum of 40 semester hours in courses numbered above 299.

## PRE-PROFESSIONAL PROGRAMS

Winthrop offers programs which prepare students for professional study in a variety of fields. Some of these are degree programs preliminary to advanced study in such disciplines as engineering, medicine, nursing, dentistry and law. A Winthrop faculty adviser will help students plan their studies to meet the requirements of several professional schools.

## Pre-Dental

Advisers: Dr. Carlton Bessinger, Dr. Lee Anne Cope, Dr. Aaron Hartel, Dr. James Johnston, Dr. Chasta Parker, Dr. Julian Smith, and Dr. Takita F. Sumter

A student who wishes to prepare for application to schools of dentistry or veterinary medicine should acquire a broad foundation in the natural sciences, mathematics, humanities and the social sciences. The specific requirements for admission to the College of Dental Medicine at the Medical University of South Carolina are 8 semester hours of each of the following: general chemistry, organic chemistry, physics, biology, and science electives. In addition, 6 semester hours of English composition and mathematics are required. Other dental schools have similar requirements. Students interested in dental medicine should seek advice about which science electives would be best. The Dental Admission Test (DAT) must be taken no later than the fall of the senior year. A B+ average in science courses and an acceptable score on the DAT are essential for dental school admission.

## Pre-Engineering Program

Adviser: Dr. Mesgun Sebhatu
The Pre-Engineering program provides students with the opportunity to complete an engineering degree at another university in four or five years by transferring from Winthrop after completing the necessary mathematics and science courses as well as basic courses in English, social sciences and humanities. Engineering programs require students to complete fundamental courses in calculus, differential equations, chemistry, physics, computer science, and engineering science during their first several years of college. Students who begin their college career at Winthrop have the advantage of completing these basic courses in smaller classes where they get individual faculty attention and access to modern instrumentation.

## COLLEGE OF ARTS \& SCIENCES--PRE-PROFESSIONAL PROGRAMS

After two years of study at Winthrop, Pre-Engineering students have three options available to further their engineering education:

1. Dual Degree option: Students selecting this option spend three years at Winthrop and two to three years at Clemson University. Upon graduation, they receive a Bachelor of Science degree in chemistry from Winthrop and an engineering degree from Clemson.
2. Engineering School option: After two to three years at Winthrop, students selecting this option transfer directly into a specific program at an engineering school such as Clemson University, the University of South Carolina, Virginia Tech, Georgia Tech, North Carolina State, or the University of Florida to complete an engineering degree in their field of interest within another two to three years.
3. Winthrop Science/Mathematics Degree option: After two years at Winthrop, Pre-Engineering students selecting this option decide to complete a Bachelor of Science (e.g. mathematics, Chemistry, Computer Science, Environmental Science) at Winthrop within another two years and then to matriculate directly into a graduate engineering or science program at an engineering school or research university.

## Pre-Law

Adviser: Dr. Timothy Boylan
The Association of American Law Schools and the Law School Admission Council do not prescribe a specific major or series of courses as preparation for law school. Although most pre-law students major in the social sciences or humanities, almost any discipline is suitable. More important than the major is the acquisition of thorough intellectual training, including a broad understanding of human institutions as well as analytical and communications skills. Early in their undergraduate careers, students considering law school should meet with the pre-law advisor in the Political Science Department for assistance in planning a suitable course of pre-law study compatible with the student's major subject. Additional information for students considering legal studies can be found in the Pre-Law Handbook (http://www.winthrop.edu/ plsc/prelaw.htm).

## Pre-Medical

Advisory Committee: Dr. Carlton Bessinger, Dr. Janice Chism, Dr. Dwight Dimaculangan, Dr. Laura Glasscock, Dr. Aaron Hartel, Dr. James Johnston, Dr. Chasta Parker, Dr. Julian Smith, Dr. Takita F. Sumter, and Dr. Kristi Westover,

A student who wishes to prepare for application to medical school should acquire a broad foundation in the natural sciences, mathematics, humanities and the social sciences. Medical schools intentionally limit the absolute requirements for entry to encourage diversity among their applicants. Most medical schools require 6 semester hours each of English and Mathematics, and 8 semester hours each of biology, physics, general chemistry, and organic chemistry. Beyond these requirements, pre-medical students may select any major program they may wish to pursue. The most important requirements for admission to a medical school are at least a B+ average on all science courses taken and a good score on the Medical College Admission Test (MCAT), which is normally taken in the spring before the senior year.

## Pre-Pharmacy

Advisers: Dr. Carlton Bessinger, Dr. Aaron Hartel, Dr. James Johnston, Dr. Chasta Parker, Dr. Julian Smith, and Dr. Takita F. Sumter,

A student who wishes to prepare for application for Pharmacy school should acquire a solid foundation in the chemical and biological sciences. The specific requirements for admission to the Pharm.D. program at the Medical University of South Carolina include 8 hours of general chemistry, 8 hours of organic chemistry, 6 hours of physics, 6 hours of mathematics (at least 3 of which must be calculus), 3 hours of statistics, 8 hours of biology, 4 hours of microbiology, 9 hours of social sciences, 6 hours of English composition and literature and 3 hours of economics, psychology and interpersonal communication. The most important requirement is that students maintain a B+ average on all science courses.

## Pre-Physical Therapy

Advisers: Dr. James Johnston, Dr. Janice Chism, and Dr. Lee Anne Cope
A student who wishes to prepare for admission to either of the two physical therapy programs in South Carolina (USC or MUSC) must complete a 4 -year baccalaureate degree. Regardless of the major, the student must complete course work in statistics, chemistry, physics, biology, anatomy, physiology, and psychology. A minimum grade point average of 3.0 is required. The student must present acceptable scores on all three components (verbal reasoning, quantitative reasoning and writing) of the Graduate Record Examination (GRE). In addition to acceptable grades and GRE scores, the student must have some experience with the practice of physical therapy. This is best accomplished through an internship course or other volunteer work.

## Pre-Veterinary

Advisers: Dr. Lee Anne Cope, Dr. Aaron Hartel, Dr. James Johnston, Dr. Chasta Parker,Dr. Julian Smith, and Dr. Takita F. Sumter,

A student who wishes to prepare for application to schools of veterinary medicine should acquire a broad foundation in the natural sciences, mathematics, humanities, and social sciences. The requirements for entry into schools of veterinary medicine are more variable than those for schools of medicine and dentistry. A student pursuing a career in veterinary medicine should major in biology or chemistry and consult the pre-veterinary adviser.

## Other Pre-Professional Health Studies

Adviser: Dr. James Johnston
Students may prepare themselves for application to programs in other health-related professions, such as nursing, optometry and podiatry. Persons interested in these fields should consult the adviser for specific details.

## PSYCHOLOGY

## Faculty

## Professors

Heidar A. Modaresi
Joseph S. Prus, Chair
Associate Professors
Gary L. Alderman
Tim Daugherty
Cheryl Fortner-Wood
Kathy A. Lyon
Antigo D. Martin-Delaney
Donna Nelson
Jeff Sinn

Assistant Professors
Leigh Armistead
Matthew Hayes
Jane Rankin
Darren Ritzer
Kwabena Sankofa
David Sleeth-Keppler
Merry Sleigh

## Instructors

Dawn Pratt
Lois J. Veronen

## Bachelor of Arts in Psychology

Students engaged in the study of psychology build on the strong foundation provided by Winthrop's general education requirements. The science and art of psychology depend on the critical thinking, reading, writing, quantitative, technological, and personal skills developed early in the Winthrop academic career. The Psychology Major further hones critical thinking as students learn to apply psychological principles and take responsible action in a diverse world. Students of psychology accumulate a broad knowledge base and develop the scientific skills needed to add to that base as lifelong learners. Graduates with a degree in psychology are well prepared to make the transition to advanced education and/or meaningful employment.

| General Education Courses |  | Semester Hours |
| :---: | :---: | :---: |
| ACAD 101 | Principles of the Learning Academy | 1 |
| Critical Skills |  |  |
| Writing and Critical Thinking |  |  |
| WRIT 101 | Composition | 3 |
| CRTW 201 | Critical Reading, Thinking, \& Writing | 3 |
| Quantitative Skills |  |  |
| CTQR 150 (preferred) or MATH 105, 201 or a MATH course with 201 as a prerequisite |  | 3 |
| Logic/Language/Semiotics |  |  |
| Foreign Language (See additional requirem | nents in major) | 3-4† |
| CSCI; PHIL 220 or 225; SPCH 201; MATH | QMTH; ARTS 281 or VCOM 261 | 3 |
| Oral Communication | See approved list, p. 37 | 3 |
| Technology | See approved list, p. 37 | 3 |
| Skills for a Common Experience and Thinking Across Disciplines |  |  |
| HMXP 102 | The Human Experience: Who Am I? | 3 |
| Global Perspectives | See approved list, p. 37 | 3 |
| Historical Perspectives | See approved list, p. 37 | 3 |
| Developing Critical Skills: Applying them to Disciplines |  |  |
| Natural Science | Select from 2 categories and one must be a lab science | 7 |
| Social Science | 3 met in major, 3 from another designator | 3-6* |
| Humanities and Arts | See approved list, p. 38 | 6-9* |
| *a total of 15 semester hours from these two groups must be taken |  |  |
| Intensive Writing | See approved list, 38 | 3 |
| Constitution Requirement | See approved list, p. 38; may be met by other requirement | 0-3 |
| Subtotal |  | 44-54 |
| Requirements in Major |  | 36 |
| Foundations--PSYC 101, 198 | Gen Psychology, Psyc as Discipline \& Profes | 4 |
| Experimental Sequence--PSYC 301, 302 | Research I \& II | 8 |
| SR Capstone Exper--PSYC 400, 463 or 498 | Hist \& Sys of PSYC, Internship, SR Seminar | 3 |
| Core Courses--Choose 3 of 6: PSYC 206, 3 | 5, 313, 335, 409, 508 | 9 |
| PSYC Electives (courses numbered above | 299) | 12 |
| Foreign Language Requirement |  | 0-4 |
| Minor |  | 15-24 |
| General Electives |  | 6-30 |
| Total |  | 124 |

COLLEGE OF ARTS \& SCIENCES--SOCIAL WORK
$\dagger$ Students completing the required program for the BA degree in Psychology must demonstrate proficiency in a foreign language at or above the second semester college level. This requirement may be met by a satisfactory score on a recognized proficiency examination or by passing any foreign language course numbered 102 or any course with 102 as a prerequisite. A maximum of one course may be counted in the Logic/Language/Semiotics Area.

The student must attain a cumulative grade point average of 2.00 or better in courses taken at Winthrop and in the 36 semester hours of the required program. In addition to the 36 semester hours of the required program, the student must select and complete a minor, attaining no less than a 2.0 GPA in the minor. Within the 124 semester hours required for this degree, the student must also include a minimum of 40 semester hours in courses numbered above 299.

## Major Specific Notes:

a) The student must attain a grade of C- or better in PSYC 101, 301 and 302.
b) The student must complete a minimum of 12 semester hours of PSYC courses in residence at Winthrop University. No more than three hours of Cooperative Education Experience or Academic Internship can count toward the major. Not more than 36 semester hours in any one subject designator may apply to a Bachelor of Arts degree. A student may elect to apply up to 6 hours in the same subject designator toward general electives, general education distribution requirements, or a minor with the exception of the social sciences minor.
c) Students must complete the Quantitative Skills requirement before beginning PSYC 301.
d) Students must complete CRTW 201 before beginning PSYC 302. Students who take PSYC 302 at Winthrop will receive credit for the Intensive Writing Component of the General Education requirements. Transfer credit for this course with intensive writing credit will be on a case-by-case basis.
e) PSYC 198 may be waived at the discretion of the Chair and Dean's Office for students transferring with a considerable amount of Psychology credit or those who enter the major as Juniors or Seniors.
f) Students changing their majors from Biology to Psychology or Biology majors with Psychology minors, who have completed BIOL 300 with a grade of C- or better, are not required to complete PSYC 302. Dual majors in Psychology and Biology should complete only one of the two required experimental courses (PSYC 301 or BIOL 300). Consult your adviser for an appropriate course.
g) Students changing their majors from Sociology to Psychology or Sociology majors with Psychology minors, who have passed SOCL 316 with a grade of C- or better, are not required to complete PSYC 301. Double majors in Psychology and Sociology should complete only one of the two required statistics courses (PSYC 301 or SOCL 316). Consult your adviser for an appropriate course.

## SOCIAL WORK

## Faculty

Professors
Ronald K. Green, Chair
Wilhelmenia Rembert

## Associate Professors

Susan B. Lyman
Ameda A. Manetta
Deanna F. Morrow

Assistant Professors<br>Brent E. Cagle<br>Wendy S. Campbell<br>Shelly Neely-Goodwin<br>Cynthia D. Forrest<br>Instructor<br>Linda M. Ashley<br>Jackie Jones-Nickens

## Bachelor of Social Work

Students completing requirements for the BSW will be prepared for beginning generalist social work practice in a wide range of organizations such as child welfare agencies, hospitals, nursing homes, prisons, schools, and treatment centers for emotionally disturbed children and adults. The program provides undergraduate education and internship experience for working with individuals, small groups (including the family), organizations, and communities. National accreditation by the Council on Social Work Education (CSWE) allows graduates to become full members of the National Association of Social Workers (NASW) and to be eligible to become licensed social workers in states requiring licensing for employment.


A student may apply for status as a social work major at any point. In applying for initial entry into the social work program and recognition as a social work major, the student agrees to abide by the NASW (National Association of Social Workers) Code of Ethics. From that point, continued recognition as a social work major requires that the student's behavior comports to the standards of ethical conduct as spelled out in the Code of Ethics.

Prior to starting the social work intervention sequence - SCWK 395, 432, 433 and 434 - students must formally apply for admittance to SCWK 395. This process includes students providing a description of how they have met the requirement for 80 hours of voluntary or paid experience in a human service organization, and a demonstration that they have at least an overall GPA of 2.20 and a 2.40 GPA in all social work courses.

After completing all general education requirements and social work major course requirements through SCWK 434, including passing courses SCWK 200 through SCWK 434 with a grade of C- or better and maintaining an overall GPA of 2.20 and a GPA of 2.40 in social work courses, the student is eligible to apply to enroll in the two courses which make up the final semester of field education. For graduation the student must have maintained an overall GPA of 2.20, a GPA of 2.40 in all social work courses, and have passed all social work courses with a grade of C or better.

The student must complete a minimum of 12 semester hours of SCWK courses in residence at Winthrop University and have a minimum of 40 semester hours in courses numbered above 299. No more than three hours of Cooperative Education Experience can count toward the major.

Students enrolled in the Certificate Program in Gerontology may substitute 3 hours of the required SCWK 443 field placement in an agency serving older adults for GRNT 440.

## SOCIOLOGY and ANTHROPOLOGY

## Faculty

## Professors

Douglas L. Eckberg, Chair
April A. Gordon
Jonathan I. Marx
Jennifer Solomon

Assistant Professors<br>Richard Chacon<br>M. Kelly James<br>Bradley G. Tripp

## Instructor

Jeannie Haubert Weil

## Bachelor of Arts in Sociology

Recent graduates in sociology have secured positions in criminal justice, social work, city and urban planning, teaching, management, banking, sales, and marketing. Others have gone on to pursue advanced studies in sociology, social work, criminal justice, urban planning, law, and business administration.

| General Education Courses | mester Hours |  |
| :---: | :---: | :---: |
| ACAD 101 | Principles of the Learning Academy | 1 |
| Critical Skills |  |  |
| Writing and Critical Thinking |  |  |
| WRIT 101 | Composition | 3 |
| CRTW 201 | Critical Reading, Thinking, \& Writing | 3 |
| Quantitative Skills |  |  |
| CTQR 150 or MATH 105, 201 or a MATH course with 201 as a prerequisite 3Logic/Language/Semiotics |  |  |
|  |  |  |
| Foreign Language 3-4† |  |  |
| CSCI; PHIL 220 or 225; SPCH 201; MATH; QMTH; ARTS 281 or VCOM 261 |  | 3 |
| Oral Communication | See approved list, p. 37; may be met by another req | 0-3 |
| Technology | See approved list, p. 37; may be met by another req | 0-3 |
| Skills for a Common Experience and Thinking Across Disciplines |  |  |
| HMXP 102 | The Human Experience: Who Am I? | 3 |
| Global Perspectives | See approved list, p. 37 | 3 |
| Historical Perspectives | See approved list, p. 37 | 3 |
| Developing Critical Skills \& Applying them to Disciplines |  |  |
| Natural Science | Select from 2 categories and one must be a lab science | 7 |
| Social Science | 3-6 met in major, 3-6 from another designator | 3-6* |
| Humanities and Arts | See approved list, p. 38; must have at least 2 designators | 6-9* |
| *Must have a total of 9-12 semester hours from these 2 categories |  |  |
| Intensive Writing | See approved list, p. 38; may be met by other requirement | 0-3 |
| Constitution Requirement | See approved list, p. 38; may be met by other requirement | 0-3 |
| Subtotal 40-57 |  |  |
| Requirements in Major 33 |  |  |
| SOCL 101 or 201, and 316**, 498,502,516 15 |  |  |
| Eighteen additional hours of SOCL, excluding courses listed above and SOCL 340 and 463 18 |  |  |
| Minor 15-24 |  |  |
| Foreign Language Requirement 0-4 |  |  |
| General Electives 6-36 |  |  |
| Total 124 |  |  |

$\dagger$ Students completing the required program for the BA in Sociology must demonstrate proficiency in a foreign language at or above the second semester college level. This requirement may be met by a satisfactory score on a recognized examination or by passing any foreign language course numbered 102 or any course with 102 as a prerequisite. A maximum of one course may be counted in the Logic/Language/Semiotics Area.
**Students with double majors in Psychology and Sociology may substitute PSYC 301 for SOCL 316 provided they complete an additional course in Sociology. Consult advisers for appropriate courses.

To be admitted into the program as a major, the student must complete SOCL 101 or 201 with the grade of C or higher. The student must attain a cumulative grade-point average of 2.0 or better in courses taken at Winthrop and included in the 33 semester hours of the required program. The student must complete a minimum of 12 semester hours of SOCL courses in residence at Winthrop University. Sociology majors are required to enroll in SOCL 316 the first semester after admission to the major, and they may not enroll in more than one SOCL course per semester (apart from SOCL 316 itself) until they meet the requirement. Students must attain a C- or better in SOCL 316 to enroll in SOCL 516.

## COLLEGE OF ARTS \& SCIENCES--SOCIOLOGY AND ANTHROPOLOGY

In addition to the 33 semester hours of the required program, the student must select and complete a minor, attaining no less than a 2.0 GPA in the minor. Within the 124 semester hours required for this degree, the student must also include a minimum of 40 semester hours in courses numbered above 299. Although not specifically required, students are strongly encouraged to take related courses in ANTH, ECON, HIST, MATH, PLSC and PSYC.

# Bachelor of Arts in Sociology <br> Concentration in Criminology 


$\dagger$ Students completing the required program for the BA in Sociology must demonstrate proficiency in a foreign language at or above the second semester college level. This requirement may be met by a satisfactory score on a recognized examination or by passing any foreign language course numbered 102 or any course with 102 as a prerequisite. A maximum of one course may be counted in the Logic/Language/Semiotics Area.
**Students with double majors in Psychology and Sociology may substitute PSYC 301 for SOCL 316 provided they complete an additional course in Sociology. Consult advisers for appropriate courses.

To be admitted into the program as a major, the student must complete SOCL 101 or 201 with the grade of C or higher. The student must attain a cumulative grade-point average of 2.0 or better in courses taken at Winthrop and included in the 36 semester hours of the required program. The student must complete a minimum of 12 semester hours of SOCL courses in residence at Winthrop University. Sociology majors are required to enroll in SOCL 316 the first semester after admission to the major, and they may not enroll in more than one SOCL course per semester (apart from SOCL 316 itself) until they meet the requirement. Students must attain a C- or better in SOCL 316 to enroll in SOCL 516.

In addition to the 36 semester hours of the required program, the student must select and complete a minor, attaining no less than a 2.0 GPA in the minor. Within the 124 semester hours required for this degree, the student must also include a minimum of 40 semester hours in courses numbered above 299. Although not specifically required, students are strongly encouraged to take related courses in ANTH, ECON, HIST, MATH, PLSC and PSYC.

## SPEECH

Faculty
Professor
Louis J. Rosso, Chair

Instructor
Bonnye Stewart

Lecturers
Althea Grey Jeannie Jordan Hogue Christa Kea

Associate Professor
Anne E. Beard

## Bachelor of Arts in General Communication Disorders

The Bachelor of Arts in General Communication Disorders provides pre-professional preparation in speech pathology. Students will receive instruction in the identification, diagnostic process, and therapeutic intervention of communication disorders including articulation, language, hearing, voice, and fluency. The program is designed to prepare students for graduate work leading to state and national certification and state licensure as a speech clinician.


COLLEGE OF ARTS \& SCIENCES--SPEECH
The student must attain a cumulative grade-point average of 2.0 or better in courses taken at Winthrop and included in the 36 semester hours of the required program. The student must complete a minimum of 12 semester hours of SPCH courses in residence at Winthrop University.

Majors must attain a GPA of 2.5 or better in SPCH 351, 352, and 355. Majors must have a GPA of 2.0 or better in SPCH $360,410,425,458,460,465$ and 469 . Students are encouraged to repeat courses resulting in a grade of less than C in the above course sequence.

In addition to the 36 semester hours of the required program, the student must select and complete a minor, attaining no less than a 2.0 GPA in the minor. Within the 124 semester hours required for this degree, the student must also include a minimum of 40 semester hours in courses numbered above 299 . No more than three hours of Cooperative Education Experience can count toward the major.

