PRE-PROFESSIONAL PROGRAMS

The University offers extended opportunities for students to prepare for professions requiring the added specialized preparation of the professional school. Admission to the professional school for some fields requires or gives preference to applicants who already have earned the bachelor's degree; for other fields the University can provide from one to three years of the preparation required for admission or transfer to the professional school. In select programs, students may earn the bachelor's degree from this University on three years' preprofessional work and satisfactory completion of the first year of professional school. Students should recognize that admission to professional schools is based on qualitative standards as well as curricular requirements and remains the prerogative of the particular school.

Students interested in preprofessional programs should seek detailed information, recommended courses of study, and continued program guidance from the advisory sources indicated in the following descriptions:

Agriculture and Forestry

Students interested in such fields as agricultural education, animal or poultry husbandry, dairying, farm management, horticulture, forestry, and related fields may obtain from one to two years of the basic coursework at this University before transferring to the school offering a degree program in the field. Interested students should contact the Department of Biology.

Architecture

Students interested in studying architecture may obtain up to two years of basic coursework at the University before transferring to a school offering a degree program in architecture. Architecture is a profession combining both rational and intuitive thinking skills. As such, a student should exhibit abilities to understand and appreciate technical knowledge, social insight, and the discipline of artistic creativity. Interested students should contact the Department of Visual Arts and Design for program information.

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Engineering

Students who wish to prepare for a career in one of the many fields of engineering have two options at the University, a 3+2 dual degree program and a pre-engineering program. For advisors in specific areas, see the Department of Mathematics.

1. Dual Degree Engineering Program (DDEP). The DDEP program is a 3+2 year curriculum plan offering students the opportunity to earn two bachelor's degrees in 5 years. One undergraduate degree will be in a participating major at UNA and the other degree will be awarded in engineering from a partner institution. Degree programs participating in the DDEP at UNA are Chemical, Computer Science, Mathematics, and Physics. The specific curriculum for each DDEP student will depend on 4 factors. Each student will select a major program at UNA, a partner engineering school, and an engineering major to determine their program of study. Additionally, DDEP students may participate in the UNA Honors Program. Each DDEP student must meet the admission requirements for transfer students at the selected engineering institution.

2. Pre-engineering Program (PREP). The pre-engineering program allows students to complete one to two years of the coursework common to most engineering programs. Through the program outlined below, and advisement from a pre-engineering advisor each term, students will prepare for transfer to an appropriate engineering school.

Students not eligible for a listed course should consult their pre-engineering advisor.
the Pre-Health Professions Advisor will be necessary to ensure that bachelor’s degree. Students may major in any discipline, but may have with four years of preparatory college work that culminates with the coursework. Although some schools permitting early admission do Most medical schools require a minimum of 90 semester hours of Medicine (allopathic and osteopathic).

Pre-Health Professions

Medicine (allopathic and osteopathic)

Most medical schools require a minimum of 90 semester hours of coursework. Although some schools permitting early admission do take highly qualified students, most give preference to applicants with four years of preparatory college work that culminates with the bachelor’s degree. Students may major in any discipline, but may have additional coursework that is not part of their major. Consultation with the Pre-Health Professions Advisor will be necessary to ensure that students have the required coursework for application. Students must excel academically, volunteer extensively, have significant shadowing experience, and score high enough on the Medical School Admission Test (MCAT) to be competitive for admission.

Required Courses

- English Composition (2 semesters)
- General Chemistry (with lab; 2 semesters)
- Mathematics 1 (2 semesters) to include Statistics/Biostatistics
- Organic Chemistry (with lab; 2 semesters)
- General Physics (with lab; 2 semesters)
- Principles of Biology (with lab; 2 semesters)

Medical schools will be requiring Biochemistry and possibly General Psychology and Introductory Sociology in the future. These subjects are tested extensively on the MCAT. Students are advised to schedule these classes in their curriculum prior to taking the MCAT.

1 Recommended electives are Principles of Macroeconomics (EC 251), Global Environments and Societies (GE 102), United States Government and Politics (PS 241), General Psychology (PY 201), Introductory Sociology (SO 221)

Dentistry

Students wishing to apply to dental school must have a thorough knowledge of biological and physical sciences as well as proficiency in communication. Most schools require a minimum of three years of academic coursework (90 semester hours or equivalent) though preference is given to applicants who will have earned their bachelor’s degree prior to matriculation. Students are encouraged to pursue a well-rounded curriculum that includes the humanities in addition to science classes.

Typical required courses

- Biology (12 semester hours)
- Biochemistry (1 semester)
- General Chemistry (with lab; 2 semesters)
- Organic Chemistry (with lab; 2 semesters)
- General Physics (with lab; 2 semesters)
- Mathematics (2 semesters; calculus recommended)
- Non-science courses (30 semester hours; i.e. English, social sciences, humanities)

Optometry

Since admissions criteria for optometry schools vary somewhat from school to school, it is recommended that students interested in applying to optometry school consult each school’s and college’s website for specific course requirements. Most schools require that you complete the requirements for a bachelor’s degree at your institution. Most students major in the natural sciences in college because of the intensive science course requirements; however, students can major in any discipline as long as they complete the prerequisites for optometry school. A competitive score on the Optometry Admission Test (OAT) is also required.

Typical pre-requisite courses:

1 Specific majors may require specific mathematics courses; consult with the advisor in making course selections
• Biochemistry (1 semester)
• Calculus
• English Composition (2 semesters)
• General Chemistry (with lab; 2 semesters)
• Organic Chemistry (with lab; 1 semester)
• General Physics (with lab; 2 semesters)
• Principles of Biology (2 semesters)
• Psychology (2 semesters)
• Social and Behavioral Science (2 semesters)
• Statistics

Physician Assistant
Requirements for admission to a physician assistant program vary among professional schools. The majority of the programs are available at the master’s level. Students interested in this field should consult the Pre-Health Professions Advisor at this University and consult the admissions requirements of the schools to which students are interested in applying. No specific major is required, although most students major in a natural science because of the pre-requisite coursework required. In addition to the required coursework, admission to a physician assistant school requires high scholastic achievement and acceptable scores on the Graduate Record Examination (GRE). In addition, significant “hands-on” patient care experience is required.

Typical required courses include:
• English Composition (2 semesters)
• General Chemistry (with lab; 2 semesters)
• Human Anatomy and Physiology (2 semesters)
• Mathematics
• Microbiology (1 semester)
• Principles of Biology (2 semesters)
• Psychology (2 semesters)
• Statistics

1 Work with the advisor in selecting the appropriate math courses. Calculus is recommended by many medical schools.

Pharmacy
Students who plan to pursue a program of study that will lead to matriculation to a pharmacy school can do so at this University. Students interested in pursuing their Doctor of Pharmacy degree may be eligible to participate in a cooperative early admission program between UNA and the Auburn University Harrison School of Pharmacy (AUHSOP) or with the McWhorter School of Pharmacy at Samford University. The agreement with AUHSOP allows students admitted to the program to transfer specific graduate coursework back to UNA to fulfill baccalaureate degree requirements. For more information about these agreements, please consult with the Pre-health Professions Advisor.

Although early admission after two to three years of pre-pharmacy coursework is possible, applicants with a bachelor’s degree are more competitive. Pre-pharmacy students typically major in one of the natural sciences (i.e., biology or chemistry). In addition to the required coursework, the successful applicant possesses high academic achievement in all coursework. For most schools of pharmacy, the Pharmacy College Admission Test (PCAT) is now optional. Another important characteristic of successful applicants is the completion of the Pharmacy Technician class and subsequent certification as well as work experience as a licensed pharmacy technician. Since each pharmacy school requires different pre-pharmacy coursework, students interested in this field should consult with the Pre-Health Professions Advisor and the individual pharmacy schools’ websites for further information.

Typical prerequisite coursework includes:
• Calculus I
• Principles of Biology (1 or 2 semesters)
• General Chemistry (with lab; 2 semesters)
• Human Anatomy and Physiology (with lab; 2 semesters)
• Microbiology (with lab, 1 semester)
• Organic Chemistry (with lab; 2 semesters)

Veterinary Medicine
Students who wish to pursue a career in veterinary medicine can do so at this University. Although early admission is possible, applicants with a bachelor’s degree are given preference. There is no specific major required, although most students major in a natural science (i.e., biology, chemistry). In addition to required coursework, the successful applicant will have high scholastic achievement and acceptable scores on the Graduate Record Examination (GRE). Moreover, significant shadowing/work experience with small and large animals is required. Students interested in this field should consult with the pre-health professions advisor and individual schools' websites for additional requirements.

Typical prerequisite coursework includes:
• Biochemistry (1 semester)
• English Composition (2 semesters)
• Humanities and Fine Arts (12 semester hours)
• History, Social and Behavioral Sciences (12 hours; 1 semester of HI, remainder can be other courses)
• Mathematics (College Trigonometry or higher)
• Organic Chemistry (with lab; 2 semesters)
• Principles of Biology (with lab; 2 semesters)
• General Physics (with lab; 2 semesters)

Excellent science electives include:
• Cell Biology
• Comparative Anatomy
• Genetics
• Embryology
• Mammalian or Animal Physiology
• Histology
• Immunology
• Microbiology
• Parasitology

Physical Therapy
Requirements for admission to a graduate program leading to a doctoral degree in physical therapy (DPT) vary among professional schools. Students interested in this field should contact the Pre-Health Professions Advisor at this University and consult the catalog of the graduate school offering the physical therapy program. No specific major is required, although the most common majors nationwide are exercise science and biology. Students applying to graduate programs must have a bachelor’s degree from a regionally accredited college or university. In addition to required coursework, students must also demonstrate high scholastic achievement and acceptable scores on the Graduate Record Examination.
Pre-Professional Programs

Examination (GRE). Students must also have significant shadowing/work experience with a licensed physical therapist.

The following courses are usually required before acceptance into a physical therapy doctoral degree program. These courses may be taken as part of your undergraduate degree program or in addition to it. Consult the Pre-Health Professions Advisor at this University and each school’s websites for additional information.

• General Chemistry (with lab; 2 semesters)
• Human Anatomy and Physiology (with lab; 2 semesters)
• Introductory Psychology and 2 other psychology courses
• General Physics (with lab; 2 semesters)
• College Trigonometry or Pre-calculus Algebra and Trigonometry
• Principles of Biology (with lab; 2 semesters)
• Statistics

Occupational Therapy

Requirements for admission to a graduate program in occupational therapy vary among professional schools. Students interested in this field should contact the Pre-health Professions Advisor at this University and consult the individual schools’ websites for required coursework.

No specific major is required. Students applying to graduate programs must have a bachelor’s degree from a regionally accredited college or university. In addition to required coursework, students must also demonstrate high scholastic achievement and acceptable scores on the Graduate Record Examination (GRE). Students must also have significant shadowing/work experience with a licensed occupational therapist.

Typical prerequisite coursework includes:

• Human Anatomy and Physiology (with lab; 2 semesters)
• Introductory Psychology plus 2 others (Developmental Psychology, Abnormal Psychology)
• Introduction to Sociology (1 semester)
• Medical Terminology
• Physics (with lab; 1 semester) – may substitute Kinesiology
• Principles of Biology (with lab; 1 semester)
• Statistics (1 semester)

Allied Health

Students may complete the one to three years of preparatory coursework required by schools of allied health at this University. Some schools of allied health programs give preference to applicants with a bachelor’s degree. In addition to required coursework, admission to allied health schools require high scholastic achievement. There may also be admission tests that are required. Students interested in a career in an allied health field should contact the Pre-health Advisor at this University and the website of those schools to which the student will transfer for required coursework and other application information.

Other Pre-Professional Programs

The University’s undergraduate courses of study and degree programs provide preparation for admission to professional or graduate schools for a number of other professional and vocational fields, including those in theology, religious education, library science, music, and others. For additional information and recommended courses of study, the student should contact the Office of the Dean of the College of Arts, Sciences, and Engineering.