

## ZOOLOGY/Biomedical Sciences

### Undergraduate Requirements: B.S. (Professional) Degree Option

The Biomedical Sciences professional Zoology B.S. track is designed to meet the needs of students who plan to enter postgraduate programs in medicine, dentistry, or one of their specialties (*e.g.* Optometry, podiatry), veterinary medicine, the Physician Associate program, public health, medical research, or one of the biomedical industry support areas like laboratory assistant or pharmaceutical sales.

The University and College of Arts and Sciences requires 124 hours of college work with at least 2.0 grade average and 48 hours of coursework at the 3000 level or above. Within these credits, a Zoology/Biomed degree requires at least 30 hours of major coursework (*exclusive of Zoology 1114 and 1121*) with a grade of C or better in each course.

#### REQUIRED COURSES IN ZOOLOGY:

- \_\_\_ 1114 Introductory Zoology
- \_\_\_ 1121 Introductory Zoology Laboratory
- \_\_\_ 2012 Foundations in the Biomedical Sciences
- \_\_\_ 2011 Critical Evaluation of Biological Research
- \_\_\_ 3333 Genetics

and at least **one** from each of the following core groups:

#### ANATOMY

- \_\_\_ 2094 Invertebrate Zoology
- \_\_\_ 2204 Comparative Vertebrate Anatomy

#### POPULATION BIOLOGY

- \_\_\_ 3013 Evolution
- \_\_\_ 3083 Animal Behavior
- \_\_\_ 3403 Principles of Ecology (includes lab)

#### ORGANISMAL BIOLOGY

- \_\_\_ 3103 Principles of Physiology
- \_\_\_ 3203 Animal Development

#### CELLULAR BIOLOGY

- \_\_\_ 3113 Cell Biology
- \_\_\_ 4843 Introduction to Molecular Biology

\_\_\_ At least **one** 4000 or 5000 level course not included in core is required.  
(Independent study courses are not acceptable.)

\_\_\_ At least **two** upper division courses with laboratories are required.  
(Independent study courses are not acceptable.)

Some examples are: ZOO 3092, Animal Behavior Laboratory; ZOO 3101, Principles of Physiology Laboratory; ZOO 3201, Animal Development

Laboratory; ZOO 3342, Genetics Laboratory. This requirement can also be met by many of our field-based courses or upper division courses with an integrated lab section.

\_\_\_ 4983 Senior Seminar

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REQUIRED COURSES IN RELATED SUBJECTS:

\_\_\_ Math 1823 Calculus I      OR      \_\_\_ Math 1743 Calc. I-Bus./Soc. Sci.

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\_\_\_ Physics 2414 or 2514 General Physics

\_\_\_ Physics 2424 or 2524 General Physics

\_\_\_ Physics 1302 Physics Laboratory

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\_\_\_ Chemistry 1315 General Chemistry

\_\_\_ Chemistry 1415 General Chemistry (Continued)

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\_\_\_ Chemistry 3053 Organic Chemistry

\_\_\_ Chemistry 3153 Organic Chemistry

\_\_\_ Chemistry 3152 Organic Chemistry

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\_\_\_ Chemistry 3653 Introduction to Biochemistry

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\_\_\_ Microbiology 3813 Fundamentals of Microbiology      OR

Botany 1114 General Botany      OR      MBIO 2815 Intro. to Microbiology

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\_\_\_ One approved course in the History or Ethics of Science or Medicine. The course must be from the approved General Education list or an Honors Colloquium. (HSCI 3013, HSCI 3023, or appropriate HON 3993).

A computer science course and a statistics course are strongly recommended.

Zoology 1005 (Concepts in Biology), Zoology 1203 (Age of Dinosaurs), Zoology 2124 (Human Physiology), Zoology 2255 (Human Anatomy), Zoology 2343 (Human Heredity) and Zoology 3823 (Physiology of Exercise) may not be counted for major credit.

FOR INQUIRIES-Zoology Advisory Office, Richards Hall, Room 209B (405)325-5661