Recommendation of the Academic Program and Curriculum Committee to establish a major in Biological Sciences (BA/BS) to replace the current separate majors in Botany (BA/BS).

RATIONALE: The consolidation of the current separate majors in Botany and Zoology into a major in Biological Sciences is an important step in the organization and development of the new Department of Biological Sciences. This proposed new major has the endorsement of the Course and Curriculum Committee and the Dean of the College of Letters and Science. (See attached sheet for current and proposed requirements.) The Academic Program and Curriculum Committee concurs with the College of Letters and Science concerning the appropriateness of a consolidated major.

Academic Program and Curriculum Committee

Harold Boettcher
Thomas Bontly
Davy Carozza
David Gableman
Maggi Herrick
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Barbara MacBriar
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N. J. Papastamatiou
Betty Ritchie
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Rachel I. Skalitzky, Chair
Dean Sam Yarger (ex-officio)
CONSORTIATION OF MAJORS (BA/ES) IN BOTANY AND
ZOOLOGY TO MAJOR (BA/ES) IN BIOLOGICAL SCIENCES

CURRENT

BOTANY

Course of Study

For a major, a minimum of 30 credits in botany is required. These may be selected under either of two options. Option A is for students who wish botanical background as preparation for a career in life sciences and who may plan graduate work in botany. This option requires advanced work (300-level courses or above) in anatomy or morphology, genetics, plant identification, ecology, plant physiology (with laboratory), and senior seminar or senior thesis. Students must also complete a semester of Calculus (Mathematics 231: Survey in Calculus and Analytic Geometry) or a semester of statistics, a year of college chemistry equivalent to Chemistry 102 (General Chemistry) and Chemistry 104 (General Chemistry and Quantitative Analysis) and, if planning to concentrate in physiology or genetics, should take two semesters of Calculus (Mathematics 231 and Mathematics 232 [Calculus and Analytic Geometry]. No more than seven credits in 100-level courses in botany or biology may be counted toward the option A major. Students contemplating graduate study are advised to complete a year of course work in zoology and physics with laboratory and at least one semester of organic chemistry or biochemistry with laboratory. Option B carries no specific course requirements except that 20 credits must be in courses numbered 300-699. It is designed for students desiring a background knowledge of plants which may relate to other professions and for those concerned with aesthetic or cultural values and the relationships of plants to human life.

To best utilize the flexibility of this major, students are urged to consult an adviser before their junior year. (See also Committee Interdisciplinary Major.)

A major in biology is available in the College of Letters and Science as a committee interdisciplinary major or as a teaching major.

For the teaching major and minor, see the School of Education section. Related special majors are Biological Aspects of Conservation and the pre-forestry wildlife management program.

ZOOLOGY

Course of Study

The major in zoology requires a minimum of 30 credits in zoology, including at least 10 credits in zoology laboratory courses and at least 15 upper division credits. One semester of college mathematics (Mathematics 131 or equivalent), chemistry through organic with one semester of laboratory (Chemistry 341-342 or Chemistry 343-44-45), and physics—one year of lecture (Physics 120 and 122 or equivalent) and one semester of physics lab either Physics 121 or 123 or equivalent—are also required. No more than 6 credits in 100-level courses in biology and zoology may be applied toward the zoology major. Zoology 102 or 203 cannot be combined for more than 7 credits toward the zoology major. Zoology 101, 202, and 203 combined give 9 credits in the major. Cross-listed courses in microbiology andbotany earn credit in the zoology major as do all courses in biology (area code 2041 and selected advanced courses in Microbiology.

The major in Biological Sciences requires a minimum of 30 credits in biology including Biological Sciences 150 and 152 or equivalent, Biological Sciences 260 or equivalent, with 15 of the credits in upper division credits (courses numbered 300 or above) and at least 18 credits in laboratory courses. Students must choose a minimum of 5 credits (4 courses) from each of the following areas: Plant Biology; Animal Biology; Molecular and Microbiology; and Environmental and Evolutionary Biology, and are required to take 1 credit of undergraduate seminar. No more than 8 credits in 100-level courses in biological sciences may be applied toward the major. Biological Sciences 150-152 or equivalent are required as the beginning courses for those intending to major in Biological Sciences.

Additionally, one semester of college mathematics, at the level of Math 112 or above, chemistry through organic with one semester of laboratory (Chem. 341-342, or Chem 343-344-345), and one year of physics lecture (Physics 120 and 122 or equivalent) and one semester of physics laboratory are required. Students who plan to attend graduate or professional schools are strongly advised to take one
year of organic chemistry with lab, a course in biochemistry, one year of physics with lab and one year of calculus.

Prospective biological science majors are requested to consult with an advisor as early as possible, and in any case before the beginning of the junior year, in order to outline an appropriate course of study. All students should consult their advisor at least once each semester.