

Proposal to Academic Policies Committee

Department of Biology

Proposal I: Require a pre-requisite of Chemistry103 (Introduction to General, Organic, and Biological Chemistry) or Chemistry152 (General Chemistry I) for Biology140 (Anatomy and Physiology II).

Proposal II: Renumber BIO305 (Organismal Biology) to be a lower-division course, BIO212.

Total course additions: 0

Total course deletions: 0

Total unit additions: 0

Total unit deletions: 0

Staffing increase/decrease: 0

Catalog Revisions for Course Descriptions:

Current Catalog Descriptions:

BIO 140 (4) HUMAN ANATOMY AND PHYSIOLOGY II

The second semester of a sequence which examines the human body from an integrated perspective emphasizing the interrelationship of structure and function. Topics include endocrine system and reproduction, cardiovascular system, immune system, respiratory system, digestive system, and urinary system. Does not count for credit toward the Biology major. Lecture and lab. Offered every year.

Prerequisite: Biology 130.

BIO 305 (3) ORGANISMAL BIOLOGY

Principles of animal and plant structure, function and diversity. Lecture and lab. Offered every year.

Prerequisite: Biology 211.

Proposed Catalog Descriptions:

BIO 140 (4) HUMAN ANATOMY AND PHYSIOLOGY II

The second semester of a sequence which examines the human body from an integrated perspective emphasizing the interrelationship of structure and function. Topics include endocrine system and reproduction, cardiovascular system, immune system, respiratory system, digestive system, and urinary system. Does not count for credit toward the Biology major. Lecture and lab. Offered every year.

Prerequisite: Biology 130 and Chemistry 103 or Chemistry 152.

BIO 212 (3) ORGANISMAL BIOLOGY

Principles of animal and plant structure, function and diversity. Lecture and lab. Offered every year.

Prerequisite: Biology 211.

Rationale for Proposal I:

Biology 140 is normally taken after Biology 130 (Anatomy & Physiology I); both courses are designed to serve the needs of students in particular undergraduate programs within Nursing, Kinesiology, and Family and Consumer Sciences. BIO130 already has a co-requisite of Chemistry 103 or Chemistry 152. A background in chemistry is essential for students to succeed in the physiology component of both BIO130 and BIO140. Some students are taking BIO130 elsewhere without the Chemistry co-requisite, or enrolling in BIO130 at PLNU and then dropping the Chemistry course. These students then enroll in BIO140, but typically do not do well, because they lack basic chemical knowledge. Thus, we would like to make Chemistry a pre-requisite for BIO140.

Although this change applies to a small population of students, we feel that it is important in order for the students to comprehend the material in BIO140. Importantly, the Nursing, Athletic Training, Kinesiology, Physical Education, Nutrition, and Dietetics majors whom this course services already have Chemistry 103 or Chemistry 152 as a requirement for their major, so this change would not add any units to any of these majors.

This change was discussed with the Chairs of Chemistry, Nursing, Kinesiology, and Family and Consumer Sciences, and they endorse it wholeheartedly.

Rationale for Proposal II:

BIO305 (Organismal Biology) is a new course that just received APC approval last year, and it has not been taught yet. Essentially, BIO215 (Animal Biology) was split into two courses: BIO211 (Ecological & Evolutionary Systems) and BIO305 (Organismal Biology). The content of Organismal Biology is intended for an audience of freshman or sophomores, and thus it should be numbered as a lower-division course. All of our Biology lower-division courses have 200 level numbers, so we would like to renumber Organismal Biology into the freshman/sophomore sequence as BIO212. This change will also allow transfer students to transfer similar courses from the community colleges, as this course is a common one for transfer credit.

Library Impacts: None.

Technological Impacts: No additional lab space or software is required for these changes.

Recorded Department Vote: Unanimous.

Other catalog changes that are not action items:

Below is a catalog mistake that needs to be rectified. Changes are in bold and strikethrough font.

BIO 301 (2) RESEARCH METHODOLOGY

This course builds upon the basis of the scientific method that students are exposed to as freshmen. It focuses on teaching students how to develop biological questions, search databases to obtain background information, design scientific experiments, and analyze data. The course will focus more specifically on how research data is obtained, how experimental knowledge and data are dispersed amongst the scientific community, and how these data are used as a base for correlating new data and upon which new experimentation is based.

Lecture and laboratory. Offered as a Quad course.

PreCo-requisites: Mathematics 362 or consent of instructor.

Explanation: Students take MTH362 Quad 1, and BIO301 Quad 2. Kristie Camet says that this should be listed as a co-requisite in order to make the registration process correct.