

LEHMAN COLLEGE OF THE CITY UNIVERSITY OF NEW YORK**DEPARTMENT OF BIOLOGICAL SCIENCES****CURRICULUM CHANGE**

1. **Type of change:** New Course

2. **Course Description:**

BIO 270: Invertebrate Zoology; *3 hours (lecture), 3 credits.* Anatomy and natural history of invertebrates. Evolutionary relationships and functional problems presented by the environment and the mechanisms by which they are solved.

3. **Rationale:**

This new course will replace the lectures offered in BIO 266, which included lectures and labs. In a separate application, we are proposing the new course BIO 271 (Invertebrate Zoology Laboratory). Given the increase in modern information regarding the more than 17 phyla of the invertebrates, two hours is no longer sufficient for proper coverage of this material. Therefore, we are proposing a split which will allow an increase in the lecture course to 3 hours. In addition, the laboratory course, which will have a heavy field component involving marine representatives, requires the availability of a ship acquired from SUNY Maritime College for this purpose. Separating the lecture from the lab provides the necessary flexibility to be able to offer the lecture course at times when the ship is not available and so the laboratory course could not be offered.

4. **Learning Objectives:** By the end of the course, students will be expected to:

- Demonstrate an understanding of invertebrate evolution.
- Identify the anatomy of several different invertebrate species.
- Demonstrate an understanding how invertebrates have adapted to diverse environments.
- Understand the ecological importance of invertebrates in the biosphere.
- Demonstrate knowledge of the impact of invertebrate parasites to human ecology.

5. **Date of Departmental Approval:**

4/6/2011

LEHMAN COLLEGE OF THE CITY UNIVERSITY OF NEW YORK

DEPARTMENT OF BIOLOGICAL SCIENCES

CURRICULUM CHANGE

1. Type of change: New Course

2. Course Description:

BIO 271: **Invertebrate Zoology Laboratory**; 4 hours (lab), 2 credits

Techniques used in the study of invertebrates.

Pre or Corequisite: Invertebrate Zoology, BIO 270.

3. Rationale:

The lectures will be offered as a new course (BIO 270). Separation of the laboratory into a stand alone course allows for scheduling and curriculum flexibility. Separation of the lab and lectures will also allow sufficient time for the amount of material to be covered in order to meet learning objectives.

4. Learning Objectives:

By the end of the course students will demonstrate an understanding of laboratory methods used to study invertebrate animals, and will be expected to:

- Describe the anatomy of invertebrates in detail
- Demonstrate knowledge of the anatomy of representatives of the invertebrate groups with an eye towards recognizing why various organisms are grouped together within the taxonomic hierarchy
- Perform careful observations, measurements and dissections of specimens.
- Draw well labeled diagrams, to scale, of the specimens studied.
- Demonstrate an appreciation and an understanding of invertebrate evolution

5. Date of Departmental Approval:

4/6/2011

**LEHMAN COLLEGE
CITY UNIVERSITY OF NEW YORK**

DEPARTMENT OF BIOLOGICAL SCIENCES

CURRICULUM CHANGE

1. Type of Change: Experimental Course

2. Course Description: BIO 340. Human Body and Brain. 3 hours, 3 credits.
Human anatomy and physiology with emphasis on the brain's role in regulating body functions. PREREQUISITES: BIO 166, BIO 167.

3. Rationale: Currently, a large number of students in the Department of Biological Sciences intend to apply to medical, dental or veterinary schools or allied health care programs. Nonetheless, the department does not have a course in human anatomy and physiology open to students majoring in biology. This course would prepare our students to attend such schools or programs. In a separate application, we are proposing the new, experimental course BIO 341 containing the anatomy and physiology lab classes only. Separation of the lectures and the lab classes allows for scheduling and curriculum flexibility.

4. Learning objectives: By the end of the course students will have a:

- Strong foundation in human anatomy and physiology
- Holistic view of the body and an understanding of the brain's role in coordinating the activities on multiple body systems and the brain's interactions with various body organs.
- Understanding of the central role of the brain in maintaining homeostasis by controlling human body responses to internal and external stimuli.
- Basic understanding of disease states
- Understanding of the progression from cell to tissue to organ to organ system

5. Date of Departmental Approval: April 6th 2011

**LEHMAN COLLEGE
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**DEPARTMENT OF BIOLOGICAL SCIENCES
CURRICULUM CHANGE**

1. Type of Change: Experimental Course

2. Course Description: BIO 341: Human Body and Brain Laboratory; 4 hours(Lab) 2 credits. Laboratory focused on anatomical structures of the body organs and the brain. Pre or Corequisite: Human Body and Brain, BIO 340.

3. Rationale: The lectures will be offered as a new, experimental course (BIO 340). Lecture and laboratory components of the course are separated to allow for more efficient class scheduling and for curriculum flexibility.

4. Learning Objectives: By the end of the course students will be able to:

- identify anatomical structures of the human body and the brain.
- understand the functional significance of these structures.
- identify normal structures versus abnormal structures
- understand the progression from cell to tissue to organ to organ system
- understand and identify in a comprehensive fashion the connection between the brain and various body organs

5. Date of Departmental Approval: April 6, 2011