1. **Type of Change**: New 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 a new 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.  
   - Based on research, we will explore 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
LEHMANN COLLEGE
OF THE
CITY UNIVERSITY OF NEW YORK

DEPARTMENT OF BIOLOGICAL SCIENCES

CURRICULUM CHANGE

1. Type of Change: New 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 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
LEHMAN COLLEGE
OF THE
CITY UNIVERSITY OF NEW YORK
DEPARTMENT OF BIOLOGY
CURRICULUM CHANGE

1. Type of change: New Course

2. Course Description: BIO 440. Biology Journal Review. 3 hours (1 lecture; 2 lab), 2 credits. PREREQ: BIO 166 & 167, and one additional BIO course. Reading, written critical review, student presentations and round-table discussion of current, primary research papers in biology.

3. Rationale: BIO 440, Biology Journal Club, 3 hours, 2 credits
The department does not have a course that involves a faculty member at a large table with a small group of students, discussing science and dissecting research papers in critical review. Journal club courses are common in the CUNY PhD Program in Biology and are needed in our undergraduate program for maturation and career development of our majors.

4. Learning Objectives
To increase the exposure to scientific communication and to the syntax and grammar of science, as guided by informal, round-table conversation with faculty.

To develop the written and oral communication skills of our students through the use of student presentations and written critical reviews.

To enhance career development of our students by faculty-guided questions, 1) is the research hypothesis-driven, observational or exploratory? 2) are hypotheses explicit and/or what are the questions being asked? 3) are the Methods clear and how were the data collected? 4) do the graphs, tables and images communicate, do the legends contain the necessary and sufficient information and overall, are the results clear? 5) is statistical analysis present and appropriate? 6) are the Conclusions supported by the Results? 7) what should be done next? 8) could the writing be improved and if so, how? and 9) if available, are the online supporting materials such as the raw data and detailed methods, useful?

To increase their quantitative reasoning by critical reading and analysis of peer reviewed scientific publication as well as increasing the students understanding of responsible conduct in science through discussions of research ethics and case studies thereof.

9. Date of Departmental Approval: November 11, 2010