

**LEHMAN COLLEGE
OF THE
CITY UNIVERSITY OF NEW YORK**

DEPARTMENT OF BIOLOGICAL SCIENCES

CURRICULUM CHANGE

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

2.

Department(s)	Biological Sciences
Career	<input checked="" type="checkbox"/> Undergraduate <input type="checkbox"/> Graduate
Academic Level	<input checked="" type="checkbox"/> Regular <input type="checkbox"/> Compensatory <input type="checkbox"/> Developmental <input type="checkbox"/> Remedial
Subject Area	Biology
Course Prefix & Number	BIO 232
Course Title	Human Anatomy
Description	A survey of the human anatomical structures at the molecular, cellular, histological, and organ system levels for biology majors. Laboratory exercises include microscopic and gross anatomical identification, dissection, and presentation skills. Note: The course is NOT open to nursing majors as a substitute for BIO 181 or BIO 182.
Pre/ Co Requisites	Grade of C or better in BIO 166 and BIO 167.
Credits	4
Hours	6 (2, lecture; 4 lab)
Liberal Arts	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Course Attribute (e.g. Writing Intensive, WAC, etc)	
General Education Component	<input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Required <input type="checkbox"/> English Composition <input type="checkbox"/> Mathematics <input type="checkbox"/> Science <input type="checkbox"/> Flexible <input type="checkbox"/> World Cultures <input type="checkbox"/> US Experience in its Diversity <input type="checkbox"/> Creative Expression <input type="checkbox"/> Individual and Society

	_____ Scientific World
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3. **Rationale:**

1) A new course in human anatomy that counts towards the biology major. 2) A note is added for nursing students to prevent them from taking a course designed for biology majors.

4. **Learning Outcomes (By the end of the course students will be expected to):**

Measurable outcomes in agreement with the department's assessment goals ([link to goals](#)).

- Identify the major gross and microscopic anatomical features of each of the body's major organ systems.
- Dissect and analyze major organs of mammalian specimens to understand anatomical features of human organs.
- Create and give a presentation on the anatomy of an organ system.

5. **Date of Departmental Approval:** February 5, 2025

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Academic Level	<input checked="" type="checkbox"/> Regular <input type="checkbox"/> Compensatory <input type="checkbox"/> Developmental <input type="checkbox"/> Remedial
Subject Area	Biology
Course Prefix & Number	BIO 233
Course Title	Human Physiology
Description	<p>A survey of the human physiological functions at the molecular, cellular, histological, and organ system levels for biology majors. Laboratory exercises include experimental approaches to understanding the human body functions, clinical case studies, and presentation skills.</p> <p>Note: The course is NOT open to nursing majors as a substitute for BIO 181 or BIO 182.</p> <p>Note: The course is NOT open to biology majors who have completed BIO 228.</p>
Pre/ Co Requisites	Grade of C or better in BIO 166 and BIO 167
Credits	4
Hours	6 (2, lecture; 4 lab)
Liberal Arts	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Course Attribute (e.g. Writing Intensive, WAC, etc)	
General Education Component	<input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Required <input type="checkbox"/> English Composition <input type="checkbox"/> Mathematics <input type="checkbox"/> Science <input type="checkbox"/> Flexible <input type="checkbox"/> World Cultures

	<input type="checkbox"/> US Experience in its Diversity
	<input type="checkbox"/> Creative Expression
	<input type="checkbox"/> Individual and Society
	<input type="checkbox"/> Scientific World

3. Rationale:

1) A new course in human physiology that counts towards the biology major. 2) A note is added for nursing students to prevent them from taking a course designed for biology majors. 3) A note is added for biology majors because the topics covered in Bio 228 (Mammalian Physiology) overlap with those covered in Bio 233 (Human Physiology).

4. Learning Outcomes (By the end of the course students will be expected to):

Measurable outcomes in agreement with the department's assessment goals ([link to goals](#)).

- Specify how chemical reactions synthesize or break down various organic molecules.
- Describe how various cell types of the body function distinctly from each other.
- Characterize the functions of each of the major tissue types of the human body.
- Describe the major physiological processes of the organ systems of the human body.
- Use clinical data to make predictions about the physiological state of a human patient.
- Run experiments centered around human physiology and collect and analyze the data from these experiments.
- Create and give a presentation on a major human pathophysiological condition.

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CURRICULUM CHANGE

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

2.

Department(s)	Biological Sciences
Career	<input checked="" type="checkbox"/> Undergraduate <input type="checkbox"/> Graduate
Academic Level	<input checked="" type="checkbox"/> Regular <input type="checkbox"/> Compensatory <input type="checkbox"/> Developmental <input type="checkbox"/> Remedial
Subject Area	Biology
Course Prefix & Number	BIO 265
Course Title	Space Biology and Medicine
Description	How biological systems respond to the space environment, including health and physiological effects. Research in drug development, preventative measures, and clinical applications to mitigate health risks associated with spaceflight, as well as on-earth applications. Laboratory reinforces lecture content. Note: Closed to students who have completed BIO 229.
Pre/ Co Requisites	BIO 166 and BIO 167
Credits	4
Hours	6 (2, lecture; 4, lab)
Liberal Arts	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Course Attribute (e.g. Writing Intensive, WAC, etc)	
General Education Component	<input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Required <input type="checkbox"/> English Composition <input type="checkbox"/> Mathematics <input type="checkbox"/> Science <input type="checkbox"/> Flexible <input type="checkbox"/> World Cultures <input type="checkbox"/> US Experience in its Diversity <input type="checkbox"/> Creative Expression <input type="checkbox"/> Individual and Society <input type="checkbox"/> Scientific World

3. Rationale:

The course is topical as there is currently a keen interest among the general public in space exploration and research, as well as cutting-edge spin-off technologies that may lead to advancements in the fields of health and medicine. The course will provide an exciting elective option for students on the pre-med track. A note is added because students will not benefit from taking BIO 265 and BIO 229. BIO 265 covers some concepts that overlap with those in BIO 229.

4. Learning Outcomes (By the end of the course students will be expected to):

- Analyze the role and importance of space biology and medical research in advancing our understanding of how biological systems respond to the space environment, including impacts on human health and physiology.
- Be able to conduct literature searches on relevant topics, analyze data, and convey results.
- Gain competency in interpreting and assessing quantitative data in various formats (ie., graphs and tables).
- Develop communication skills showcasing the acquisition, understanding, and development of scientific literacy.
- Be able to identify human anatomical structures on models and describe the physiological impacts of spaceflight on these structures.
- Develop microscopy skills and be able to identify and describe various human cell and tissue types.

5. Date of Departmental Approval: February 5, 2025

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DEPARTMENT OF BIOLOGICAL SCIENCES

CURRICULUM CHANGE

1. **Type of Change:** *Course description and title*

2. **From:** ~~Strike through~~ the changes

Department(s)	Biological Sciences
Career	<input checked="" type="checkbox"/> Undergraduate [] Graduate
Academic Level	<input checked="" type="checkbox"/> Regular [] Compensatory [] Developmental [] Remedial
Subject Area	Biology
Course Prefix & Number	BIO 242
Course Title	Flowering Plants
Description	Identification and classification of flowering plants by the use of manuals. The characteristics and evolutionary position of selected families, including a discussion of economically important plants. Laboratory work is supplemented by field trips.
Pre/ Co Requisites	BIO 166 and BIO 167
Credits	4
Hours	6 (2, lecture; 4, lab)
Liberal Arts	<input checked="" type="checkbox"/> Yes [] No
Course Attribute (e.g. Writing Intensive, WAC, etc)	
General Education Component	<input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Required <input type="checkbox"/> English Composition <input type="checkbox"/> Mathematics <input type="checkbox"/> Science <input type="checkbox"/> Flexible <input type="checkbox"/> World Cultures <input type="checkbox"/> US Experience in its Diversity <input type="checkbox"/> Creative Expression <input type="checkbox"/> Individual and Society <input type="checkbox"/> Scientific World

3. **To:** Underline the changes

Department(s)	Biological Sciences
Career	<input checked="" type="checkbox"/> Undergraduate <input type="checkbox"/> Graduate
Academic Level	<input checked="" type="checkbox"/> Regular <input type="checkbox"/> Compensatory <input type="checkbox"/> Developmental <input type="checkbox"/> Remedial
Subject Area	Biology
Course Prefix & Number	BIO 242
Course Title	<u>Urban Agriculture: Gardening for Change</u>
Description	<u>Planting and maintaining a vegetable garden on Lehman's campus. Students will gain familiarity with plants both in lecture and a field-based lab while exploring issues of food insecurity, alternative agricultural systems, biodiversity, the preservation of landraces and rare cultivars, ethnobotany, and environmental racism.</u>
Pre/ Co Requisites	BIO 166 and 167
Credits	4
Hours	6 (2, lecture; 4, lab)
Liberal Arts	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Course Attribute (e.g. Writing Intensive, WAC, etc)	
General Education Component	<input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Required <input type="checkbox"/> English Composition <input type="checkbox"/> Mathematics <input type="checkbox"/> Science <input type="checkbox"/> Flexible <input type="checkbox"/> World Cultures <input type="checkbox"/> US Experience in its Diversity <input type="checkbox"/> Creative Expression <input type="checkbox"/> Individual and Society <input type="checkbox"/> Scientific World

4. Rationale (Explain how this change will impact the learning outcomes of the department and Major/Program):

Changes in the 1) title and 2) description of BIO 242 clarify the course's focus on crop and medicinal plants capable of growing in an urban environment and their contributions to the biodiversity and ecosystem function of Lehman's campus. Students will gain in-field experience of how to design, propagate, plant, and maintain a vegetable garden, which will provide them with organic produce for their consumption.

5. Date of departmental approval: February 5, 2025