

Division/School Approval:	<u>3/1/19</u>	<u>TMC</u>
	Date	Initial
Curriculum Committee Approval:	<u>4/26/19</u>	<u>TSG</u>
	Date	Initial
Faculty Approval:	<u>5/17/19</u>	<u>DSU</u>
	Date	Initial

**SUNY SCHENECTADY
Course Outline**

ACADEMIC DIVISION/SCHOOL: Math, Science, Technology, and Health

PREPARED BY: Richard Simons, Syeda Munaim, Catherine Repicky, Paula Diguiseppe, Melissa Boles, Margaret McLellan-Zabielski

COURSE CODE: BIO 112 **COURSE TITLE:** Human Biology

LECTURE HOURS/WEEK: 3 **LAB HOURS/WEEK:** 3 **CREDIT HOURS:** 4

PREREQUISITE/S: None

PREREQUISITE or CONCURRENT COURSE: None

COREQUISITES: None

FINAL EXAM REQUIRED: yes

COURSE DESCRIPTION:

This course introduces the structure and function of the human body. The course provides an overview of the major organ systems of the body including the integumentary, skeletomuscular, nervous, endocrine, cardiovascular, immune/lymphatic, digestive, respiratory, urinary, and reproductive. The course explores the human body as a biological system having a hierarchical organization. The laboratory complements the lecture topics and includes dissection. This course is not recommended for students pursuing science programs.

SUNY Schenectady Core Principle Course	yes
SUNY General Education Course	yes

STUDENT LEARNING OUTCOMES:

Students who have successfully completed this course will:

- identify the fundamental biological principles common to all living systems at the atomic, molecular, cellular, tissue, organ and organ system levels;
- identify the organs of the body and describe the interactions between organ systems to maintain homeostasis;
- communicate using appropriate anatomical terminology; and
- implement experimental techniques using direct observations of the human skeleton, models, dissections, computer software, and microscope for the observation of cells, tissues and organs.

REPRESENTATIVE TEXT/S:

OpenStax College, Anatomy and Physiology. OpenStax CNX. Nov 21, 2018

<http://cnx.org/contents/14fb4ad7-39a1-4eee-ab6e-3ef2482e3e22@12.8>.

Mader, S.S. (Current Edition). *Human biology laboratory manual*. New York, NY: McGraw-Hill Education.

SUPPLEMENTARY MATERIALS:

Online work, dissection kit.

NOTE: Grading and assessment criteria may appropriately differ. Grades focus on what individual students have learned while assessments focus on entire cohorts of students. Each instructor will determine his/her grading criteria for the course and state on the course syllabus.

EVALUATION METHODS

Evaluation will include exams and laboratory practical exams, and can include other methods such as laboratory reports and written assignments.

REQUIRED ASSESSMENT METHODS:

Assessment results from these methods will be used for course-level assessment and, where applicable, for SUNY Schenectady core principles and SUNY General Education Knowledge and Skills areas. This information will be incorporated in program reviews.

Student Learning Outcome	Method(s)
Identify the fundamental biological principles common to all living systems at the atomic, molecular, cellular, tissue, organ and organ system levels.	Examination
Identify the organs of the body and describe the interactions between organ systems to maintain homeostasis.	Examination
Communicate using appropriate anatomical terminology.	Examination
Implement experimental techniques using direct observations of the human skeleton, models, dissections, computer software, and microscope for the observation of cells, tissues and organs.	Laboratory Practical

NOTE: College policy requires a final exam or final week activity.

COURSE CONTENT OUTLINE:

COURSE: BIO 112 – Human Biology

Week 1	Course Introduction and Body Organization
Week 2	Chemistry of Life
Week 3	Cell Structure and Function; Patterns of Chromosome Inheritance
Week 4	Regulation of Body Systems and Tissues
Week 5	Integument System
Week 6	Skeletal System
Week 7	Muscular System
Week 8	Nervous System
Week 9	Endocrine System
Week 10	Cardiovascular System: Blood and Heart
Week 11	Blood Vessels and Lymphatic System and Immunity
Week 12	Digestive System and Nutrition
Week 13	Respiratory System
Week 14	Urinary System
Week 15	Reproductive System
Final Week	Final Examination

COURSE LABORATORY CONTENT OUTLINE:

COURSE: BIO 112 – Human Biology Laboratory

Week 1	The Microscope and Measurements
Week 2	Orientation of the Human Body
Week 3	Organic Compounds/Macromolecules
Week 4	Cell Physiology (Transport and Diffusion)
Week 5	The Skeletal System
Week 6	The Muscular System Review
Week 7	Lab Practical I
Week 8	Mammalian Dissection
Week 9	Nervous System I: Brain and Spinal Reflexes
Week 10	Nervous System II: The Special Senses
Week 11	Cardiovascular System I: Blood typing
Week 12	Cardiovascular System II: Heart and Blood Vessels
Week 13	Respiratory System; Lung Capacity and Carbon Dioxide Production
Week 14	Urinary System; Urinalysis Review
Week 15	Lab Practical II