



Human Biology
BIOL 0112
3 credits

Description: General principles of genetics, biochemistry, anatomy, and physiology are illustrated with reference to normal human body functions. Topics are structured to allow the student to better appreciate contemporary issues and controversies.

Prerequisite: None

Textbook: *Human Biology*, 16th Edition by Sylvia Mader and Michael Windelspecht. Other textbooks will be considered by the faculty liaison on a case-by-case basis.

The following topics should be covered in this course:

1. Biological chemistry
2. Cell structure and function
3. Histology
4. Organization and regulation of body systems
5. Cardiovascular system
6. Respiratory system
7. Infectious diseases and the immune system
8. Digestive system and nutrition
9. Urinary system
10. Skeletal system
11. Muscular system
12. Nervous and sensory systems
13. Endocrine system
14. Reproductive system
15. Development and aging
16. Genetics and molecular genetics

Course objectives:

- Apply scientific methods to the study of human biology.
- Apply basic principles of chemistry to human biology.
- Describe the structure and function of cells and the processes of cell division (mitosis and meiosis).
- Identify the major microscopic and macroscopic structural features of the human body.
- Provide examples of the relationship between anatomical structures and body functions.
- Identify the organ systems of the body and their major components and functions.
- Describe the fundamental mechanism of heredity and perform basic genetics calculations.

- Describe some commonly encountered pathological and genetic conditions.
- Discuss the function of the immune system in health and disease.
- Describe how factors such as nutrition, drugs, pollutants and stress can affect human health.

Grading: The final grade will be determined using a variety of assessment methods, including a final exam that is worth at least 10% of the class grade.

Pitt Grading System:

All courses required to satisfy associate and baccalaureate degree requirements- including all courses required for a major, a minor, or general education- must be taken for letter grades, with the exception of those courses designated as graded S and NC only. Pitt-Bradford uses 13 earned letter grades. They are listed below with their equivalent quality point values.

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| A+ | 4.00 |
| A | 4.00 superior achievement |
| A- | 3.75 |
| B+ | 3.25 |
| B | 3.00 meritorious achievement |
| B- | 2.75 |
| C+ | 2.25 |
| C | 2.00 adequate achievement |
| C- | 1.75 |
| D+ | 1.25 |
| D | 1.00 minimal achievement |
| F | 0.00 failure |

Academic Integrity and Plagiarism: Members of a university community, both faculty and students, bear a serious responsibility to uphold personal and professional integrity and to maintain complete honesty in all academic work. Violations of the code of academic integrity are not tolerated. Students who cheat or plagiarize or who otherwise take improper advantage of the work of others face harsh penalties, including permanent dismissal. The academic integrity guidelines set forth student and faculty obligations and the means of enforcing regulations and addressing grievances.

Grades: Grade criteria in the high school course may be different from the University standards. A CHS student could receive two course grades, one for high school and one for the University transcript. In most cases, the grades are the same. Grading standards should be explained at the beginning of the course.

Transfer Credits: Grades earned in CHS courses appear on an official University of Pittsburgh transcript and the course credits may be eligible for transfer to other colleges and universities. Students should contact potential colleges and universities in advance to be sure their CHS credits will be accepted. If students will attend any University of Pittsburgh campus, grade earned in the course will count toward the student grade point average at the University. At the University of Pittsburgh, the CHS course supersedes any equivalent AP credit.

Drops and Withdrawals: Students should monitor their progress in a course. A CHS teacher can contact the program administrators to request a drop or withdrawal. Dropping or withdrawing from the CHS course has no effect on enrollment in the high school credits.