

Anatomy and Physiology, Majors

Semesters I and II

Upper-level or above (ex. Bio 331 and 332)

This is a *proposed* course template that individual institutions of higher education may choose to submit a course from their own A+P, Majors coursework, thereby making their A+P, Majors coursework automatically accepted at other institutions, state-wide.

Course description

Anatomy and Physiology, Majors (semesters I and II) is an in-depth, systematic study of the structure and function of the human body. All organ systems are covered. There is a significant hands-on, laboratory component. Pre-requisites are a grade of C or better in these three, one-semester courses: English Composition, Fundamentals of Biology (major's version) with laboratory, General Chemistry (major's version) with laboratory. Each semester, including the laboratory component, is four (4) credits.

Course transferability

"Anatomy and Physiology, Majors" is a two-semester pair of courses that prepares students for entry into pre-medical, other pre-professional schools, and graduate-level study in related fields. As such, it fulfills a role distinct from "Anatomy and Physiology, Health Care" courses. While the two types of A+P coursework share many learning outcomes, A+P, Majors addresses those objectives with significantly more rigor, and with different expectations, including greater emphasis on higher-level critical thinking.

Anatomy and Physiology, Majors must be transferred from a given institution as a pair. This is because it is vital that students learn (for example) all organ systems, and individual institutions do not necessarily cover the same systems in the same semesters. By accepting the two semesters piecemeal, a student might miss out on (for example) the circulatory system. However, when A+P courses are transferred as a pair, all systems are covered.

As a straight-forward way to distinguish the two types of A+P coursework, there are pre-requisite courses for A+P, Majors. In order for A+P, Majors to address course objectives at the appropriate, necessary level of rigor, students must be sufficiently prepared. Therefore, although specific course objectives in A+P, Majors may be nominally the same as those in A+P, Health Care, they are qualitatively different. In effect, the pre-requisites themselves make the two types of A+P coursework more than 30% different.

There is also a distinction between A+P, Majors and A+P courses that cover all topics in one semester only. It takes more time to address course objectives with the necessary rigor and depth.

Learning outcomes

These are the **essential goals** that **must** be covered in the two semesters of Anatomy and Physiology, Majors; additional material may vary among institutions and instructors.

1. Describe and apply appropriate anatomical terminology and physiological concepts.
2. Recognize, describe, and apply the core principles for analysis of structural organization and physiology of the human body.
3. Identify and explain the anatomy and physiology for components of the Integumentary, Muscular, Skeletal, Nervous, Endocrine, Circulatory, Lymphatic, Immune, Digestive, Urinary, Respiratory, Reproductive systems, and Special Senses.
4. Describe the relationship between anatomical structure and physiological function.
5. Interpret and predict healthy responses of the body after disruption of body homeostasis.
6. Discuss basic developmental aspects and evolutionary significance of each system.
7. Describe relevant interactions between different body systems.
8. Interpret and predict the anatomical and physiological foundation(s) for clinical conditions.
9. Master the major physiological concepts for each system and examine how the physiological interactions within the systems produce homeostatic balance.
10. Use laboratory procedures to examine and evaluate physiological functions in the human.
11. Design, conduct physiological experiments, collect and interpret data, evaluate significance of findings, and present results.
12. Predict and interpret the body's response to conditions in the normal and pathological state.

Template for Course Inventory

Please fill out the following table and submit attachment(s). Approved courses must be resubmitted every 5 years.

Please attach the following materials:

- Current working syllabus and lab syllabus that contains instructional goals and/or objectives
- Comprehensive final; in the absence of a comprehensive final no more than 5 sample assessments (student exercises, quizzes, exams, or other assessments).

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|---|---|-----------------|-------|
| Course # | | | |
| Course Title | | | |
| Beginning Term (when is/was it first offered?) | If more than five years, check box <input type="checkbox"/> | | |
| | If less than five years, enter date: | | |
| Credit Hours (including the entire course, lecture/lab) | Lecture: | | |
| | Lab (leave blank if no lab): | | |
| Co-/Pre-requisite (test scores for placement) | | Test | Score |
| | Pre-req: | | |
| | Co-req: | | |
| Successor Course: | | | |
| Catalog Description | | | |
| All Textbook(s)/Lab Manual | ISBN: | ISBN: | |
| | Title: | Title: | |
| | Publisher: | Publisher: | |
| | Author: | Author: | |
| | Edition: | Edition: | |
| | Copyright Year: | Copyright Year: | |

| Indicate the typical percentage of time spent on each learning outcome/topic | Learning Objective | % Time |
|--|--|--------|
| | 1. Describe and apply appropriate anatomical terminology and physiological concepts | |
| | 2. Recognize, describe, and apply the core principles for analysis of structural organization and physiology of the human body. | |
| | 3. Identify and explain the anatomy and physiology for components of the Integumentary, Muscular, Skeletal, Nervous, Endocrine, Circulatory, Lymphatic, Immune, Digestive, Urinary, Respiratory, Reproductive systems, and Special Senses. | |
| | 4. Describe the relationship between anatomical structure and physiological function | |
| | 5. Interpret and predict healthy responses of the body after disruption of body homeostasis. | |
| | 6. Discuss basic developmental aspects and evolutionary significance of each system. | |
| | 7. Describe relevant interactions between different body systems. | |
| | 8. Interpret and predict the anatomical and physiological foundation(s) for clinical conditions. | |
| | 9. Master the major physiological concepts for each system and examine how the physiological interactions within the systems produce homeostatic balance. | |
| | 10. Use laboratory procedures to examine and evaluate physiological functions in the human. | |
| | 11. Design, conduct physiological experiments, collect and interpret data, evaluate significance of findings, and present results. | |
| | 12. Predict and interpret the body's response to conditions in the normal and pathological state. | |
| Additional Comments: | | |

Name of individual submitting: _____

Email address: _____

Please contact Jodi Oliveto, jodi.oliveto@wvhepc.edu, Academic Affairs with questions