NorthWest Arkansas Community College
Division of Science & Mathematics

BIOL 2224 Anatomy and Physiology II

Catalog Description: The second of two courses examining basic human anatomy and fundamentals of human physiology. Topics discussed include circulation, the immune response, gas exchange, digestion, excretion and reproduction. Three hours lecture and three hours lab weekly.

Prerequisite: BIOL 2214 (A & P I) with a grade of C or better

Credit hours/Contact hours/Load hours: 4/6/5

Target Audience/Transferability: Designed primarily for students majoring in health occupations, this course introduces the structure and function of the human body. Successful completion of this course should prepare students for successful further study in the medical and allied health fields. BIOL 2224 will transfer to the University of Arkansas only if transferred with BIOL 2214 also. Always check with the transfer institution to verify how the course will be accepted.

Student Learning Outcomes: Students completing this course will:

- Recall and apply facts, vocabulary and relationships consistent with courses taught nationally for: the cardiovascular system, the lymphatic system, the immune system, the respiratory system, the digestive system, the urinary system, and the reproductive system.
- Use scientific reasoning to comprehend, evaluate and solve problems pertaining to course content.
- Locate and use information sources to further their knowledge of anatomy, physiology and health.
- Identify select anatomical structures on laboratory specimens.

Required Text(s):

- Martini, Fundamentals of Anatomy and Physiology, 8th edition, 2009, Pearson
- Marieb, Human Anatomy and Physiology Laboratory Manual w/MyAP Disk, 10th edition, 2008, Pearson
- Martini, Study Guide to Accompany Fund, 8th edition, Pearson (Recommended)

Topics:

- Cardiovascular system
- Lymphatic System and Immunity
- Respiratory System
- Digestive System
- Metabolism
- Urinary System
- Fluid and Electrolyte Balance
- Reproduction
- Development and Inheritance (as time allows)

Required Instructional Activities:

- Laboratory exercises should average between 2-3 hours a week and should include basic hematology, sheep heart dissection, dissection of a large mammal, ECG and spirometry.
- Since developing student higher order thinking skills and information literacy are essential outcomes, all instructors are asked to include learning activities that develop these outcomes in their courses and identify them in course syllabi.

Forms of Assessment:

- A national comprehensive exam (developed by the Human Anatomy and Physiology Society) will be given to all students as a final exam. This exam is 100 questions and covers information from both BIOL 2214 and BIOL 2224. Faculty will review results to assess the effectiveness of the course.
- A survey and/or focus group will be given to students who have completed their first year of allied health or nursing courses. The survey will ask students about their satisfaction regarding their preparation in human anatomy and physiology. They results of the survey will be distributed to faculty as part of course assessment. Full time A&P instructors will meet periodically with allied health and Nursing instructors and discuss strengths and deficiencies in student preparation.
- Since all instructors are asked to include learning activities that develop higher order thinking skills and research, instructors should describe how these activities will be evaluated in their course syllabi.
- Student evaluation should be based both on lab practical and written components