CUYAMACA COLLEGE
COURSE OUTLINE OF RECORD

BIOLOGY 251 – HUMAN DISSECTION

3 hours laboratory, 1 unit

Catalog Description
Supervised study of human anatomy through dissection of a human cadaver. Enhances knowledge gained from BIO 140 (Human Anatomy) by observing and relating those organ systems learned to an actual human cadaver. Students will identify surface landmarks and relate them to successively deeper structures, and will develop and refine dissecting skills used on human cadavers. Instruction of human anatomy at this level is intended to assist students pursuing careers in nursing and other allied health professions. *Preregistration counseling with instructor is required; class size is limited.*

Prerequisite
"C" grade or higher or "Pass" in BIO 140 or equivalent and recommendation from the student's Human Anatomy instructor

Entrance Skills
Without the following skills, competencies and/or knowledge, students entering this course will be highly unlikely to succeed:
1) Recognize the goals, methods and limitations of science.
2) Ability to design an experiment, gather and interpret data, and draw conclusions based on that data.
3) Recognize surface landmarks on the human body.
4) Identify, compare and contrast the major macroscopic and microscopic structural tissues, organs, and organ systems of the human body and relate each to function.
5) Recognize and discuss the significance of the interdependence of organs and organ systems in the human body.
6) Utilize techniques of dissection on preserved specimens.

Course Content
1) Proper use of anatomical terms
2) Acquisition and use of human remains
   a. donation programs
   b. scientific research programs
   c. education programs
   d. storage
   e. handling of human remains
3) Dissection
   a. techniques
   b. instruments
4) Gross anatomy (one regional section to be completed in subsequent semesters)
   a. head and neck
   b. thorax
   c. abdomen
   d. upper limb
   e. lower limb
   f. posterior torso

Course Objectives
Students will be able to:
1) Utilize techniques for handling and storing a preserved human specimen.
2) Demonstrate and convey to others a respectful attitude at all times toward the human specimen.
3) Utilize techniques of dissection on a preserved human while demonstrating appropriate techniques and use of instruments.
4) Identify and describe differences between actual human anatomy and information contained in textbook illustrations.
5) Discuss diseases, disorders, and conditions commonly found in various medical specialties.

Methods of Evaluation
A grading system will be established by the instructor and implemented uniformly. Grades will be based on demonstrated proficiency in subject matter determined by multiple measurements for evaluation, one of which must be essay exams, skills demonstration or, where appropriate, the symbol system.
1) Exams (practical) that assess students' ability to recognize, apply and integrate fundamental principles of anatomy.
2) In-class activities demonstrating appropriate and safe dissection techniques when working on a preserved human cadaver.
3) Written assignments that require students to develop and execute an appropriate plan of dissection based on textbook readings.
4) Oral presentations that demonstrate students' dissection techniques and knowledge of anatomical structures covered in BIO 140 (Human Anatomy).
5) Class participation that demonstrates students' teamwork and leadership skills in manipulating, preparing and storing the cadaver, and cleaning and organizing equipment.

Special Materials Required of Student
1) Dissecting gloves
2) Lab coat or apron
3) Half face respirator mask for protection against chemicals

Minimum Instructional Facilities
1) Classroom with facilities for projection of transparencies or computer presentations
2) Laboratory with appropriate cadaver storage facilities, disposal facilities, ventilation
3) Preserved specimens, models and charts for dissection and demonstration

Method of Instruction
1) Traditional and computer-assisted lectures
2) Individual and team lab work
3) Discussion and demonstration
4) Computer or Internet-based research of dissection techniques

Out-of-Class Assignments
1) Readings from textbook and supplemental sources
2) Development of dissection plan for presentation in class
3) Research paper on a disorder/pathology or a new approach to a traditional surgical procedure

Texts and References
1) Required (representative example):
   a. Detton, Grant's Dissector. 17th edition. Wolters Kluwer, 2023
2) Supplemental
   a. Netter, *Atlas of Human Anatomy*, 8th edition, Elsevier, 2022.
   b. Rohen, et al. *Photographic Atlas of Anatomy*. 9th edition. -Wolters Kluwer, 2022.

Student Learning Outcomes
Upon successful completion of this course, students will be able to:
1) Demonstrate proper techniques, respectful approaches, and best practices for handling, storing, and dissecting a preserved human specimen.
2) Identify and describe differences between actual human anatomy and information contained in textbook illustrations.
3) Discuss diseases, disorders, and conditions commonly found in various medical specialties.