COURSE ABBREVIATION: BIOL 1611  

CREDIT HOURS: 3 semester hours  

COURSE TITLE: Human Anatomy and Physiology I  

PREREQUISITES: One year of high school chemistry within the last 5 years with grades of 'C' or better in all parts, OR satisfactory performance on a departmental placement exam, OR CHEM 1151 and CHEM 1151L, OR CHEM 1951, OR CHEM 1211 and CHEM 1211L, each with a 'C' or better.  

CO-REQUISITE: BIOL 1611L  

CATALOG DESCRIPTION: This is the first of a two-course sequence in human anatomy and physiology designed to meet the requirements for nursing, dental hygiene, physical education, and other health science majors. Topics covered include animal cell structure and function, cell chemistry, cell division, metabolism, tissues, integumentary system, skeletal system, muscle system and nervous system.  

EXPECTED EDUCATIONAL RESULTS: As a consequence of completing this course, the student will be able to:  
1. Describe and identify the levels of organization of the human body.  
2. Describe and apply the basic principles of chemistry as they relate to human anatomy and physiology.  
3. Identify, describe, and explain cell structures and their functions.  
4. Identify, describe, and explain tissue structures and functions.  
5. Identify, describe and explain the structures and functions of the integumentary system  
6. Identify, describe, and explain the structures and functions of bones and joints.  
7. Identify, describe, and explain the structures and functions of muscles.  
8. Identify, describe, and explain the structures and functions of the nervous system and sensory organs.
GENERAL EDUCATIONAL OUTCOMES

I. **OUTCOME:** "The student should be able to communicate effectively through listening, reading, writing and speaking."

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<tr>
<th>Skill</th>
<th>Method</th>
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<tbody>
<tr>
<td>A. Listening:</td>
<td>note-taking in lecture</td>
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<tr>
<td>B. Reading:</td>
<td>textbook assignments, instructions for tasks.</td>
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<td>C. Writing:</td>
<td>writing assignments and discussion test questions.</td>
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<td>D. Speaking:</td>
<td>oral response to questions</td>
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II. **OUTCOME:** "The student should be able to recognize and apply scientific inquiry in a variety of settings."

Through class participation, writing assignments, and testing, the student will demonstrate the ability to apply the scientific method. They will be able to form testable hypotheses, explain natural phenomena, interpret experiments, and make conclusions from data. The student should also be able to distinguish between well-supported scientific conclusions and poorly-supported assumptions and beliefs.

COURSE CONTENT

I. An introduction to the human body
II. The chemical level of organization
   A. Review of basic inorganic chemistry
   B. Introduction to basic organic chemistry
III. The cellular level of organization
   A. Cellular structure
   B. Cellular function
IV. The Tissue Level of Organization
   A. Epithelial tissue
   B. Connective tissue
   C. Muscular tissue
   D. Nervous tissue
V. The Integumentary System
   A. Skin
   B. Hair, nails, and glands
VI. The Skeletal System
   A. Bone Tissues
   B. Axial skeleton
   C. Appendicular skeleton
   D. Articulations
VII. The Muscular System
   A. Muscle Tissues
   B. Skeletal Muscles
VIII. The Nervous System
   A. Nervous tissue
   B. The Spinal Cord and Spinal Nerves
   C. The Brain and the Cranial Nerves
   D. Neural Integration
E. Special Senses
F. Autonomic Nervous System

ASSESSMENT OF EXPECTED EDUCATIONAL RESULTS

A. Course Grade
1. Each instructor according to the guidelines presented in the instructor's course syllabus will determine students' grades. Methods will include quizzes, tests, projects, library assignments or homework as developed by each instructor. Each student will be expected to demonstrate knowledge and application of the scientific method. Evaluation will require the student to demonstrate skills in writing.
2. The final exam will be comprehensive, which will include questions from all the sections of the course covered.
3. It is recommended that critical thinking questions be included in the exams to promote critical thinking and writing.

B. Departmental Assessment
This course is part of the Nursing, Dental Hygiene, and Physical Education programs and will be addressed in their program assessments. Biol 1611 will be assessed by regular consultation between instructors and other members of the Anatomy and Physiology Committee and Nursing, Dental Hygiene, and Physical Education faculty.

C. Use Of The Assessment Findings

Instructors will consult the assessment results and each other to determine which educational approaches are working well, and which could be improved. They will continue what works and explore improved approaches to instruction where that is needed.

Effective Date: November 2000           Approved Date: November 2000
REVIEW DATE: April 2004