



**Course Name:** Human Biology for Allied Health

**Course Number:** BIO\* E119

**Credits:** 4

**Catalog description:** A survey of the structure and function of human body systems both in health and disease. The normal and abnormal structure, function and interrelationship between the various organ systems will be explored via use of case studies and independent research. This course is intended for students in Allied Health fields.

*Note: This course is not intended for science majors and does not substitute for BIO\*105 as a prerequisite for advanced science courses.*

**Prerequisite:** ENG 101

## **General Education Competencies Satisfied:**

**HCC General Education Requirement Designated Competency Attribute Code(s):**

SCKX      **Scientific Knowledge & Understanding**

**Additional CSCU General Education Requirements for CSCU Transfer Degree Programs:**

*None.*

**Embedded Competency(ies):**

ED              **Appreciation of the Ethical Dimensions of Humankind (Outcomes  1  2  3  4)**

**Discipline-Specific Attribute Code(s):**

SCI              **Science elective**

## **Course objectives:**

### **General Education Goals and Outcomes:**

**Scientific Knowledge & Understanding:** Students will gain a broad base of scientific knowledge and methodologies in the natural sciences. This will enable them to develop scientific literacy, the knowledge and understanding of scientific concepts and processes essential for personal decision making and understanding scientific issues.



**Embedded Appreciation of the Ethical Dimensions of Humankind:** Students will identify ethical principles that guide individual and collective actions and apply those principles to the analysis of contemporary social and political problems.

1.  Respond critically to ethical issues.
2.  Apply appropriate concepts and terminology in identifying ethical problems, proposing and defending solutions to them.
3.  Apply standards and practices of scholarship, research, and documentation to defend positions and beliefs, including reevaluating beliefs in light of unforeseen implications or new evidence.
4.  Recognize the value of creative, collaborative, and innovative approaches to problem-solving, including the ability to acknowledge differing points of view.

### **Course Specific Objectives:**

1. Describe the normal structure and function of major systems of the body.
2. Describe the pathophysiology of selected diseases.
3. Describe how the various systems work together in the healthy human body and how the disease states impact the human body.
4. Discuss the scientific rationale for the treatments of common diseases.
5. Demonstrate proficiency in the use of the Internet as sources of medical information and describe the evidence used to support individual claims along with the reasoning behind those claims. This will require the analysis of the data presented in primary journal research to determine if the conclusions are reasonable.
6. Demonstrate the ability to differentiate between fact and opinion in sources of medical information, especially when using Internet sources.
7. Based upon information collected from online and library sources of medical information, use inductive reasoning to formulate persuasive arguments describing the causes and treatments for selected disorders in humans.
8. Describe the ethical issues involved in the use of some treatment strategies, especially involving incurable conditions.
9. Following the analysis of many sources of medical information, often presenting conflicting information, describe why scientific theories and explanations are continually refined or replaced.

### **Course Content:**

1. Introduction to Anatomy and Physiology
2. Biochemistry
3. Cells
4. Tissues
5. Skin with pathology
6. Skeleton with pathology
7. Muscles with pathology
8. Reproductive systems with pathology
9. Nervous system and Senses with pathology
10. Endocrine system with pathology



11. Cardiovascular system with pathology
12. Respiratory system with pathology
13. Lymphatic and immune systems with pathology
14. Digestive system with pathology
15. Urinary system with pathology

### **HCC Safety Standard**

Instruction covering all safety rules and guidelines will be provided by the instructor during the first laboratory session. The safety features of the individual laboratory will also be highlighted by the instructor. Students are expected to read and understand the rules of the HCC Science Laboratory Student Safety Contract. The students will then sign this contract signifying that they have been instructed and understand the requirements for safety pertaining to their course. The student and instructor will each keep a copy of this contract. Students must come to the laboratory prepared for the laboratory activity. Students must abide by the safety rules and guidelines which may include wearing personal protection equipment. Failure to do so may result in removal from the laboratory by the instructor.

Date Course Created:

Date of Last Revision: 02/27/2017