Anoka Technical College

BIOL 1130: Human Biology

A. COURSE DESCRIPTION

Credits: 4

Lecture Hours/Week: 3

Lab Hours/Week: 2

OJT Hours/Week: *.*

Prerequisites:
This course requires any of these eight prerequisites
READ 0900 - Reading Skills
READ 0960 - Preparing for College Reading
A score of 21 on test ACT Reading
A score of 78 on test Accuplacer Reading Comprehension
A score of 1047 on test MN Comprehensive Assessment Reading
A score of 480 on test SAT Evidence-Based Read/Write Composite
A score of 250 on test Accuplacer NG Reading
A score of 250 on test Accuplacer NG COMP Reading

Corequisites: None

MnTC Goals: Goal 02 - Critical Thinking, Goal 03 - Natural Science

This course covers the basic principles of the organization, structures, and functions of the human body. Topics include: general biological theories; anatomical of each body system; basic physiological process and maintenance of homeostasis; human genetics and inheritance principles and their relation to evolution; and connections between the human body, societal issues, and disease. Student will make observations and analyze data related to the human body through laboratory exercises. (Prerequisites: READ 0900 or READ 0960 or appropriate placement score) (MN Transfer Goals 2 and 3) (3 credits lecture/1 credit lab)

B. COURSE EFFECTIVE DATES: 08/21/2017 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. General biological theories
2. Laboratory experiments and data analysis related to the human body
3. Anatomical structures of each body system
4. Basic physiological processes and maintenance of homeostasis
5. Human genetics and inheritance principles
6. Connections between the human body, societal issues, and disease

D. LEARNING OUTCOMES (General)

1. Demonstrate an understanding of general biological theories as relevant to the human body, including cell theory, evolutionary theory, and scientific thought.
2. Generate hypotheses and perform experiments during lab-like experience on human physiology and anatomy.
3. Evaluate data and share experimental conclusions both orally and in writing.
4. Identify anatomical structures, in the human body using models, images, and simulations.
5. Explain the relationships between structures in different body systems.
6. Relate body structures to physiological processes.
7. Explain basic mechanisms of the human body and how the body maintains homeostasis.
8. Hypothesize possible physiological explanations for homeostatic imbalances.
9. Explain basic genetic principles and how they influence human health.
10. Lead and participate in class discussions on societal issues related to human biology.
11. Evaluate controversial concepts about relationships between human health and our environments using appropriate source analysis.

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

Goal 02 - Critical Thinking

1. Gather factual information and apply it to a given problem in a manner that is relevant, clear, comprehensive, and conscious of possible bias in the information selected.
2. Imagine and seek out a variety of possible goals, assumptions, interpretations, or perspectives which can give alternative meanings or solutions to given situations or problems.
3. Analyze the logical connections among the facts, goals, and implicit assumptions relevant to a problem or claim; generate and evaluate implications that follow from them.
4. Recognize and articulate the value assumptions which underlie and affect decisions, interpretations, analyses, and evaluations made by ourselves and others.

Goal 03 - Natural Science

1. Demonstrate understanding of scientific theories.
2. Formulate and test hypotheses by performing laboratory, simulation, or field experiments in at least two of the natural science disciplines. One of these experimental components should develop, in greater depth, students' laboratory experience in the collection of data, its statistical and graphical analysis, and an appreciation of its sources of error and uncertainty.
3. Communicate their experimental findings, analyses, and interpretations both orally and in writing.
4. Evaluate societal issues from a natural science perspective, ask questions about the evidence presented, and make informed judgments about science-related topics and policies.

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted