Minnesota State University Moorhead

BIOL 100: Issues in Human Biology

A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: 3

Lab Hours/Week: 0

OJT Hours/Week: *.*

Prerequisites: None

Corequisites: None

MnTC Goals: Goal 02 - Critical Thinking

Human biology is a wide field that includes human physiology, genetics, medical studies and how humans impact the environment. We are bombarded with information about everything from green tea to intelligent design. Our students will be the scientific resources for their families and peer groups; they need to know how to wade through non-science to get to the facts. This course uses data and "news" to teach students how to properly sift through all this material and logically draw conclusions based on fact. MnTC Goal 2.

B. COURSE EFFECTIVE DATES: 01/17/2006 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Scientific Method-Analysis of data and news.
2. Critical Thinking-Logic, and data analysis.
3. Good Argument Patterns-Validity, Soundness, Challenging Premises
4. Inductive vs. Deductive reasoning
5. Fallacious Argument Patterns-Formal Fallacies, Informal Fallacies of Relevance, Informal Fallacies of Language, Informal Fallacies of Misrepresenttation, Informal Fallacies of Poor Reasoning, Misleading Statistics and Untestable Claims.
6. Knowledge and Worldview
7. Descriptive vs. Prescriptive Claims
8. Human Biology-Physiology, Genetics, Medical Studies
9. Environmental Biology-Human Impact, Agriculture, Sustainability
10. Race-Biological Aspects, Evolutionary Aspects, Societal Constructs

D. LEARNING OUTCOMES (General)

1. Recognize and define the questions upon which a controversy depends.
2. Distinguish arguments from non-arguments.
3. Identify the implicit assumptions and practical implications of multiple perspectives so that arguments can be analyzed within their historic and cultural contexts.
4. Distinguish between fallacious and non-fallacious arguments.
5. Recognize stereotypes and critically assess cultural images.
6. Distinguish between and use inductive and deductive reasoning.
7. Formulate clearly and precisely a question or problem and generate alternative hypotheses or solutions to this problem, including solutions appropriate to the cultural context of the problem.
8. Construct sound or cogent arguments of their own supported by data that are clear, accurate, and relevant.
9. Credit properly ideas developed by others.

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.

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted