MASTER COURSE OUTLINE

A. BIOL 1031 Honors Human Biology

B. COURSE DESCRIPTION:

This honors section of Human Biology is an enriched study of the human body and how the organ systems interact with each other while maintaining homeostasis. Labs will utilize a variety of delivery modes that will emphasize inquiry and the use of the scientific method whenever possible. The study of biological molecules, and cell biology will serve as a foundation to learning human histology (the study of tissues) and organ systems. Current health and social issues, and other diseases related to human biology, will also be studied. Honors courses emphasize independent inquiry, informed discussion, and direct application within small transformative classes and feature close working relationships with instructors. **MnTC (Goals 3/NS and 2/CT); (3 Cr – 2 lect, 1 lab)**

C. *Core Theme: Critical Thinking **Discipline Area (if MnTC): Natural Sciences

D. RIVERLAND INSTITUTIONAL LEARNING OUTCOMES:

This course addresses the following Riverland Institutional Learning Outcome(s):
☒ ILO 1: critical thinking *(Core Theme Goal 2)*
☐ ILO 2: awareness of the larger global community *(Core Theme Goal 7 or 8)*
☐ ILO 3: ethical, engaged citizenship *(Core Theme Goal 9 or Goal 10)*
☐ ILO 4: communication and collaboration *(Discipline Goal 1 and by any learning outcome(s) involving communication or collaboration)*

E. MAJOR CONTENT AREAS:

- Scientific method
- The metric system
- Biological molecules
- Cells and cell division
- Histology (tissues)
- Nervous system
- Skeletal system
- Muscular system
- Digestive system
- Blood and cardiovascular system
- Lymphatic and immune systems

- Respiratory system
- Urinary and excretory systems
- Male and female reproductive systems
- Human genetics and genetic disorders

F. GOAL TYPE, OBJECTIVES, AND OUTCOMES:

GOAL TYPE	**OBJECTIVES** **Students will be able to**	**OUTCOMES** **The student will successfully**
MnTC Goal 3a	demonstrate understanding of scientific theories.	1. complete an analysis of an experiment, related to human biology, that will include identifying the independent, dependent, and control variables as well as the steps of the scientific method. 2. define and explain the principles of experimentally- verifiable biological theories, including cell theory, the theory of evolution, etc. 3. define and explain the pertinent vocabulary terms related to outcomes 1 and 2 (above).
MnTC Goal 3c	communicate their experimental findings, analyses, and interpretations both orally and in writing.	1. communicate lab experimental findings, analyses, and/or interpretations in oral and written formats.
MnTC Goal 3d	evaluate societal issues from a natural science perspective, ask questions about the evidence presented and make informed judgments about science-related topics and policies.	1. research and report on a human disease, considering the disease from societal, health, and scientific perspectives. 2. include an analysis of the evidence regarding the disease reported upon (see outcome above), as well as make recommendations concerning public health policy in regard to this disease.
MnTC Goal 2a	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.	1. complete an analysis of scientific findings relevant to human biology as part of the human disease report in MnTC Goal 3d. 2. include a summary of the findings, an explanation of the context of the findings and the sources of error and/or bias or uncertainty in the evidence evaluated in the human disease report in MnTC Goal 3d.

MnTC Goal 2b	imagine and seek out a variety of possible goals, assumption, interpretations or perspectives which can give alternative meanings or solutions to a given situation or problem.	1. choose and analyze a research study on the selected human disease as part of the human disease report in MnTC Goal 3d. 2. examine and analyze this selected study for underlying assumptions and/or bias on the part of the researcher. 3. suggest an alternative perspective (and/or find a second study) that disputes the first study and explains the issue, solution, or finding from at least two points of view.
MnTC Goal 2d	recognize and articulate the value assumptions which underlie and affect decisions, interpretations, analyses, and evaluations made by ourselves and others.	1. provide a self-analysis of their report (specified in MnTC Goals 3d, 2a, and 2b above). 2. identify the value assumptions inherent in their choice of disease, sources and public policy recommendations relative to the disease in the self-analysis specified above.
CS	utilize analytical tools (real or simulated) to gather human biology relevant data necessary to test hypothesis and come to logical conclusions.	1. demonstrate the use of any combination of real or simulated analytical tools, sensors, etc. in gathering data. 2. draw conclusions based on data analysis, and demonstrated through class or online discussions and/or written laboratory reports.
CS	process and evaluate current studies, reports, news, seminars etc. from various print, online, or other sources related to human biology.	1. demonstrate their understanding of current human biology issues through any combination of oral/online discussions, written works, or other assessment tools.
CS	explore human organ systems using digital software and tools such as the Anatomage table and other virtual cadaver dissection and/or autopsy simulations.	1. identify various anatomical components of human organ systems. 2. explore a disease condition or injury by viewing pathologic changes in anatomy (i.e., smokers lung, brain tumors, bone fractures, etc.).
CS	attend virtual or real educational conferences and exhibits as they apply to course content i.e., Nobel conference in October, traveling Bodyworlds exhibits.	1. understand the value of attending a conference to provide educational enrichment and enhancement of networking skills.

G. SPECIAL INFORMATION:

This course may require use of the Internet, the submission of electronically prepared documents and the use of course management software. Students who have a disability and need accommodations should contact Accessibility Services at the beginning of the semester. This information will be made available in alternative format, such as Braille, large print, or current media, upon request.

H. COURSE CODING INFORMATION:

Course Code R, B/Class Maximum 24, 24; Letter Grade

Revision Date: 09/28/10; 01/31/18; 10/27/20; 09/06/22; 03/05/24
AASC Approval Date: 03/06/18; 11/17/20; 09/20/22; 03/19/24

*These five MnTC Goals have been identified as Riverland Community College Core Themes. Every course in the Riverland Community College curriculum shall meet outcomes from one of these themes.
**These five MnTC Goals have been identified as Riverland Community College Disciplines. Riverland's MnTC courses also shall meet outcomes from a Discipline Area.

NOTE: The Minnesota Transfer Curriculum "10 Goal Areas of Emphasis" are reflected in the five required discipline areas and five core themes noted in the Riverland Community College program of study guide and/or college catalog.

***Riverland Community College Core Themes**	**MnTC Goal Number**
Critical Thinking (CT)	**2**
Human Diversity (HD)	**7**
Global Perspective (GP)	**8**
Ethical and Civic Responsibility (EC)	**9**
People and the Environment (PE)	**10**

****Riverland Community College Discipline Areas**	**MnTC Goal Number**
Communication (CM)	**1**
Natural Sciences (NS)	**3**
Mathematics/Logical Reasoning (MA)	**4**
History and the Social & Behavioral Sciences (SS)	**5**
Humanities and Fine Arts (HU)	**6**