WINONA STATE UNIVERSITY
GENERAL EDUCATION PROGRAM APPROVAL FORM

Routing form for General Education Program Course approval. Course BIOL 111 - Goal 3

Department Approval

Edward Thompson — Department Chair
11/4/13 — Date
ethompson@winona.edu — e-mail address

Dean's Recommendation X Yes ____ No*

Charles Simmons — Dean of College
11/5/13 — Date

*If the dean does not approve the proposal, a written rationale should be provided to the General Education Program Subcommittee.

GEPS Recommendation X Approved ____ Disapproved

Chair, General Education Program Subcommittee
11/13/13 — Date

A2C2 Recommendation X Approved ____ Disapproved

Chair of A2C2
11/20/13 — Date

Faculty Senate Recommendation ____ Approved ____ Disapproved

President of Faculty Senate — Date

Academic Vice President Recommendation ____ Approved ____ Disapproved

Academic Vice President — Date

Decision of President ____ Approved ____ Disapproved

President — Date

Please forward to Registrar.

Registrar ____ Date entered

Please notify department chair via e-mail that curricular change has been recorded.

[Revised 10-22-12]

WINONA STATE UNIVERSITY
PROPOSAL FOR GENERAL EDUCATION PROGRAM COURSES

Department Biology Date 09/26/13

Biol 111	Human Biological Diversity	3
Course No.	Course Name	Credits

Prerequisites None

GEP Goal Area(s):*

CORE GOAL AREAS
- [ ] Goal 1: Communication
- [x] Goal 3: Natural Science
- [ ] Goal 4: Mathematics/Logical Reasoning
- [ ] Goal 5: History and the Social and Behavioral Sciences
- [ ] Goal 6: The Humanities and Fine Arts

THEME GOAL AREAS
- [ ] Goal 7: Human Diversity
- [ ] Goal 8: Global Perspective
- [ ] Goal 9: Ethical and Civic Responsibility
- [ ] Goal 10: People and the Environment

* Courses may be submitted for up to two Goal Areas.

Additional Requirement Categories (list number of credits desired in appropriate category):

- [ ] Intensive:
  - [ ] 1. Writing
  - [ ] 2. Oral Communication
  - [ ] 3a. Mathematics/Statistics
  - [ ] 3b. Critical Analysis
- [ ] Physical Development and Wellness

Provide information as specified in the previous directions.

Attach a ***General Education Program Approval Form***.

Department Contact Person for this Proposal:

Dr. Robin Richardson	507-457-5128	rrichardson@winona.edu
Name (please print)	Phone	e-mail address

[Revised 9-6-11]

1. Course Outline

Outline of Diversity

I. Introducing the ideas behind diversity: Science is one way of perceiving our world.
   A. Other perceptions we will encounter: Art and culture
   B. Training our perception: Recognizing evidence and encountering the others.
   C. Defining the terms we will use the most-dichotomies and us; assign identities for the human decoupage

II. An overview of the "laws of Nature" and Nurture's revisions
   A. Reading from Ridley's book followed by discussion
   B. The view of science (nature) modified by culture (nurture)

III. Human in an animal context, what does biology include and similarity/diversity: Do the curves.
   A. Movie: Human Family Tree (journal exercise)
   B. introduce statistics: parametric vs. nonparametric information applied to the concept of race.
   C. Is race real? What is the biology and usefulness? Use the statistical methods
   D. Medical uses of race if it is real
   E. Cultural aspects of race and social class
   F. Summarize our thoughts on race and its role in diversity

IV. Sex vs. gender vs. orientation (which has a biological component).
   A. Gender brains-review the brain literature maintaining the biology of gender differences
   B. Biological roles of the sexes/are they based on gametes?
   C. Hormones and behavior (via the brain)

V. Environmental influences: Are they nature or nurture?

VI. Beauty and symmetry: Is selection at work?

VII. Is what we see up to us? Bring in the elephant from the Happiness Hypothesis book.
   A. How do we learn/brain wiring
   B. How much is subconscious (a reading from Incognito).

VIII. Biology of obesity
   A. Obesity and bacteria
   B. Genetics of obesity
   C. Mouse studies-insight into factors leading to human obesity?
   D. Obesity and illness/Erasmus Darwin weighs in

IX. Age and sex (death and sexual reproduction-where is the choice?)
   A. Ageism: Can we rise above it?
   B. Cofactors with age

X. The Art and Science of Evil

XI. What is happiness and how valuable is it?
   A. Is there biological diversity in happiness?
   B. Can the level of happiness (in an individual) change?

XII. Faith and altruism and science

XIII. Bring the Human Decoupages to the class.

Student Competencies "Students will be able to…	Learning Opportunity	Assessment & Evaluation
A) Demonstrate understanding of scientific theories	• The class is organized around discussions and activities. Drawings model the theoretical basis for traits that result from the interaction of genes and the environment (phenotypes). The primary scientific theories encountered are evolution and gene theory.	• Students will demonstrate basic knowledge of the theories of evolution and gene expression through class exercises, journals, quizzes and exams. • The student work will be evaluated based on thoroughness of treatment (of concepts), quality of work and timeliness.
B) 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.	• Students will formulate hypotheses concerning the relative contributions of genes and environmental factors towards traits that contribute to Human Biological Diversity.	• Students will demonstrate familiarity with the process of hypothesis formulation and testing through homework, oral exam discussions and written exams. • Formulative evaluation will occur when students test their hypotheses across traits. • Student work will be evaluated based on thoroughness of treatment, quality of work and timeliness.
C) Communicate their experimental findings, analyses, and interpretations both orally and in writing.	• The class is discussion based and discussion contributions are expected at every meeting. • Hypotheses will be presented orally and each student is expected to contribute to the hypotheses and tests of their peers. • Journals will be kept as experimental progress-reports	• Discussions are evaluated according to criteria given to the students at the onset of the class and discussed continually. • Student contributions to ongoing discussions will be evaluated by the professor according to criteria available to the student and students are encouraged to contribute to the evaluation process through the rubrics. • Progress-reports in journals will be evaluated using the journal evaluation criteria rubric.
D) Evaluate societal issues from a natural science perspective, ask questions about the evidence presented, and make informed judgments about science-related topics and policies.	• Societal issues form the core of Human Biological Diversity. As such, the students will be continually expected to evaluate issues of Race, Gender, Obesity, Aging and Religiosity from a Natural Science perspective	• Students will demonstrate familiarity with concepts through exams and quizes graded for completeness and quality.