SOUTH DAKOTA BOARD OF REGENTS
ACADEMIC AFFAIRS FORMS

Revisions to General Education Requirements

Use this form to request any change to the General Education Requirements specified in Policies 2:7 – Baccalaureate General Education Curriculum and 2:26 – Associate Degree General Education Requirements. This includes any changes to the System General Education Requirements, Institutional Graduation Requirements, Globalization/Global Issues Requirement, and Writing Intensive Requirement.

Note 08/2016: This form is under revision – please consult the university vice president for academic affairs and/or the Board of Regents office for clarification

NOTE: This process does not include approval for the development of a new course. If the proposal does include the development of a new course, the new course process must be completed before the course will be considered for inclusion in any set of the General Education Requirements

NSU	Science and Math	Michael Warnow	1/31/2020
Institution	Division/Department	Institutional Approval Signature	Date
	Alyssa Kiesow	Joshua Hagen	
Institution	Form Initiator	Dean's Approval Signature	Date

Indicate (X) the component of the General Education Curriculum that the proposal impacts.

- **x** System General Education Requirements
- ____ Institutional Graduation Requirements
- ____ Globalization/Global Issues Requirement
- ____ Writing Intensive Requirement

Indicate (X) the revision(s) that is being proposed (more than one may be checked).

- ____ Revision to an approved course
- ____ Addition of a course to the set of approved courses
- **x** Deletion of an approved course from the set of approved courses

Section 1. Provide a Concise Description of the Proposed Change

We would like to remove PHYS 111/L Introduction to Physics I from the list of courses that achieve Goal #6 "Students will understand the fundamental principles of the natural sciences and apply scientific methods of inquiry to investigate the natural world."

Section 2. Provide the Effective Date for the Proposed Change

Fall 2020

Section 3. Provide a Detailed Reason for the Proposed Change

Northern has received approval from the SD Board of Regents to offer BIOL 105/L Human Biology as part of an effort to increase health literacy among students. The goal of this course is to help develop a functional knowledge base in the area of human anatomy and physiology. Current topics in human biology will be incorporated into the course. This course is designed to promote health literacy among students, and lends itself as a general education course in the sciences. Physics focuses on the natural world from the perspective of how the universe behaves. In the last ten years, no students took Introduction to Physics I at Northern as his/her science general education requirement. Students that take Physics at Northern are fulfilling a pre-professional school requirement rather than a general education requirement. Northern does not offer a Physics certificate or degree, thus we plan to offer the Calculus-based Physics (PHYS 211/L and PHYS 231/L) instead of the Algebra-based Physics to meet the student demands and needs with limited faculty resources. Thus, we would like to remove PHYS 111/L Introduction to Physics I, and replace this course with BIOL 105/L Human Biology.

Section 4. Provide Clear Evidence that the Proposed Modification will Address the Specified Goals and Student Learning Outcomes

The removal of PHYS 111/L Introduction to Physics I allows Northern to explore new general education courses pertinent to students not majoring in the sciences. One such course is BIOL 105/L Human Biology, a recently approved offering at Northern. The objectives for BIOL 105/L Human Biology fall under the purview of Goal #6 and associated Student Learning Outcomes. All four Student Learning Outcomes will be met as explained below:

1) Demonstrate the scientific method in a laboratory experience.
This class will engage students in a weekly lab, which will include identification of muscles, bones and histological tissues. In addition, experimental labs (e.g. a lab analyzing the physiological importance of insulin, factors affecting digestion, special senses lab, urinalysis lab, etc.) will be utilized throughout the semester. Scientific method will be introduced at the beginning of the semester. More importantly, after this initial introduction, the scientific method

will be applied to each of these labs to encourage the use of deductive and inductive reasoning in a hands-on environment. Assessments of students' proficiency will be based on laboratory activities.

2) **Gather and critically evaluate data using the scientific method.**
Students will gather data as part of the laboratory portion of the course. Students will analyze their data and draw conclusions as a means to implement scientific method. These activities will allow students to create and assess hypotheses based on broader concepts introduced in the lecture portion of the class. These skills will be assessed based on quizzes and laboratory activities.

3) **Identify and explain the basic concepts, terminology and theories of the selected natural sciences**.
Biology 105 will focus on anatomy and physiology of the human organism for the non-major student. The course will be divided into weekly modules, focused around body systems and current topics such as cancer, genetics and biotechnology. Each module will explain the basic concepts, terminology and biological theories around that topic. Quizzes, assignments and laboratory activities will be used to assess student learning of terminology and theory.

4) Apply selected natural science concepts and theories to contemporary issues.
The issues addressed in Biology 105 are meant to inform individuals/students of their bodies, from a fundamental standpoint, to increase health literacy. As such, the concepts presented in Biology 105 will be applied to contemporary issues in health and health care throughout the course. Students' ability to apply fundamental concepts to these contemporary issues in healthcare will be assessed using assignments, laboratory activities and quizzes.

Thus, the removal of PHYS 111/L Introduction to Physics I allows Northern to offer a general education course pertinent to the needs of our students.

Section 5. Provide a Copy of all Course Syllabi and Other Supporting Documentation