FS Undergrad Curriculum Report, 2/27/24

**NEW COURSE PROPOSALS (5)**

**CHEM 3100** *Fundamentals of Scientific Glassblowing,* 1 credit hour

An introduction to flame working techniques for the manipulation of glass for chemistry and biochemistry majors. Hands-on techniques for developing skills for artistic and scientific glass design, creation and repair. May be taken only as P/NC.

Prereq: CHEM 2480 with a minimum grade of C- or instructor permission; can be taken with CHEM 3100

**PHYS 2075** *General Physics I Lab* Laboratory component for PHYS 2070; 1 credit hour. Algebra-based general physics labs associated with mechanics of energy and motion, gravitation, harmonic motion, fluids, heat, entropy and the laws of thermodynamics. Two hours of lab. Will apply for core in Natural Sciences.

( MATH 1320, Minimal grade: D-, Academic level: UG
And MATH 1330, Minimal grade: D-, Academic level: UG )
Or MATH 1340, Minimal grade: D-, Academic level: UG
Or MATH 1750, Minimal grade: D-, Academic level: UG
Or MATH 1850, Minimal grade: D-, Academic level: UG

corequisite

PHYS 2070 - General Physics I

**PHYS 2085** *General Physics II Lab:* Laboratory component for PHYS 2080. Algebra-based general physics labs associated with electricity and magnetism, capacitors and inductors, electromagnetic waves, optics, and atomic physics. Two hours of lab. Will apply for core, Natural Sciences.

1 credit hrs.

prereqs: PHYS 2070, Minimal grade: D-, Academic level: UG
PHYS 2075, Minimal Grade C, Academic level: UG

coreq: PHYS 2080 - General Physics II

Separating the lecture and lab portions into separate courses will benefit students

**PHSY 2135** *Physics for Science and Engineering majors I Lab*; Laboratory component of PHYS 2130. Calculus based general physics labs associated with mechanics of motion and energy, rotation, gravitation, harmonic motion, waves, fluids and the laws of thermodynamics. Two hours of lab.

Separating the lab portion from the current lecture+lab combined course benefits student. 1 credit hour. Will apply for the core, Natural Sciences

**PHSY 2145** *Physics for Science and Engineering majors II Lab*: Laboratory component for PHYS 2140. Calculus based general physics labs associated with electricity and magnetism, capacitors and inductors, electromagnetic oscillations, Maxwell's equations and electromagnetic radiation, optics, images, interference, and diffraction. Two hours of lab. Will apply for the core, Natural Sciences

1 credit hr.

Separating the lab portion from the current lecture+lab combined course benefits students.

**COURSE MODIFICATIONS (14)**

**ART 1040, 1050, 1060, 1080** asking to be removed from the core

**CHEE 2010** *Mass and energy balances*

SLOs are updated according to ABET criteria

Open only to Chemical Engineering and Environmental Engineering majors

Relieves registration burden on Student Services director for a required course in Environmental Engineering degree program.

**EEES 2760** Title change from Field Methods Lab to *Methods for Environmental Sciences*

change in credit hrs. from 1 lecture, 2 lab to 2 lecture, 1 lab

Change in catalog description: Hands on active-learning course exploring a range Field exercises relevant to data collection, data analysis, and use of commonly used standard field and lab exercises used methods and equipment in environmental sciences. local ecosystems around Toledo. Activities Field trips will focus on developing testable hypotheses, collecting data collection, data analysis, to answer those hypotheses using standard methods and use of standard field equipment, analyzing data, and lab methods relevant to local environmental issues. writing and presenting results in a scientific format. Exercises will focus on developing testable hypotheses, collecting data to answer those hypotheses using standard methods and equipment, analyzing data, and writing and presenting results in a scientific format.

Updates SLOs.

**EEES 4100** Title change from Glacial Geology to *Glacial and Quarternary Geology*

Now also co-listed with EEES 5100

Change in Catalog description: To provide broad geologic understanding of cyclical events including glaciation, sea level, and ice sheet paleogeography during the Quaternary Period. Also, to provide detailed geologic understanding of what a glacier is and how it shapes the landscape. To understand glaciers and glaciallandscapes.Specific topics will Topics include mass balance, ice flow, hydrology, erosion, deposition, resultant landforms, glacial lake environments, lakes and development of the regional Ohio glacial landscape. A field Field trip is mandatory.

Updated SLOs.

Course now provides out-of-state educational experience, Supervised Field Experience

**MATH 1320** *College Algebra*: adding and modifying pre-requisites, some with lower cutoff grades

Change brings course prerequisite into alignment with previously announced placement guidelines.

Updated SLOs

**Math 1330**: *Trigonometry*

Changes bring prerequisites in line with already in use placement criteria.

Adding and modifying pre-requisites, some with lower cutoff grades.

Updated SLOs

**Math 1340** *College Algebra and Trigonometry*

Changes brings course prerequisites in line with placement quidelines that have been in use for two years.

Adding and modifying pre-requisites, some with lower cutoff grades.

Updated SLOs

**PHYS 2070** *General Physics I*: updated extensive list of associated programs; going from 5 hrs. To 4 hrs

Catalog description change: Algebra based general physics. Calculus not required. Mechanics of energy and motion, gravitation, harmonic motion, fluids, heat, entropy and the laws of thermodynamics. Four hours of lecture. lecture and discussion, two hours laboratory per week.

Updated SLOs.

**PHYS 2080** *General Physics II* change in credit hours from 5 to 4; change in catalog description:

Algebra based general physics. Calculus not required. Electricity and magnetism, capacitors and inductors, electromagnetic waves, optics, atomic physics, nuclear physics, and elementary particles. Four hours of lecture. lecture and discussion, two hours laboratory per week.

Updated SLOs

Updated, extensive list of associated programs

**PHYS 2130** *Physics for Science and Engineering majors I*: update associated programs; change from 5 to 4 credit hrs. Change in catalog description: Calculus based general physics. Mechanics of motion and energy, rotation, gravitation, harmonic motion, waves, fluids and the laws of thermodynamics. Four hours of lecture. Five hours lecture and discussion, two hours laboratory per week.

Change of CIP code: 400801 400810 - Physics, General. Theoretical and Mathematical Physics.

Purpose of this change is to separate the lecture and lab portions of introductory physics into separate courses, to allow students flexibility.

**PHSY 2140** *Physics for Science and Engineering majors II:* change in catalog description: Calculus based general physics. Electricity and magnetism, capacitors and inductors, electromagnetic oscillations, Maxwell's equations and electromagnetic radiation, optics, images, interference, and diffraction. Five hours of lecture. lecture and discussion, two hours laboratory per week.

Change in credit hrs. from 5 to 4.

CIP code change.