TO: The Faculty of the College of Engineering
FROM: Nathan S. Mosier, Professor and Department Head Agricultural & Biological Engineering
DATE: January 12, 2020
RE: Biotechnology Minor (Administrative Move) EFD 34-20

The faculty of the Department of Agricultural & Biological Engineering has approved the following proposal to move the existing Biotechnology Minor from the Department of Technology Leadership and Innovation (TLI) in the Polytechnic Institute to the Department of Agricultural and Biological Engineering. This submission is recommended to the Engineering Faculty for approval.

Background

The Biotechnology Minor has been administratively housed within the Polytechnic Institute since Fall 2002. This minor is interdisciplinary and taken by students in numerous colleges, primarily Science (Biology) and Engineering (Biological Engineering, Chemical Engineering, Biomedical Engineering).

Two of the core classes in the minor, IT 22600 & IT 22700, were crosslisted with ABE beginning Fall 2017 and as of Fall 2019 are offered only as ABE 22600 and ABE 22600 with no IT option.

Justification

The transfer of this minor will offer greater opportunities for intra- and inter-departmental collaborations. Whereas the program has been successful in terms of enrollment while aligned under TLI, little synergy has developed among other TLI or Polytechnic programs and faculty.

Finally, the TLI faculty member who led the development of this minor has moved to ABE.

Nathan S. Mosier
Professor and Head
Agricultural and Biological Engineering Department
Biotechnology Minor

Biotechnology refers to harnessing the properties of a living organism to develop and manufacture products that benefit human life. With this minor, you will gain the basic knowledge and understanding of life science-based products, processes, and product quality to prepare you for employment opportunities in the area of biotechnology and biotech-manufacturing.

Requirements for the Minor (16 credits)

Required Courses (7 credits)

- IT 22600 - Biotechnology Laboratory I
- IT 22700 - Biotechnology Laboratory II
- TLI 52100 - Drug Development or
- TLI 52200 - Good Regulatory Practice

Lab Science Selectives (6 credits)

- BIOL 11000 - Fundamentals Of Biology I
- BIOL 11100 - Fundamentals Of Biology II
- CHM 11100 - General Chemistry
- CHM 11200 - General Chemistry
- CHM 11500 - General Chemistry
- CHM 11600 - General Chemistry

Statics Selective (3 credits)

- CHE 32000 - Statistical Modeling And Quality Enhancement
- IT 34200 - Introduction To Statistical Quality
- STAT 50300 - Statistical Methods For Biology
- STAT 30100 - Elementary Statistical Methods
- STAT 35000 - Introduction To Statistics
- STAT 22500 - Introduction To Probability Models
- TLI 31600 - Statistical Quality Control

Notes

- All courses must have a grade of a “C” or higher.
Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.