

Proposed changes to Bioproducts and Biosystems Engineering Curriculum

Common for all three specializations

1. Replace *ME 3331 Thermal Sciences* with *BBE 3043 Biological and Environmental Thermodynamics* (continue to accept ME 3331 as replacement (hidden in APAS))
2. Replace *current introductory design class (BBE 2113 or BBE 4501)* with the newly proposed merged *Introduction to Engineering Design (BBE 3002)*

Environmental and Ecological Engineering

1. Remove *BBE 5212 (Safety/Env. Health Issues)* or *IE 5513 Engineering Safety* as a required class and move IE 5513 to the select from list of technical electives

Bioprocessing and Food Engineering

1. Remove *BBE 5212 (Safety/Env. Health issues)* or *IE 5513 Engineering Safety* as a required class and move IE 5513 to the select from list of technical electives

Bioproducts Engineering

1. Remove *BBE 4504W Bio-based Prod. Dev.Mgmt.* as a required class and move it to the select from list
2. Add *Stat 3021 Intro. To Prob. and Stat.* as requirement (similar to other two BBE specializations)
3. Change to Technical Electives:

Remove

BBE 4314 Papermaking Processes (4)

BBE 4313 Pulp and Paper Unit Operations (4)

BBE 4362 Pulping and Bleaching (3)

Add

IE 5513 Engineering Safety (3) Every semester

BBE 3396 Industrial Internship assignment (1) every semester, summer

BBE 4496 Senior Topic (needs to be approved, max 4 credits) every semester, summer

BBE 4900 Intern report (2-4 credits) every semester

BBE 4504W Bio-based Products Development and Management (3) *Spring*

CE 4502 Water and Wastewater Treatment

Justification

Following the merger of the two engineering programs (BAE and BPE), we are proposing to combine the two introductory design classes into one for all three specializations in BBE. This will help streamline our course offerings and the course requirements for all BBE students.

We are proposing to include a Biological and Environmental Thermodynamics course BBE 3043 (which has already been approved) as part of the curriculum replacing ME thermo again helping to streamline the BBE course offerings and the course requirements for all BBE students.

We are no longer teaching BBE 5212 (due to faculty position not filled) and hence requiring IE 5513 (also taught by BBE faculty) as a tech elective.

Including Statistics as a requirement for Bioproducts Engineering specialization again helping to streamline the BBE course offerings and the course requirements for all BBE students.

Removing some of the classes from the tech elective list (which are not taught) with other relevant classes