CURRICULUM CHANGES
Biological Engineering – Co-op

What's Different?

Courses Added to BIOE
For <u>new students</u> starting in Fall 2019 only

- 0.50 PHYS*1010 Introductory Electricity and Magnetism
- 0.75 ENGG*4380 Bioreactor Design

Courses Removed from BIOE
For *<u>new students</u>* starting in Fall 2019 only

- 0.50 Free Elective
- 0.75 ENGG*4280 Digital Process Control Design

Changes to Course Content and Semester Offerings – Affects *<u>everyone</u>*

0.50 PHYS*1130 Physics with Applications

- Offering changed to fall semester only.
- Overlapping content with PHYS*1010 removed and replaced with introductory statics content from ENGG*1210 Engineering Mechanics I.
- PHYS*1130 is now a prerequisite to ENGG*1210 effective W20.
- Prerequisite for PHYS*1130 changed to (4U Calculus and Vectors or equivalent), (4U Physics or equivalent).

0.50 ENGG*1210 Engineering Mechanics I

- Deeper treatment of dynamics content.
- Prerequisites, MATH*1200 and PHYS*1130 added effective W20.

0.50 PHYS*1010 Physics with Applications

- Overlapping content with PHYS*1130 removed and replaced with introductory material from ENGG*2450 Electric Circuits.

0.50 ENGG*2450 Electric Circuits

- Deeper treatment of remaining content.
- PHYS*1130 removed as prerequisite to ENGG*2450.

I'M A BIOLOGICAL ENGINEERING STUDENT WHO STARTED IN FALL 2018 OR EARLIER

How do these changes actually affect me?

Returning Biological Engineering students who are missing one or more of the prerequisites to register for ENGG*2400 in Fall 2019, should meet with a program counsellor to discuss course planning options. ENGG*2400 is a prerequisite to ENGG*2450 in the following winter semester. Students who are not able to take ENGG*2400 in F19, may be on a path toward the "new" (revised content) version of ENGG*2450, which becomes effective in W21.

The version of ENGG*2450 that was offered in W19 will be the same in W20 to meet the calendar progression requirements of the 2018 cohort. The PHYS*1010 prerequisite will be waived for this last offering of the "old" version of ENGG*2450 provided PHYS*1130 is completed. The ENGG*2400 prerequisite will still be required.

The revised content version of ENGG*2450 will become effective in W21, and the PHYS*1010 prerequisite will be enforced at that time.

UNIVERSITY of GUELPH

ENGINEERING

Book an Appointment at:
uoguelph.ca/engineering/webform/appointment-form

Changes at a Glance

2018 Cohort (and older) – Previous Curriculum	
FALL (SEMESTER 1)	**WINTER (SEMESTER 2)**
CHEM*1040 General Chemistry I CIS*1500 Introduction to Programming ENGG*1100 Engineering Design I MATH*1200 Calculus I One of: HIST*1250 Science and Technology in a Global Context or ENGG*1210 Engineering Mechanics I	CHEM*1050 General Chemistry II ENGG*1500 Engineering Analysis I MATH*1210 Calculus II PHYS*1130 Physics with Applications One of: HIST*1250 Science and Technology in a Global Context or ENGG*1210 Engineering Mechanics I
FALL (SEMESTER 3)	**WINTER (SEMESTER 4)**
BIOL*1080 Biological Concepts of Health COOP*1100 Introduction to Co-operative Education ENGG*2400 Engineering Systems Analysis MATH*2270 Applied Differential Equations One of: BIOL*1070 Discovering Biodiversity BIOL*1090 Introduction to Molecular and Cellular Biology One of: ENGG*2100 Engineering and Design II STAT*2120 Probability and Statistics for Engineers One of: ENGG*2120 Material Science ENGG*2230 Fluid Mechanics	BIOC*2580 Introduction to Biochemistry ENGG*2450 Electric Circuits ENGG*2660 Biological Engineering Systems I MATH*2130 Numerical Methods One of: ENGG*2100 Engineering and Design II STAT*2120 Probability and Statistics for Engineers One of: ENGG*2120 Material Science ENGG*2230 Fluid Mechanics
2019 Cohort – Revised Curriculum	
FALL (SEMESTER 1)	**WINTER (SEMESTER 2)**
CHEM*1040 General Chemistry I ENGG*1100 Engineering Design I ENGG*1500 Engineering Analysis I MATH*1200 Calculus I PHYS*1130 Physics with Applications	CHEM*1050 General Chemistry II CIS*1500 Introduction to Programming ENGG*1210 Engineering Mechanics I MATH*1210 Calculus II PHYS*1010 Introductory Elec & Mag
FALL (SEMESTER 3)	**WINTER (SEMESTER 4)**
BIOL*1080 Biological Concepts of Health COOP*1100 Introduction to Co-operative Education ENGG*2230 Fluid Mechanics ENGG*2400 Engineering Systems Analysis MATH*2270 Applied Differential Equations STAT*2120 Probability and Statistics for Engineers One of: BIOL*1070 Discovering Biodiversity BIOL*1090 Introduction to Molecular and Cellular Biology	BIOC*2580 Introduction to Biochemistry ENGG*2100 Engineering and Design II ENGG*2120 Material Science ENGG*2450 Electric Circuits ENGG*2660 Biological Engineering Systems I MATH*2130 Numerical Methods

Note: *HIST*1250 is moved to SEM 5 – Fall (Co-op)*

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