

Bio-process Engineering Stream

In the Bio-process Engineering stream, students apply engineering to transform agricultural commodities and biomass into products such as food, fiber, fuel, and biochemicals. Topics include the engineering of foods and food processes, physical properties of biological materials, post-harvest technology, fermentation and bio-processing, the management of organic wastes, biotechnology, the design of machinery for bioprocessing, etc.

Students wishing to specialize in this stream should take the following five complementary set D courses.

- BREE 314 Agri-Food Buildings
- BREE 315 Design of Machines^A
- BREE 322 Organic Waste Management
- BREE 325 Food Process Engineering
- BREE 423 Biological Material Properties

The six remaining complementary set D courses should be chosen from the following list.

- BREE 501 Simulation and Modelling
- BREE 504 Instrumentation and Control
- BREE 519 Advanced Food Engineering
- BREE 520 Food, Fibre and Fuel Elements
- BREE 522 Biobased Polymers
- BREE 530 Fermentation Engineering
- BREE 531 Post-Harvest Drying
- BREE 532 Post-Harvest Storage
- BREE 535 Food Safety Engineering

^A From 2019-2020 onwards, BREE 315 has been replaced by the required course BREE 415.