

The Hong Kong University of Science and Technology

UG Course Syllabus

[Course Title] Resource Recovery from Bioresources

[Course Code] CIVL 4100P

[No. of Credits]3 credits

[Pre-requisites] CIVL2410 or Consent

Name: Prof. Samir Kumar Khanal and Dr. Surendra K.C.

Email: cekhanal@ust.hk; surendra@ust.hk

Course Description

This course covers fundamental concepts in understanding the microbial-mediated processes for recovery of bioproducts and bioenergy from bioresources, including various renewable biomass, residues and organic wastes, their quantity, availability and attributes. The course also covers life cycle assessment of value-added processing, and various case studies. Students will gain comprehensive insight on effective management of diverse organic wastes/residues with concomitant valorisation of organic wastes/residues through active engagement, field trips, lecture by subject experts, and team projects.

Assessments:

Assessment Task	Contribution to Overall Course grade (%)
Assignment	15%
Mid-term exam	30%
Project Presentation and Report	25%
Final Exam	30%

Required Texts and Materials

Bioenergy: Principles and Applications (ISBN: 978-1-118-56831-6)

<https://www.wiley.com/en-hk/Bioenergy%3A+Principles+and+Applications-p-9781118568316>

[Optional] Additional Resources

[Additional resources will be uploaded in Canvas prior to the class]