ME PATHWAY (PROCESS AND CHEMICAL) ENGINEERING

Overview

At the end of Third Year students on the BE (Hons) Process and Chemical Engineering (https://ucc-ie-public.courseleaf.com/programmes/bep/) programme (may register for the BE (Hons) / ME Pathway (Process and Chemical). Students who choose not/are not eligible to register for the BE (Hons ME Pathway (Process and Chemical) will continue to Fourth Year of the BE (Hons) (Process and Chemical).

Entry to the ME in Process and Chemical Engineering

Entry to the ME in Process and Chemical Engineering (https://ucc-ie-public.courseleaf.com/programmes/mepe/) is determined based on student performance during Third Year. Students who pass the Third University Examination in Process and Chemical Engineering, achieving at least a 2H2 will be eligible to register for Fourth Year of the BE (Hons)/ ME Pathway (Process and Chemical) (p. 1). In the case of students that have completed one full semester or a full year of studies abroad during Third Year, performance during the Second Year is taken into consideration, with a minimum of 2H1 in the Second Year Examination required for eligibility, in addition to passing the Third Year examination. Students who are eligible to register for the BE (Hons) / ME Pathway (Process and Chemical), but choose not to, will continue to Fourth Year of the BE (Hons) (Process and Chemical). Students passing the Third University Examination in Process and Chemical Engineering who are ineligible to register for the BE (Hons)/ME Pathway (Process and Chemical) will continue to Fourth Year of the BE (Hons) (Process and Chemical).

Programme Requirements

For information about modules, module choice, options and credit weightings, please go to Programme Requirements (p. 1).

Programme Requirements

Code	Title	Credits
Year 1 - Engineering		
Students take **60** credits as follows:		
Core Modules		
CE1003	Introduction to Structural and Civil Engineering	5
CE1005	Engineering Computation and Problem Solving	5
CM1001	Chemistry for Engineers	5
EE1007	Introduction to Electrical and Electronic Engineering	5
MA1011	Mathematical Methods I	5
MA1012	Mathematical Methods II	5
ME1002	Engineering Thermodynamics	5
NE1001	Introduction to Energy Engineering	5
PE1003	Introduction to Process and Chemical Engineering	5
PY1006	Physics for Engineers II	5
PY1012	Physics for Engineers 1	10
Year 2 - Process and Chemical Engineering		
Students take **60** credits as follows:		
Core Modules		
AE2004	Current Trends in Ecology and Environmental Science	5
EG2001	Engineering Mechanics with Transform Methods	5
EG2002	Numerical Methods and Programming	5
CE2001	Solid and Structural Mechanics I	5
CE2003	Fluids I	5
CM2010	Introduction to Organic Chemistry for Process and Chemical Engineers	5
PE2003	Heat Transfer	5
PE2004	Communication and Ethics in Engineering	5
PE2005	Introduction to Biochemical Engineering	5
PE2009	Chemical Reaction Engineering	5
PE2011	Process Plant Design and Commissioning	5
PE2013	Data Analysis for Process and Product Development	5
Year 3 - Process and Chemical Engineering		
Students take **60** credits as follows – all listed core modules (**55** credits) and **5** credits of elective modules:		
Core Modules		
CM3029	Organic Chemistry II for Process and Chemical Engineering	5
CM3030	Fundamentals of Organic Chemistry	5
PE3001	Applied Thermodynamics and Fluid Mechanics	5
PE3002	Unit Operations and Particle Technology	5
PE3003	Phase Equilibrium and Mass Transfer	5
PE3005	Process Equipment; Design, Integrity & Materials	5
PE3007	Process Dynamics and Control	5
PE3011	Sustainability and Environmental Protection I	5
PE3014	Food and Bioprocess Engineering	5
PE3015	Process Safety	5
PE3016	Process Design and Feasibility Analysis	5
Elective Modules [1]		
Students take modules to the value of **5** credits from the following:		5
NE3002	Energy in Buildings	
PE3009	Pharmaceutical Engineering	
Year 4 - ME Pathway Process and Chemical Engineering		
Students take **60** credits as follows – all listed core modules (**30** credits) in Part A and a Placement module **30** credits in Part B:		
Part A		
Core Modules		
PE4007	Mechanical Design of Process Equipment	5
PE4016	Pharmaceutical Process Validation	5
PE4050	Design Project	15
NE3003	Sustainable Energy	5
or PE4010	BioPharmaceutical Engineering	
Part B		
Core Modules		
PE6060	ME Work Placement	30
Year 5 - ME (Process and Chemical) Engineering		
ME (Process and Chemical) Engineering (https://ucc-ie-public.courseleaf.com/programmes/mepe/)		
Total Credits		**240**

[1] Some modules may be pre-requisites for elective modules in subsequent years. While there is no upper limit on the number of

students who may take a particular elective module, modules may be withdrawn if there are insufficient entrants.

Examinations

Full details and regulations governing Examinations for each programme will be contained in the *Marks and Standards Book* and for each module in the *Book of Modules*.