

## Degree planner – BE(Hons) in Chemical and Biological Engineering

If no point value is listed, papers are worth 15 points.

Year 1	ENGEN170 Engineering and Society	ENGEN180 Foundation of Engineering	ENGEN183 Linear Algebra and Stats	ENGEN184 Calculus for Engineers	ENGEN103 Engineering Computing	ENGEN112 Materials Science and Engineerings	CHEMY102B Chemical Reactivity	Programme Elective
Year 2	ENGEN270 Engineering Professional Practice 1	ENGC280 Process Engineering Design 1	ENGEN201 Engineering Maths 2	ENGME221 Engineering Thermodynamics	ENGC224 Heat and Mass Transfer	ENGC223 Fluid Mechanics	ENGMP211 Materials 1	Programme Elective
Year 3	ENGEV342 Sustainable Engineering	ENGC380 Process Engineering Design 2	ENGEN301 Engineering Maths 3	ENGC321 Thermal Engineering	ENGC324 Mass Transfer Operations	ENGC323 Reaction Engineering	ENGC322 Chemical and Biological Operations	Programme Elective
Year 4	ENGEN570 Engineering Professional Practice 2	ENGEN591 Research Project*	ENGEN591 Research Project*	ENGC580 Process Engineering Design Project**	ENGC580 Process Engineering Design Project**	ENGC521 Advanced Process Control	Programme Elective	Programme Elective

■ Compulsory   
 ■ Stream   
 ■ Elective   
 ■ Placement

**Note:** Second Year includes [ENGEN271: Work Placement 1](#), and Third Year includes [ENGEN371: Work Placement 2](#), which are compulsory but are 0-point papers. Placements are usually taken over the Summer period from November to February.

\*ENGEN591 Research Project is worth 30 points.

\*\*ENGC580 Process Engineering Design Project is worth 30 points.

### Year 1 Electives

Choose 15 points from the following:

[BIOMO101](#) Introduction to Molecular and Cellular Biology  
[CHEMY101](#) Structure and Spectroscopy  
[EARTH101](#) Introduction to Earth System Sciences  
[EARTH102](#) Discovering Planet Earth  
[ENGEN110](#) Engineering Mechanics  
[ENGEN111](#) Electricity and Electronics  
[PHYSC101](#) Physics for Engineers and Scientists

### Year 2 Electives

Choose 15 points from the following:

[BIOMO201](#) Biochemistry  
[CHEMY2XX](#) 200 Level Chemistry  
[EARTH2XX](#) 200 Level Earth Sciences  
[ENGMP213](#) Mechanics of Materials 1

### Year 3 Electives

Choose 15 points from the following:

[ENGMP311](#) Materials 2  
[ENGEV341](#) Environmental Engineering 2  
[ENGEN380](#) Special Topics in Engineering  
[BIOMO2XX](#) 200 Level Molecular and Cellular Biology Or [BIOMO3XX](#) 300 Level Molecular and Cellular Biology  
[CHEMY2XX](#) 200 Level Chemistry Or [CHEMY3XX](#) 300 Level Chemistry  
[EARTH2XX](#) 200 Level Earth Sciences Or [EARTH3XX](#) 300 Level Earth Sciences

### Year 4 Electives

Choose 30 points with at least 15 points at 500 Level from the following:

[ENGC523](#) Advanced Energy Engineering  
[ENGC527](#) Advanced Biological Engineering  
[ENGMP511](#) Advanced Materials Engineering  
[ENGEV541](#) Advanced Water and Waste Water Engineering  
[ENGEV542](#) Waste Minimisation Engineering  
[ENGME580](#) Product Innovation and Development  
[ENGEN590](#) Special Topics in Engineering  
[ENGXX3XX](#) 300 Level Engineering