Programme Regulations: 2024/25

Programme Titles:

- **Degree of Master of Engineering with Honours in Chemical Engineering -** UCAS Code: H813

  With specialisms in
  - **Chemical Engineering with Placement Year (Year 4)** - Code: 1149U
  - **Process Control** - Code: 1632U
  - **Process Control with Placement Year** - Code: 1150U
  - **Bioprocess Engineering** - Code: 1631U
  - **Bioprocess Engineering with Placement Year** - Code: 1154U
  - **Sustainable Engineering** - Code: 1633U
  - **Sustainable Engineering with Placement Year** - Code: 1156U

- **Degree of Master of Engineering with Honours in Chemical Engineering Science –** Code 1622U*****

Programme Titles available prior to 2022 Entry

- **Degree of Master of Engineering with Honours in Chemical Engineering with Process Control -** UCAS Code: H830**
- **Degree of Master of Engineering with Honours in Chemical Engineering with Bioprocess Engineering -** UCAS Code: H831**
- **Degree of Master of Engineering with Honours in Chemical Engineering with Sustainable Engineering -** UCAS Code: HH82**

Notes

(i) These programme regulations should be read in conjunction with the University's Taught Programme Regulations.

(ii) All optional modules are offered subject to the constraints of the timetable and to any restrictions on the number of students who may be taught on a particular module. Not all modules may be offered in all years and they are listed subject to availability.

(iii) Unless otherwise stated under 'Type', modules are not core.

(iv) A compulsory module is a module which a student is required to study.

(v) A core module is a module which a student must pass, and in which a fail mark may neither be carried nor compensated; such modules are designated by the board of studies as essential for progression to a further stage of the programme or for study in a further module.

*(vi) *Programmes coded H830, H831 and HH82 are withdrawn from entry.*

(vii) All modules are delivered in Linear mode unless stated otherwise as Block, eLearning or distance learning.

(viii) If a candidate meets the requirements for the three-year Bachelor of Engineering degree Chemical Engineering (H810) they may transfer to that programme at any time before the start of Stage 3.

(ix) Programme transfers for Tier 4 students may be restricted by current Tier 4 rules. Please refer to the Visa Team for advice.

*(x) *Programme 1622U is a non-accredited exit award for candidates who do not meet the requirements for the accredited version of Degree of Master of Engineering with Honours in Chemical Engineering (H813)*

*(xi) **Programmes coded H830, H831 and HH82 are withdrawn from entry effective from September 2022*

1. Stage 1

All candidates shall take the following compulsory modules:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*
CME1021	Thermodynamics	10	10		4
CME1023	Transfer Processes	25		25	4
CME1026	Computing and Numerical Methods	10	5	5	4
CME1027	Data Analysis in Process Industries	5		5	4
CME1028	Chemical Engineering Laboratory	10	5	5	4
CME1029	Chemistry	20	20		4
CME1030	Principles of Chemical Engineering	20	10	10	4
ENG1001	Engineering Mathematics I	20	10	10	4

3. Stage 2

(a) All candidates shall take the following compulsory modules:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*
CME2022	Separation Processes 1	20		20	5
CME2023	Transfer Processes 2	20	20		5
CME2024	Reactor Engineering	10	10		5
CME2027	Process Development Science and Analysis	10	10		5
CME2028	Thermodynamics 2	10	10		5
CME2029	Process Measurement, Dynamics and Control	10		10	5
CME2030	Chemical Engineering Laboratory II	10		10	5
CME2031	Safety, Risk and Engineering Practice	20		20	5
ENG2011	Engineering Mathematics II	10	10		5

(b) In order to progress on a Master of Engineering programme candidates must achieve an overall Stage 2 average of 60% and fail no module at the first attempt.

In order to progress on to the Master of Engineering in Chemical Engineering with Honours in Industry (H815) candidates must achieve an overall Stage 2 average of 65% and fail no module at the first attempt.

4. Stage 3

All candidates shall take the following compulsory modules:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*
CME3008	Process Control	10	10		6
CME3032	Process Design and Economics	15	8	7	6
CME3033	Separation Processes 2	15	15		6
CME3034	Design for Process Safety	10	10		6
CME3035	Reactor Systems Engineering	15	15		6
CME3036	Process and Product Engineering	10		10	6
CME3039	Plant Design	40	5	35	6

CME3040	Chemical Engineering Laboratory III	5		5	6

In order to progress on a Master of Engineering programme candidates must achieve an overall Stage 3 average of 60% and fail no module at the first attempt.

Before entering Stage 4 candidates will choose to either continue on the general Chemical Engineering programme or specialise in Bioprocess Engineering, Process Control or Sustainable Engineering.

5. Year 4 (Placement Year Only - 1149U, 1150U, 1154U & 1156U**)**

On completion of Stage 3 and before entering Stage 4, candidates may as part of their studies for the degree spend a year in a placement with an approved organisation. Permission to undertake a placement is subject to the approval of the Degree Programme Director. Students who are required to re-sit their Stage 3 assessment must delay the start of their placement until they have done so. Students who fail Stage 3 may not complete a placement year.

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*
NCL3000	Career Service Placement Year Module	120	60	60	6

6. Stage 4

(a) Chemical Engineering (H813)

(i) All candidates shall take the following compulsory modules totalling 90 credits:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*	*Mode*
CME8120	Advanced Design Project	20	20		7	Core	Block
CME8127	Bioprocess Engineering	10	10		7		Block
CME8128	MEng Research Project	60		60	7		

The topic of the Project for CME8128 must be a topic in line with the specialism chosen by the student.

(ii) All candidates shall take optional modules to the value of 20 credits from the following list:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*	*Mode*
CME8038	Sustainable Industry	10	10		7	Block	
CME8103	Design of Robust Control Algorithms	10	10		7	Block	
CME8104	Design of Digital Control Algorithms	10	10		7	Block	
CME8118	Stability and Sustainability of Materials	10	10		7	Block	
CME8124	Big Data Analytics in the Process Industries	10	10		7	Block	

(iii) All candidates shall take an optional module to the value of 10 credits from the following list:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*	*Mode*
CME8107	Process Intensification	10	10		7	Block	

CME8119	Computational Fluid Dynamics	10	10		7	Block	
CME8130	Food Processing	10	10		7	Block	

(b) Bioprocess Engineering (1631U & 1154U (Placement Year))

(i) All candidates shall take the following compulsory modules totalling 100 credits:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*	*Mode*
CME8120	Advanced Design Project	20	20		7	Core	Block
CME8124	Big Data Analytics in the Process Industries	10	10		7		Block
CME8127	Bioprocess Engineering	10	10		7		Block
CME8128	MEng Research Project	60		60	7		

(ii) All candidates shall take an optional module to the value of 10 credits from the following list:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*	*Mode*
CME8038	Sustainable Industry	10	10		7		Block
CME8103	Design of Robust Control Algorithms	10	10		7		Block
CME8104	Design of Digital Control Algorithms	10	10		7		Block
CME8118	Stability and Sustainability of Materials	10	10		7		Block

(iii) All candidates shall take an optional module to the value of 10 credits from the following list:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*	*Mode*
CME8107	Process Intensification	10	10		7		Block
CME8119	Computational Fluid Dynamics	10	10		7		Block
CME8130	Food Processing	10	10		7		Block

(c) Process Control (1632U & 1150U (Placement Year))

(i) All candidates shall take the following compulsory modules totalling 110 credits:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*	*Mode*
CME8103	Design of Robust Control Algorithms	10	10		7		Block
CME8104	Design of Digital Control Algorithms	10	10		7		Block
CME8120	Advanced Design Project	20	20		7	Core	Block
CME8127	Bioprocess Engineering	10	10		7		Block
CME8128	MEng Research Project	60		60	7		

(iii) All candidates shall take an optional module to the value of 10 credits from the following list:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*	*Mode*
CME8107	Process Intensification	10	10		7		Block
CME8119	Computational Fluid Dynamics	10	10		7		Block
CME8130	Food Processing	10	10		7		Block

(d) Sustainable Engineering (1633U & 1156U (Placement Year))

(i) All candidates shall take the following compulsory modules totalling 110 credits:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*	*Mode*
CME8038	Sustainable Industry	10	10		7		Block
CME8118	Stability and Sustainability of Materials	10	10		7		Block
CME8120	Advanced Design Project	20	20		7	Core	
CME8127	Bioprocess Engineering	10	10		7		Block
CME8128	MEng Research Project	60		60	7		

(ii) All candidates shall take an optional module to the value of 10 credits from the following list:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*	*Mode*
CME8107	Process Intensification	10	10		7		Block
CME8119	Computational Fluid Dynamics	10	10		7		Block
CME8130	Food Processing	10	10		7		Block

With the approval of the Degree Programme Director alternative optional modules to those listed may be selected.

7. Assessment methods

Details of the assessment pattern for each module are explained in the module outline.

8. Compensation and Condonement

For students entering the programme in 2021/22 onwards, the Engineering Council's policy on compensation and condonement will apply to marks awarded for modules at all stages, to satisfy accreditation requirements. To be awarded an accredited honours degree, only a maximum of 30 credits can be compensated over the duration of the degree programme, where the final mark is up to 5 percentage points below the pass mark. Core modules cannot be compensated. Individual projects and group projects worth more than 20 credits cannot be compensated.

There is no condonement of modules delivering Accreditation of Higher Education Programmes (AHEP) learning outcomes.

Any student not satisfying the accreditation requirements, but satisfying the University's Degree and Assessment regulations, will have the opportunity to be awarded a non-accredited honours degree with its classification based on the overall final stage averages beyond stage one.

9. Degree classification

The degree classification will be determined on the basis of all the modules taken at Stages 2, 3 and 4 with the weighting of the stages being 1:2:2 for Stage 2, Stage 3 and Stage 4 respectively.