Programme Regulations: 2023/24

Programme Title: Degree of Master of Chemistry with Honours in Chemistry with Industrial Training - UCAS Code: F106

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

(iv) If a candidate meets the requirements for the three year plus intercalating year degree, BSc Honours in Chemistry with Industrial Training (F102) or the three year degree BSc Honours in Chemistry (F100) or the four year degree MChem with Honours in Chemistry (F103), they may transfer to that programme at any time before the beginning of the placement year. All modules are delivered in Linear mode unless stated otherwise as Block, eLearning or distance learning.

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

1. Stage 1

All candidates shall take the following compulsory modules:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*
NES1400	Chemical Laboratory Skills 1	20	10	10	4
NES1401	Chemical Skills and Professionalism	10	10		4
NES1402	Fundamentals of Organic Chemistry	20	10	10	4
NES1403	Fundamentals of Inorganic Chemistry	20	10	10	4
NES1404	Fundamentals of Physical Chemistry	20		20	4
NES1406	General Chemistry	10	10		4

(a) Candidates who have A Level Maths grade C or below:

(i) All candidates shall take the following compulsory module:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*
NES1405	Mathematical Skills for Chemists	10	10		4

(ii) All candidates shall take 10 credits of optional modules normally selected from the following list:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*
NES1005	Natural Science Research Impact	10		10	4
NES1206	Earth System Science	10	10		4
NES1407	Introduction to Scientific Computing for Chemists	10		10	4

(b) Candidates who have A Level Maths grade B or above:

(i) All candidates shall take 20 credits of optional modules normally selected from the following list:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*
NES1005	Natural Science Research Impact	10		10	4
NES1206	Earth System Science	10	10		4
NES1301	Diversity of Life: Form and Function	20	10	10	4
NES1407	Introduction to Scientific Computing for Chemists	10		10	4

To progress to Stage 2 of this degree programme, candidates are required to obtain an average over all modules taken at Stage 1 of at least 60.

2. Stage 2

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

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*
NES2202	Sustainable Solutions	10	10		5
NES2400	Chemical Laboratory Skills 2	20	10	10	5
NES2401	Structural Chemistry	10	10		5
NES2402	Organic Chemistry	20	10	10	5
NES2403	Inorganic Chemistry	20	10	10	5
NES2404	Physical Chemistry	20	10	10	5

(b) All candidates shall take 20 credits of optional modules normally selected from the following list:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*
NES2205	Global Element Cycling	10		10	5
NES2405	Medicinal Chemistry	10		10	5
NES2406	Scientific Computing for Chemists	10		10	5
NES2408	Chemistry of the Atmosphere	10		10	5

To progress to Stage 3 of this degree programme, candidates are required to obtain an average over all modules taken at Stage 2 of at least 55.

3. Stage 3 (Industrial Training Year)

All candidates shall take the following compulsory modules:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*
NES3406	Advanced Organic Chemistry (Distance Learning)	20	10	10	6
NES3407	Advanced Inorganic Chemistry (Distance Learning)	20	10	10	6
NES3411	Project in Industry	80	40	40	7

In order to progress to Stage 4, candidates must achieve a module mark of at least 40 in each module at the first attempt.

4. Stage 4

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

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*
NES3404	Physical and Computational Chemistry	20	10	10	6
NES8400	Research Project	70	10	60	7
NES8401	Advanced Problem Solving	10	10		7

(b) All candidates shall take 20 credits of optional modules normally selected from the following list:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*
NES3408	Advanced Structural Chemistry	10	10		6
NES8402	Selectivity and Stereocontrol in Organic Synthesis	10	10		7
NES8403	Advanced Methods in Drug Discovery	10	10		7
NES8404	Pericyclic and Radical Reactions	10	10		7
NES8405	Chemistry far from Equilibrium	10	10		7
NES8406	Contemporary Catalysis: Principles and Applications	10	10		7
NES8407	Exploring d and f block chemistry: applications and structural methods	10	10		7
NES8408	Energy and Materials	10	10		7

With the approval of the Degree Programme Director, an alternative module to those listed above may be selected to the value of 10 credits.

5. Assessment methods

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

6. Degree classification

Candidates will be assessed for degree classification 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 Stages 2, 3 and Stage 4 respectively.