

Programme Regulations: 2023/24

Programme Title: Degree of Master of Chemistry with Honours in Chemistry with Medicinal Chemistry

UCAS Code: F123

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 degree, BSc Honours in Chemistry with Medicinal Chemistry (F151), they may transfer to that programme at any time before the start of Stage 3.*
- (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:

| <i>Code</i> | <i>Descriptive title</i> | <i>Total Credits</i> | <i>Credits Sem 1</i> | <i>Credits Sem 2</i> | <i>Level</i> |
|-------------|-------------------------------------|----------------------|----------------------|----------------------|--------------|
| 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:

| <i>Code</i> | <i>Descriptive title</i> | <i>Total Credits</i> | <i>Credits Sem 1</i> | <i>Credits Sem 2</i> | <i>Level</i> |
|-------------|----------------------------------|----------------------|----------------------|----------------------|--------------|
| NES1405 | Mathematical Skills for Chemists | 10 | 10 | | 4 |

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

| <i>Code</i> | <i>Descriptive title</i> | <i>Total Credits</i> | <i>Credits Sem 1</i> | <i>Credits Sem 2</i> | <i>Level</i> |
|-------------|---|----------------------|----------------------|----------------------|--------------|
| 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:

| <i>Code</i> | <i>Descriptive title</i> | <i>Total Credits</i> | <i>Credits Sem 1</i> | <i>Credits Sem 2</i> | <i>Level</i> |
|-------------|---|----------------------|----------------------|----------------------|--------------|
| 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 |

2. Stage 2

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

| <i>Code</i> | <i>Descriptive title</i> | <i>Total Credits</i> | <i>Credits Sem 1</i> | <i>Credits Sem 2</i> | <i>Level</i> |
|-------------|------------------------------|----------------------|----------------------|----------------------|--------------|
| 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 |
| NES2405 | Medicinal Chemistry | 10 | | 10 | 5 |

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

| <i>Code</i> | <i>Descriptive title</i> | <i>Total Credits</i> | <i>Credits Sem 1</i> | <i>Credits Sem 2</i> | <i>Level</i> |
|-------------|---|----------------------|----------------------|----------------------|--------------|
| NES2205 | Global Element Cycling | 10 | | 10 | 5 |
| NES2407 | Applied Computational Medicinal Chemistry | 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

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

| <i>Code</i> | <i>Descriptive title</i> | <i>Total Credits</i> | <i>Credits Sem 1</i> | <i>Credits Sem 2</i> | <i>Level</i> |
|-------------|--|----------------------|----------------------|----------------------|--------------|
| NES3401 | Professional Development and Employability Skills for Chemists | 10 | 10 | | 6 |
| NES3402 | Advanced Organic Chemistry | 20 | 10 | 10 | 6 |
| NES3403 | Advanced Inorganic Chemistry | 20 | 10 | 10 | 6 |
| NES3405 | Advanced Medicinal Chemistry | 20 | 10 | 10 | 6 |
| NES3408 | Advanced Structural Chemistry | 10 | 10 | | 6 |
| NES3409 | Chemistry Laboratory Skills 3M | 20 | 10 | 10 | 6 |
| NES3410 | Analytical Chemistry in Practice | 20 | | 20 | 6 |

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:

| <i>Code</i> | <i>Descriptive title</i> | <i>Total Credits</i> | <i>Credits Sem 1</i> | <i>Credits Sem 2</i> | <i>Level</i> |
|-------------|------------------------------------|----------------------|----------------------|----------------------|--------------|
| NES8400 | Research Project | 70 | 10 | 60 | 7 |
| NES8401 | Advanced Problem Solving | 10 | 10 | | 7 |
| NES8403 | Advanced Methods in Drug Discovery | 10 | 10 | | 7 |

(b) All candidates shall take 30 credits of optional modules normally selected from the following list:

| <i>Code</i> | <i>Descriptive title</i> | <i>Total Credits</i> | <i>Credits Sem 1</i> | <i>Credits Sem 2</i> | <i>Level</i> |
|-------------|--|----------------------|----------------------|----------------------|--------------|
| NES8402 | Selectivity and Stereocontrol in Organic Synthesis | 10 | 10 | | 7 |
| NES8404 | Pericyclic and Radical Reactions | 10 | 10 | | 7 |
| NES8405 | Chemistry far from Equilibrium | 10 | 10 | | 7 |
| NES8406 | Contemporary Catalysis: Principles of 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.