# CH3C3-30 International Placement Project (MChem)

## 23/24

Department Chemistry Level Undergraduate Level 3 Module leader Paolo Coppo Credit value 30 Module duration 13 weeks Assessment 100% coursework Study location Placement

# Description

## Introductory description

N/A

Module web page

## Module aims

Undertaking an international placement is an excellent way for a trainee chemist to further their practical skills and gain valuable information enabling them to make informed career choices. Students undertaking the International Placement module can opt to apply for a placement in industry or in a university. They are expected to carry out a significant piece of research work or project which is written up as a report. Although the exact nature of the work is not important the report should demonstrate an ability to write up the work in a style which clearly communicates the aims and outcomes of the project. Where possible the data should be presented in a format which would allow another chemist to validate the work carried out. The module thus contributes in a large part to the development of planning and communication skills through experiential learning and as such can be considered extremely important in the development of a practising scientist's skill set.

## **Outline syllabus**

This is an indicative module outline only to give an indication of the sort of topics that may be covered. Actual sessions held may differ.

The student may apply for a placement in industry or in a university, replacing the Term 3 practical labs. During the placement the student is required to write a report of not more than 5000 words detailing the aims of the work carried out, key results and discussion and conclusions.

- 1. Placement details, should include details on the location of placement, duration and supervisors name.
- 2. The Abstract should be a concise summary of the project in not more than 200 words. It must be the first page of the report.
- 3. The Contents page should be clearly presented.
- 4. The Introduction should be a brief, up-to-date review of previous work with references and should be either directly on the subject of the project or on a related area.
- 5. The Results/Discussion section should describe in detail your findings and evaluate their significance. Characterisation data (and their interpretation/assignment are included here). All diagrams and graphs should be clearly and neatly printed using appropriate software package, have a title and the axes labelled with appropriate units if applicable. (Note: full experimental details and data listings are included in the experiment section: see 6)
- 6. The conclusion should be an assessment of what has been achieved. Proposals for future development of the research topic may be discussed, if appropriate, but this section must not exceed two pages.
- 7. The Experimental section, presented in a Royal Society of Chemistry (RSC) journal format\* (by agreement with the supervisor and with the Department of Chemistry other recognised styles are acceptable), should include full details of all the experiments performed, i.e. a competent experimentalist should be able to repeat the experiments from the detail that has been recorded. Full characterisation data should be included where appropriate. If an experiment has been repeated a large number of times it is sufficient to give one or two detailed examples and summarise the remainder in tabular form.
- 8. Safety considerations should cover special features relative to the procedures or chemicals involved in the project. Normally it should not exceed two pages.
- 9. All References should be in the standard Royal Society of Chemistry format (see, for example, Chemical Communications or the RSC Web-site http://pubs.rsc.org/en/Journals/JournalIssues/CC).
- See the RSC website http://pubs.rsc.org/en/Journals

Overall length and the internal distribution of these sections of the report will vary from project to project. The upper limit is 5000 words. However, it is important to note that quantity does not equate to quality, and a shorter report may be appropriate. Figures and tables are excluded from

the word count.

### Learning outcomes

By the end of the module, students should be able to:

- Complete individual COSHH assessments for a diverse range of experiments.
- Plan a written report on a substantial project.
- Carry out a piece of closely supervised work of a chemical nature.
- Think about role in placement setting.
- Analyse development as a Professional Chemist as a result of placement.

### Indicative reading list

The ACS Style Guide, a manual for Authors and Editors, ACS, Washington, 1986. Experimental Organic Chemistry, L. M. Harwood, C. J. Moody and J. M. Percy Second Edn. Blackwell, Oxford 1999.

### **Research element**

e.g. essay, dissertation, individual or group research, research skills activity, etc.

#### International

e.g. includes mobility opportunities, explores concepts and ideas in a global context, fosters a global mindset and awareness of diversity, etc.

### Subject specific skills

Module leader to complete

### **Transferable skills**

As above

## Study

## Study time

**Type** Placement Total Required 300 hours (100%) 300 hours

## Private study description

No private study requirements defined for this module.

## Costs

No further costs have been identified for this module.

## Assessment

You do not need to pass all assessment components to pass the module.

Students can register for this module without taking any assessment.

## Assessment group A3

	Weighting	Study time
MChem International Placement Project	80%	
The report should contain the following:		
Placement details;		
Abstract;		
Contents;		
Introduction;		
Results/Discussion;		
Conclusions;		
Experimental;		
Safety considerations;		
References.		
Supervisor Assessment	20%	
Assessment of the student's work during the placement, according to the Host Supervisor		

### Feedback on assessment

Marks and written feedback for all components released via Moodle.

# Availability

## **Pre-requisites**

To take this module, you must have passed:

- All of
  - <u>CH222-30 Practical and Professional Chemistry Skills II</u>

# Courses

This module is Core for:

- UCHA-F109 Undergraduate Master of Chemistry (with International Placement)
  - Year 3 of F109 MChem Chemistry (with International Placement)
  - Year 3 of F111 MChem Chemistry with Medicinal Chemistry (with International Placement)
- UCHA-4M Undergraduate Master of Chemistry Variants
  - Year 3 of F109 MChem Chemistry (with International Placement)
  - Year 3 of F126 MChem Chemistry with Med Chem (with Prof Exp)
  - Year 3 of F106 MChem Chemistry with Professional Experience