

Toxicology

Final award	MSc
Intermediate awards available	PgDip, PgCert
UCAS code	N/A
Details of professional body accreditation	N/A
Relevant QAA Benchmark statements	
Date specification last up-dated	June 2009

Profile

The summary - programme advertising leaflet

Programme content

This modular programme aims to produce postgraduate students with a sound knowledge of both practical and theoretical aspects of the specialist area of Toxicology and the necessary skills to undertake individual and collaborative research in this field. This programme has been designed for students wishing to make a career in the pharmaceutical industry, medical and academic, forensic science or any field where a knowledge of toxicology is desirable .

MSc Toxicology at UEL

The programme offer a mix of traditional toxicology with an introduction to the cutting edge of research at the molecular level . The focus of the programme is not simply on the state of current knowledge but also the methodology used in obtaining that knowledge, making use of recent research papers to inform class discussion. In addition to taught modules in the field you will also be trained in research processes, culminating in an individual research project which will give you the opportunity to demonstrate your individual skills and abilities.

Admission requirements

For entry to this programme, students are required to have qualifications equivalent to an honours degree from a UK university in a relevant subject or experience. For overseas students there is a requirement for an IELTS score of 6.0 or higher (or equivalent), TOEFL score of 650 or an equivalent. Applicants whose qualifications do not conform to these criteria may be admitted to the programme at the admission tutors discretion which will normally involve an interview.

Programme structure

- One year full time or two years part time for MSc and PG Diploma.
- One year part time for PG Certificate.

- Part time students take one optional module in semester A and one in semester B. In year two they take one optional module in semester A and the research skill module in semester B. The project is carried out in year 2.
- Taught modules are delivered in a semesterised system, with semesters running from September to January and February to June. The research projects will run through the Summer period .

Learning environment

- Learning is encouraged through participation in a wide variety of activities including lectures, seminars, workshops, laboratory-based practicals, web-based learning etc .
- In addition all students are expected to read extensively in their own time. Much of this reading will be directed.
- Success at university depends on developing your ability to study independently using library resources, Computer-assisted learning (CAL), handouts and web-based study activities.
- These skills are reinforced in modules in the first semester. These enable us to assess your independent learning needs at university, and also help to develop those transferable skills so important in working life. The skills with which you start the programme may vary considerably between individuals, so your personal tutor will direct your skills development work on an individual basis.

Assessment

- Students are assessed in practical work and theory.
- In taught modules 40% of the module mark is derived from coursework during the semester (this can take a variety of forms including laboratory work, data analysis, essays, oral presentations etc.) and the remaining 60% from unseen written theory examinations at the end of the semester.
- The Research Skills module is mainly assessed by coursework involving a variety of forms of presentation.
- The pass mark for all modules is 50%.

Relevance to work/profession

- The curriculum is tailored to current demand in this field.
- Emphasis is placed on the development of skills as well as academic knowledge.
- Part-time students in relevant employment may be permitted to carry out research projects at their place of work.

Dissertation/project work

- Project work is an essential component of a Masters degree programme and one that most students enjoy. Small projects and group work exercises feature throughout the programme.
- The individual research project is the culmination of the programme and makes up 33% of the programme.
- Project work encourages students to show initiative in their individual work under supervision, using appropriate analytical techniques to generate and interpret new data.

- Dissertation preparation develops literature researching, presentation and written communication skills essential in professional life.

Added value

Your future career

Most graduates would be expected to pursue research careers in the Pharmaceutical Industry, in the National Health Service or Health Protection Agency, environmental monitoring, in academic research in Universities, research institutes etc. Many students go on to laboratory based careers but there are also careers in areas such as scientific sales and management, clinical data management etc. This degree can also be utilised by those students who have less specific career aspirations but enjoy the challenge of scientific study at this advanced level.

How we support you

The School of Health and Bioscience provides immediate contact with University support systems.

- When you arrive, you will be allocated a Personal Development Tutor (a member of staff familiar with your degree). You will see your Tutor at regular intervals to discuss progress and life in general.
- The programme Leader may also give support on academic matters, and advice about other specialist help available through the University.
- The School also has a Help Desk to provide administrative assistance and advise how to get the right help.
- Internet homepages are used by many staff to support their teaching and your learning.
- Lecture and practical files, quizzes, mark summaries and much more is now available for several modules via [UELPlus](#) links.

Throughout the programme you will find a number of scheduled support activities devoted to specific aspects e.g. how to write your project report, or more general aspects such as careers. Support for students on a **University level** includes:

- [Libraries and Learning Resource Centres](#)
- [Childcare for students with children aged 21/2 years to 5 years](#) .
- [Careers advice and information](#)
- [Counselling and Advice for practical problems](#)
- [Health Centre with a nurse regularly on duty.](#)
- [Language tuition](#)
- [Dyslexia support](#)
- [Accommodation](#)

Bonus factors

- A small and friendly campus.

- A School with staff and facilities to match to the wide interests and backgrounds of students.
- Good connections with NHS, Pharmaceutical industry and other employers.
- Sports facilities at the Atherton Centre, which is just a few minutes walk away.
- Multiplex cinema, theatre, supermarkets, high street shops, restaurants, cafes and pubs a few minutes walk away in Stratford - a major site of new development in East London .
- Central London only 20 minutes away by underground and extensive transport links with all parts of London.

Outcomes

Programme aims and learning outcomes

What is this programme designed to achieve?

This programme is designed to give you the opportunity to:

- Demonstrate an in-depth knowledge of specialised areas of Toxicology and have an appreciation of the current range of theoretical and research understanding in those areas,
- Create, design and explore a research question in a specialised area and evaluate this research with appropriate justification or create, design and explore a work-based learning project to evaluate an issue in practice.
- Have a systematic awareness of knowledge and a critical awareness of current problems and new insights, much of which is at, or informed by, the forefront of Toxicology, Forensic science Science, Pharmacology, molecular biology and biotechnology.
- Have a comprehensive understanding of the latest research techniques used in bioscience.
- Communicate effectively with a wide range of audiences using a variety of methods including written, poster, oral and web-based presentations
- Design and develop a high quality dissertation and present it in a suitable form.

What will you learn?

Knowledge

- An in-depth knowledge of why xenobiotics damage biological systems at the molecular level.
- An awareness of the current theories and research developments in toxicology.
- An awareness of the contribution made by toxicologists in drug development
- An awareness of the wider implications of scientific research on society as a whole.

Thinking skills

- The ability to use integrated approaches to analyse and interpret complex and contradictory scientific information autonomously and to accurately assess and criticise your own and others' work.

- An awareness and understanding of the ethical constraints associated with the subject and the ability to relate these to your own experience.
- The ability to contribute to the development of the subject through applied study or research.
- The ability to solve problems in science.

Subject-Based Practical skills

- The ability to select and apply a range of practical skills relevant to Toxicology.
- A higher level of competence in laboratory skills.
- An ability to isolate, assess and resolve problems independently and to react effectively to unusual and unexpected situations.
- An improved ability to engage in professional and academic communication with others in your specialist field.
- The ability to select and utilise appropriate computer software, and to understand its limitations in presenting scientific data.

Skills for life and work (general skills)

- Increased ability to take responsibility for your own learning and the ability to work with and motivate others.
- Ability to reflect critically on your own and others' performance resulting in the improvement of subsequent actions.
- Increased confidence in your own abilities.
- Improved skills in written and verbal communication of complex information.

Structure

The programme structure

Introduction

All programmes are credit-rated to help you to understand the amount and level of study that is needed.

One credit is equal to 10 hours of directed study time (this includes everything you do e.g. lecture, seminar and private study).

Credits are assigned to one of 5 levels:

- 0 - equivalent in standard to GCE 'A' level and is intended to prepare students for year one of an undergraduate degree programme
- 1 - equivalent in standard to the first year of a full-time undergraduate degree programme
- 2 - equivalent in standard to the second year of a full-time undergraduate degree programme
- 3 - equivalent in standard to the third year of a full-time undergraduate degree programme
- M - equivalent in standard to a Masters degree

Credit rating

A total of 60 or 120 credits at level M are needed for the award of a Postgraduate Certificate or Diploma respectively. A total of 180 credits at level M are needed for the award of an M Sc.

Typical duration

The typical duration of this programme is one calendar year full-time or two years part-time. It is possible to move from full-time to part-time study and vice-versa to accommodate any external factors such as financial constraints or domestic commitments. Many of our students make use of this flexibility and this may impact on the overall duration of their study period.

How the teaching year is divided

The teaching year is divided into two semesters of roughly equal length. Teaching and assessment of taught modules is completed within each semester. The research project is completed in the summer period, between June and September. For part-time students, attendance is required on one full-day per week, for full-time students attendance is normally two days but this may be increased during the research project.

What you will study when

The order in which modules are taken will vary for different groups of students. This is possible because the modules are all free standing, except that the research skills module should be taken before the start of the project.

Part-time MSc students study one optional module in semester A and a second optional module in Semester B of the first year. These are followed by the third optional module in semester A of year 2 and the research skills module in Semester B. We anticipate that most students taking the part time programme will be in related employment and will be able to devise projects which can be carried out at their place of work. Alternative arrangements will be made individually for students unable to do this, and the project would be taken in the summer period, normally of the second year.

Full time students complete the whole programme in a single calendar year. The project would be taken in the summer period. Students starting in semester B will take one optional module and the Research Skills module in semester B, followed by the project in the summer period. Two further optional modules would be taken in semester A of the following academic year.

Full-time Postgraduate Diploma students will take two optional modules semester A followed by one optional module and Research Skills in semester B. Students following this programme by part time study would normally take two optional modules in the first year of study, though this is not essential. Students can start this programme in full time or part time mode in either semester.

Postgraduate Certificate students take the programme by part time day release, taking only two modules. These two modules can be taken in either order so students can start this programme in September or in February.

The modules which make up the programme are listed below.

Year FT(PT)	Module title	credit status	
1(1)	Toxicology (Semester A) - BS7011	30	Core
1(2)	Applied Toxicology (Semester B) - BS7012	30	Core
1(2)	Optional module (Semester A)	30	Core
1(1)	Research Skills (Semester B) - BS7002	30	Core
1 (1/ 2)	Research Project (Summer)	60	Core

Requirements for gaining an award

- In order to gain a Postgraduate Certificate, you will need to obtain 60 credits at Level M.
- In order to gain a Postgraduate Diploma, you will need to obtain 120 credits at Level M
- In order to obtain a Masters, you will need to obtain 180 credits at Level M. These credits will include a 60 credit level M core module of advanced independent research.

Masters Award Classification

Where a student is eligible for an Masters award then the award classification is determined by calculating the arithmetic mean of all marks and applying the mark obtained as a percentage, with all decimal points rounded up to the nearest whole number, to the following classification

70% - 100% Distinction
60% - 69% Merit
50% - 59% Pass
0% - 49% Not Passed

Assessment

Teaching, learning and assessment

Teaching and learning

Knowledge is developed through

- Lectures
- Seminars, tutorials and workshops
- Student centred learning - directed reading, assignment preparation.

Thinking skills are developed through

- Tutorials
- Seminars and workshops

- Report writing and assignments
- Project work

Practical skills are developed through

- Laboratory practical sessions
- Individual research project
- Data analysis exercises
- Use of IT and library based resources
- Student presentations

Skills for life and work (general skills) are developed through

- Student centred learning
- Seminar and workshop discussions
- Oral and written presentations
- Computer assignments
- Managing time
- Team work

Assessment

Knowledge will be assessed by

- Examinations and coursework (in the taught core course modules emphasis will be given to work-based coursework)
- Interim reports and Final oral examination

Thinking skills are assessed by

- Examinations and coursework (in the taught core course modules emphasis will be given to work-based coursework)
- Final oral examination
- Tutorials with University and work-based supervisors

Practical skills are assessed by

- Laboratory practical / coursework (in the taught core course modules emphasis will be given to work-based coursework)
- Reports from work based supervisors

Skills for life and work (general skills) are assessed by

- Laboratory practical/ coursework (in the taught core course modules emphasis will be given to work-based coursework)
- Coursework reports
- Reports from work based supervisors

Quality

How we assure the quality of this programme

Before this programme started

Before the programme started, the following was checked:

- there would be enough qualified staff to teach the programme;
- adequate resources would be in place;
- the overall aims and objectives were appropriate;
- the content of the programme met national benchmark requirements;
- the programme met any professional/statutory body requirements;
- the proposal met other internal quality criteria covering a range of issues such as admissions policy, teaching, learning and assessment strategy and student support mechanisms.

This is done through a process of programme approval which involves consulting academic experts including some subject specialists from other institutions.

How we monitor the quality of this programme

The quality of this programme is monitored each year through evaluating:

- external examiner reports (considering quality and standards);
- statistical information (considering issues such as the pass rate);
- student feedback.

Drawing on this and other information programme teams undertake the annual Review and Enhancement Process which is co-ordinated at School level and includes student participation. The process is monitored by the Quality and Standards Committee. Once every six years an in-depth review of the whole field is undertaken by a panel that includes at least two external subject specialists. The panel considers documents, looks at student work, speaks to current and former students and speaks to staff before drawing its conclusions. The result is a report highlighting good practice and identifying areas where action is needed.

The role of the programme committee

This programme has a programme committee comprising all relevant teaching staff, student representatives and others who make a contribution towards the effective operation of the programme (e.g. library/technician staff). The committee has responsibilities for the quality of the programme. It provides input into the operation of the Review and Enhancement Process and proposes changes to improve quality. The programme committee plays a critical role in the quality assurance procedures.

The role of external examiners

The standard of this programme is monitored by at least one external examiner. External examiners have two primary responsibilities:

- To ensure the standard of the programme;

- To ensure that justice is done to individual students.

External examiners fulfil these responsibilities in a variety of ways including:

- Approving exam papers/assignments
- Attending assessment boards
- Interviewing students who are completing their programme
- Reviewing samples of student work and moderating marks
- Ensuring that regulations are followed
- Providing feedback through an annual report that enables us to make improvements for the future

Listening to the views of students

There will be regular documented meetings with the university supervisor/s and at the workplace meetings with the work-based supervisor. In addition the programme committee will oversee and respond to any questions raised.

Listening to the views of others

We have regular discussions with Employers in the NHS, biotechnology and pharmaceutical industry

Further Information

Alternative locations for studying this programme

Location	Which elements?	Taught by UEL staff	Taught by local staff	Method of Delivery
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

Where you can find further information

Further information about this programme is available from:

- The UEL web site
- The student handbook
- Module study guides <http://www.uel.ac.uk/hab/>
- UEL Manual of Regulations and Policies <http://www.uel.ac.uk/qa>
- UEL Quality Manual <http://www.uel.ac.uk/qa/>
- Regulations for the Academic Framework <http://www.uel.ac.uk/academicframework/>
- School web pages <http://www.uel.ac.uk/hab/index.htm>