

## COURSE SPECIFICATION

Course Aim and Title	MSc Biomedical Science
Intermediate Awards Available	PGCert and PGDip Bioscience
Teaching Institution(s)	UEL
Alternative Teaching Institutions (for local arrangements see final section of this specification)	Full time or part-time students in relevant employment may be permitted to carry out the research project at their place of work.
UEL Academic School	Health Sport and Bioscience
UCAS Code	N/A
Professional Body Accreditation	Institute of Biomedical Science
Relevant QAA Benchmark Statements	N/R
Additional Versions of this Course	None
Date Specification Last Updated	September 2023

### Course Aims and Learning Outcomes

This course is designed to give you the opportunity to:

- Display a sound knowledge of the biology of disease and its clinical applications.
- Be able to discuss current knowledge in biomedical sciences, and the techniques used in their investigation.
- Possess skills in the selection, planning, performance and interpretation of a range of appropriate experimental techniques.
- Be able to analyse and interpret complex and sometimes contradictory scientific information.
- Be able to engage in professional and academic communication with other biomedical scientists.
- Develop an informed, critical and imaginative attitude to professional practice appropriate for those with responsibility in the field.

What you will learn:

#### *Knowledge*

- A sound foundation and knowledge of both the practical and theoretical aspects of biomedical sciences.
- Detailed knowledge in molecular aspects of the biology of disease, and the chosen option field.
- The principles of statistical and biological assessment of clinical and research data

#### *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 field 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.

### *Subject-Based Practical skills*

- The ability to select and apply a range of practical skills relevant to the practice of biomedical science.
- 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 or instrumentation software, and to understand its characteristics, limitations to be able to report data following sector standards

### *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.

## **Learning and Teaching**

### *Knowledge is developed through*

- Guided reading
- Lectures
- Seminars
- Knowledge-based activities with feedback
- Online discussions and activities
- Computer-assisted learning
- Scientific articles and reports discussion sessions

### *Thinking skills are developed through*

- Reflective activities with feedback
- Online discussions and activities
- Scientific articles and reports discussion sessions
- Laboratory practicals

### *Practical skills are developed through*

- IT activities with feedback
- Library Research skills-based activities with feedback
- Laboratory/workplace research skills-based activities with feedback

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

- Planning activities with feedback
- Project work
- Presentation activities with feedback
- Written work with feedback

The skills with which you start the course may vary considerably between individuals, so your personal tutor will guide your skills development work on an individual basis.

## Assessment

### *Knowledge is assessed by*

- Coursework
- Practical reports
- Examinations
- Project proposal
- Critical papers
- Presentations

### *Thinking skills are assessed by*

- Coursework
- Examinations
- Project work
- Presentations

### *Practical skills are assessed by*

- Practical reports
- Portfolio completion
- Computer-based assessments
- Practical examinations

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

- Project work
- Group work
- Professional activities

The pass mark for all modules is 50%

Students with disabilities and/or particular learning needs should discuss assessments with the Course Leader to ensure they are able to fully engage with all assessment within the course.

## Work or Study Placements

Part of the Professional Experience in Biomedical Science module may be spent doing an optional work placement lasting 2 to 4 weeks leading to an MSc final project report that is work-based with the support of a mentor. Placements selected by a competitive process.

## Course Structure

All courses 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:

- 3 Equivalent in standard to GCE 'A' level and is intended to prepare students for year one of an undergraduate degree course.
- 4 Equivalent in standard to the first year of a full-time undergraduate degree course.
- 5 Equivalent in standard to the second year of a full-time undergraduate degree course.
- 6 Equivalent in standard to the third year of a full-time undergraduate degree course.

7 Equivalent in standard to a Masters degree.

Courses are made up of modules that are each credit weighted.

**The module structure of this course:**

Level	Module Code	Module Title	Credit Weighting	Core/Option	Available by Distance Learning? Y/N
7	BS7200	Experimental Techniques and Laboratory Practice in Biomedical Science	30	Core	N
7	BS7203	Biology of Disease and Clinical Diagnosis	30	Core	N
7	BS7201	Evidence-based practice and career development (Mental Wealth) in Biomedical Science	30	Core	N
7	BS7207	Clinical Biochemistry and Toxicology	30	Option	N
7	BS7205	Clinical Microbiology and Infectious Disease Control	30	Option	N
7	BS7208	Health and Disease of Physiological Systems	30	Option	N
7	BS7206	Immunology and Immunotherapy	30	Option	N
7	BS7210	Cancer Biology and Therapeutics	30	Option	N
7	BS7202	Research Dissertation	60	Core	N
7	BS7099	Level 7 Short Work Placement	0	Option	N

*Please note: Optional modules might not run every year, the course team will decide on an annual basis which options will be running, based on student demand and academic factors, in order to create the best learning experience.*

Additional detail about the course module structure:

**Course structure.**

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

- Part time students study Advanced Techniques in Bioscience and the optional module in year 1 and Biology of Disease and Clinical Diagnosis and research skills modules in year 2. The research project is carried out mainly in year 2, but may be started in year 1.
- Taught modules are delivered in terms running from September to January, and February to June
- The research project will normally run through the summer period

#### **Relevance to work/profession.**

- The curriculum is tailored to current demand of all areas in Biomedical Science.
- Emphasis is placed on the development of skills, particularly practical skills, as well as academic knowledge.
- Project work is an essential component of a Masters degree course and one that most students enjoy. Small projects and group work exercises feature throughout the course.
- Project work encourages students to show initiative in their individual work under supervision, using appropriate analytical techniques to generate and interpret new data.
- Research project preparation develops literature researching, presentation and written communication skills essential in professional life.

#### **Research project work.**

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A core module for a course is a module which a student must have passed (i.e. been awarded credit) to achieve the relevant named award. An optional module for a course is a module selected from a range of modules available on the course.

The overall credit-rating of this course is 180 credits. If for some reason you are unable to achieve this credit you may be entitled to an intermediate award, the level of the award will depend on the amount of credit you have accumulated. You can read the University Student Policies and Regulations on the UEL website.

#### **Course Specific Regulations**

None

#### **Typical Duration**

Depending on the time where the decision is made and UEL policies, 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.

PG

The duration of this course is one calendar year full-time if enrolment is in September, and two calendar years part-time. For February enrolment, the duration becomes 15 months full time, and 27 months part-time.

The time limit for completion of a course is four years after first enrolment on the course.

### **Further Information**

More information about this course is available from:

- The UEL web site ([www.uel.ac.uk](http://www.uel.ac.uk))
- The course handbook
- Module study guides
- UEL Manual of General Regulations (available on the UEL website)
- UEL Quality Manual (available on the UEL website)
- School web pages
- The IBMS website (<https://www.ibms.org/home/>)

All UEL courses are subject to thorough course approval procedures before we allow them to commence. We also constantly monitor, review and enhance our courses by listening to student and employer views and the views of external examiners and advisors.

Additional costs:

None

### **Alternative Locations of Delivery**

- Full time or part-time students in relevant employment may be permitted to carry out the research project at their place of work.
- Work placement locations
- This course has professional body accreditation by the Institute of Biomedical Science