



University College Dublin  
Ireland's Global University

## MSc Biological & Biomolecular Science (Negotiated Learning) (1 Year Full Time)

The number of industries requiring highly skilled graduates in the biological and biomolecular sciences is rapidly expanding and remains based on the principle that employable graduates should possess a range of key skills. The MSc in Biological and Biomolecular Science by Negotiated Learning will afford students the flexibility to broaden their understanding of biological and biomolecular science against a backdrop of learning core technical, methodological and innovation skills relevant to industry and academia. Several innovative specialisations are available from a carefully chosen range of modules from the relevant disciplines within the UCD School

of Biomolecular & Biomedical Science and the UCD School of Biology and Environmental Science. These provide students with an exciting prospect of studying and researching in the interdisciplinary fields of genetics, cell biology, biochemistry, molecular biology, microbiology and biodata analysis. This diverse offering aims to enhance and develop a student's current knowledge and skill base using a wide range of taught components and applied research skills. Guidance from expert faculty is provided to tailor a programme that will meet the anticipated requirements of the student's objectives and career goals.

### Key Fact

This MSc in Biological and Biomolecular Science is the first of its kind offered in Ireland by Negotiated Learning. This offers students a unique opportunity to combine skills and learning from several related disciplines with guidance from expert faculty staff, and to deepen their knowledge in one of our specialisations.

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## Why study at UCD?



### Tradition

Established 1854, with 160 years of teaching & research excellence



### Global profile

UCD is ranked in the top 1% of higher education institutions worldwide



### Global community

Over 6,000 international students from over 120 countries study at UCD



### Global careers

Degrees with high employability; dedicated careers support; 1 year stay-back visa



### Safety

Modern parkland campus with 24 hour security, minutes from Dublin city centre

## Course Content and Structure

**90 credits**  
taught masters

**30 credits**  
core laboratory skills

**20 credits**  
core professional skills

**40 credits**  
taught modules

### Course divided into:

**Core Laboratory Research Skills (30 credits)** – including techniques such as RT-PCR, western blotting and imaging studies.

**Core Professional Taught Skills Modules (20 credits)** – including career development, quantitative tools, science writing and communication skills and data management.

**Optional Taught modules (40 credits)** – involves selecting one of the following specialisations and selecting specific modules within these that meet the student's learning objectives.

### The Specialisations Available:

- Genetics and Cell Biology:** investigates cellular signalling, imaging, trafficking and transport, genetic basis of disease, model organisms, etc.
- Microbiology and Infection Biology:** investigates mechanisms of pathogenic micro-organisms, host response to infection, immunopathologies, host-pathogen interactions, development of diagnostics, applied microbiology, etc.
- Biochemistry and Synthetic Biology:** investigates metabolism and disease, protein-protein interactions, cell signalling, protein structure and analysis, etc.



Modules and topics shown are subject to change and are not guaranteed by UCD.

## Career Opportunities

This programme will enable you to choose from a wide range of careers and areas of postgraduate study. This multi-disciplinary course provides a solid grounding for careers in industry, health and research, such as Quality Assurance, Quality Control, Microbiology, Process control, Technical Transfer, Research and Development, and Regulatory Affairs, Scientific Editor or Writer, Lab Technician or Analyst roles.

An academic staff member will advise you on a specialisation and module choices based on the opportunities you hope to unlock.



## Facilities and Resources

Students on this programme will benefit from the use of a research skills laboratory in the prestigious UCD Conway Institute, as well as state-of-the-art teaching and laboratory facilities in the new O'Brien Centre for Science.

### Apply Now

This programme receives significant interest so please apply early online at [www.ucd.ie/apply](http://www.ucd.ie/apply)

## Entry Requirements

- This programme is intended for applicants who have at least an upper second class honours degree, or the international equivalent, in a life science or chemical science. Examples of an appropriate BSc subject include, but are not restricted to, Biotechnology, Biology, Biochemistry, Microbiology, Genetics, Neuroscience, Physiology, Pharmacology, Immunology, Pharmaceutical Chemistry and Medicinal Chemistry.
- Applicants whose first language is not English must also demonstrate English language proficiency of IELTS 6.5 (no band less than 6.0 in each element), or equivalent.

## Staff Profile

**Dr Gavin Stewart,**  
Lecturer in Comparative  
Physiology,  
University College Dublin,  
PhD in Physiological Sciences.



My research investigates epithelial membrane transporters that play a key role in the symbiotic relationship between mammals and their intestinal bacteria. I have extensive experience in utilising specific antibodies, western blotting and various imaging techniques to study these transporters at the protein level. External funders of this research include Science Foundation Ireland, The Wellcome Trust and The Kuwaiti Government. I passionately believe in combining cutting-edge biological research with the latest teaching techniques to enhance student experience and development.

### EU Enquiries

Dr Gavin Stewart ✉: [bio.nl@ucd.ie](mailto:bio.nl@ucd.ie) ☎: +353 1 716 2131  
[www.ucd.ie/courses/msc-biological-biomedical-science](http://www.ucd.ie/courses/msc-biological-biomedical-science)  
UCD School of Biology & Environmental Science,  
UCD School of Biomolecular & Biomedical Science, University College Dublin, Belfield, Dublin 4.

**Non-EU Enquiries** ✉: [internationaladmissions@ucd.ie](mailto:internationaladmissions@ucd.ie)  
[www.ucd.ie/international](http://www.ucd.ie/international)

## Fees and Scholarships

Tuition fee information is available on [www.ucd.ie/fees](http://www.ucd.ie/fees). Please note that UCD offers a number of postgraduate scholarships for full-time, self-funding international students, holding an offer of a place on masters programmes. Please see [www.ucd.ie/international/scholarships](http://www.ucd.ie/international/scholarships) for further information.

## Accommodation

UCD has accommodation for over 2,500 students across five locations. Places are limited and more information is available at [www.ucd.ie/residences/](http://www.ucd.ie/residences/). For information and advice on living off campus, please contact the UCD Residences Off-Campus Office or the UCD Student Union Accommodation Services. Please visit [www.ucd.ie/residences/accommodation-booking-support/](http://www.ucd.ie/residences/accommodation-booking-support/) for further details.

## Related Masters Programmes of Interest

- MSc Biotherapeutics
- MSc Plant Biology & Biotechnology
- MSc Biotechnology
- MSc Biotherapeutics & Business
- MSc Biotechnology & Business

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