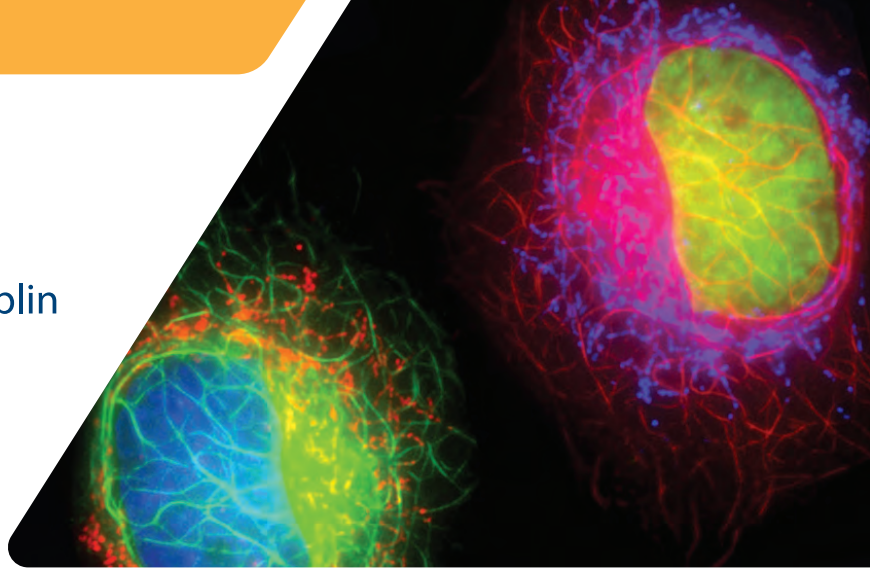




University College Dublin
Ireland's Global University



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MSc Imaging & Microscopy (One Year Full Time)

The ability to visualise an object of interest has always been fundamental to biological and biomedical research and in recent years imaging approaches have been revolutionised through advances in computing, instrumentation and automation, novel fluorescent tools, and the ability to resolve and quantify ever smaller structures. All worldwide universities, research institutes and companies involved in biological and biomedical research use modern imaging techniques as taught in this UCD MSc programme.

This MSc will provide you with an in-depth knowledge of current imaging and microscopy

technologies, with hands-on experience of their application in biology. A suite of specialised modules will cover the physics of imaging, analysis of images, use of electron microscopy, confocal microscopy, atomic force microscopy, and automated screening microscopy. Students will be provided with the opportunity to use state-of-the-art equipment in each of these areas. An extended laboratory-based project utilising knowledge gained during this programme is also a key feature of this course. This MSc provides an outstanding opportunity for students to gain extensive practical expertise in this fundamental scientific area.

Key Fact

This MSc provides outstanding access to research equipment and infrastructure, and a number of industry- and expert-led workshops. All activities are carried out in a small-group format.

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

50 credits
taught modules

40 credits
research project

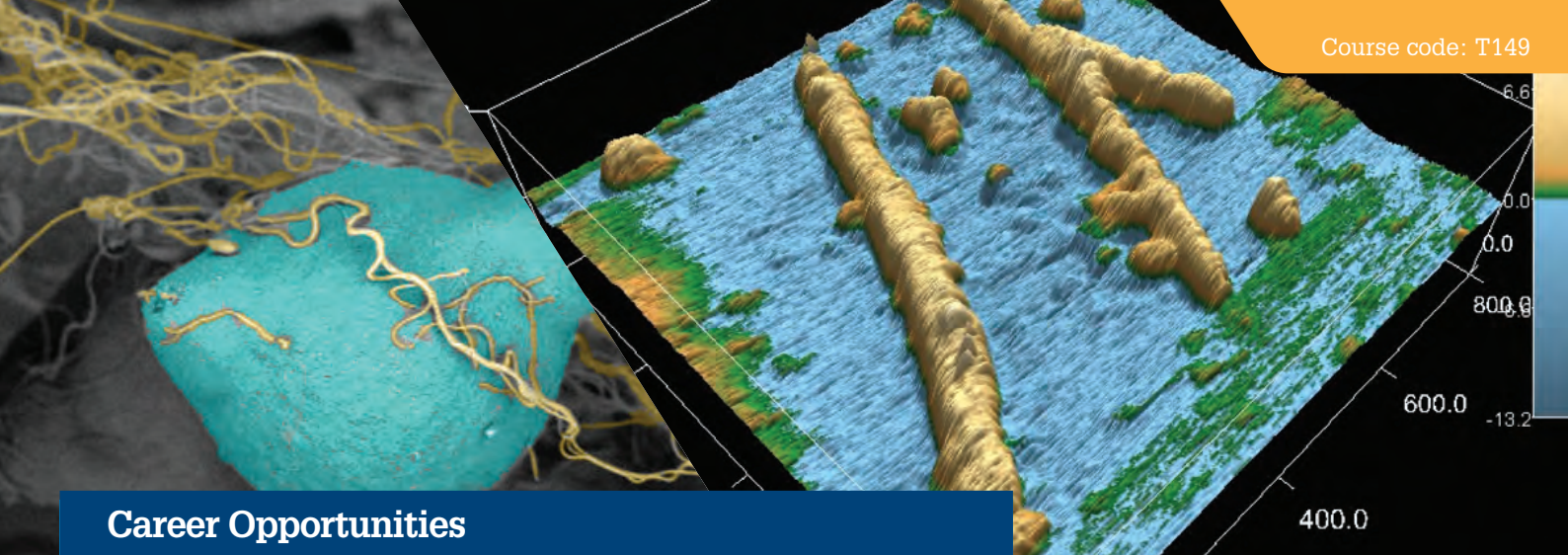
Emphasis is placed on general experimental design, sample preparation, the practical use of imaging equipment, and image analysis.

The programme is designed around a suite of modules, including the following:

- Electron Microscopy
- Biological Atomic Force Microscopy
- High Content Screening Microscopy
- Light Sheet Microscopy
- Practical Fluorescence Microscopy
- Flow Cytometry
- Diagnostic and Medical Imaging
- Image Analysis and Processing
- BioOptics and NanoBio Imaging



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



Career Opportunities

This MSc in Imaging & Microscopy is ideal for graduates who are interested in a career within research or service laboratories of universities, health-related institutes or the private sector. It also provides training and skills that would be a distinct advantage when applying for PhD studentships or other graduate training programmes. This MSc will also be of great value to individuals wishing to pursue wider scientific careers in academic, health-related or bio-pharma environments.



Facilities and Resources

- Access to state-of-the-art research equipment associated with biological imaging
- Point scanning and spinning disk microscopes
- High-pressure freezing and electron microscopy infrastructure
- Automated imaging and analysis platform of the UCD Cell Screening Laboratory
- Custom light sheet microscopy systems
- Culture facilities for a wide-range of model organisms including mammalian cells, nematodes, zebrafish, and plants

Apply Now

This programme receives significant interest so please apply early online at www.ucd.ie/apply

Entry Requirements

- Entrance to the programme requires an upper second class honours degree (or international equivalent) in an appropriate sciences discipline; such as biology, microbiology, cell biology, molecular biology, biochemistry, genetics, pharmacology, physics.
- 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.

Graduate Profile

Sanju Ashraf, India,
PhD Student,
University of Edinburgh



During my BSc in India I became interested in working with microscopes and in searching for a related course I came across the MSc Imaging and Microscopy at UCD. This course was exactly what I was looking for as I got lots

of valuable hands-on experience with the latest imaging and image analysis equipment and techniques across different biological disciplines. I particularly enjoyed working on my research project in Professor Simpson's lab. Staff and students were very welcoming and highly supportive and the experience of living and studying in a vibrant city and University was brilliant.

This MSc has a lot to offer academically and helped me secure a Wellcome Trust funded PhD position in the University of Edinburgh, UK.

EU Enquiries

Professor Jeremy Simpson
✉ : bioimaging@ucd.ie ☎ : + 353 1 716 2243
www.ucd.ie/graduatestudies
www.ucd.ie/bioenvsci
UCD School of Biology & Environmental Science, University College Dublin, Belfield, Dublin 4.

Non-EU Enquiries ✉ : internationaladmissions@ucd.ie
www.ucd.ie/international

Fees and Scholarships

Tuition fee information is available on 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 visit 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/. 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/ for further details.

Related Masters Programmes of Interest

- MSc Biotechnology
- MSc Biotechnology & Business
- MSc Plant Biology & Biotechnology
- MSc NanoBio Science

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