

Course code: T319

# **ME Optical Engineering**

Two Years Full Time

## Introduction

Between 2014 and 2016 Ireland outpaced the EU28 in the industrial sector of Computer, Electronic, Optical and Electronic Equipment, with an increase of over 56% in net sales value already high from an base. Optical technologies play key roles in many areas including biomedical imaging, astronomy, quality control, security, sensing and telecommunications.

Very exciting innovative technologies are rapidly emerging, driven by the ability to display and capture large amounts of real-time optical data. Optical engineers are involved in identifying and designing these systems, with the aim of improving people's lives, generating employment and creating new business opportunities.

## **Course Highlight**

Delivered by a highly research-intensive School composed of many internationally high-profile academics including five IEEE Fellows. This twoyear programme provides 6-8 months of professional work experience as an embedded element of the programme.

## **Course Content and Structure**

- 120 credits Taught masters
- 65 credits Taught modules
- 25 credits Research Project
- 30 credits Work Experience

### **Research Project:**

Project topics are spread across a wide range, but related to and drawing on the topics covered in the taught modules. Similarly, your work placement can involve a variety of roles in a range of different companies in the optical and electronic engineering field.

Please see online for a full list of modules.

### Core Modules include:

- Biomedical Signal Processing
- Optoelectronics
- Biomedical Imaging
- Professional Engineering (Mgt)
- Optical Engineering
- ME Project (Optical)

## Why study at UCD?



### Graduate education

12,800 graduate students; 17% graduate research students; structured PhDs



### Graduate Employability

Ranked no.1 in Ireland in QS

Graduate Employability ranking



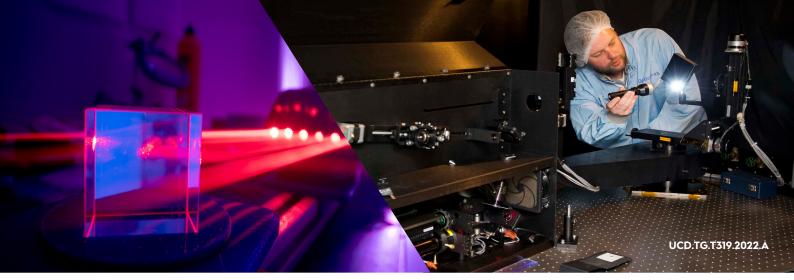
## 9,500 international students

and a 300,000 alumni network across 165 countries

### Global careers

Dedicated careers support; 2-year stayback visa to work in Ireland





### **Career Opportunities**

There are excellent job opportunities for optical engineers in the display, lighting, virtual reality, robotic and drone areas. It is a large and expanding area. Established employers in Ireland include both multinationals and indigenous companies, e.g. Andor, Carl Zeiss, Huawei, Intel/Movidius, Qualcomm, and Sensl, to name but a few.

## **Graduate Profile**

Jimmy Jesvin



My first encounter with Optics was in my Electronic Engineering bachelor's module - Electromagnetic Waves. I remember being so intrigued to discover the wide range of applications that harnessed the properties of light. This exposure aided me greatly in realising the expanding potential of this career path. When looking at masters options I had a range of choices offered by the schools of physics, chemistry, radiology and medicine but this master's structure suited me perfectly as I didn't want to settle with the traditional engineering modules. My current placement in Maxim Integrated is also proving to be an invaluable experience as I am able to delve deeper into core areas such as power electronics. The perfect blend of modules and experience is already proving to be a great advantage and differentiator.

## **Applicant Profile**

 Applicants must hold a bachelors degree with a minimum upper second class honours (NFQ level 8) or international equivalent in an Electrical, Electronic, Computer or Optical Engineering programme.

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.

Students who do not meet the IELTS

 requirement may wish to consider taking the Pre-Sessional or Pre-Masters Pathway. Full details https:// www.ucd.ie/alc/programmes/ pathways/

### International Fees and Scholarships

Tuition fee information is available on www.ucd.ie/fees. Please note that UCD offers a number of graduate scholarships for full-time, self-funding international students, holding an offer of a place on a UCD masters programme. Please see www.ucd.ie/global/ scholarships/ for further information. Also apply for our College scholarship www.ucd.ie/eacollege/study/noneuscholarships

### Related Masters Programmes of Interest

- MEngSc Electronic & Computer Engineering
- MSc Advanced Software Engineering
- MSc Computer Science (Negotiated Learning)
- MSc Information Systems

#### CONTACT US

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### APPLY NOW

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