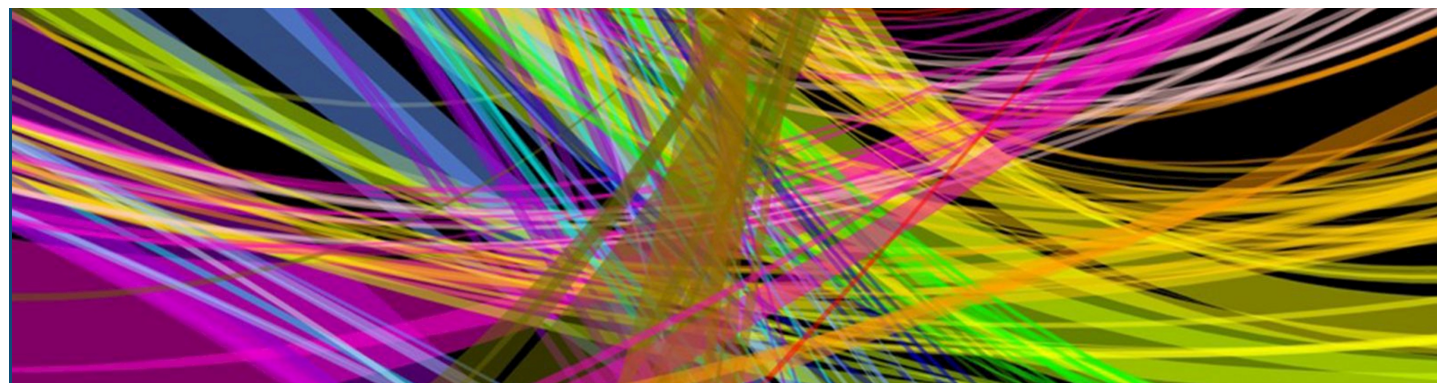




Applied Bioinformatics MSc

www.cranfield.ac.uk/bix



Study Applied Bioinformatics at Cranfield

Over the past few years, bioinformatics has become the most exciting field in biology. This MSc course provides a unique hands-on learning experience in bioinformatics skills, by combining the latest advances in analysing high-throughput genomic, transcriptomic and metabolomics data.

Cranfield's Bioinformatics MSc is the first of its kind and the longest-running bioinformatics course in the UK. With more than 200 alumni over the past 10 years, it has become the most popular postgraduate course in bioinformatics in Europe. Because Cranfield is a solely postgraduate university, it means that every single taught module of the Applied Bioinformatics course is uniquely tailored to be master's level. That's why it is the winner of the BBSRC's Master's Training Grant (MTG) award for the best course in life sciences.

Who is it for?

This course aims to equip graduate scientists with the computational skills and awareness needed to process, analyse and interpret the vast amounts of biological data now becoming available. This course is equally suitable for candidates from life sciences disciplines who aim to gain the programming and computational skills through this course, and graduates with IT/computer science background who want to gain the molecular biology understanding to become bioinformaticians.

Your career

Successful graduates have been able to pursue or enhance careers in a variety of key areas such as:

Pharmaceutical and biotech companies, plant research institutes, food sector, public health sectors, bioinformatics and IT companies.

Previous students have gone on to jobs within prestigious institutions including:

The Sanger Institute, Illumina, Oxford Nanopore, AstraZeneca, The European Bioinformatics Institute (EBI), GlaxoSmithKline, PubGene, Tessella, the Wellcome Trust, Inpharmatica, Invitrogen, Oxford Gene Technology, Cancer Research.

Cranfield graduates are very successful in achieving relevant work. For professionals already in the industry, Cranfield qualifications enhance their careers, benefiting both the candidate and their employer.

Overview

Start date

Full-time: October, part-time: October

Duration

One year full-time, two-three years part-time

Qualification

MSc

Study type

Full-time / Part-time

Structure

Taught modules 80 credits/800 hours, Group projects 40 credits/400 hours, Individual project 60 credits/600 hours

Campus

Cranfield campus

Entry requirements

We welcome applications from talented individuals of all backgrounds and each application is considered on its individual merit. Usually applicants must hold:

A UK lower second-class (2:2) undergraduate degree with honours, as a minimum, or equivalent international qualification.

Ideally, applicants will have studied in computer science, life science or technology discipline who are interested in a career within the field of bioinformatics.

Find information about equivalent qualifications in your country on our International entry requirements page.

Fees

Please see www.cranfield.ac.uk/fees for detailed information about fee status, full-time and part-time fees as well as deposit requirements and bursary and scholarship information.

Course details

The taught programme is generally delivered from October until March and comprises eight compulsory taught modules, a group project and an individual project. Students on the part-time programme will complete all of the compulsory modules based on a flexible schedule that will be agreed with the Course Director.

Modules

Keeping our courses up-to-date and current requires constant innovation and change. The modules we offer reflect the needs of business and industry and the research interests of our staff. As a result, they may change or be withdrawn due to research developments, legislation changes or for a variety of other reasons. Changes may also be designed to improve the student learning experience or to respond to feedback from students, external examiners, accreditation bodies and industrial advisory panels.

To give you a taster, we have listed below the compulsory and elective (where applicable) modules which are currently affiliated with this course. All modules are indicative only and may be subject to change for your year of entry

Compulsory modules

All the modules in the following list need to be taken as part of this course.

- Exploratory Data Analysis and Essential Statistics using R
- Introduction to Bioinformatics using Python
- Application of Bioinformatics in Epigenetics, Proteomics and Metagenomics
- Next Generation Sequencing Informatics
- Machine Learning for Metabolomics
- Programming Using Java
- Advanced Sequencing Informatics and Genome Assembly
- Data Integration and Interaction Networks

"The curriculum struck a perfect balance between theoretical knowledge and hands-on practical experience, providing me with a comprehensive understanding of different domains of bioinformatics. This approach not only enriched my academic journey but also equipped me with skills that are invaluable for my future career prospects."

Samaksh Singh
Applied Bioinformatics MSc, 2022 - 2023

Class profile 2023/24

Gender:
Male 31%, Female 54%, 4% other, 11% unavailable
Age range:
20 - 59 years
Class size:
26
Nationality:
UK: 69% International: 31%

For more information contact our Admissions Team:
T: +44 (0)1234 758082

Visit campus for yourself and meet current students and our academics at our next Open Day:
www.cranfield.ac.uk/opensday

December 2024
Every effort is made to ensure that the information provided here is correct at the time it is published. Please check our website for the latest information.