Medical Genetics, BSc (Hons)

[Medical Genetics, BSc (Hons) - Swansea University](https://www.swansea.ac.uk/undergraduate/courses/medicine/medical-genetics-bsc-hons/)

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| **Duration:** 3 years full-time  **Tuition Fees:** Year 1 £21,650 (September 2024)  *Please note that tuition fees are subject to an increase of 3% each year.* [*Info here*](https://www.swansea.ac.uk/international-students/my-finances/) | **Entry Points:**  September **(In person only)** |
| **Entry Requirements:** ([Check Equivalencies for your Country](https://www.swansea.ac.uk/media/Non-EU-entry-requirements-2018.pdf))   * A Level AAB – BBB including Biology with a second STEM subject (i.e. Chemistry, Physics, Maths, Psychology) – Foundation year available * IB 32-34 including HL6 in Biology with HL6 in a second STEM subject. * Minimum of grade C at GCSE (or equivalent) in Maths | |
| **English Language Requirement:** IELTS 6.0 with no less than 5.5 in all components (or Swansea University recognised equivalents) [Check Swansea University Approved Tests and Qualifications here](https://www.swansea.ac.uk/admissions/english-language-requirements/) | |

***Suitable entry requirements as guidance – eligibility can only be confirmed once a full application has been received and reviewed.***

**Important things to note:**

* 2nd in the UK for learning opportunities, 5th for teaching and 11th for overall satisfaction (National Student Survey 2022).
* **This degree is a Pathways to Medicine programme.** Students on this program will have the opportunity to secure a guaranteed interview to the Graduate Entry Medicine program providing they have completed the relevant employability pathway (Medical Science in Practice) and meet the minimum entry requirements at the time of applying.
* For students interested in a research career this degree is available as a MSci (4-year combined masters programme). Students choosing MSci will need to meet a slightly higher entry requirements and will have advanced research training in the final year ([Medical Genetics, MSci (Hons) - Swansea University](https://www.swansea.ac.uk/undergraduate/courses/medicine/medical-genetics-msci-hons/))
* We hold research talks with Swansea University staff and guest expert speakers from other universities, including industry, NHS, and research institutions.

**What is this programme about?**

* A Medical Genetics degree gives students in-depth knowledge of the building blocks of life.
* Techniques for analysing gene expression, protein interactions, DNA structure and damage, image analysis of biomolecules and cells, and advanced computer analytical methods.
* Develop excellent analytical and project management skills and learn how to design experiments and plan work programmes.
* State-of-the-art facilities including DNA, protein analytical equipment, and computer-based image analyser for molecular and cellular studies.

**Example Topics Within the Programme:**

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| * Fundamental Genetics and Evolution * Population Genomics * Energy and Metabolism: The Reactions of Life * Microbiology * Epigenetics, Gene Regulation and Disease * Human Physiology * Human Immunology | * Techniques in Molecular Biology * Human and Medical Genetics * Microbial Molecular Genetics * Practical Quantitative Research * Human Immunopathology * Tissue Engineering and Regenerative Medicine * Doctors, Patients and the Goals of Medicine |

**Employability – Example of roles after graduation:**

* Academia, teaching, Medical Research & Health Sciences
* Bioinformatics
* Pharmaceutical Industry
* Post Graduate Studies (MSc, MRes, PhD), Graduate Entry Medicine, Physician Associate
* Genetic Counselling
* Clinical Scientist & Scientific Writer