

Programme Information		
Programme Title	Programme Code	HECoS Code
Translational Neuroscience	For Registry Use Only	For Registry Use Only

Award	Length of Study	Mode of Study	Entry Point(s)	Total Credits	
				ECTS	CATS
MSc	1 Calendar Year (12 months)	Full-time	Annually in September	90	180

Ownership			
Awarding Institution	Imperial College London	Faculty	Faculty of Medicine
Teaching Institution	Imperial College London	Department	Medicine
Associateship	N/A	Main Location(s) of Study	Hammersmith Hospital

External Reference	
Relevant QAA Benchmark Statement(s) and/or other external reference points	N/A
FHEQ Level	Level 7 - Master's
EHEA Level	2nd Cycle

External Accreditor(s) (if applicable)			
External Accreditor 1:	N/A		
Accreditation received:	N/A	Accreditation renewal:	N/A

Collaborative Provision			
Collaborative partner	Collaboration type	Agreement effective date	Agreement expiry date
N/A	N/A	N/A	N/A

Specification Details	
Programme Lead	Dr Adam Hampshire
Student cohorts covered by specification	2019-20 entry
Date of introduction of programme	October 2016
Date of programme specification/revision	March 2019

Programme Overview

The WHO recently listed Neurological disorders as a global emergency with the numbers of people affected by such disorders predicted to markedly increase over the next 25 years as life expectancy globally increases. For the vast majority of neurological disorders there are no effective treatments. This course will be delivered by world leading expert clinicians and neuroscientists working across the spectrum in Neuroscience. Uniquely, this programme will provide theoretical and practical training in the various methodologies utilised in translational research for the development of novel therapeutic approaches to assess, model and treat neurological conditions. Hence, this programme will provide excellent training, whether you wish to pursue an academic or industrial research career, in which you can play a role in developing better treatments or curing Neurological disorders.

During the first term, you will complete four core modules which are foundational in nature. You will then choose two elective modules, which constitute two different streams:

- Brain imaging and Computational Neuroscience
- Neuro-inflammation, Neuro-trauma and Neuro-regeneration

All modules have authentic forms of assessments and all the elective modules have a practical focus that is intended to lead directly into the subsequent 6-month research project phase of the programme.

Learning Outcomes

The Modules composing the MSc Translational Neuroscience reflect the research strengths of the Division of Brain Sciences. In line with the Imperial Graduate attributes, at the end of this program you will be better able to:

- Synthesise and apply basic and advanced neuroscience concepts in relation to neuropathological conditions.
- Critically review and evaluate neuroscience literature.
- Communicate complex translational neuroscience concepts effectively to a variety of audiences.
- Work effectively at the individual level as well as in groups on different inter- and multidisciplinary aspects within the broader neuroscience field.
- Critically analyse, interpret, discuss and justify neuroscientific data.
- Design a novel research proposal to tackle real world neuroscience related problems.

Generate an original piece of research that shows an innovative and creative approach to a specific neuroscientific challenge.

The Imperial Graduate Attributes are a set of core competencies which we expect students to achieve through completion of any Imperial College degree programme. The Graduate Attributes are available at: www.imperial.ac.uk/students/academic-support/graduate-attributes

Entry Requirements

Academic Requirement	Normally a 2:1 Honours degree in biological sciences (or a comparable qualification recognised by the College).
Non-academic Requirements	None
English Language Requirement	Higher requirement Please check for other Accepted English Qualifications
Admissions Test/Interview	Applicants who do not meet the academic requirements above but who have substantial relevant clinical or relevant professional experience may be admitted following completion of a 'Special Qualifying Exam' (SQE).

The programme's competency standards documents can be found at: <http://www.imperial.ac.uk/study/pg/medicine/translational-neuroscience/>

Learning & Teaching Approach

In addition to the lecture format, and in line with the updated guidelines on *Inclusive learning and teaching*, delivery methods include the following:

- Practical/computational sessions (i.e. neuro-histology sessions around a multi-head microscope, on immunohistochemistry, examination of sections under the microscope; cadaveric and living anatomy sessions; practical computational workshops in the computing hub and hackathon space)
- Laboratory tours/demonstrations (i.e. demonstration of a brain dissection).
- Interviews with patients.
- Class tutorials and small group tutorials.
- Group discussions and group workshops.

Please note that details of the teaching methods might change depending on the intake year and that some of these delivery methods are stream-specific.

Assessment Strategy

Assessment Methods

Assessment Methods include the following:

- Custom anatomy assessment App to test the functional neuroanatomical knowledge (Module 1).
- Virtual research project, a group exercise with research question, hypothesis, experimental procedures, hypothetical results, possible conclusions and alternatives and pitfalls (Module 2).
- Journal Club presentation (individual and group work, across different Modules): critiquing papers and assessing their strengths and limitations.
- Analysis and write up of go/no-go task data: the students have to complete the go/no-go task in order to understand what it is like, as a participant, to take part in a study. (Module 4).
- Interactive grant writing workshop to identify key challenges based on knowledge acquired, outline ideas for how to address challenge, provide a precis in lay language and provide a critical self-appraisal (risk contingencies) (Module 4).
- Literature review: a format to compare and contrast published reports and to summarise the state of current scientific understanding on a specific neuroscientific topic (Module 5).
- Hackathon (Module 6): to plan and implement 'big data' pipelines and apply computing skills and computational techniques for analysis of data from a variety of cognitive and neuroimaging sources.
- Practical Write Up (Module 6).
- Research grant concept: a single day session including group exercises, peer review, teacher review and elevator pitch with slides (Module 7).
- 'Design of a research question on Neuroplasticity and Regeneration' to assess critical insight and independent thinking by discussing the specific relevance, the key mechanisms and broad implications of the selected topic (Module 8).
- Live debate workshop: to identify and discuss major research questions, define testable questions, while favouring interactive, mature, challenging scientific conversation to test the knowledge and the capacity to prioritise, critically discuss and build new insights/ideas in a 'live' setting (Module 8).
- Flash presentation, Poster presentation, Dissertation, Viva (Module 9).

Please note that some of the aforementioned assessments are stream-specific.

Academic Feedback Policy

The College's Policy on Academic Feedback and guidance on issuing provisional marks to students is available at:

www.imperial.ac.uk/about/governance/academic-governance/academic-policy/exams-and-assessment/

Re-sit Policy

The College's Policy on Re-sits is available at: www.imperial.ac.uk/student-records-and-data/for-current-students/undergraduate-and-taught-postgraduate/exams-assessments-and-regulations/

Mitigating Circumstances Policy
The College's Policy on Mitigating Circumstances is available at: www.imperial.ac.uk/student-records-and-data/for-current-students/undergraduate-and-taught-postgraduate/exams-assessments-and-regulations/

Additional Programme Costs		
This section should outline any additional costs relevant to this programme which are not included in students' tuition fees.		
Description	Mandatory/Optional	Approximate cost
Equipment (course materials and books)	Mandatory	Provided in the Library
Personal Protective Equipment	Mandatory	Provided

Programme Structure					
Year 1 – FHEQ Level 7					
You will study all Core Modules and two Elective Modules (specific to your stream). Stream 1: Brain imaging and Computational Neuroscience - you must complete modules 5 and 6, Stream 2: Neuro-inflammation, Neuro-trauma and Neuro-regeneration- you must complete modules 7 and 8)					
Code	Module Title	Core/ Elective	Group*	Term	Credits
	Module 1: Functional Neuroanatomy	Core	N/A	1	7.5
	Module 2: Cellular and Molecular Neuroscience	Core	N/A	1	7.5
	Module 3: Neurodegenerative Disorders	Core	N/A	1	7.5
	Module 4: Addiction and Neuropharmacology in Psychiatry	Core	N/A	1	7.5
	Module 5: Brain Imaging	Elective	N/A	2	7.5
	Module 6: Computational Neuroscience	Elective	N/A	2	7.5
	Module 7: Neuroinflammation and CNS Trauma	Elective	N/A	2	7.5
	Module 8: Brain Plasticity and Neuroregeneration	Elective	N/A	2	7.5
	Module 9: Laboratory-based Research Project	Core	N/A	2-3	45
Credit Total					90

* 'Group' refers to module grouping (e.g. a group of electives from which one/two module(s) must be chosen).

Progression and Classification

Classification of Postgraduate Taught Awards

The College sets the class of Degree that may be awarded as follows:

1. Distinction: The student has achieved an overall weighted average of 70% or above across the programme.
2. Merit: The student has achieved an overall weighted average of above 60% but less than 70%.
3. Pass: The student has achieved an overall weighted average of 50% but less than 60%.
 - a. For a Masters, students must normally achieve a distinction (70%) mark in the dissertation or designated final major project (as designated in the programme specification) in order to be awarded a distinction.
 - b. For a Masters, students must normally achieve a minimum of a merit (60%) mark in the dissertation or designated final major project (as designated in the programme specification) in order to be awarded a merit
 - c. Modules taken at level 6 as part of the programme specification for a named postgraduate award will contribute to the determination of pass, merit or distinction for any taught postgraduate award and are included in the calculation of the overall weighted average.

Programme Specific Regulations

N/A

Supporting Information

The Programme Handbook is available at: TBC

The Module Handbook is available at: www.imperial.ac.uk/study/pg/apply/requirements

The College's entry requirements for postgraduate programmes can be found at:
www.imperial.ac.uk/study/pg/apply/requirements

The College's Quality & Enhancement Framework is available at:
www.imperial.ac.uk/registry/proceduresandregulations/qualityassurance

The College's Academic and Examination Regulations can be found at:
www.imperial.ac.uk/about/governance/academic-governance/regulations

Imperial College is an independent corporation whose legal status derives from a Royal Charter granted under Letters Patent in 1907. In 2007 a Supplemental Charter and Statutes was granted by HM Queen Elizabeth II. This Supplemental Charter, which came into force on the date of the College's Centenary, 8th July 2007, established the College as a University with the name and style of "The Imperial College of Science, Technology and Medicine".

www.imperial.ac.uk/admin-services/secretariat/college-governance/charters/

Imperial College London is regulated by the Office for Students (OfS)
www.officeforstudents.org.uk/advice-and-guidance/the-register/

This document provides a definitive record of the main features of the programme and the learning outcomes that a typical student may reasonably be expected to achieve and demonstrate if s/he takes full advantage of the learning opportunities provided. This programme specification is primarily intended as a reference point for prospective and current students, academic and support staff involved in delivering the programme and enabling student development and achievement, for its assessment by internal and external examiners, and in subsequent monitoring and review.

Modifications

Description	Approved	Date	Paper Reference
N/A	N/A	N/A	N/A