University of BRISTOL

Neuroscience at Bristol

2020

Programme Director, Neuroscience:
Dr Helen Kennedy

Admissions Tutors BSc and MSci degrees:
Dr Frankie MacMillan
Dr Steve Fitzjohn

bristol.ac.uk/study/undergraduate/2020/neuroscience/

First year

120 credit point = six units

Neuroscience

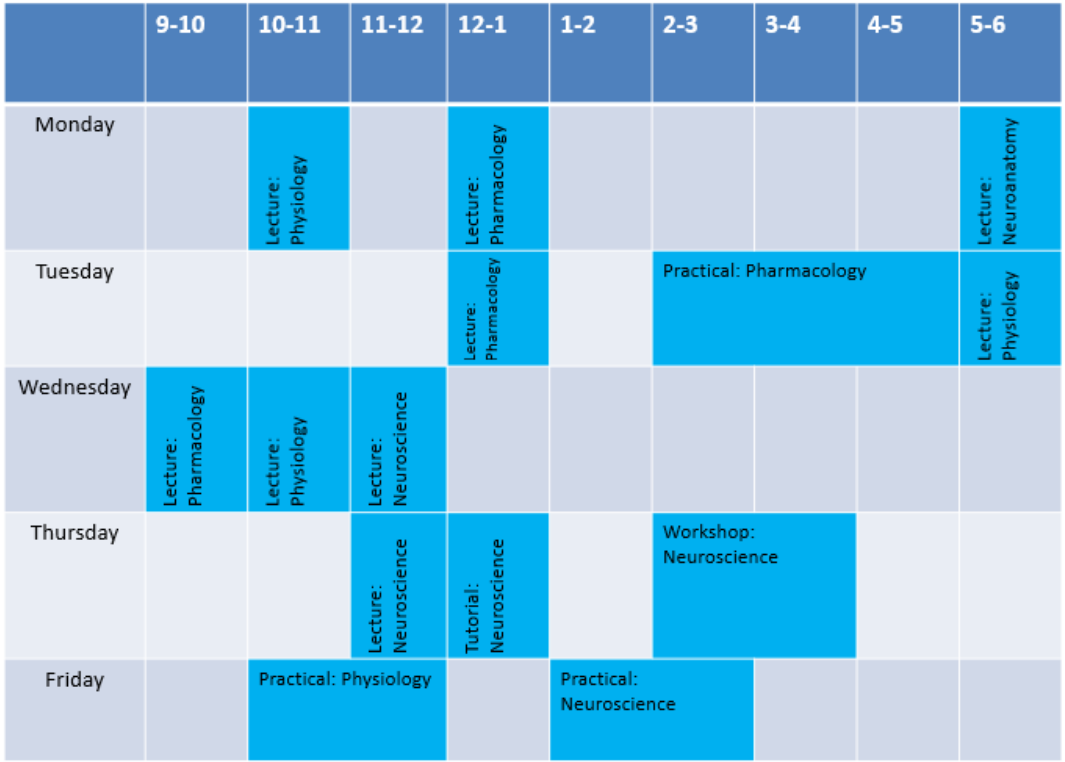
- Introduction to Neuroscience
- Understanding Body Function A & B
- Functional Neuroanatomy
- Pharmacology 1A

Plus one option from:

- Biochemistry
- Pharmacology 1B
- Psychology
- Anatomical Science
- Science of happiness

Two teaching blocks – September-December; January-May;
3 units per TB; exams in January and May/June

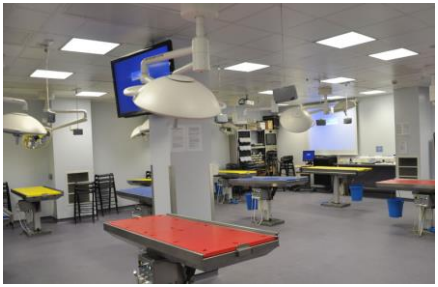
Example first year timetable



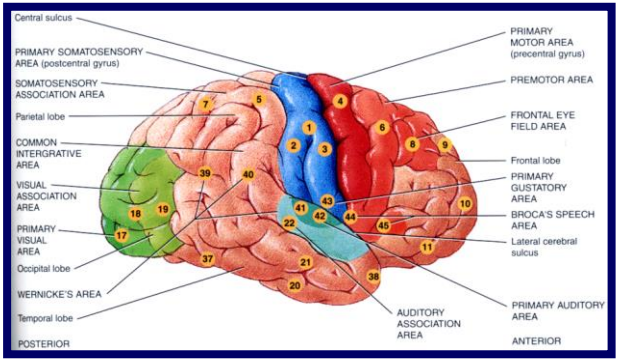
	9-10	10-11	11-12	12-1	1-2	2-3	3-4	4-5	5-6
Monday		Lecture: Physiology		Lecture: Pharmacology					Lecture: Neuroanatomy
Tuesday				Lecture: Pharmacology		Practical: Pharmacology			Lecture: Physiology
Wednesday	Lecture: Pharmacology	Lecture: Physiology	Lecture: Neuroscience						
Thursday			Lecture: Neuroscience	Tutorial: Neuroscience		Workshop: Neuroscience			
Friday		Practical: Physiology			Practical: Neuroscience				

First year neuroscience units include:

Functional Neuroanatomy, which deals with the structural and functional organisation of the mammalian nervous system, including sensory perception, homeostasis, movement, memory, motivation…..



Practicals include detailed study of the human brain in the modern anatomy dissection suite



First year units typically have 3-4 lectures, tutorials or workshops a week and 1 practical class.

First year assessment is through a combination of coursework and exams. You must pass first year units but they do not contribute to your final degree classification.

Second year

120 credit point = six units

Mandatory units

- Neurophysiology
- Techniques in Neuroscience
- Pharmacology of the Nervous system
- Biomedical Research, Employability and Enterprise Skills

Plus two options from:

- Human anatomy
- Pharmacology of Body systems
- Molecular genetics
- Integrative physiology
- Cellular physiology

One optional unit can be an open unit which includes: language, Big ideas in science or a first-year unit e.g. psychology

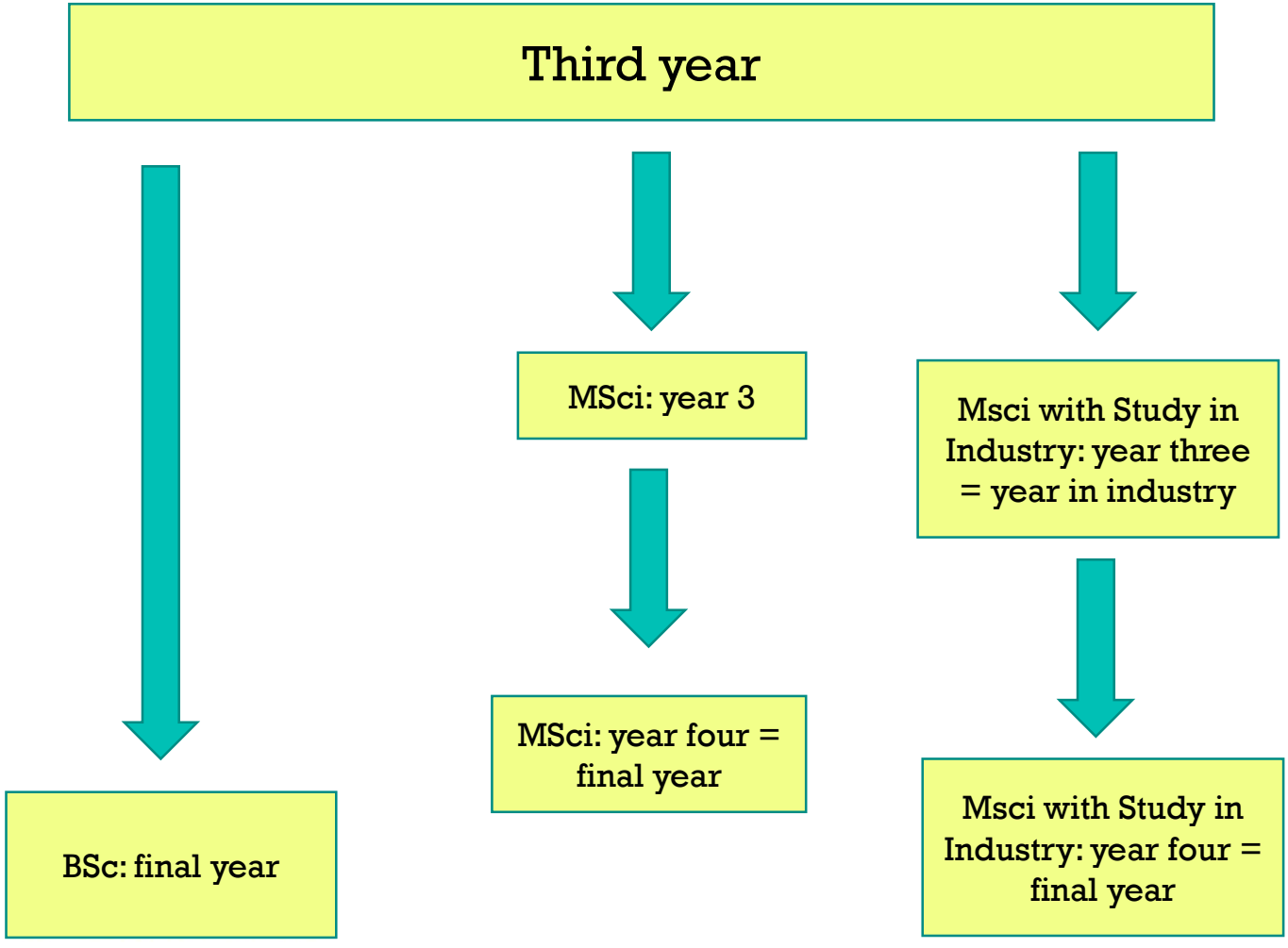
Biomedical Research, Employability and Enterprise Skills

Mandatory unit for all biomedical science students

Aim: Enhance skills training

- To equip students with a range of important transferable skills including communication skills, collaborative work and reflective practice.
- To enhance understanding of scientific method and statistical analysis and an appreciation of the scientific literature.
- Interview and C.V. training of particularly of benefit to students applying for placements in industry and internships

The mean year 2 mark will contribute 25% toward the final degree mark – assessments vary between units but most combine marks from coursework and exams


Third year
BSc: final year
MSci: year 3
MSci: year four = final year
Msci with Study in Industry: year three = year in industry
Msci with Study in Industry: year four = final year

Third year

Subject Specific Elements: Seminar teaching in specialist topics at the cutting edge of current knowledge. Three taken from a choice of topics including:

- Synaptic Plasticity
- Neuroscience of Pain
- Synaptic Cell biology
- Brain & Behaviour
- New Horizons in Medicine
- Neurological and Neuropsychiatric Disorders
- Or one optional pharmacology unit

- Seminar course in Concepts and Skills

- Experimental Research Project: Supervised project many options available: within a research laboratory, data analysis project, teaching project, public engagement project , literature-based project.

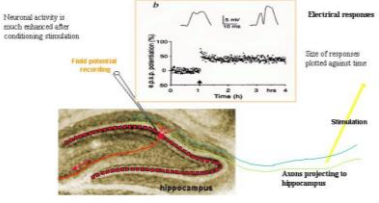
Research projects: BSc and MSci

Examples of previous research projects:

- Modulation of synaptic plasticity by muscarinic acetylcholine receptors
- Mapping pheromonal responses in the brain
- Designing reagents for Drugs of Abuse testing.
- Does the human patient simulator exhibit an increase in pulmonary vascular resistance in response to simulated ascent to altitude?
- Development of ‘mobile’ physiology teaching materials for use at secondary school level

Students on MSci would not do a lab-based project in year 3

Year 3 mark contributes 75% toward the final degree – assessments are unit exams and coursework; research project (dissertation, talk and supervisor assessment).



Fourth year

- Advanced Project Planning
- 14-week full time Research Project
- Advanced Creative Communication
- Ideas and Enterprise

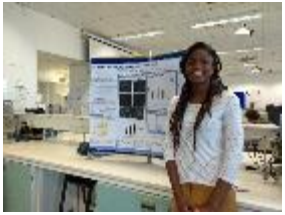
Focus in on:

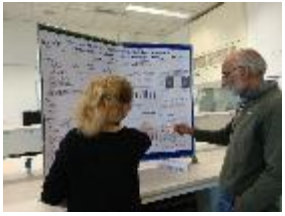
- Project planning and execution
- Group work
- Communication skills

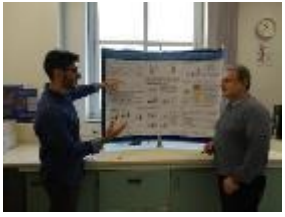
Assessment entirely through coursework

Benefits of the MSci 'with Study in Industry'

- Experience how the Biomedical industry operates
- Would you enjoy full-time research?
- New skills: teamwork, target setting and meeting deadlines
- Financial







You will apply for placements during year two and complete the placement in year three. On your return in year four you will write a report on the work you have completed and present it as a poster. You then complete the final year taking the same units etc as year three for the other courses but write a 'Grant proposal' in place of the third-year research project.

The industrial placement

Windlesham, Surrey

Philadelphia, USA
Stevenage and Harlow, UK

Macclesfield, UK

Wuppertal, Germany

Basel, Switzerland
& Horsham, UK

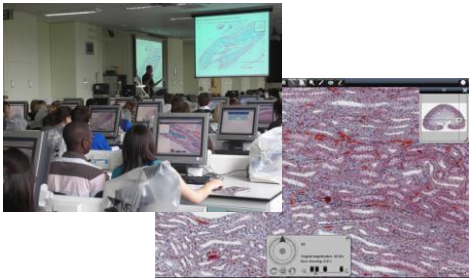
Harlow, UK

Why choose Bristol for Physiology, Neuroscience or Pharmacology?

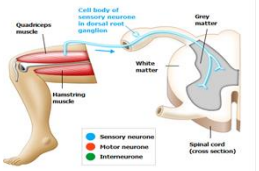
Continual commitment to excellence in teaching and research

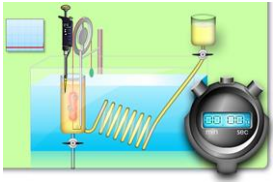
Human patient simulator – ‘Athena’

AIMS
EXCELLENCE IN TEACHING & LEARNING



Virtual microscope





On-line resources to support practical teaching’

Programme enhancement activities

A series of activities to engage students with staff and each other early in their degrees and then follow on with activities to enhance their learning around their subject area.

Bristol Futures
Personal Development Planning (PDP)

bristol.ac.uk

Numeracy No problem!
Online quizzes

Unconscious Bias Training

Research underpins teaching

Athena SWAN Bronze Award

We specialise in the study of:

- Learning and memory
- Cardiovascular physiology
- Sensory physiology/neuroscience
- Pain
- Cell motility and movement
- Neuropsychiatric disorders

The School of Physiology, Pharmacology and Neuroscience

We try to limit our intake to between 30 and 80 students per year on each course.

This results in a good staff:student ratio, excellent communication between staff and students and good pastoral care. But it also means, you can't hide! We monitor attendance at practicals and tutorials

Community and societies

making connections bristol neuroscience

Bristol Neuroscience brings together neuroscientists from across Bristol:
from other departments, hospitals etc. for regular meetings and public lectures

Family/house system for academic and pastoral help.
Picnics/BBQ's, bar crawls and pub quizzes academic speakers, Neuroscience ball

Parenting scheme for academic and pastoral help.

Student societies arrange guest lectures and social events: Christmas events, netball team.
Recently ran an interview workshop -help for students applying for industrial placements.

University of Neuroscience BRISTOL Society 2015-2016

PHYS PHARM SOC

bristol.ac.uk