Programme Specification

A statement of the knowledge, understanding and skills that underpin a taught programme of study leading to an award from The University of Sheffield

1	**Programme Title**	Medical Sciences (Surgery)
2	**Programme Code**	MEDU129
3	**JACS Code**	Not applicable
4	**Level of Study**	Undergraduate
5a	**Final Qualification**	BSc
5b	**QAA FHEQ Level**	FHEQ Level 6 – Stage 3 (UG L3)
6	**Intermediate Qualification(s)**	None
7	**Teaching Institution** (if not Sheffield)	Not applicable
8	**Faculty**	Health
9	**Department**	School of Medicine and Population Health
10	**Other Department(s) involved in teaching the programme**	None
11	**Mode(s) of Attendance**	Full-time
12	**Duration of the Programme**	One year
13	**Accrediting Professional or Statutory Body**	Not applicable
14	**Date of production/revision**	October 2019

15. Background to the programme and subject area

Undergraduate medical students have an opportunity to do an intercalated degree while they study medicine, and this degree is designed as an intercalated Medical Sciences (Surgery) degree. This programme is therefore only available to students who have taken a year out of their main MBChB course.

The BSc Medical Sciences (Surgery) programme will give the students an in-depth understanding of surgical and anaesthetics practice and research through three taught modules on statistics, ethics and research skills, an extended module on understanding surgical and anaesthetics practice and a surgery & anaesthetics based research project where the students will produce a 15,000 word dissertation.

In the course of this year students acquire basic theatre skills, core surgical & anaesthetics knowledge, and skills in research methodology, IT, statistical analysis and research ethics. They are also given opportunities to verbally present their work and where possible, gain an academic publication.

Students complete their BSc research projects under the supervision of surgical and anaesthetics consultants throughout the Sheffield Teaching Hospitals and associated hospitals. Additional funding is available to support medical students wishing to undertake this further year of study.

This course is invaluable for medical students who wish to develop a career in surgery or as a clinical academic as a possible springboard into the surgical speciality once they have graduated.

16. Programme aims

The aims of the programme are:

1. To provide an enhanced knowledge and understanding of surgical and anaesthetics research and its methods
2. To develop skills in research evaluation, communication and ethics
3. To allow students to apply the above through core surgical and anaesthetic skills development and a research project

17. Programme learning outcomes

Knowledge and understanding:	
Students will have knowledge and understanding of:	
K1	The place of research in medicine.
K2	Current surgical and anaesthetic research and its methods.
K3	Core surgical principles and the surgical pathway for treating disease.
K4	The conduct of surgical and anaesthetic research in accordance with correct research methodologies and procedures.
K5	The importance of conducting research in accordance with up-to-date ethical guidelines and policies.
K6	The fundamental principles of designing research projects and protocols.

Skills and other attributes:	
Academic and intellectual skills: students will be able to:	
S1	Design a research project in accordance with appropriate research methodologies and ethical principles.
S2	Exercise independent judgment and critical thinking.
S3	Apply basic statistical methods to data evaluation and interpretation.
S4	Present work orally and in writing to an academic audience.
S5	Demonstrate safe practice in the surgical theatre environment.
S6	Produce a well-structured and substantial dissertation to present the results of their research project.
S7	Conduct an extensive literature review using relevant sources.

Skills and other attributes:	
Transferable skills: students will be able to:	
T1	Apply good time-management skills to structure their work and meet deadlines.
T2	Effectively use a wide range of IT packages for a variety of tasks.
T3	Work independently on a project.
T4	Display good written and oral communication skills.
T5	Understand and apply basic statistical methods.
T6	Self-direct their learning.

18. Teaching, learning and assessment

Development of the learning outcomes is promoted through the following teaching and learning methods:

All students attend three taught modules which cover research skills, ethics and statistics, which integrate a range of teaching styles to provide theoretical information, including lectures, seminars, class discussions/workshops and interactive tutorials. The transferable skills are embedded within all aspects of the conduct and content of the programme, such as the self-learning requirement, preparation for different type of assignment and assessments, tutor and supervisor feedback, participation in tutorials and opportunities for personal reflection.

Additionally, each student attends a module on understanding surgical and anaesthetic practice, where they have a series of tutorials and clinical attachments, and then each student receives an individual programme of teaching sessions with relevance to the subject matter of his or her research project. This is provided by the surgical and/or anaesthetic academics team in which the student receives supervision and may incorporate ward rounds and other clinical sessions.

However, due to the high degree of independent thought necessary to successfully complete the research project, students are encouraged to self-direct their learning at every opportunity. This approach is fostered by the development of a close, professional supervisor/supervisee relationship as is more commonly found in the structure of higher degrees by research. Students are encouraged to present their work at departmental research seminars and all students have to attend a presentation day at the end of the year to present their work to an academic audience. Students are also encouraged to write for publication and to attend conferences in their field wherever possible.

Opportunities to demonstrate achievement of the learning outcomes are provided through the following assessment methods:

The three taught modules, Medical Research skills, Ethics for Medicine and Applied Statistics for Medical and Health Researchers, are each assessed by a short assignment including written work and/or a group presentation. The Understanding Surgical & Anaesthetic Practice module is assessed by a reflective portfolio of their activity.

The learning outcomes relating to the conduct of research, including an extensive literature review, project design, statistical analysis, interpretation of results and dissertation, are all subject to summative assessment based on the project dissertation (70%) and an oral presentation (30%).

In all cases the learning outcomes from each module will be carefully matched to the method of assessment, and all assessments will be double marked.

	TEACHING / LEARNING				**ASSESSMENT**		
LEARNING OUTCOME	Lectures/seminars	Workshops/Tutorials	Clinical Attachment/ Practical classes	Research Project	Oral presentations	Research dissertation	Coursework
K1 The place of research in medicine	*	*		*		*	*
K2 Current surgical and anaesthetic research and its methods	*	*	*	*		*	*
K3 Core surgical principles and the surgical pathway for treating disease	*		*				*
K4 The conduct of research in accordance with correct research methodologies and procedures	*			*	*	*	*
K5 The importance of conducting research in accordance with up-to-date ethical guidelines and policies	*	*	*	*	*		*
K6 The fundamental principles of designing research projects and protocols	*		*	*		*	
S1 Design a research project in accordance with appropriate research methodologies and ethical principles	*	*		*	*	*	
S2 Exercise independent judgment and critical thinking		*	*	*	*	*	*
S3 Apply basic statistical methods to data evaluation and interpretation	*	*	*	*	*	*	*
S4 Present work orally and in writing to an academic audience		*	*	*	*	*	*
S5 Demonstrate safe practice in the surgical theatre environment			*	*			*
S6 Produce a well-structured and substantial dissertation to present the results of their research project	*			*		*	

S7 Conduct an extensive literature review using relevant sources	*			*		*	
T1 Apply good time-management skills to structure their work and meet deadlines			*	*	*	*	*
T2 Effectively use a wide range of IT packages for a variety of tasks		*	*	*	*	*	*
T3 Work independently on a project			*	*	*	*	
T4 Display good written and oral communication skills		*	*	*	*	*	*
T5 Understand and apply basic statistical methods	*	*	*	*	*	*	*
T6 Self-direct their learning		*	*	*	*	*	*

19. Reference points

The learning outcomes have been developed to reflect the following points of reference:

Subject Benchmark Statements
https://www.qaa.ac.uk/quality-code/subject-benchmark-statements

Framework for Higher Education Qualifications (2014)
https://www.qaa.ac.uk/docs/qaa/quality-code/qualifications-frameworks.pdf

University Vision and Strategic Plan
https://www.sheffield.ac.uk/vision

'Tomorrow's Doctors'. General Medical Council.

The evaluations of students.

20. Programme structure and regulations

A person who has passed the second-year examination for the MBChB degree at a standard acceptable to the Board may read for the BSc Medical Sciences (Surgery) degree. The programme may also be intercalated between any of the subsequent years of MBChB degree or undertaken after graduation.

All students complete the three taught modules during the first semester that serve to introduce the scientific and clinical aspects of medical research including ethics, statistic and generic research skills, namely.

- Medical Research skills (10 credits)
- Ethics for Medicine and Medical Research (10 credits)
- Applied Statistics for Medical and Health Researchers (10 credits)

All students also complete the Understanding Surgical & Anaesthetic Practices (30 credits) and Intercalated Research Project (surgery & anaesthetics) (60 credits) which run through both semesters, culminating in the portfolio, dissertation and oral presentation.

Detailed information about the structure of programmes, regulations concerning assessment and progression and descriptions of individual modules are published in the University Calendar available on-line at http://www.shef.ac.uk/calendar/regs.

21. Student development over the course of study

The programme has been designed to give the students an increased level of understanding of skills necessary to undertake medical research. In semester 1 the students take two of the taught modules (Ethics for Medicine & Medical Research, and Applied Statistics for Medical and Health Researchers) and start the Medical Research Skills module that will run alongside the research project, helping the students with their research skills development. The Understanding Surgical Practices module also runs alongside the research project giving students K2, K3 and S5 and the necessary knowledge to start their research projects. Due to the diverse nature of the projects taken in this year it is not possible to identify the precise timings of the development of the knowledge, skills and attributes listed in Section 17.

In order to undertake the project, students must research the available literature, identify suitable research questions and hypotheses and design experiments that will successfully answer these issues. These activities, as well as the conduct of the practical experiments, will be facilitated and supervised by an experienced academic tutor. Throughout the periods of designing and conducting experiments students will be required to read widely around their subject area and integrate this knowledge and that acquired from teaching during the programme.

22. Criteria for admission to the programme

Detailed information regarding admission to the programme is available at Intercalated degrees at The Medical School | Medical School | The University of Sheffield.

Only medical students studying medicine in the UK, who have completed a minimum of two years of their MBChB course are eligible for admission.

23. Additional information

A number of bursaries are available from charities and research organisations to support students doing BSc Medical Sciences (Surgery) Degree. These bursaries are there to provide a contribution to the recipients' tuition fees and living costs. They are allocated to students on the basis of academic performance in the MBChB and/or on the basis of the topic of their research project. Students who are not in receipt of a bursary are still able to enter the programme and are charged tuition fees at the standard rate for an undergraduate programme.

This specification represents a concise statement about the main features of the programme and should be considered alongside other sources of information provided by the teaching department(s) and the University. In addition to programme specific information, further information about studying at The University of Sheffield can be accessed via our Student Services web site at http://www.shef.ac.uk/ssid.