

## Programme Specification: Undergraduate

### For students starting in Academic Year 2018/2019

#### 1. Course Summary

<b>Names of programme(s) and award title(s)</b>	Medicine MBChB Honours Degree
<b>Award type</b>	Single Honours
<b>Mode of study</b>	Full time
<b>Framework of Higher Education Qualification (FHEQ) level of final award</b>	Level 6
<b>Duration</b>	5 years
<b>Location of study</b>	Years 1 and 2 are predominantly based at Keele campus. The majority of clinical placements in Years 3 - 5 are based in Staffordshire and Shropshire. There are a small number of placements in adjoining counties.
<b>Accreditation (if applicable)</b>	This programme is accredited by the General Medical Council. For further details see section 12.
<b>Regulator</b>	Higher Education Funding Council for England (HEFCE) General Medical Council
<b>Tuition Fees</b>	<p><b>UK/EU students:</b> Fee for 2018/19 is £9,250*</p> <p><b>International students:</b> Fee for 2018/19 is £29,000**</p> <p><u>Bursary information:</u> Home (England and Wales) and EU students are eligible for an NHS bursary towards their fees in their 5<sup>th</sup> year of study not counting repeated years. For Scotland and Northern Ireland, students should check directly with their relevant authority. More information on eligibility can be found on the NHS Bursaries website: <a href="https://www.nhsbsa.nhs.uk/nhs-bursary-students">https://www.nhsbsa.nhs.uk/nhs-bursary-students</a> International students are not eligible for the NHS Bursary.</p>
<b>Additional Costs</b>	For this undergraduate programme, and in common with other Medical Schools, our Medical students should be aware that there are further additional costs involved; such as the purchase of books, laboratory coats and travel to placements, which are detailed in section 18.

\* These fees are regulated by Government. We reserve the right to increase fees in subsequent years of study in response to changes in government policy and/or changes to the law. If permitted by such change in policy or law, we may increase your fees by an inflationary amount or such other measure as required by government policy or the law. Please refer to the accompanying Student Terms & Conditions. Further information on fees can be found at <http://www.keele.ac.uk/studentfunding/tuitionfees/>

\*\* We reserve the right to increase fees in subsequent years of study by an inflationary amount. Please refer to the accompanying Student Terms & Conditions for full details. Further information on fees can be found at <http://www.keele.ac.uk/studentfunding/tuitionfees/>

**How this information might change:** Please read the important information at <http://www.keele.ac.uk/student-agreement/>. This explains how and why we may need to make changes to the information provided in this document and to help you understand how we will communicate with you if this happens.

## 2. Medicine at Keele

Keele Medical School has 650 students across the five academic years. We offer those aspiring to be doctors:

- Excellent clinical opportunities in primary care and hospital settings across Staffordshire, Shropshire and others adjoining counties
- Excellent teaching facilities at all teaching sites
- A large group of trained and experienced teachers
- An enjoyable, interactive, small group based learning approach
- Opportunities for student selected components in a wide range of clinical as well as biomedical, behavioural and social science topics
- A strong student support system
- A beautiful rural campus, conveniently located in central England.

## 3. Overview of the Programme

**Our mission: *To graduate excellent clinicians***

### The Philosophy of the Programme

Doctors need to update and develop their skills, knowledge and behaviours throughout their working lives. The programme at Keele emphasises their responsibility for learning what they need to know. Learning is student-led to prepare them for their careers.

## 4. Aims of the Programme

The programme is an innovative, highly integrated, modern medical curriculum, comprising a mixture of core and student-selected components.

Integration occurs at all levels, and the three vertical themes are included in the core and selected elements in all years. The three themes taken from **Outcomes for Graduates (Tomorrows Doctors) (GMC, 2015)** are:

### The doctor as a scholar and a scientist:

The graduate will be able to:

- Apply to medical practice biomedical scientific principles, method and knowledge relating to: anatomy, biochemistry, cell biology, genetics, immunology, microbiology, molecular biology, nutrition, pathology, pharmacology and physiology.
- Apply psychological principles, method and knowledge to medical practice.
- Apply social science principles, method and knowledge to medical practice.
- Apply to medical practice the principles, method and knowledge of population health and the improvement of health and health care.
- Apply scientific method and approaches to medical research.

### The doctor as a practitioner:

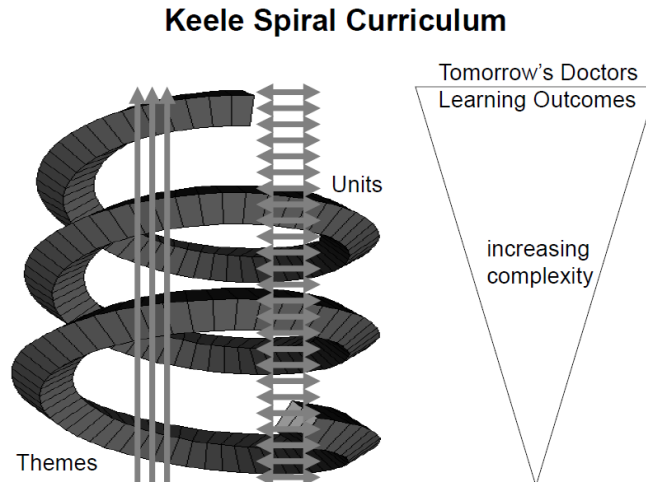
The graduate will be able to:

- Carry out a consultation with a patient.
- Diagnose and manage clinical presentations.
- Communicate effectively with patients and colleagues in a medical context.
- Provide immediate care in medical emergencies.
- Prescribe drugs safely, effectively and economically.
- Carry out practical procedures safely and effectively.
- Use information effectively in a medical context.

## The doctor as a professional:

The graduate will be able to:

- Behave according to ethical and legal principles.
- Reflect, learn and teach others.
- Learn and work effectively within a multi-professional team.
- Protect patients and improve care.



**Keele Graduate attributes:** Engagement with this programme will enable you to develop your intellectual, personal and professional capabilities. At Keele, we call these our ten Graduate Attributes and they include independent thinking, synthesizing information, creative problem solving, communicating clearly, and appreciating the social, environmental and global implications of your studies and activities. Our educational programme and learning environment is designed to help you to become a well-rounded graduate who is capable of making a positive and valued contribution in a complex and rapidly changing world, whichever spheres of life you engage in after your studies are completed.

Further information about the Keele Graduate Attributes can be found here:

<http://www.keele.ac.uk/distinctive/keelegraduateattributes/>.

## Objectives

The MBChB Honours Degree at Keele University is designed to ensure graduates meet the necessary standards in terms of knowledge, skills and professionalism that new doctors should have as they embark on further training. The curricular outcomes for undergraduate medical education are set out in **Outcomes for Graduates (Tomorrow's Doctors)** (GMC, 2015), the duties of a doctor are set out in the GMC document **Good Medical Practice** (GMC, 2013).

## **Good Medical Practice (GMC, 2013).**

Patients must be able to trust doctors with their lives and health. To justify that trust you must show respect for human life and make sure your practice meets the standards expected of you in four domains.

### **Knowledge, skills and performance**

- Make the care of your patient your first concern.
- Provide a good standard of practice and care.
  - Keep your professional knowledge and skills up to date.
  - Recognise and work within the limits of your competence.

### **Safety and quality**

- Take prompt action if you think that patient safety, dignity or comfort is being compromised.
- Protect and promote the health of patients and the public.

### **Communication, partnership and teamwork**

- Treat patients as individuals and respect their dignity.
  - Treat patients politely and considerately.
  - Respect patients' right to confidentiality.
- Work in partnership with patients.
  - Listen to, and respond to, their concerns and preferences.
  - Give patients the information they want or need in a way they can understand.
  - Respect patients' right to reach decisions with you about their treatment and care.
  - Support patients in caring for themselves to improve and maintain their health.
- Work with colleagues in the ways that best serve patients' interests.

### **Maintaining trust**

- Be honest and open and act with integrity.
- Never discriminate unfairly against patients or colleagues.
- Never abuse your patients' trust in you or the public's trust in the profession.

You are personally accountable for your professional practice and must always be prepared to justify your decisions and actions.

**Good Medical Practice (GMC, 2013).** ([http://www.gmc-uk.org/guidance/good\\_medical\\_practice.asp](http://www.gmc-uk.org/guidance/good_medical_practice.asp)):

## **5. What you will learn**

### **Intended learning outcomes**

The curricular outcomes of Tomorrow's Doctors (GMC, 2015) form the learning outcomes of the programme thus ensuring that graduates meet the requirements the GMC. Additionally, the Intended Learning Outcomes take account of the Quality Assurance Agency (QAA, 2002) Subject Benchmark Statements Academic Standards - Medicine:

<http://www.qaa.ac.uk/en/Publications/Documents/Subject-benchmark-statement-Medicine.pdf>

NB Tomorrow's Doctors 2009 has 124 outcomes and standards that define undergraduate medical education:

TD 2009 Points 1-7 outlines the different and complementary roles in medical education and therefore are indicative of responsibilities only.

TD 2009 Outcomes 8-23 demonstrates in which Year the student will achieve each of the learning outcomes (student learning outcomes). See below

TD 2009 Points 24-174 are the professional standards that the school is required to comply with, with respect to teaching, learning and assessment. The GMC require an annual self-assessment document (MSAR - Medical School Annual Return) from the school demonstrating compliance for each of the points.)

<b>Tomorrow's doctors 2015</b>	<b>Knowledge and understanding, skills and other attributes</b>	<b>Occurs in Year:</b>	<b>Assessed at graduate level by completion of Year:</b>
	<b>TD2015 outcomes 1</b> <b>The doctor as a scientist and scholar</b> <b>At the end of the programme students should:</b>		
<b>8</b>	<b>Apply to medical practice biomedical scientific principles, method and knowledge relating to: anatomy, biochemistry, cell biology, genetics, immunology, microbiology, molecular biology, nutrition, pathology, pharmacology and physiology.</b>		
<b>8A</b>	Explain normal human structure and functions.	1 - 4	2
<b>8B</b>	Explain the scientific bases for common disease presentations.	1 - 4	4
<b>8C</b>	Justify the selection of appropriate investigations for common clinical cases.	3 - 5	5
<b>8D</b>	Explain the fundamental principles underlying such investigative techniques.	1 - 5	4
<b>8E</b>	Select appropriate forms of management for common diseases, and ways of preventing common diseases, and explain their modes of action and their risks from first principles.	3 - 5	5
<b>8F</b>	Demonstrate knowledge of drug actions: therapeutics and pharmacokinetics; drug side effects and interactions, including for multiple treatments, long-term conditions and non-prescribed medication; and also including effects on the population, such as the spread of antibiotic resistance.	1 - 5	5
<b>8G</b>	Make accurate observations of clinical phenomena and appropriate critical analysis of clinical data.	1 - 5	5
<b>9</b>	<b>Apply psychological principles, method and knowledge to medical practice.</b>		
<b>9A</b>	Explain normal human behaviour at an individual level.	1 - 3	2
<b>9B</b>	Discuss psychological concepts of health, illness and disease.	1 - 3	2
<b>9C</b>	Apply theoretical frameworks of psychology to explain the varied responses of individuals, groups and societies to disease.	1 - 3	3
<b>9D</b>	Explain psychological factors that contribute to illness, the course of the disease and the success of treatment.	1 - 5	5
<b>9E</b>	Discuss psychological aspects of behavioural change and treatment compliance.	1 - 5	4
<b>9F</b>	Discuss adaptation to major life changes, such as bereavement. Compare and contrast the abnormal adjustments that might occur in these situations.	1 - 4	4
<b>9G</b>	Identify appropriate strategies for managing patients with dependence issues and other demonstrations of self-harm.	1 - 5	5
<b>10</b>	<b>Apply social science principles, method and knowledge to medical practice.</b>		
<b>10A</b>	Explain normal human behaviour at a societal level.	1 - 2	2
<b>10B</b>	Discuss sociological concepts of health, illness and disease.	1 - 3	3
<b>10C</b>	Apply theoretical frameworks of sociology to explain the varied responses of individuals, groups and societies to disease.	1 - 2	2
<b>10D</b>	Explain sociological factors that contribute to illness, the course of the disease and the success of treatment, including issues relating to health inequalities, the links between occupation and health and the effects of poverty and affluence.	1 - 3	3

<b>10E</b>	Discuss sociological aspects of behavioural change and treatment compliance.	1 - 2	3
<b>11</b>	<b>Apply to medical practice the principles, method and knowledge of population health and the improvement of health and health care.</b>		
<b>11A</b>	Discuss basic principles of health improvement, including the wider determinants of health, health inequalities, health risks and disease surveillance.	1 - 3	3
<b>11B</b>	Assess how health behaviours and outcomes are affected by the diversity of the patient population.	1 - 2	2
<b>11C</b>	Describe measurement methods relevant to the improvement of clinical effectiveness and care.	1,3	3
<b>11D</b>	Discuss the principles underlying the development of health and health service policy, including issues relating to health economics and equity, and clinical guidelines.	1,3	3
<b>11E</b>	Explain and apply the basic principles of communicable disease control in hospital and community settings.	1 - 5	5
<b>11F</b>	Evaluate and apply epidemiological data in managing healthcare for the individual and the community.	1,3	3
<b>11G</b>	Recognise the role of environmental and occupational hazards in ill-health and discuss ways to mitigate their effects.	3	3
<b>11H</b>	Discuss the role of nutrition in health.	1 - 4	4
<b>11I</b>	Discuss the principles and application of primary, secondary and tertiary prevention of disease.	1 - 5	3
<b>12</b>	<b>Apply scientific method and approaches to medical research.</b>		
<b>12A</b>	Critically appraise the results of relevant diagnostic, prognostic and treatment trials and other qualitative and quantitative studies as reported in the medical and scientific literature.	1 - 3	3
<b>12B</b>	Formulate simple relevant research questions in biomedical science, psychosocial science or population science, and design appropriate studies or experiments to address the questions.	3	3
<b>12C</b>	Apply findings from the literature to answer questions raised by specific clinical problems.	1 - 5	3
<b>12D</b>	Understand the ethical and governance issues involved in medical research.	3	3
<b>13</b>	<b>Carry out a consultation with a patient.</b>		
<b>13A</b>	Take and record a patient's medical history, including family and social history, talking to relatives or other carers where appropriate.	1 - 5	5
<b>13B</b>	Elicit patients' questions, their understanding of their condition and treatment options, and their views, concerns, values and preferences.	1 - 5	5
<b>13C</b>	Perform a full physical examination.	1 - 5	5
<b>13D</b>	Perform a mental-state examination.	3 - 5	5
<b>13E</b>	Assess a patient's capacity to make a particular decision in accordance with legal requirements and the GMC's guidance (in Consent: Patients and doctors making decisions together).	2 - 5	5
<b>13F</b>	Determine the extent to which patients want to be involved in decision-making about their care and treatment.	3 - 5	5
<b>13G</b>	Provide explanation, advice, reassurance and support.	2 - 5	5
<b>14</b>	<b>Diagnose and manage clinical presentations.</b>		
<b>14A</b>	Interpret findings from the history, physical examination and mental-state examination, appreciating the importance of clinical, psychological, spiritual, religious, social and cultural factors.	2 - 5	5
<b>14B</b>	Make an initial assessment of a patient's problems and a differential diagnosis. Understand the processes by which doctors make and test a differential diagnosis.	3 - 5	5
<b>14 C</b>	Formulate a plan of investigation in partnership with the	3 - 5	5

	patient, obtaining informed consent as an essential part of this process.		
<b>14D</b>	Interpret the results of investigations, including growth charts, x-rays and the results of the diagnostic procedures in Appendix 1.	3 - 5	5
<b>14E</b>	Synthesise a full assessment of the patient's problems and define the likely diagnosis or diagnoses.	3 - 5	5
<b>14F</b>	Make clinical judgements and decisions, based on the available evidence, in conjunction with colleagues and as appropriate for the graduate's level of training and experience. This may include situations of uncertainty.	3 - 5	5
<b>14G</b>	Formulate a plan for treatment, management and discharge, according to established principles and best evidence, in partnership with the patient, their carers, and other health professionals as appropriate. Respond to patients' concerns and preferences, obtain informed consent, and respect the rights of patients to reach decisions with their doctor about their treatment and care and to refuse or limit treatment.	4 - 5	5
<b>14I</b>	Identify the signs that suggest children or other vulnerable people may be suffering from abuse or neglect and know what action to take to safeguard their welfare.	3 - 4	4
<b>14J</b>	Contribute to the care of patients and their families at the end of life, including management of symptoms, practical issues of law and certification, and effective communication and team working.	1 - 5	5
<b>15</b>	<b>Communicate effectively with patients and colleagues in a medical context.</b>		
<b>15A</b>	Communicate clearly, sensitively and effectively with patients, their relatives or other carers, and colleagues from the medical and other professions, by listening, sharing and responding.	1 - 5	5
<b>15B</b>	Communicate clearly, sensitively and effectively with individuals and groups regardless of their age, social, cultural or ethnic backgrounds or their disabilities, including when English is not the patient's first language.	1 - 5	5
<b>15C</b>	Communicate by spoken, written and electronic methods (including medical records), and be aware of other methods of communication used by patients. Appreciate the significance of non-verbal communication in the medical consultation.	1 - 5	5
<b>15D</b>	Communicate appropriately in difficult circumstances, such as breaking bad news, and when discussing sensitive issues, such as alcohol consumption, smoking or obesity.	1 - 5	5
<b>15E</b>	Communicate appropriately with difficult or violent patients.	1,3,4	5
<b>15F</b>	Communicate appropriately with people with mental illness.	3 - 5	5
<b>15G</b>	Communicate appropriately with vulnerable patients.	3 - 5	5
<b>15H</b>	Communicate effectively in various roles, for example as patient advocate, teacher, manager or improvement leader.	4 - 5	5
<b>16</b>	<b>Provide immediate care in medical emergencies.</b>		
<b>16A</b>	Assess and recognise the severity of a clinical presentation and a need for immediate emergency care.	1 - 5	5
<b>16B</b>	Diagnose and manage acute medical emergencies.	1 - 5	5
<b>16C</b>	Provide basic first aid.	2	2
<b>16D</b>	Provide immediate life support.	1 - 5	5
<b>16E</b>	Provide cardio-pulmonary resuscitation or direct other team members to carry out resuscitation.	1 - 5	5
<b>17</b>	<b>Prescribe drugs safely, effectively and economically.</b>		
<b>17A</b>	Establish an accurate drug history, covering both prescribed and other medication.	2 - 5	5
<b>17B</b>	Plan appropriate drug therapy for common indications, including pain and distress.	3 - 5	5
<b>17C</b>	Provide a safe and legal prescription.	4 - 5	5

<b>17D</b>	Calculate appropriate drug doses and record the outcome accurately.	2 - 5	5
<b>17E</b>	Provide patients with appropriate information about their medicines.	3 - 5	5
<b>17F</b>	Access reliable information about medicines.	3 - 5	5
<b>17G</b>	Detect and report adverse drug reactions.	3 - 5	5
<b>17H</b>	Demonstrate awareness that many patients use complementary and alternative therapies, and awareness of the existence and range of these therapies, why patients use them, and how this might affect other types of treatment that patients are receiving.	2	2
<b>18</b>	<b>Carry out practical procedures safely and effectively.</b>		
<b>18A</b>	<b>(a)</b> Be able to perform a range of diagnostic procedures, as listed in Appendix 1 and measure and record the findings.	See below	5
<b>18B</b>	<b>(b)</b> Be able to perform a range of therapeutic procedures, as listed in Appendix 1.	See below	5
<b>18C</b>	<b>(c)</b> Be able to demonstrate correct practice in general aspects of practical procedures, as listed in Appendix 1.	See below	5
<b>19</b>	<b>Use information effectively in a medical context.</b>		
<b>19A</b>	Keep accurate, legible and complete clinical records.	3 - 5	5
<b>19B</b>	Make effective use of computers and other information systems, including storing and retrieving information.	1 - 5	5
<b>19C</b>	Keep to the requirements of confidentiality and data protection legislation and codes of practice in all dealings with information.	1 - 5	5
<b>19D</b>	Access information sources and use the information in relation to patient care, health promotion, advice and information to patients, and research and education.	1,3 - 5	5
<b>19E</b>	Apply the principles, method and knowledge of health informatics to medical practice.	1 - 5	5
<b>20</b>	<b>Behave according to ethical and legal principles.</b>		
<b>20A</b>	Know about and keep to the GMC's ethical guidance and standards including Good Medical Practice, the 'Duties of a doctor registered with the GMC' and supplementary ethical guidance which describe what is expected of all doctors registered with the GMC.	1 - 5	All years
<b>20B</b>	Demonstrate awareness of the clinical responsibilities and role of the doctor, making the care of the patient the first concern. Recognise the principles of patient-centred care, including self-care, and deal with patients' healthcare needs in consultation with them and, where appropriate, their relatives or carers.	1 - 5	All years
<b>20C</b>	Be polite, considerate, trustworthy and honest, act with integrity, maintain confidentiality, respect patients' dignity and privacy, and understand the importance of appropriate consent.	1 - 5	All years
<b>20D</b>	Respect all patients, colleagues and others regardless of their age, colour, culture, disability, ethnic or national origin, gender, lifestyle, marital or parental status, race, religion or beliefs, sex, sexual orientation, or social or economic status. Respect patients' right to hold religious or other beliefs, and take these into account when relevant to treatment options.	1 - 5	All years
<b>20E</b>	Recognise the rights and the equal value of all people and how opportunities for some people may be restricted by others' perceptions.	1 - 5	All years
<b>20F</b>	Understand and accept the legal, moral and ethical responsibilities involved in protecting and promoting the health of individual patients, their dependants and the public including vulnerable groups such as children, older people, people with learning disabilities and people with mental	1 - 5	Attributes are monitored throughout the programme



	illnesses.		
<b>20G</b>	Demonstrate knowledge of laws, and systems of professional regulation through the GMC and others, relevant to medical practice, including the ability to complete relevant certificates and legal documents and liaise with the coroner or procurator fiscal where appropriate.	1 - 5	5
<b>21</b>	<b>Reflect, learn and teach others.</b>		
<b>21A</b>	Acquire, assess, apply and integrate new knowledge, learn to adapt to changing circumstances and ensure that patients receive the highest level of professional care.	1 - 5	Attributes are monitored throughout
<b>21</b>	Establish the foundations for lifelong learning and continuing professional development, including a professional development portfolio containing reflections, achievements and learning needs.	1 - 5	Attributes are monitored throughout
<b>21C</b>	Continually and systematically reflect on practice and, whenever necessary, translate that reflection into action, using improvement techniques and audit appropriately for example, by critically appraising the prescribing of others.	1 - 5	Attributes are monitored throughout
<b>21D</b>	Manage time and prioritise tasks, and work autonomously when necessary and appropriate.	1 - 5	Attributes are monitored throughout
<b>21E</b>	Recognise own personal and professional limits and seek help from colleagues and supervisors when necessary.	1 - 5	Attributes are monitored throughout
<b>21F</b>	Function effectively as a mentor and teacher including contributing to the appraisal, assessment and review of colleagues, giving effective feedback, and taking advantage of opportunities to develop these skills.	1 - 5	Attributes are monitored throughout
<b>22</b>	<b>Learn and work effectively within a multi-professional team.</b>		
<b>22A</b>	Understand and respect the roles and expertise of health and social care professionals in the context of working and learning as a multi-professional team.	1 - 5	5
<b>22B</b>	Understand the contribution that effective interdisciplinary team working makes to the delivery of safe and high-quality care.	1 - 5	5
<b>22C</b>	Work with colleagues in ways that best serve the interests of patients, passing on information and handing over care, demonstrating flexibility, adaptability and a problem-solving approach.	3 - 5	5
<b>22D</b>	Demonstrate ability to build team capacity and positive working relationships and undertake various team roles including leadership and the ability to accept leadership by others.	1 - 5	5
<b>23</b>	<b>Protect patients and improve care.</b>		
<b>23A</b>	Place patients' needs and safety at the centre of the care process.	1 - 5	Integral to all aspects of the course
<b>23B</b>	Deal effectively with uncertainty and change.	3 - 5	5
<b>23C</b>	Understand the framework in which medicine is practised in the UK, including: the organisation, management and regulation of healthcare provision; the structures, functions and priorities of the NHS; and the roles of, and relationships between, the agencies and services involved in protecting and promoting individual and population health.	1 - 3	3
<b>23D</b>	Promote, monitor and maintain health and safety in the clinical setting, understanding how errors can happen in practice, applying the principles of quality assurance, clinical governance and risk management to medical practice, and understanding responsibilities within the current systems for raising concerns about safety and quality.	3 - 5	5

<b>23E</b>	Understand and have experience of the principles and methods of improvement, including audit, adverse incident reporting and quality improvement, and how to use the results of audit to improve practice.	1,3,5	5
<b>23F</b>	Respond constructively to the outcomes of appraisals, performance reviews and assessments.	1 - 5	Monitored throughout the programme
<b>23G</b>	Demonstrate awareness of the role of doctors as managers, including seeking ways to continually improve the use and prioritisation of resources.	1,3	3
<b>23H</b>	Understand the importance of, and the need to keep to, measures to prevent the spread of infection, and apply the principles of infection prevention and control.	1 - 2	Monitored throughout the programme
<b>23I</b>	Recognise own personal health needs, consult and follow the advice of a suitably qualified professional, and protect patients from any risk posed by own health.	1 - 5	Monitored throughout the programme
<b>23J</b>	Recognise the duty to take action if a colleague's health, performance or conduct is putting patients at risk.	1 - 5	5

<b>Appendix 1 procedures</b>			
<b>Diagnostic procedures</b>			
<b>1</b>	Measuring body temperature	2	2
<b>2</b>	Measuring pulse rate and blood pressure	2	2
<b>3</b>	Transcutaneous monitoring of oxygen saturation	2	2
<b>4</b>	Venepuncture	3	3
<b>5</b>	Managing blood samples correctly	2	3
<b>6</b>	Taking blood cultures	5	5
<b>7</b>	Measuring blood glucose	2	2
<b>8</b>	Performing and interpreting a 12-lead Electrocardiograph (ECG)	3	3
<b>9</b>	Managing an Electrocardiograph (ECG) monitor	5	5
<b>10</b>	Basic respiratory function tests	2	2
<b>11</b>	Urinalysis using Multistix	2 - 3	3
<b>12</b>	Advising patient on how to collect a mid- stream urine specimen	3	3
<b>13</b>	Taking nose, throat and skin swabs	3	3
<b>14</b>	Nutritional assessment	3	3
<b>15</b>	Pregnancy testing	4	4
<b>Therapeutic procedures</b>			
<b>16</b>	Administering oxygen	3 - 4	4
<b>17</b>	Establishing peripheral intravenous access and setting up an infusion; use of infusion devices	3 - 5	5
<b>18</b>	Making up drugs for parenteral administration	5	5
<b>19</b>	Dosage and administration of insulin and use of sliding scales	5	5
<b>20</b>	Subcutaneous and intramuscular injections	3	3
<b>21</b>	Blood transfusion	5	5
<b>22</b>	Male and female urinary catheterisation	3	3
<b>Diagnostic procedures</b>			
<b>23</b>	Instructing patients in the use of devices for inhaled medication	2	2
<b>24</b>	Use of local anaesthetics	2,5	5
<b>25</b>	Skin suturing	5	5
<b>26</b>	Wound care and basic wound dressing	5	5
<b>27</b>	Correct techniques for 'Moving and handling', including patients	3	3
<b>General aspects of practical procedures</b>			
<b>28</b>	Giving information about the procedure, obtaining and recording consent, and ensuring appropriate aftercare	1 - 5	1 - 5
<b>29</b>	Hand washing (including surgical 'scrubbing up')	1 - 5	1 - 5
<b>30</b>	Use of personal protective equipment (gloves, gowns, masks and so on) in relation to procedures	1 - 5	1 - 5
<b>31</b>	Infection control in relation to procedures	1 - 5	1 - 5
<b>32</b>	Safe disposal of clinical waste, needles and other 'sharps'	1 - 5	1 - 5

## 6. How is the Programme taught?

Learning medicine relies on methods that are clinically realistic. This programme achieves this by offering students many and varied learning opportunities: Problem/Case Based Learning, lectures, practicals, experiential learning and extensive clinical placements.

Assessment is constructed both to facilitate learning (formative) and to allow summative judgements about knowledge, understanding and skill development. Teaching, learning and assessment are inter-related throughout.

Our programme is designed to assist undergraduates to achieve the requirements of the course and to maximise their career progression and leadership potential through opportunities to study a range of complementary subjects drawn from the University, including the humanities. We aim to make learning enjoyable through small class sizes, small group learning, early clinical experience and supporting individual students to develop into highly competent and self-aware professionals.

The curriculum has three phases jointly delivered at the University and in primary and secondary care settings.

- i. **Phase 1: Years 1 & 2:** Overview with early clinical exposure. There is an emphasis on learning the fundamentals of biomedical, behavioural and social science with a focus on –sciences, research, study skills and communication skills, basic clinical skills, and professionalism.
- ii. **Phase 2: Years 3 & 4:** A second run through many aspects of biomedical, behavioural and social science with an increased emphasis on complexity and pathology, combined with learning fundamental clinical skills and knowledge. Immersion in clinical placements building on the foundations of clinical knowledge and skills developed in the preceding years.
- iii. **Phase 3: Preparation for Professional Practice: Year 5:** Very extensive student assistantships to prepare students for practice as Foundation Year 1 doctors.

### Educational strategies

The programme is based on a blended approach that uses many methods.

### Key Features:

- A spiral curriculum, with vertical themes running through the 5 years.
- Scheduled learning and teaching activities.
- Anatomy teaching based in the Dissection Room.
- Problem Based/Case based Learning.
- Extensive clinical placements in hospital and community settings.
- Guided Independent Study.

### Location

- Years 1 and 2 are predominantly based at Keele campus. The majority of clinical placements in Years 3 - 5 are based in Staffordshire and Shropshire. For some students there are a small number of placements in adjoining counties.

Students on the MBChB programme at Keele University will achieve the graduate level learning outcomes through a range of learning, teaching and assessment opportunities.

Apart from these formal activities, students are also provided with regular opportunities to talk through particular areas of difficulty, and any special learning needs they may have, with their Personal Tutors or lecturers on a one-to-one basis.

Learning outcomes	
↓	↑
Learning (to allow students to achieve intended learning outcomes) will be achieved through a blend of learning and teaching activities including:	Assessment of intended learning outcomes is by theme. The percentage of each assessment allotted to each theme is informed by the amount of learning time allocated to each theme.
Problem/Case-based learning Laboratory sessions (e.g., anatomy, biochemistry, histopathology, microbiology, pharmacology, physiology, clinical skills, information technology)	<b>Phase 1 (Year 1 &amp; 2):</b> <b>Assessment of academic content:</b> Knowledge-based assessments, Skills-based assessments Student-Selected Component: Essay style written assignment <b>Assessment of professional competence:</b> Attitude-based assessments: Learning Portfolio and appraisal meeting
Communication skills sessions Experiential learning on clinical placements and other environments Student-Selected Components (SSCs)	<b>Phase 2 (Years 3 &amp; 4)</b> <b>Assessment of academic content:</b> Knowledge-based assessments, Skills-based assessments Student-Selected Components: Essay style written assignments; Formal written reports; Scientific meeting style presentations. <b>Assessment of professional competence:</b> Attitude-based assessments: Learning Portfolio, including the Clinical Log Book and appraisal meeting
Clinical Reasoning and problem solving components 'Question time sessions' / lectures / seminars Private Study – directed and self-directed	<b>Phase 3 (Year 5)</b> <b>Assessment of academic content:</b> Competency-based assessments <b>Assessment of professional competence:</b> Attitude-based assessments: Learning Portfolio, including the Clinical Log Book and appraisal meeting

## 7. Teaching Staff

All members of the faculty have the capability and continued commitment to be effective teachers. They have knowledge of: the discipline; an understanding of pedagogy; methods of measuring student performance consistent with the learning objectives; and readiness to be subjected to internal and external evaluations.

The academic staff have the required academic qualification for the discipline(s) they teach; expertise in one or more subdivisions or specialties within those disciplines; appropriate research and scholarship capabilities. They contribute to the advancement of knowledge and to the intellectual growth of their students through the scholarly activity of research and continuing education. Persons appointed to the faculty demonstrate achievement within their disciplines commensurate with their faculty rank.

In 2018, the Keele Medical School has approximately a 2:1 ratio between medical and non-medical academic staff, as well as a ratio of approximately 1:3 between full-time and part-time staff.

The University will attempt to minimise changes to our core teaching teams, however, delivery of the programme depends on having a sufficient number of staff with the relevant expertise to ensure that the programme is taught to the appropriate academic standard.

Staff turnover, for example where key members of staff leave, fall ill or go on research leave, may result in changes to the programme's content. The University will endeavour to ensure that any impact on students is limited if such changes occur.

## **8. What is the Structure of the Programme?**

The academic year runs from September to June (years 1 and 2) and September to July (year 3), and August to July (years 4 and 5).

Our degree courses are organised into modules. Each module is a self-contained unit of study and each 1 credit = 10 hours of student effort. An outline of the structure of the programme is provided in the tables below, with an indicative example of a week.

**A spiral curriculum, with vertical themes running through the 5 years. Scheduled learning and teaching activities. Problem Based/Case based Learning. Extensive clinical placements in general practice, hospital and community settings.**

**The doctor as a scholar and a scientist.  
 The doctor as a practitioner.  
 The doctor as a professional.**

Phase 1:					
Overview with early clinical exposure. There is an emphasis on the foundations of biomedical, behavioural and social science knowledge and scholarship skills, embedded in a framework of clinical placements and basic clinical skills.					
Year 1 FHEQ Level 4 (120 credits)					
Learning through integrated units such as Health & Disease, Immunology and infection, Emergencies, Life Course, Scholarship, Brain & Mind, Pregnancy and Lifestyle, with longitudinal GP and hospital placements					
Indicative timetable	Monday	Tuesday	Wednesday	Thursday	Friday
AM	Pbl session	Lectures and seminars	Clinical skills sessions	Lectures and experiential learning sessions	Pbl session
PM	Lab practicals and seminars	Early clinical placement	Sports afternoon	Anatomy	End of week wrap up
Year 2 FHEQ Level 5 (120 credits)					
A second run through many aspects of biomedical, behavioural and social science with an increased emphasis on complexity and pathology. Learning through integrated units such as Mechanism of Disease, Inputs & Outputs, Movement & Trauma, Circulation, Scholarship, Breath of Life, Integrated systems, longitudinal GP and hospital placements and a 3 <sup>rd</sup> sector community placement					
Indicative timetable	Monday	Tuesday	Wednesday	Thursday	Friday
AM	Lab practical's and seminars	Anatomy sessions	Lectures and seminars	Clinical skills sessions	Pbl session & End of week wrap up
PM	Clinical skills sessions	Lectures and experiential learning sessions	Sports afternoon	Early clinical placement	Pbl session
Optional Intercalated Bachelors Degree *					
Phase 2					
Comprehensive, scientifically-based clinical learning in a phase-long spiral of primary and secondary care placements, building on the foundations of clinical knowledge and skills through immersion in clinical placements.					
Year 3 FHEQ Level 6 (120 credits)					
Learning through integrated units such as Medicine, Surgery, Elderly Care, Mental Health, Paediatrics, General Practice and a Student-Selected Component.					
Indicative timetable	Monday	Tuesday	Wednesday	Thursday	Friday
AM	Case based learning session	Clinical placement	Clinical skills session	Anatomy & pathology sessions	Clinical placement
PM	Clinical placement	Clinical placement	Clinical placement	Lectures and seminars	
Year 4 FHEQ Level 6 (120 credits)					
Learning through integrated units such as Medicine, Surgery, Women's Health, Mental Health, Paediatrics, Neurology/musculoskeletal and then a General Practice and a Student-Selected Component.					
Indicative timetable	Monday	Tuesday	Wednesday	Thursday	Friday
AM	Case illustrated learning session	Clinical placement	Clinical skills session	Seminars	Clinical placement
PM	Clinical placement	Clinical placement	Clinical placement	Clinical placement	Lectures
Optional Intercalated Master's Degree * (see below)					
Phase 3					
Very extensive student assistantships to prepare students for practice as Foundation Year 1 doctors in GP assistantship, Acute and Critical Care (emergency medicine, Intensive care unit & anaesthesia), Medicine student assistantship, Surgical student assistantship, Distant elective and a Preparation for Professional Practice week					
Year 5 FHEQ Level 6 (120 credits)					
Preparation for Professional Practice: Including some evening and weekend working					
Indicative timetable	Monday	Tuesday	Wednesday	Thursday	Friday
AM	Clinical placement	Clinical placement	Clinical placement (Cluster group learning - GP)	Clinical placement	Clinical placement
PM	Clinical placement	Clinical placement	Clinical placement	Clinical placement (Cluster group project- GP)	Clinical placement

### \*Intercalated degrees

Undergraduates may suspend their medical degree for a period of 12 months to undertake either a BSc degree, normally after year 2 or year 4 or a Master's degree after year 4.

To undertake such an intercalated degree, students must be given permission by the School of Medicine, as well as being offered a place on their chosen course following an application from the student.

<http://www.keele.ac.uk/health/schoolofmedicine/undergraduatemedicalcourse/courseinformation/intercalateddegrees/>

### Module lists

Compulsory modules	Compulsory modules	Credits	Optional modules	Credits
Year 1 (Level 4)	Med- 10008	120	0	0
Year 2 (Level 5)	Med- 20008	120	0	0
Year 3 (Level 6)	Med- 30001	120	0	0
Year 4 (Level 6)	Med- 30002	120	0	0
Year 5 (Level 6)	Med- 30003	120	0	0

For further information on the content of modules currently offered please visit:  
[www.keele.ac.uk/recordsandexams/az](http://www.keele.ac.uk/recordsandexams/az)

## 9. Final and intermediate awards

### Transfer routes / exit points

The end award is MBChB (Honours), however, the following Intermediate awards may be available at appropriate exit points: Certificate of Higher Education in Applied Medical Sciences; Diploma of Higher Education in Applied Medical Sciences; and a classified BSc Honours Degree in Applied Medical Sciences. These intermediate awards imply no eligibility for professional recognition or registration, or fitness to practise.

Credits required for each level of academic award are as follows:

<b>MBChB</b>	600 credits	You will require 120 credits from each taught year of the programme:  Med: 10008: 120 credits at level 4 Med: 20008: 120 credits at level 5 Med: 30001: 120 credits at level 6 Med: 30002: 120 credits at level 6 Med: 30003: 120 credits at level 6
<b>BSc Honours Degree in Applied Medical Sciences</b>	360 credits	You will require 120 credits at levels 4, 5 and 6
<b>Diploma of Higher Education in Applied Medical Sciences</b>	240 credits	You will require at least 120 credits at level 4 or higher and at least 120 credits at level 5 or higher
<b>Certificate of Higher Education in Applied Medical Sciences</b>	120 credits	You will require at least 120 credits at level 4 or higher

## 10. How is the Programme assessed?

The wide variety of assessment methods used within the undergraduate medical programme at Keele reflects the broad range of knowledge and skills that are developed as you progress through the course. Teaching staff



pay particular attention to specifying clear assessment criteria and providing timely, regular and constructive feedback that helps to clarify things you did not understand and helps you to improve your performance.

The School of Medicine has an integrated and comprehensive assessment programme which draws upon the principles of programmatic assessment and sequential testing. The overarching aims of the assessment programme are to:

- Assist students to achieve the learning objectives of the medical programme.
- Facilitate the development in students of the learning skills necessary to maintain currency in later professional practice.
- Provide evidence of the extent to which students have achieved the learning objectives of the course.
- Employ assessment practices that reflect current, evidence-based, best practice.
- Align with the curriculum in both content and process and will assess knowledge, skills and attitudes in an integrated manner.
- Provide feedback to all students after formative and summative assessments.
- Follow a process of blueprinting to ensure appropriate sampling of material reflecting common international assessment practices.

### Assessment Formats

The School uses a variety of assessment formats throughout the programme. These include both written and practical assessments. Examples of written assessments include Single Best Answer (SBA) questions, Extended Matching Questions (EMQs) and free text Short Answer Questions (SAQs). Examples of practical assessments include Objective Structured Clinical Assessments (OSCEs) and Workplace Based Assessments (WBAs). This list is not exhaustive; other formats may be used to support specific years of the course.

Some assessments will be purely ‘low stakes’ as students’ performance in these assessments will have no bearing on progression. Other assessments will be ‘medium stakes’ as students’ cumulative performance in all these assessments will count towards the marks at the end of the year. The ‘high stakes’ summative judgement about a student’s capacity to progress to the next year or to graduate is made at the end of the year, based on a student’s performance in all medium stakes assessments as well as information about the student’s professionalism. All assessments (i.e. both low and medium stakes) will be followed by feedback to students as each assessment is designed to support students’ learning towards graduation and beyond. Feedback is provided in a variety of ways, including an online portal, individual meetings with tutors and large group sessions where appropriate.

### Assessment methods

The medical school has a range of assessment modes appropriate to assess each of the ILOs, categorized across three domains; **Doctor as a Professional, Doctor as a Practitioner, Doctor as a Scholar and Scientist.**

In every year all domains will be summatively assessed using appropriate assessment methods.

Doctor as a Professional	Doctor as a Practitioner		Doctor as a Scholar and Scientist
	Information Management Skills	Clinical and Practical Skills	
Learning portfolio MSF (Multi Source Feedback) Reflective summaries Appraisal	Written Communication skills	Practical assessment of skills (OSCE/WBA)	Knowledge assessments

The modes of assessment include:

### **Written knowledge examinations.**

Knowledge is examined in a range of formats designed to test students' ability to apply relevant scientific and medical knowledge to professional practice. Examinations may consist of Single Best Answer (SBA) questions, Extended Matching Questions (EMQ) and free text Short Answer Questions (SAQs). Written knowledge examinations will draw upon the principles of both cumulative testing and progress testing. Feedback will be given following all assessments to guide student learning.

In Phase 1, students will be tested at regular intervals, typically 3-4 times per year. The cumulative score from these assessments will then be used to determine progression to the next year/phase of the programme.

In Phase 2, written knowledge assessments will be based upon the principles of progress testing. Students will be tested at regular points throughout the year (typically 3-4 tests per year) and the cumulative score from these tests used to determine their progression to the next year/phase of the programme.

In Phase 3 there are no written summative university assessments. Students will be required to sit any national assessment required for entry to the Foundation Training Programme or as specified by the General Medical Council (GMC).

### **Practical examinations**

These examinations enable students to demonstrate a safe and effective application of practical clinical and laboratory skills and will be assessed through both Objective Structured Clinical Examinations (OSCEs) and a variety of Workplace Based Assessments (WBAs).

Throughout the programme, OSCEs will be used in a sequential testing model. Typically, students will be assessed at 2-3 points within each year. In line with the principles of sequential testing, highly performing students may be exempted from later rounds of testing. Decisions on progress to the next year/phase of the programme will be based upon a student's cumulative performance across all tests taken within a given year/phase. Feedback will be given after all assessments to guide student learning.

### **In course assessments**

A variety of in course assessments will be used to test students' ability to apply a range of skills relevant to their professional practice. Examples of this format include written assessments designed to test students' ability to appraise quantitative or qualitative data and those designed to develop students' reflective practice. These assessments may also include oral and poster presentations designed to test students' ability to communicate effectively to a variety of audiences.

## **11. Contact Time and Expected Workload**

This contact time measure is intended to provide you with an indication of the type of activity you are likely to undertake during this programme. The data is compiled based on module choices and learning patterns of students on similar programmes in previous years. Every effort is made to ensure this data is a realistic representation of what you are likely to experience, but changes to programmes, teaching methods and assessment methods mean this data is representative and not specific.

Undergraduate courses at Keele contain an element of module choice; therefore, individual students will experience a different mix of contact time and assessment types dependent upon their own individual choice of modules. The figures below are an example of activities that a student may expect on your chosen course by year/stage of study. Contact time includes scheduled activities such as: lecture, seminar, tutorial, project supervision, demonstration, practical classes and labs, supervised time in labs/workshop, fieldwork and external visits. The figures are based on 1,200 hours of student effort each year for full-time students.

Activity	Year 1 (Level 4)	Year 2 (Level 5)	Year 3 (Level 6)	Year 4 (Level 6)	Year 5 (Level 6)
Scheduled learning and teaching activities	43%	43%	29%	27%	11%
Guided independent Study	54%	50%	15%	8%	13%
Placements	3%	7%	56%	65%	76%

## 12. Accreditation

This programme is accredited by the General Medical Council and Keele University (December 2011). Please note the following:

**Module Selection:** Students should note that to be awarded the MBChB accreditation they must pass all modules. All modules are mandatory. (NB: Module = Year)

**Regulations:** Your programme has professional accreditation and there are specific regulations, which you have to agree to abide by, as follows:

**GMC:** Outcomes for graduates: [https://www.gmc-uk.org/education/undergraduate/undergrad\\_outcomes.asp](https://www.gmc-uk.org/education/undergraduate/undergrad_outcomes.asp)

**Study abroad:** due to GMC accreditation requirements there are no Study Abroad options available to students on this programme.

## 13. Regulations

The University Regulations form the framework for learning, teaching and assessment and other aspects of the student experience. Further information about the University Regulations can be found at: <http://www.keele.ac.uk/student-agreement/>

### Course Regulations:

Full course regulations will be supplied on entry into the MBChB programme.

The following are important elements of the MBChB course-specific regulation:

- Full attendance is required on the MBChB programme. Students are expected to attend all timetabled sessions of the programme, as specified in each year pro forma, to include theoretical - learning hours, clinical placements, other environment placements and associated briefings.
- Progression decisions will be based on student performance in a range of assessments as detailed in the course regulations and satisfactory professional behaviour.
- Students will be required to have successfully completed each year of the course before progressing to the next year of study.
- Failing students will be given the automatic right to resit the year, except for year 3 & 5 where students will be given an opportunity to take an in-year resit.
- There will be no in-year resit options in years 1, 2 and 4, except for students who have missed a summative assessment through exceptional circumstances. See Progression table below.
- Course work will be submitted for assessment as prescribed in course and year handbooks. Deadlines specified for submitting assessments are rigorously enforced: work submitted up to 24 hours after the deadline may be graded with the mark capped at the pass score; work submitted more than 24 hours after the deadline will score 0 (zero) and re-assessment will be required.
- Students registered on the MBChB Honours degree programme are subject to the University Fitness to Practise procedure (Regulation 18; see academic regulations).

Progression MBChB programme						
	Compulsory Formative	Portfolio	Written Minimum requirement	OSCE Minimum requirement	Rule	Do not meet progression requirements
<b>Year 1</b>	Satisfactory engagement with in course formative assessments		Cumulative pass in written knowledge assessments	None		If performance in assessments is unsatisfactory then there is an automatic right to resit the year.  There is no 'in year' resit.
<b>Year 2</b>	Satisfactory engagement with in course formative assessments	Portfolio must be deemed Satisfactory	Pass written knowledge exam.	Pass as defined annually in the student handbook	No compensation between written assessments and OSCE. Must meet all minimum requirements to progress to year 3.	If performance in assessments is unsatisfactory then there is an automatic right to resit the year.  There is no 'in year' resit.
<b>Year 3</b>	Satisfactory engagement with in course formative assessments	Portfolio: Must be deemed Satisfactory at Appraisal in order to progress to the next Year.	Pass written knowledge exam.	Pass as defined annually in the student handbook	No compensation between written assessments and OSCE. Must meet all minimum requirements to progress to year 4.	If performance in assessments is unsatisfactory there is an automatic 'in year' resit.  There is no automatic resit of year.
<b>Year 4</b>	Satisfactory engagement with in course formative assessments	Portfolio must be deemed Satisfactory at Appraisal in order to progress to the next Year.	Pass written knowledge exam.	Pass as defined annually in the student handbook	No compensation between written assessments and OSCE. Must meet all minimum requirements to progress to year 5.	If performance in assessments is unsatisfactory then there is an automatic right to resit the year.  There is no 'in year' resit.
<b>Year 5</b>	Satisfactory engagement with in course formative assessments	Portfolio must be deemed Satisfactory at Appraisal in order to progress	N/A	Pass a minimum of stations as defined annually in the student handbook.		If performance in assessments is unsatisfactory there is an automatic 'in year' resit.  There is no automatic resit of year.

#### 14. What are the typical admission requirements for the programme?

Subject	A-level	Subjects not included	International Baccalaureate	BTEC	Access to Higher Education Diploma	GCSE requirements
Medicine MBChB	<p>A-levels in three subjects at grades of A*AA are required, including Biology or Chemistry plus another designated science subject (Biology, Chemistry, Physics, Maths/Further Maths/Statistics) and a third academic subject.</p> <p>Any science A level (Biology, Chemistry, Physics) completed in England from 2017 must include a pass in the practical endorsement: without this endorsement the qualification will be judged to have been failed, regardless of the headline grade.</p>	<p>The following subjects are not accepted at A level for A100: Citizenship Studies; Critical Thinking; General Studies; any AQA Applied A level (Applied Art &amp; Design; Applied Business; Applied ICT; Applied Leisure Studies; Applied Science; Applied Travel &amp; Tourism; Science in Society; Use of Mathematics); any Edexcel Applied A Level (Applied Art &amp; Design; Applied Business; Applied ICT; Engineering; Health &amp; Social Care; Leisure Studies; Media; Performing Arts; Travel &amp; Tourism); any OCR Applied A level (Applied Art &amp; Design; Applied Business; Applied Health &amp; Social Care; Applied ICT; Applied Leisure Studies; Applied Performing Arts; Applied Science; Applied Travel &amp; Tourism); any WJEC Applied A level (Applied Business; Applied ICT; Applied Science). Key skills qualifications will not be taken into account in assessing academic ability.</p>	<p>35 points including three grade 6 passes at IB Higher Level and grades of 6, 6, 5 at Standard Level are required. Higher Level subjects should include Chemistry or Biology, plus one from Chemistry, Biology, Physics or Maths and a third rigorous subject. Any science not taken at the Higher Level must be offered at Standard Level grade 5 or GCSE grade B (or equivalent). Points awarded for the Extended Essay or Theory of Knowledge are not taken into account but these components must have been completed.</p> <p>English Language (Language A) at Grade 6 is acceptable in lieu of GCSE English Language. Please see English Language Requirements under General Requirements if you do not have either of these.</p>	Not accepted for A100	Only Access to Medicine from: College of West Anglia, Stafford College, Dudley College, Sussex Downs College and Manchester College with 45 level 3 credits at distinction and a further 15 credits are accepted.	5 subjects at grade A (7) with a minimum of grade B (6) in Maths, English Language, Biology, Chemistry and Physics

Overseas applicants not offering GCSE or Level 1/2 Certificate (first language) English Language at the required grade must have one of the following:

- Grade B or above in the Certificate of Proficiency or Advanced Certificate in English offered by the University of Cambridge under the English for Speakers of Other Languages (ESOL) programme.
- International English Language Testing Service (IELTS, academic) with a minimum score of 7.0 in each component taken at the same sitting.

- Grade B in International GCSE (IGCSE) First Language English, with a minimum of grade 2 in Paper 5 (optional speaking & listening component).
- Students with other English language qualifications may be required to undertake IELTS to fulfil the requirements of both the School of Medicine and UK Visas & Immigration (UKVI).

We do not normally accept Test of English as a Foreign Language (TOEFL) qualification. For full details of our entry criteria please see: <https://www.keele.ac.uk/medicine/mbchb5years/entryrouteshowtoapply/>

*NB:* All offers are normally conditional upon the applicant having a satisfactory Occupational Health assessment, and an enhanced clearance by the Disclosure and Barring Service (DBS), those living outside the UK will need a police check.

## **15. How are students supported on the programme?**

Pastoral Support will be organised and managed by the Director of Professional Development and Welfare for the School of Medicine. A team of pastoral tutors are available to see all students about any problems on a confidential basis. Workshops on study skills and managing health are provided by the team. The students are also encouraged to use University and external sources of support. We have dedicated staff to support international students.

Particular support is arranged for disabled students, those with chronic health issues and those who are called to Progress and/or Health and Conduct committees. Our tutors are able to advise and counsel students about the professional demands of a career in medicine as well as career paths.

Academic and pastoral support is normally provided by:

- Professional Development Tutors (PDTs) who act as personal tutors and oversee students through the course of the programme and are responsible for appraisal of their professional development
- PBL tutors: academic and personal support in the early course
- Firm tutors: will support students in clinical practice
- Year leads: will provide support for academic issues related to their year
- Peer mentors: students in later years will have mentoring roles for students in earlier years

Students experiencing academic difficulties will be placed in our Enhanced Professional and Academic Support Service (EPASS).

### **Additional support is available from:**

Keele University provides support, guidance and advice for all its students available through the Student Services Centre. This includes Occupational health, counselling, mental health support and a crisis intervention team.

## **16. Learning Resources**

The non-clinical components are based in the School of Medicine building on Keele campus. This is a very spacious, light and airy building, opened in September 2003, and includes a large lecture theatre, seminar rooms, IT laboratory, student common room and social gathering and refreshment areas. Additionally, there is an anatomy suite comprising a large dissecting room and a resource room where exhibits are displayed to facilitate study. Although most of the material is anatomical, other disciplines such as pathology are included. There are dissected specimens (prosections), models, bones, microscopes with histology slides, pathology pots, posters and CAL (computer aided learning) material. There are three Multi User Laboratories with equipment and resources that are mainly for the study of human physiology, pharmacology and histopathology and related biosciences. The resources range from microscopes for histology work, to biochemical equipment and facilities for biological investigations to computerised spirometry and ECG recording. Groups of networked PCs are available throughout the University, however the largest groups of open-access PCs (over 200 in total) are available in the Library Building. Most of these will be found in the in the IT Suite on the first floor. The computing facilities comprise a laboratory containing 63 PCs with monochrome printers and scanners. Colour

printing may be directed to the library building machines and collected from there. The suite is networked and has full access to the Internet. In addition, there is a computer in each of the seminar rooms in the building, and computers in the Anatomy Suite Resource room and the Multi-user lab. All students have individual e-mail accounts and a small amount of private file space on the University fileserver.

At the Royal Stoke University Hospital there is an Undergraduate Medical School building, UGMS, which opened in January 2003, containing a lecture theatre, seminar rooms, computers and a student resource room. In addition to the teaching areas, UGMS provides a central hub including the Teaching Support offices and offices for key academic clinical staff. There are a range of seminar/meeting rooms strategically placed around the hospital adjacent to wards and other clinical areas to assist in teaching close to or in contact with patients and other professional colleagues.

Additionally, the programme is also delivered in the Clinical Education Centre, within the Royal Stoke University Hospital, which opened in September 2004. This houses not only facilities for student doctors, but also incorporates the School of Nursing & Midwifery, and Postgraduate Medical and Dental Education (i.e. the NHS Foundation School and specialist training). The seminar rooms, extensive clinical skills laboratories, interprofessional Health Library and IT laboratories, not only provide state of the art teaching facilities, but also allow and encourage multi-disciplinary learning and team working. This multi professional approach is seen as key to developing the workforce of the NHS. At the Clinical Education Centre, the clinical skills laboratories have recently been upgraded and extended to provide superb facilities including resuscitation and paediatric areas, intermediate and advanced skills laboratories, and allow the use of Sim Man training. In the IT Suite on the ground floor, adjacent to the Health Library, there are computers for student use, together with scanners and printers. The Library itself has photocopying facilities and 5 computers in a central area.

### **University Hospital of North Midlands NHS Trust**

The Trust comprises Royal Stoke University Hospital, Stoke on Trent and County Hospital, Stafford.

University Hospitals of North Midlands NHS Trust (UHNM) was created on 1 November 2014 following the integration of Stafford Hospital with the University Hospital of North Staffordshire. Serving around three million people across Staffordshire and North Wales, UHNM is one of the largest hospital trusts in the country. Its 10,000 strong workforce provides the full range of emergency treatment, planned operations and medical care from the two hospitals in Stafford and Stoke-on-Trent. Over the next few years there are major plans for improvements at the two hospitals. The investment of £250 million will be spent on new facilities, extra staffing, new equipment and developing the best quality, safest services. Some of the first changes to happen will be in acute surgery, maternity and paediatrics.

UHNM's specialised services include cancer diagnosis and treatment, cardiothoracic surgery, neurosurgery, renal and dialysis services, neonatal intensive care and paediatric intensive care. The Trust is also recognised for expertise in trauma, respiratory conditions, spinal surgery, upper gastro-intestinal surgery, complex orthopaedic surgery, laparoscopic surgery and the management of liver conditions.

### **North Staffordshire Combined Healthcare NHS Trust (Harplands Hospital and Community Mental Healthcare services)**

The Harplands Hospital complex, which opened in 2001, is the central facility within the network of psychiatric service provision in North Staffordshire. The main building houses about 120 beds for General Adult and Old Age Psychiatry, older people's mental health services and Neuropsychiatry. The site also accommodates an assessment unit for people with learning disabilities who have a variety of psychiatric disorders. In addition there is a specialised unit for the treatment and rehabilitation of people with addictions disorders, and a number of other sub-specialty services. In the surrounding district there are five centres which housing teams of mental health professionals. These teams provide the full range of psychiatric treatments to patients in the community. These units are designed with strong input from users, and thus their locations are intended to be easily accessible to people living in local communities.

## **Haywood Hospital (Staffordshire and Stoke-on-Trent Partnership NHS Trust)**

Rheumatology and specialist rehabilitation are provided at the Haywood Hospital in Burslem. The hospital has been re-built, as part of the Fit for the Future project, with state of the art facilities. It is managed by Stoke on Trent Primary Care Trust and includes in-patient and out-patient facilities, including consultation suites, physiotherapy, hydrotherapy and occupational therapy services. There are in-patient wards for Rheumatology and Rehabilitation, including stroke rehabilitation. On-site diagnostic facilities include plain radiography, ultra sound and bone density (Dexa) scanning.

## **The Shrewsbury and Telford Hospital NHS Trust**

The Shrewsbury and Telford Hospital NHS Trust (SaTH) has a catchment population of approximately 500,000 centred upon the towns of Shrewsbury and Telford. The Royal Shrewsbury Hospital (RSH) supplies services to a large rural population in West Shropshire and neighbouring Powys. It has approximately 406 beds. The Princess Royal Hospital in Telford (PRH), opened in 1989, primarily serves the population of east Shropshire and Telford & Wrekin and has approximately 403 beds. Both Hospitals have 24 hour emergency departments. Acute medicine and associated specialties are provided at both hospitals, with acute surgery and trauma at the RSH site and a brand new Consultant Obstetric and Paediatric unit opened at the PRH site in autumn 2014. Both hospitals provide a comprehensive diagnostic and therapeutic service together with clinics and day surgery in most of the major hospital specialties.

Other NHS Trusts in the county of Shropshire include the Shrewsbury facilities of the South Staffordshire and Shropshire Healthcare NHS Foundation Trust, which is a mental health trust, (see below), and The Robert Jones and Agnes Hunt Orthopaedic Hospital NHS Foundation Trust at Oswestry (on the Welsh border) containing a spinal injuries and a children's orthopaedic unit.

## **South Staffordshire and Shropshire Healthcare NHS Foundation Trust**

South Staffordshire and Shropshire Healthcare NHS Foundation Trust facilities at Shrewsbury and at St. George's Hospital in Stafford provide mental health, learning disability and specialist children's services across South Staffordshire and mental health and learning disability services in Shropshire, Telford & Wrekin and Powys. The Trust serves a population of 1.1 million, over an area of 2,200 square miles, with over 3,400 staff, and offers an extensive range of services including Children and Family services, Adult Mental Health, Specialist Services, Forensic Mental Health services and Developmental Neurosciences & Learning Disabilities.

## **Community Experience**

One of the major changes to modern medical school curricula is the amount of teaching that now takes place in general practice and community settings. Medical students now must understand that patients receive most of their health care in or close to their own homes from their general practitioners and community services. As a result, relatively little healthcare is delivered in hospitals. This is reflected in students spending more time learning in general practices and with community services than in the past.

Throughout your time as a medical student at Keele you will be encouraged to think of community and social dimensions of illness and health. You will have placements with community services and general practices in all three phases of the course. Examples of other community services we use are schools, chemists/pharmacies, the workplace, residential homes, gyms and drop-in centres all places which contribute to the health and care of people.

## **Library Resources & Services**

Keele's Library services, which operate from two sites, support student learning by providing:

- Copies of print textbooks and a growing collection of e-books



- Access to course readings via online reading lists
- Access to online journals and databases via the Library website
- Off-campus access to the majority of e-resources
- Inter-Library Loans services
- Training sessions/inductions
- Enquiries services (including 'Live Chat' Service)
- Online and printed material, e.g. ~~'new starter' guide~~ 'eTutorials', floor plans

Keele University Library (Keele Campus) and the Health Library (Clinical Education, Royal Stoke University Hospital) both contain printed textbooks and journals. Access to key journal titles such as BMJ, New England Journal of Medicine and The Lancet is available.

- To search for books (includes ebooks) and printed journals in Keele's Libraries use the Library's Discovery Service (covers both sites): [Library Search](#)
- To search for e-journals use the **E-Journals A-Z** link on the Library Homepage Catalogue: <https://www.keele.ac.uk/library/>
- To access relevant databases use the Library website (**Subject Resources**): <https://www.keele.ac.uk/library/find/subject/medicine/>
- You can borrow books for two weeks, one week or three days (Short Loan), and they will be renewed automatically on a rolling basis unless requested by another borrower

A third collection of printed material is at Shrewsbury Health Library, located in the Learning Centre, Royal Shrewsbury Hospital: view more details via the Library's website: <http://library.sath.nhs.uk>.

### **Keele University Campus Library**

Campus Library is open all year round with 24/7 access during Semesters. The building accommodates Library, Careers & Employability and Student IT Support (IT Connect). The Library supports courses taught at the Keele Campus. Campus Library overlooks Union Square - where the Students' Union is located. You will find copies of texts on your reading lists either online (as "ebooks") or available for loan for two weeks or seven days; a limited number of copies of some core texts may also be found in the Short Loan collection on the Middle Floor. CDs and DVDs are also available to use/borrow in the Library. The building contains in the region of 500,000 books at the time of writing. The Library also provide 300,000 ebooks and over 20,000 ejournals to Keele students.

Printed journals are kept on the Ground Floor; current issues of titles are displayed separately.

The Library also offers the following services:

- Website (via [Library Services page](#))
- Printed and online guides
- Self-service points to issue and return books
- Group Study Rooms. You can book one to work in a group (via the Main Service Counter) – the rooms are on the Middle & Top Floors
- Enquiries service
- Self-service photocopiers
- Group study areas (Middle Floor) and Silent Study areas (Ground & Top Floors)
- Out-of-hours book return box
- Access to IT Suite & IT Labs
- Sale of stationery items

Via the Medicine **Subject Resources** link on the Library website you will find links to some freely-available resources such as the Cochrane Library along with resources purchased to support your studies: health-related databases are also listed on these pages and include (at the time of writing):

MEDLINE and other core health databases (AMED, BNI, CINAHL, PsycINFO, SPORTDiscus), Web of Science and more. Access to an online learning package called Aclands Anatomy is also available.

For more details, visit <http://www.keele.ac.uk/library/find/subject/medicine>

## Health Library

The Library is located on the Ground Floor of the Clinical Education Centre, Royal Stoke University Hospital (University Hospital of North Midlands NHS Trust). It opened in 2004. It is open all year round for extensive hours, seven days a week. It is used by staff and students of the School of Nursing & Midwifery and medical students based there during years 3 - 5. It is open to all members of Keele University and local NHS practitioners. It contains printed books and journals.

Services include:

- Access to IT Suite
- Self-service photocopying and printing (use your Keele Card)
- Silent Study Room
- Thermal binding and laminating service
- Sale of stationery items/USB sticks
- Out-of-hours book return box

The Health Library contains in the region of 34,000 thousand books and 200 printed journals (for reference only) purchased by Keele and the NHS, in addition to collections of DVDs.

Details of opening times can be found on the Library website. To view more information visit [www.keele.ac.uk/healthlibrary/](http://www.keele.ac.uk/healthlibrary/)

## Using Libraries while on Placement

### NHS Libraries in Staffordshire/Shropshire

<http://library.sath.nhs.uk/> - Shrewsbury and Telford Hospital Trusts Health Libraries, Shrewsbury and Telford Hospital NHS Trust

<http://www.keele.ac.uk/healthlibrary/> - Health Library, University Hospitals of North Midlands NHS Trust (Royal Stoke University Hospital)

<http://www.midstaffs-pgmc.nhs.uk/library.htm> - Library Education and Resource Centre, University Hospitals of North Midlands NHS Trust (County Hospital, Stafford)

<http://library.sssft.nhs.uk/> - Library and Knowledge Services, South Staffordshire and Shropshire Healthcare Trust

<http://www.rjah.nhs.uk/library> - Francis Costello Library, Robert Jones Agnes Hunt Orthopaedic Hospital NHS Foundation Trust

**Please note:** While on placement at an NHS Library you should ask about access to online resources purchased by the NHS: you should register for an NHS ATHENS account. Also note that different Trust Libraries may have different usage policies and opening hours to Keele (check the relevant web pages or contact the relevant Library for further details).

Don't forget you can check your Keele e-mail account remotely via Keele's WebMail service – this is available via the student information page: <http://students.keele.ac.uk/>

### **Keele IT Services**

Here is a summary of IT Services offered at the Keele Campus (Library & IT Services Building):

- Open access IT Suite and Labs (Campus Library/IT Services Building)
- IT Service Desk for help and advice (open 7 days a week term time)
- Wireless network areas
- Software deals for specialist packages such as SPSS, NVivo
- Scanners
- Self-service printing in both colour and monochrome
- Adjustable disability workstation with scanner

More information available on [www.keele.ac.uk/it](http://www.keele.ac.uk/it)

Here is a summary of IT services offered at the CEC:

- Open access IT Suite
- IT Service Desk for help and advice
- Scanners
- Self-service printing in both colour and monochrome

### **Electronic Resources**

Many useful resources relating to medicine and health are freely accessible via the Internet, e.g. PubMed, Cochrane Library, the NHS Centre for Reviews and Dissemination, Clinical Evidence, BioMed Central, and FreeMedicalJournals.com.

Keele also offers a growing portfolio of subscription electronic resources, databases, and full-text journals, relating to medicine and health care, e.g. anatomy.tv, AMED, MEDLINE, PsycINFO, BNI, CINAHL, SportDiscus, Academic Search Elite, and ScienceDirect. The University provides access to thousands of online journals, many of which are relevant to medicine and healthcare

## **17. Other learning opportunities**

### **Study abroad (semester)**

Due to GMC accreditation requirements there are no Study Abroad options available to students on this programme.

## **18. Additional costs**

### **Medicine Programme Costs**

In common with other Medical Schools our medical students should be aware that there are additional costs involved, such as the purchase of books, laboratory coats and travel to placements. We do not usually recommend that students purchase books or equipment before starting the course as advice will be given at Registration and during the degree as to what is required. Students intending to bring a car to Campus should note that student car parking is limited and there is a charge for student permits. An additional cost applicable to Medical Students is the purchase of smart clothing for clinical placements.

### **Keele School of Medicine MBChB placement information.**

Secondary Care, Primary Care and 3<sup>rd</sup> sector placements are mainly based across Staffordshire and Shropshire, and neighbouring counties including some in Herefordshire, Cheshire, Worcestershire and Powys. These placements provide a range of experiences integral to the course's learning outcomes. All students are required to travel, and attend their allocated placements as a course requirement. Every effort is made to balance the travel burden for each student over the 5 year course, but it is not possible to give every student placements that involves limited travel.

In Years 3, 4 and 5 students will be allocated to a Secondary Care base site for that academic year, either Royal Stoke University Hospital or Royal Shrewsbury Hospital, most students will be required to spend one year (Either Year 4 or 5) based in Shropshire.

Activity	Estimated cost
Equipment: Howie lab coat and a standard lab coat	£35
Travel: Indicative mileage for placements years 1-5: Students can expect to travel an average of 5696 miles over the course of the 5 year programme.  Mileage is calculated from Keele School of Medicine for Years 1 and 2 and from the allocated base secondary care site for year 3, 4 and 5. (Either Royal Stoke University Hospital or Royal Shrewsbury Hospital)  *Based on 2016 graduates	
Other additional costs: Students may need to pay for any additional DBS checks required by elective placement coordinators.	£44

These costs have been forecast by the University as accurately as possible but may be subject to change as a result of factors outside of our control (for example, increase in costs for external services). Forecast costs are reviewed on an annual basis to ensure they remain representative. Where additional costs are in direct control of the University we will ensure increases do not exceed 5%.

As to be expected there will be additional costs for inter-library loans and potential overdue library fines, print and graduation.

We do not anticipate any further costs for this undergraduate programme.

#### **Assistance with expenses**

The School is not able to offer a firm commitment to provide assistance with travel expenses but if external bodies agree funding, usually decided year by year, this will be allocated at the end of the year. The mechanism and amount to be advised each year dependent on funds available. For example, in 2016-17 each student retrospectively received 13.5p per mile as a contribution towards their travel costs\* undertaken in Years 3, 4 and 5.

\*Certain events are not included in this mileage total, such as SSC Placements and travel to County Hospital, Stafford.

Home students may gain in additional financial support for travel expenses if eligible for an NHS bursary. (Means tested)

Overseas and EU students are not eligible for NHS bursary support.

#### **Allocation method:**

In the first instance all placements are allocated at random, thereafter the School aims to avoid sending a student to the same placement twice and be mindful of previous allocations re distance. The notable exception to this rule is that students in Years 2, 3 and 4 rank their Student Selected Component (SSC) options and an allocation is made using this ranking, irrespective of previous allocations.

In order to ensure that placements are allocated in an equitable manner, and that the most effective use is made of available placements, it is not possible for students to choose their own placements. However, students are given the opportunity to request a specific area to undertake their Primary Care placement in Year 3, 4 and 5 to help with accommodation/travel costs.

Also in Years 3, 4 and 5, there is an opportunity, once the School allocation plan has been shared with students, for students to submit for consideration by the year leads a mutually acceptable swap. There is a clearly defined process and timeline to do this available on the VLE. (Virtual Learning Environment)

### **Accessibility**

Most placements can be accessed using public transport. In the case of the more inaccessible placements, the School attempts to place students, who have declared they have access to a car, to such placements.

### **Special or exceptional circumstances:**

The intention regarding allocation is to balance the travel burden across the student body but the School may make allowances for certain special or exceptional circumstances that may define the allocation for that student namely:

**Criterion 1:** The applicant is a parent or legal guardian of a child or children under the age of 18 who reside primarily with them and for whom they have significant caring responsibilities.

**Criterion 2:** The applicant is the Primary Carer for someone who is disabled (as defined by the Equality Act 2010).

**Criterion 3:** The applicant has a medical condition or disability for which ongoing follow up for the condition in the specified location is an absolute requirement.

**Criterion 4:** The applicant is nominated by the Medical School for pre-allocation on the grounds of educational special circumstances.

*In addition to the above, the School requires students to identify where he/she or a close relative has had previous or current engagement with the allocated GP practice.*

## **19. Quality management and enhancement**

The quality and standards of learning in the MBChB are subject to a continuous process of monitoring, review and enhancement.

- The Learning and Teaching Committee of the School of Medicine is responsible for reviewing and monitoring quality management and enhancement procedures and activities across the School.
- Individual modules and the MBChB Programme as a whole are reviewed and enhanced every year in the annual programme review which takes place at the end of the academic year and as part of the University's Curriculum Annual Review and Development (CARD) process.
- The programmes are run in accordance with the University's Quality Assurance procedures and are subject to periodic reviews under the Internal Quality Audit (IQA) process.

Student evaluation of, and feedback on, the quality of learning on every module takes place every year using a variety of different methods:

- The results of student evaluations of all modules are reported to module leaders and reviewed by the Programme Committee as part of the Curriculum Annual Review and Development (CARD) process.
- Findings related to the MBChB Programme from the annual National Student Survey (NSS), and from regular surveys of the student experience conducted by the University, are subjected to careful analysis and a planned response at programme and School level.

- Feedback received from representatives of students in all five years of the MBChB Programme is considered and acted on at regular meetings of the Programme’s Student Staff Voice Committee.

The University appoints senior members of academic staff from other universities to act as external examiners on all programmes. They are responsible for:

- Approving examination questions
- Confirming all marks which contribute to a student’s degree
- Reviewing and giving advice on the structure and content of the programme and assessment procedures

Information about current external examiner(s) can be found here:

<http://www.keele.ac.uk/ga/externalexaminers/currentexternalexaminers/>

## 20. The principles of programme design

The Medicine Programme described in this document has been drawn up with reference to, and in accordance with the guidance set out in, the following documents:

- UK Quality Code for Higher Education, Quality Assurance Agency for Higher Education: <http://www.qaa.ac.uk/assuring-standards-and-quality/the-quality-code>
- QAA Subject Benchmark Statement
- Outcomes for Graduates (Tomorrow’s Doctors), 2015, GMC
- Medical students’ code: professional values and fitness to practise, GMC, March 2009
- Good medical practice, GMC 2013
- Keele University Regulations and Guidance for Students and Staff: <http://www.keele.ac.uk/regulations>

## 21. Document Version History

**Date of first approved version (v1.0):** 5<sup>th</sup> October 2017

Revision history

Version number <sup>1</sup>	Author	Date	Summary of and rationale for changes
1.1	Peter Coventry	22.01.2018	Table outlining progression requirements added to pages 19-20
1.2	Angela Allen	14.03.2018	Minor updates to resources section and indicative mileage for placements

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<sup>1</sup> 1.1, 1.2 etc. are used for minor changes and 2.0, 3.0 etc. for major changes (as defined in the University’s Guidance on processes supporting curriculum changes)