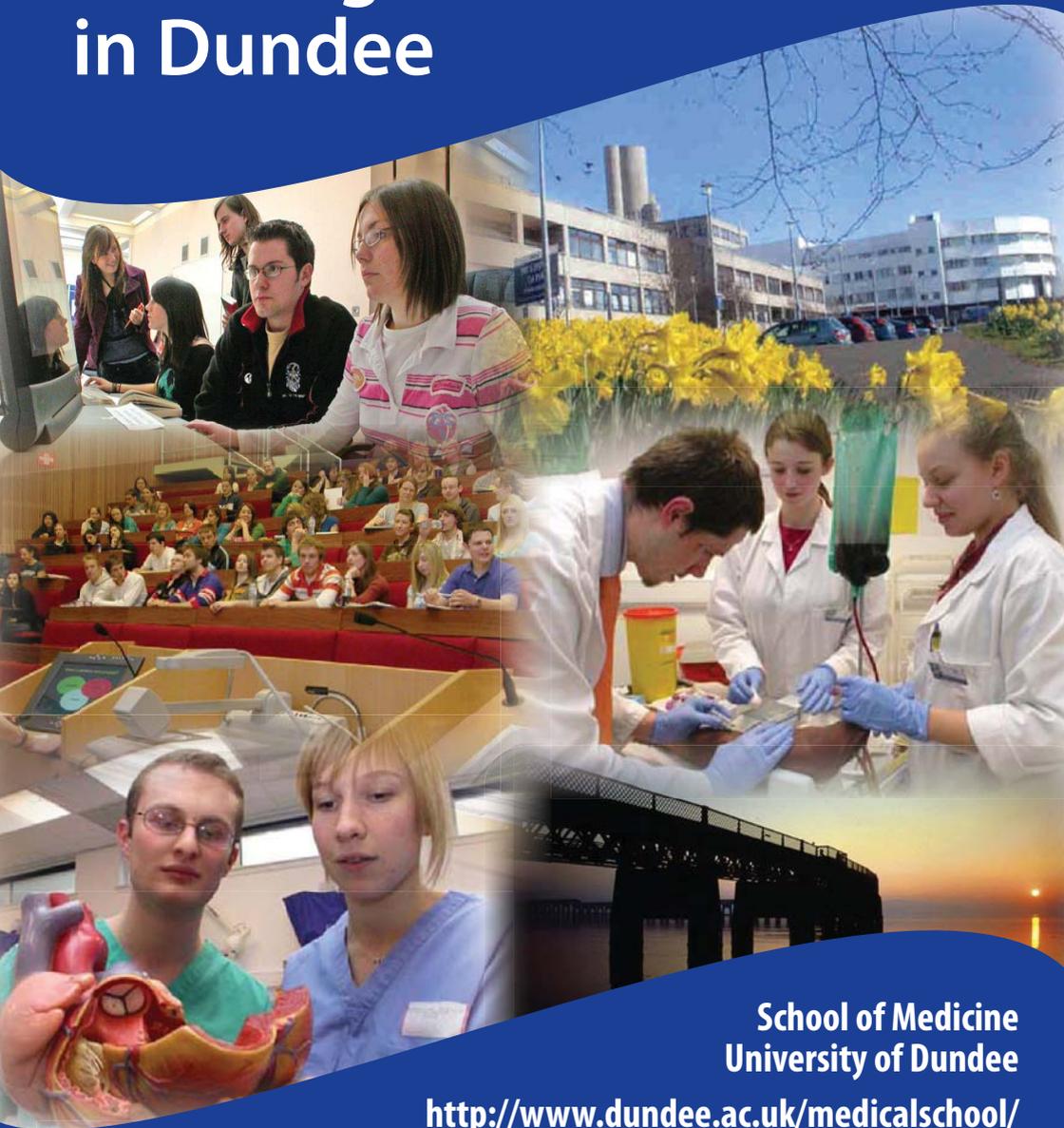


Learning Medicine in Dundee



School of Medicine
University of Dundee

<http://www.dundee.ac.uk/medicalschoo/>

Welcome



Welcome to the Dundee curriculum

The current Dundee curriculum was introduced in the 2005-2006 academic year. It is a five year programme with approximately 160 students per year.

The curriculum has a number of exciting features which include:

- outcome-based education with 12 learning outcomes
- a spiral curriculum in three phases
- a system-based approach with integration of the medical disciplines in system courses
- over 100 core clinical problems as a focus for learning
- a core curriculum with student selected components
- multiple approaches to teaching and learning
- an assessment system with advanced assessment techniques
- curriculum themes woven through all phases of the curriculum.



These features blend in the educational programme to create a strongly positive educational environment enjoyed by students.

Learning outcomes

What is a Dundee graduate?

Careful attention has been paid in planning the curriculum to ensure that by graduation all students will have acquired the necessary competencies to be a good doctor. The 12 learning outcomes identified are listed below in three groups. These provide the base for all phases of the curriculum.



What a doctor is able to do

'Doing the right thing'

Competence in:

- clinical skills
- practical procedures
- investigating a patient
- patient management
- health promotion & disease prevention
- communication
- handling and retrieval of information



How the doctor approaches their practice

'Doing the thing right'

- With understanding of basic, clinical and social sciences and underlying principles
- With appropriate attitudes, ethical stance and legal responsibilities
- With appropriate decision making, clinical reasoning and judgement



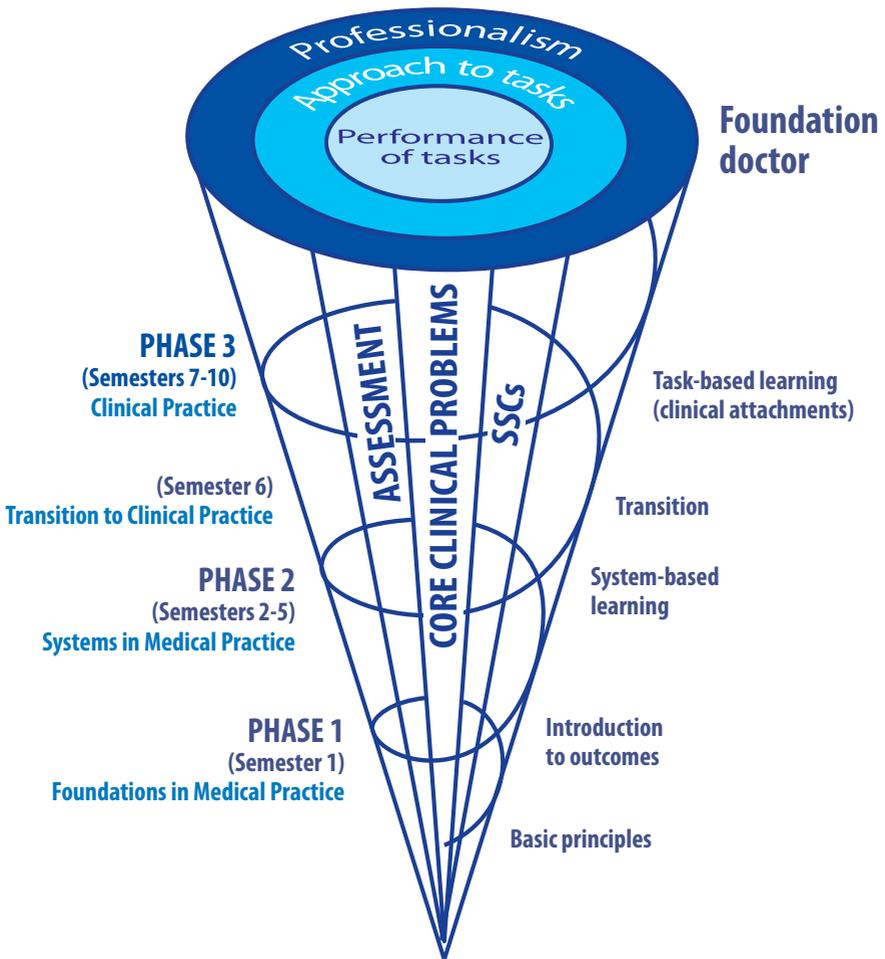
The doctor as a professional

'The right person doing it'

- An understanding of the doctor's role in the health service
- An aptitude for personal development and a demonstration of appropriate transferable skills.

Spiral curriculum

A spiral curriculum has been designed in which students are provided with an overview of the learning outcomes in year one. Patient are introduced early and students build, in each of the three phases, on what they already know.



Curriculum overview

PHASE 1

Semester 1

In this phase the student is introduced to the basic principles that are required for the subsequent study of body systems later in the course. These principles include those of anatomy, biochemistry, physiology, pharmacology, behavioural sciences and safe medical practice. There is also teaching based around Doctors, Patients and Communities and Basic Emergency Care. A particular feature of the course is the early introduction of patient contact with students meeting and reporting on a patient within the first few weeks. Also a start is made on the practical acquisition of clinical skills. An integrated teaching programme ensures that the different elements are put into context.

PHASE 2

Semesters 2-5

Learning in Phase 2 is integrated around body systems and covers both normal and abnormal structure, function and behaviour. Students have a range of clinical experiences in the Clinical Skills Unit, wards and general practice.

Semester 6

Student learning from the systems-based courses in Phase 2 is integrated in the transition block and students are prepared for the change in learning approach and teaching environment required in Phase 3.

PHASE 3

Semesters 7-10

In the task-based approach in years 4 & 5, students further advance their understanding of medicine in the context of a series of clinical attachments. The students' learning is centred around over 100 clinical tasks or core clinical problems which bring together their experiences in the attachments. The core clinical problems are designed to help the students master the competencies required when they take up their Foundation posts.

Systems



A **system-based approach** has been adopted in line with current educational thinking and with the General Medical Council's recommendations. The body systems serve as a focus for learning in Phase 2 of the curriculum. The systems are:

- Dermatological
- Haematological
- Cardiovascular
- Respiratory
- Endocrine
- Gastrointestinal
- Musculoskeletal
- Renal
- Nervous
- Special senses
- Systems in childhood
- Systems in ageing
- Reproductive

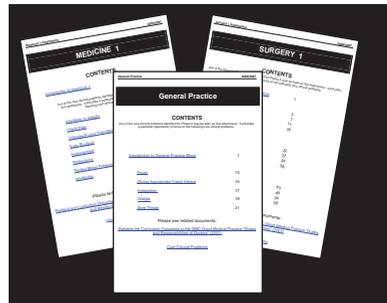
Students integrate their learning about the various medical and science disciplines in the system-based courses, which utilise a range of teaching and learning methods. There is a study guide for each system-based course that identifies the outcomes students are expected to achieve, the educational opportunities provided by the school to help them achieve the outcomes, and methods of checking whether they have satisfactorily achieved the outcomes.

Core clinical problems

The focus for teaching and learning throughout all five years of study is over 100 core clinical problems. Examples of the core clinical problems are:

- Abdominal pain
- Antenatal care
- Breast lump
- Chest pain
- Child abuse
- Confusion
- Deafness
- Eating disorder
- Family planning
- Growth & development
- Hoarseness
- Immunisation
- Incontinence of urine
- Infertility
- Labour
- Leg/foot ulcer
- Loss of vision
- Painful red eyes
- Palpitations
- Paraplegia
- Psychosis
- Raised blood pressure
- Screening
- Shock
- Sick child
- Stridor
- Sudden death
- Thirst
- Transplantation
- Unconscious patient

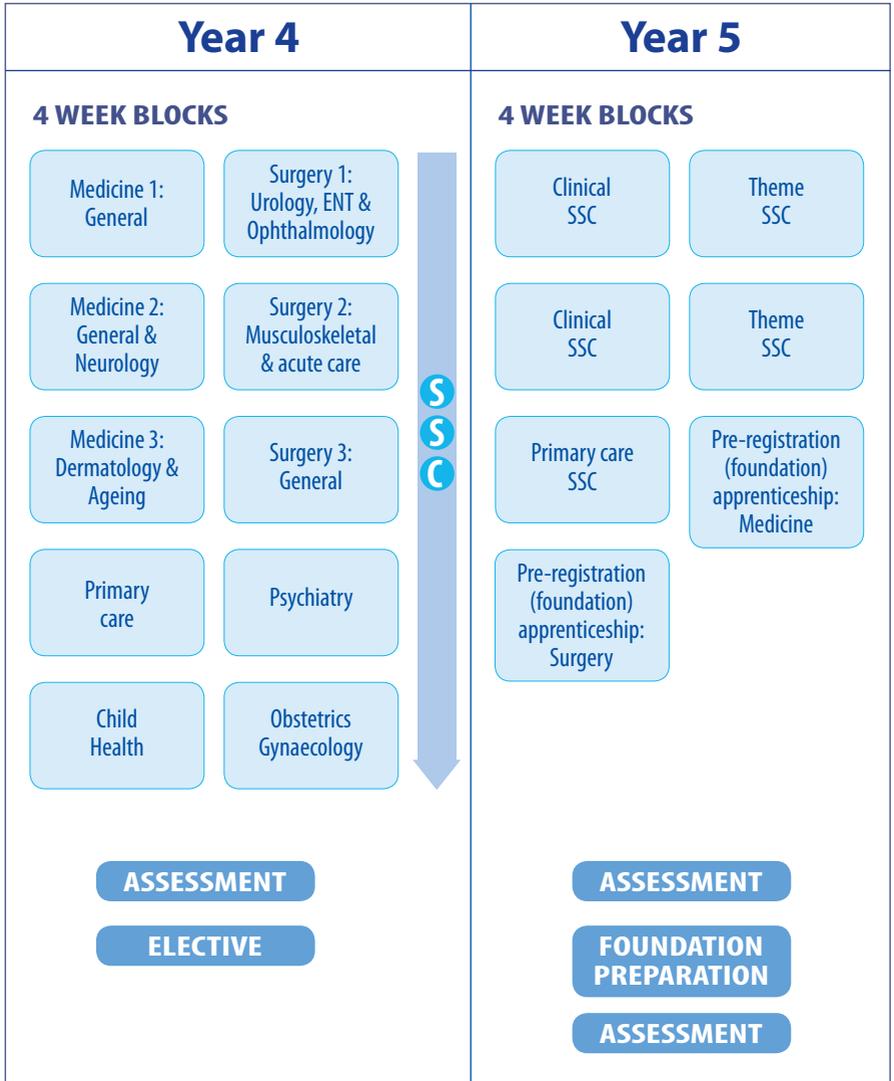
There is a short study guide for each core clinical problem for use in years 4 & 5.



Programme overview

PHASE 1 & 2		PHASE 2	
Year 1	Year 2	Year 3	
<p>Phase 1: SEMESTER 1</p> <p>Introduction to outcomes</p> <p>Anatomy and cell structure</p> <p>Biomedical principles</p> <p>Disease mechanisms</p> <p>Safe medical practice</p> <p>Doctors, patients and communities</p> <p>Basic emergency care</p> <p>Phase 2: SEMESTER 2</p> <p>Dermatology</p> <p>Haematology</p> <p>Cardiovascular</p> <p>SSC</p> <p>ASSESSMENT</p>	<p>Respiratory</p> <p>Endocrine</p> <p>Gastrointestinal</p> <p>SSC</p> <p>Musculoskeletal</p> <p>Renal</p> <p>Consolidation</p> <p>SSC</p> <p>ASSESSMENT</p>	<p>Nervous</p> <p>Ophthalmology</p> <p>ENT</p> <p>Systems in childhood</p> <p>Systems in ageing</p> <p>SSC</p> <p>Reproduction</p> <p>Transition Part 1</p> <p>SSC</p> <p>Transition Part 2</p> <p>ASSESSMENT</p>	

PHASE 3



Core curriculum



The two components – core and student selected components – make up an exciting curriculum. Students master essential competencies in the core curriculum. They also have the opportunity to choose from an interesting range of Student Selected Components (SSCs). Together, these components provide breadth and depth in the curriculum.



The **core component** of the programme emphasises the competencies necessary for a newly qualified doctor to work in the hospital or community. This requires not only the acquisition of knowledge but also the development of the necessary attitudes, skills and professionalism. The core component of the programme covers the 12 goals set out for the Dundee curriculum.

The practical nature of the core curriculum is reflected in the learning opportunities made available throughout the five year programme in a range of clinical settings. These include hospital wards, the community and the clinical skills centre, using models, simulators and simulated patients. Students are encouraged to integrate an understanding of the basic sciences with the practice of medicine.

Student Selected Components (SSCs) comprise approximately one third of the undergraduate course. They help students to achieve certain essential outcomes, including:

- development of abilities in self-directed study
- appreciation of career development
- the ability to conduct literature reviews
- an understanding of research methods

SSCs allow students to study topics of particular interest to them and may help them to choose a branch of medicine as a career. SSCs may be in a variety of areas: a more in-depth study of the core, beyond the core topics or additional topics related to the core, or other topics related to medicine.

Students may construct their own SSCs or choose from a wide selection of modules. The diverse menu of SSCs on offer in Phase 2 includes over 70 modules covering topics such as:

- Cardiology beyond the core
- Hyperbaric medicine
- The pathology and investigation of violence
- Sign language and deaf awareness
- Rational drug design for cancer therapy
- Suicide: that is the question
- Practical French for medical students
- Child birth experience
- Perspectives on medical advances
- Problem-based geriatric medicine



Teaching & learning



The [Dundee Medical School](#) is unique in the range of learning opportunities and facilities made available to students.

Extensive facilities are available within the Tayside Hospitals, including [Ninewells Teaching Hospital](#), one of the most up-to-date and well equipped hospitals in the country. Students also gain valuable experience from attachments to other hospitals in Scotland and elsewhere in the UK.



A feature of the curriculum is that students spend about 10% of their time in [primary care](#). Initial broad community health and professional issues in years 1-3 progresses to general practice clinical attachments in years 4 and 5. These can total 4 months, and are especially valuable to those planning a career in general practice.

A well equipped [Clinical Skills Centre](#) provides students with the opportunity to develop the skills of communication, physical examination and practical procedures in a safe environment. Sophisticated models and simulated patients contribute to this training.



The staff in the [Integrated Teaching Unit](#) collaborates with the system groups to plan the learning within the Integrated Teaching Areas. In the Integrated Teaching Areas different educational strategies are married to traditional and modern illustrative methods to bring about effective horizontal and vertical integration of the curriculum.



The range of teaching approaches is valued both by teachers and students. A small number of [lectures](#) in phases 1 & 2, in which students are encouraged to explore subjects, are delivered by key members of staff, many with national and international reputations in their field. An interactive audience response system is used to encourage active student participation.

A computer suite encourages self-learning using the latest technology, including [My Dundee](#), the university's virtual learning environment.

[Small group work](#) encourages students to develop a critical understanding of the practice of medicine.

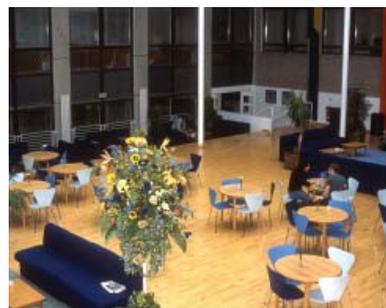
The [Ambulatory Care Teaching Centre](#) provides students with opportunities to interact with real patients. These patients have conditions relating to the system teaching for the week.

A recognised valuable feature in the Dundee curriculum is the use of [study guides](#). These are designed to support student learning throughout the course and to help students to manage their own learning in each phase of the programme. The guides assist students to understand what they should be learning, indicate the learning opportunities available and encourage students to assess the extent to which they have mastered the subject.

Students undertake [apprenticeships](#) for Foundation posts for part of the fifth year.

The School of Medicine is closely linked with the School of Nursing and School of Dentistry and fascinating opportunities are provided for shared [interprofessional](#) learning.

Efforts are made to encourage an environment or climate in the medical school [supportive of learning](#). A medical centre at Ninewells provides an area for refreshment and relaxation that supplements those provided on the City Campus.



Assessment



Dundee has been at the forefront of new approaches to performance assessment in medical education.

Assessment in the Dundee curriculum has a number of features of interest.

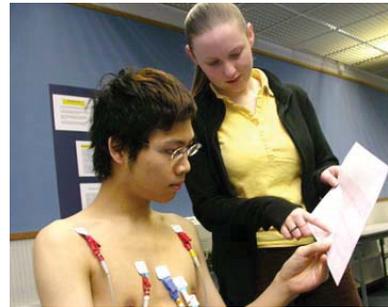
- A range of methods is used including:
 - objective written tests such as extended matching item questions. The objective assessments are taken online
 - the Objective Structured Clinical Examination (OSCE)
 - portfolios.
- The approaches are designed to assess the student's mastery of the curriculum goals and test skills and attitudes as well as knowledge.
- An assessment-to-a-standard approach is adopted which allows students to progress through the curriculum at a rate appropriate to their needs.
- Students receive feedback about their performance; self-assessment by students of their own competence is encouraged.



Themes

A number of themes have been identified which are woven through the systems in each of the phases in the curriculum. They represent important disciplines or discrete areas of knowledge within medicine, which are relevant in several phases and systems. The themes and disciplines are:

- Accident & Emergency
- Ageing and Health
- Anaesthetics
- Anatomy
- Behavioural Sciences
- Biochemical Medicine
- Cancer Medicine
- Child Health
- Clinical Medicine
- Dermatology
- Epidemiology/ Public Health
- Forensic Medicine
- Genetics
- Infectious Disease & Microbiology
- Nutrition
- Obstetrics & Gynaecology
- Ophthalmology
- Orthopaedics
- Otolaryngology
- Pathology
- Pharmacology
- Physiology
- Plastic surgery
- Primary Care
- Psychiatry
- Radiology
- Rehabilitation
- Surgery
- Therapeutics
- Urology



Study in Dundee

Dundee is an excellent place to study medicine, not just in terms of the high quality of the teaching programme and the facilities available, but also in terms of the city's location in the middle of beautiful countryside. The city has a deserved reputation for friendliness.

The medical school encourages applications from students who have done well at school and who have a real commitment to study medicine. A number of places is allocated to mature students and graduates.

We encourage prospective students to visit Dundee and ideally to have some work or shadowing experience in a hospital. We are also interested in individuals who have other broader interests that demonstrate commitment, leadership, communication and organisational skills.

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