



## Faculty of Health & Social Care

### MSc/PG Dip/PG Cert

## Minimally Invasive & Robotic Surgery

#### Start Date:

September

#### Duration:

Full-time: 1 year

Part-time: 2 years

#### Campus:

Chelmsford  
ICENI Centre

#### Fees 2011/12:

Home/EU Full-time:  
£5,150

#### Home/EU Part-time:

£2,600

#### International

Full-time:

£9,500

#### Entry

##### Requirements:

Students must have a recognised primary medical degree that has been approved by the General Medical Council which has been awarded by an institution listed on the Avicenna Directory for Medicine. To be included on the Avicenna directory an institution must have a physical address in the country awarding the qualification.

All applicants will be required to demonstrate the university standard of English language (IELTS) at Level 7 (including written English) prior to commencement on a course.

#### COURSE OVERVIEW

The MSc Minimally Invasive and Robotic Surgery aims to meet the personal, professional and educational requirements of Surgeons continuing their professional development within the clinical field of Laparoscopic Surgery. It will enable students to develop their knowledge, extend and advance their clinical practice to achieve competence in the principles of Minimally Invasive and Robotic Surgery. The pathway provides students with the breadth and depth of experience to fully engage with all aspects of Minimally Invasive and Robotic Surgery, as well as practical training with simulators. There is a strong emphasis on research and evidence-based-practice of this development of clinical practice. In addition, innovation, research and creativity will be fostered in order to enable students to evaluate and influence practice, to improve service delivery and effect change.

#### COMPULSORY MODULES

##### Core Principles of Minimally Invasive and Robotic Surgery

This module is specifically designed to help develop clinical skills in Minimally Invasive and Robotic Surgery and encourage critical understanding of the evidence behind the principles of Minimal Invasive Surgery. It offers evidence-based professional knowledge and skills that contribute effectively to Minimal Invasive Surgery and the emerging field of Robotic Surgery.

The module is based on the fundamental principles of Minimally Invasive and Robotic Surgery including general anatomy, physiological impact of laparoscopy, indications and selection for surgery, understanding the technology and mechanics of instrumentation, core principles of laparoscopic surgery (pneumoperitoneum, complications) and planning of surgery. In addition, patient, staff and equipment safety, and managing clinical emergencies will be taught and assessed, to include analysis of innovative contemporary technology including Robotics.

Specific emphasis will be placed on the care of patients during the preoperative phase,

intraoperative optimisation and postoperative management, including management of complications of surgery and writing a business case for laparoscopic surgery.

##### Global Leadership

This model consists of four elements: effective decision making, adoption of a global approach, creation of a new business paradigm and a contemporary mission. The module also considers the related concept of Mis-Leadership, which looks at how leaders have often failed to achieve the optimum outcomes for those they lead. Leaders predominantly create context and this module will explore the skills required to successfully mould and develop the context in a chaotic environment

##### Research Studies

This module is designed to provide you with a critical overview of the main methodologies and designs applied to research within health and social care, professional practice, regulation and policy. It provides you with an opportunity to explore the theoretical dilemmas that underlie the process of inquiry and its relationship to practice. The module will provide a framework within which to select, evaluate and justify the research methods chosen for your research project.

##### Major Project

The major project is of central importance to the Masters award. You will be expected to bring together aspects of learning from previous modules as well as using the learning as the basis for planning, conducting and writing a research or work-based project. This module will support you in your preparation and submission of a Masters level major project (either a research project or work-based project). There will be eight hours of workshop support available to you during the module. This will be delivered as four two-hour workshops. In addition there will be a full-day introductory workshop before the module commences. You will be allocated a minimum of six hours individual supervisory support with additional supervisory support negotiated between you and your supervisor.



## DESIGNATED MODULES

**In addition to the compulsory modules students select one module from the following list of 4 designated modules to complete the course**

### **Principles of Minimally Invasive and Robotic Surgery – Gynaecology**

This module is designed to provide Gynaecologists currently working or interested in the area of Minimal Invasive Surgery the opportunity to obtain advanced training and knowledge of the theory and practice that support this specialised area of interest. It is set at a level ideal for Specialists Registrars and Consultants or equivalent overseas grades. It can be delivered full time or part-time through a series of intensive modules, which are preceded by distance learning. Students will receive carefully selected learning material in preparation for the module sessions.



### **Principles of Minimally Invasive Laparoscopic and Robotic Surgery – Gastrointestinal**

This taught module encompasses all major aspects of Minimally Invasive Surgery in Gastrointestinal Surgery of the Upper and Lower Gastrointestinal Tract including Robotically Assisted Surgery. The student will be introduced to the vital anatomy and pathophysiology relating to both the upper and Lower GI tract. Students will develop analytical skills in each of these disciplines which are transferable to clinical practice. Experiential learning is essential to the satisfactory completion of this module coupled with laboratory skills in simulated Gastrointestinal Surgery at the ICENI centre and the Post Graduate Medical Institute (PMI).



### **Principles of Minimally Invasive Laparoscopic and Robotic Surgery – Vascular**

This module provides comprehensive knowledge of the principles that underpin the safe and effective use of Minimally Invasive (endovascular, laparoscopic and robotic) Vascular Surgery. It introduces the student to both basic and then advanced scientific and clinical concepts including; general anatomy, pathology and radiological imaging related to vascular disease, ultrasound guided endovenous radiofrequency and laser therapy, vascular interventional radiology, endovascular aortic aneurysm repair, laparoscopic aortic aneurysm repair and associated techniques, laparoscopic aorto-iliac bypass, and developments in robotic vascular surgery.



### **Principles of Minimally Invasive and Robotic Surgery – Urology**

This module encompasses all major aspects of Minimally Invasive Surgery in Urology including endourology, laparoscopy and robotics. The student will be introduced to



the vital anatomy and pathophysiology relating to each of these disciplines and will develop analytical skills which are transferable to clinical practice. Experiential learning is essential to the satisfactory completion of this module and will be coupled with laboratory skills in simulated urological surgery at the ICENI centre and PMI.

## TEACHING AND LEARNING

Teaching will be supported by a range of activities such as; group collaborations, surgical demonstrations, skills stations, live theatre video link, workshops, tutorials, lectures and seminars. These will all be used to build on the students existing knowledge along with a combination of clinical scenarios and real cases.

## ASSESSMENT

A wide range of assessment strategies are used throughout the duration of this pathway including Objective Structured Clinical Examinations, Simulation Practice training Sessions, written assignments, presentations, examinations, research proposal, a major project and portfolio.

## VISA INFORMATION

Anglia Ruskin University is able to make on the spot offers to eligible applicants if you meet the minimum entry requirements for their chosen course. The University is a licensed sponsor under the new Points Based System and is able to assist students in obtaining entry clearance to the UK.

## FOR FURTHER INFORMATION

**To find out more, register your interest or apply free, please contact us:**

**Home/EU students call 0845 196 5346 or email [angela.cobbold@anglia.ac.uk](mailto:angela.cobbold@anglia.ac.uk)**

**For all international student enquiries call +44 (0) 1245 49 5346 or email [angela.cobbold@anglia.ac.uk](mailto:angela.cobbold@anglia.ac.uk)**

**Additional information about all our courses and the University can be found at [www.anglia.ac.uk/fhsc](http://www.anglia.ac.uk/fhsc)**