

**School:** School of Engineering Technology  
And Applied Science (SETAS)

**Program Name:** Medical Robotics &  
Automation

**Credential Awarded:** Ontario College  
Graduate Certificate

**Duration:** 3 Semesters

**Start Date:** Fall 2011

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## medical robotics & automation

### Program Description:

The Medical Robotics & Automation program focuses on developing technical skills in the use of medical instrumentation and automation. Students will learn to design, develop and commission equipment in the medical engineering and pharmaceutical production fields. The program will also cover future growth areas in medical robotics (use of robotics in surgery) and nano-robotics.

### Program Background:

In a technologically focussed world, great strides are being made in medical technology. To meet unprecedented health care demands concomitant with the growth of an aging population, new industrial training programs such as the Medical Robotics and Automation (MRA) program are essential. Medical robotics and automation span the areas of medicine and engineering and include the following:

The development and use of intelligent tools in minimally invasive and remote surgery in disciplines such as radiology, cardiology, neurosurgery, gynecology and oncology

- Hospital automation equipment
- Pharmaceutical production and distribution
- Medical robotics including electro-mechanical robotics and nanotechnology

The MRA program will position graduates at the forefront of emerging technologies. Typical job responsibilities may include:

- Performing sampling, root cause analysis and auditing of manufacturing practices
- Build and troubleshoot medical/pharmaceutical automation equipment
- Problem identification and solving in a medical environment, evaluating operating and maintenance records

### Admission Requirements:

Applicants to this Graduate Certificate program must submit a transcript demonstrating proof of successful completion of a post-secondary degree or advanced diploma in Electromechanical Engineering Technology, or Biomedical Engineering Technology, or Electrical Engineering or related engineering degree. All applicants to Centennial College must demonstrate an acceptable level of English language proficiency in order to be considered for admission.

