

Certificate in Clinical Engineering

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The Certificate in Clinical Engineering will prepare students to work in medical imaging-related jobs and disciplines. Students will be provided the opportunity to pursue educational objectives beyond those normally associated with their academic major in engineering. Certificate holders will be trained to apply mathematical and scientific principles to the operational evaluation of biomedical and health systems and products, such as integrated biomedical imaging systems, instrumentation, medical information systems, and health management and patient care delivery systems. Certificate holders will gain expertise in medical imaging technology, healthcare business acumen, customer relationship management, and specific modality operation and troubleshooting.

Requirements

The 16-credit hour Certificate in Clinical Engineering will be offered as a stand-alone, online certificate. Many of the courses offered for the certificate program may be counted towards technical elective requirements for graduation within the students major.

Required Courses

BME 4972	Engineering in Medical Imaging I: Non-Ionizing Techniques	3
or BIOL_EN 4972	Engineering in Medical Imaging I: Non-Ionizing Techniques	
BME 4973	Engineering in Medical Imaging II: Ionizing Techniques	3
or BIOL_EN 4973	Engineering in Medical Imaging II: Ionizing Techniques	
BME 4974	Medical Image Processing	3
or BIOL_EN 4974	Medical Image Processing	
BME 4001	Topics in Biomedical Engineering (Applications for Clinical Engineering)	3
or BIOL_EN 4001	Topics in Biological Engineering	

Elective Courses

BME 4420	Introduction to Biomedical Imaging	3
or BIOL_EN 4420	Introduction to Biomedical Imaging	
BME 4570	Fluorescent Imaging	3
or BIOL_EN 4570	Fluorescent Imaging	
BME 4770	Biomedical Optics	3
or BIOL_EN 4770	Biomedical Optics	
BME 4970	Nuclear Magnetic Resonance and Magnetic Resonance Imaging	3
or BIOL_EN 4970	Nuclear Magnetic Resonance and Magnetic Resonance Imaging	
CDS 4328	Radiation Safety and Biology	4
RA_SCI 4150	Computed Tomography: Physics and Procedures	6
RA_SCI 4160	Vascular Interventional Radiography	3
ECE 4040	Introduction to Nuclear Physics	3

Contact

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