

COURSE DETAIL

ADVANCED MEDICAL IMAGING

Country

Ireland

Host Institution

Trinity College Dublin

Program(s)

Trinity College Dublin

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Bioengineering

UCEAP Course Number

175

UCEAP Course Suffix**UCEAP Official Title**

ADVANCED MEDICAL IMAGING

UCEAP Transcript Title

ADV MEDICAL IMAGING

UCEAP Quarter Units

5.00

UCEAP Semester Units

3.30

Course Description

The course equips students with an understanding of engineering approaches to advanced biomedical imaging. It strongly focuses understanding the physical processes that occur between a particular imaging modality and the biological material being investigated. This course introduces the physical concepts of advanced medical imaging via lectures focused on specific imaging modalities. Lectures cover various imaging techniques to provide an advanced understanding of the physics of the signal and its interaction with biological tissue; image formation or reconstruction; modality-specific issues for image quality; clinical applications; and biological effects and safety. This course uses state-of-the-art emerging imaging modalities in research and engineering approaches to advance such techniques to the clinic.

Language(s) of Instruction

English

Host Institution Course Number

ME5BIO7

Host Institution Course Title

ADVANCED MEDICAL IMAGING

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department

Engineering

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