

# 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 Course Details

[https://www.tcd.ie/media/tcd/biomedical-engineering/pdfs/2425-ME5BIO7\\_Advanced-...](https://www.tcd.ie/media/tcd/biomedical-engineering/pdfs/2425-ME5BIO7_Advanced-...)

## Host Institution Campus

## Host Institution Faculty

## Host Institution Degree

## Host Institution Department

Engineering

## Course Last Reviewed

2024-2025

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