

COURSE DETAIL

ADVANCES IN BIOMEDICAL SCIENCES

Country

Netherlands

Host Institution

Maastricht University - Center for European Studies

Program(s)

Biological and Life Sciences, Maastricht

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Biological Sciences

UCEAP Course Number

135

UCEAP Course Suffix**UCEAP Official Title**

ADVANCES IN BIOMEDICAL SCIENCES

UCEAP Transcript Title

BIOMEDCL SCI ADVNCS

UCEAP Quarter Units

6.00

UCEAP Semester Units

4.00

Course Description

The purpose of this course is to introduce recent breakthroughs in the physical and biological sciences that are now being explored for biomedical applications. The topics come directly from the research expertise of the lecturers, all of whom are young principal investigators in the new research institutes at the UM: MERLN and M4I. The course covers a broad range of topics, including nanomaterials for regenerative medicine, supramolecular biomaterials, big data and computer learning, electron microscopy, imaging and diagnostic mass spectrometry, and structural biology of tuberculosis. Gain firsthand experience of scientific research taking place at the UM and have the opportunity to visit research laboratories as part of a demonstration of some of the topics discussed in the lectures. In addition to a final content-based oral exam, there are two papers for evaluation. For their midterm, students choose a recent discovery reported in the press and investigate the scientific claims and integrity of the reporting. In the final paper, the student acts as the reporter, and write an opinion piece on a topic of research in either MERLN or M4I; this report is informed by an interview with one of the lecturers. Prerequisites include at least one of: SCI2017 Organic Chemistry, SCI2037 Cell Biology, or SCI2038 Physics. Highly motivated students with a different background should speak to the course coordinators.

Language(s) of Instruction

English

Host Institution Course Number

SCI3050

Host Institution Course Title

ADVANCES IN BIOMEDICAL SCIENCES

Host Institution Course Details

https://courserespository.maastrichtuniversity.nl/p/module/EN/CES_PHME/SCI3050

Host Institution Campus

Maastricht University

Host Institution Faculty

University College Maastricht

Host Institution Degree**Host Institution Department**

Center for European Studies

Course Last Reviewed

2025-2026

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