

## COURSE DETAIL

### BIOMECHANICS

**Country**

Sweden

**Host Institution**

Lund University

**Program(s)**

Lund University

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Mechanical Engineering Bioengineering

**UCEAP Course Number**

155

**UCEAP Course Suffix****UCEAP Official Title**

BIOMECHANICS

**UCEAP Transcript Title**

BIOMECHANICS

**UCEAP Quarter Units**

6.00

**UCEAP Semester Units**

4.00

## Course Description

In the study of physiology and anatomy, the course explores how organs are built and how they work together. The building stones of the human body (bone, articular cartilage, ligaments, tendons, muscles, blood, and body fluids) are described and situated in the context of students' previous knowledge of mechanics and solid mechanics. Concepts like constitutive equations and evolution laws are applied to biological material, like bone, where effects from mechanical loading on the inner structure are modeled. The architecture of the skeleton and the apparatus of locomotion are described as a mechanical system where the bones are coupled together in joints and the activity in the muscles controls the movements.

## Language(s) of Instruction

English

## Host Institution Course Number

BMEN05

## Host Institution Course Title

BIOMECHANICS

## Host Institution Course Details

<http://bme.lth.se/course-pages/biomekanik/biomekanik/>

## Host Institution Campus

Engineering

## Host Institution Faculty

## Host Institution Degree

## Host Institution Department

Engineering - Biomedical Engineering

## Course Last Reviewed

2021-2022

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