### MASTER OF SCIENCE IN BIOTECHNOLOGY AND CHEMICAL ENGINEERING

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<td>Compulsory courses</td>
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| 30 ECTS | 30 ECTS | 30 ECTS | 30 ECTS |

### COMPULSORY COURSES CHEMISTRY

#### SPRING
- Modelling of Biological and Chemical Processes: 10 ECTS
- Innovation and Entrepreneurship: 5 ECTS

#### FALL
- Sensors and Process Control: 10 ECTS
- Transport Phenomena: 5 ECTS

### COMPULSORY COURSES BIOTECHNOLOGY

#### SPRING
- Modelling of Biological and Chemical Processes: 10 ECTS
- Innovation and Entrepreneurship: 5 ECTS

#### FALL
- Protein and Carbohydrate Biotechnology: 10 ECTS
- Lipid Biotechnology: 5 ECTS

### SPECIALISED STUDY PACKAGES

Choose two of the specialised study packages.

#### SPRING:
- Plastic Materials
  - Advanced Polymer and Nanomaterials: 10 ECTS
  - Plastic Engineering: 5 ECTS
- Biorefining Technology
  - Integrated Biorefining Technologies: 10 ECTS
  - Experimental Biorefining: 5 ECTS
- Medical Biotechnology
  - Immunological Biotechnology: 10 ECTS
  - Biomolecular Interactions: 5 ECTS
- Chemical Processing
  - Modern Chemical Process Technologies: 10 ECTS
  - Platform Chemicals and Synthesis in Continuous Flow: 5 ECTS

#### FALL:
- Process Technology
  - Sensors and Process Control: 10 ECTS
  - Transport Phenomena: 5 ECTS
- Energy and Storage
  - Membrane Technology and Batteries: 10 ECTS
  - Power to Gas: 5 ECTS
- Environmental Technology
  - Chemical Environmental Technologies: 10 ECTS
  - Biological Environmental Technologies: 5 ECTS
- Biomaterial Engineering
  - Biofabrication: 10 ECTS
  - Tissue Engineering: 5 ECTS
- Applied Lipid and Protein Biotechnology
  - Applied Protein Biotechnology: 10 ECTS
  - Applied Lipid Biotechnology: 5 ECTS
- Biomacromolecules
  - Protein and Carbohydrate Biotechnology: 10 ECTS
  - Lipid Biotechnology: 5 ECTS

### ELECTIVE COURSES

Choose courses from the specialised study packages or other courses at the Department of Engineering, and the broader Faculty of Science approved by the study program manager. AU Course Catalogue: [kursuskatalog.au.dk/en/](https://kursuskatalog.au.dk/en/)