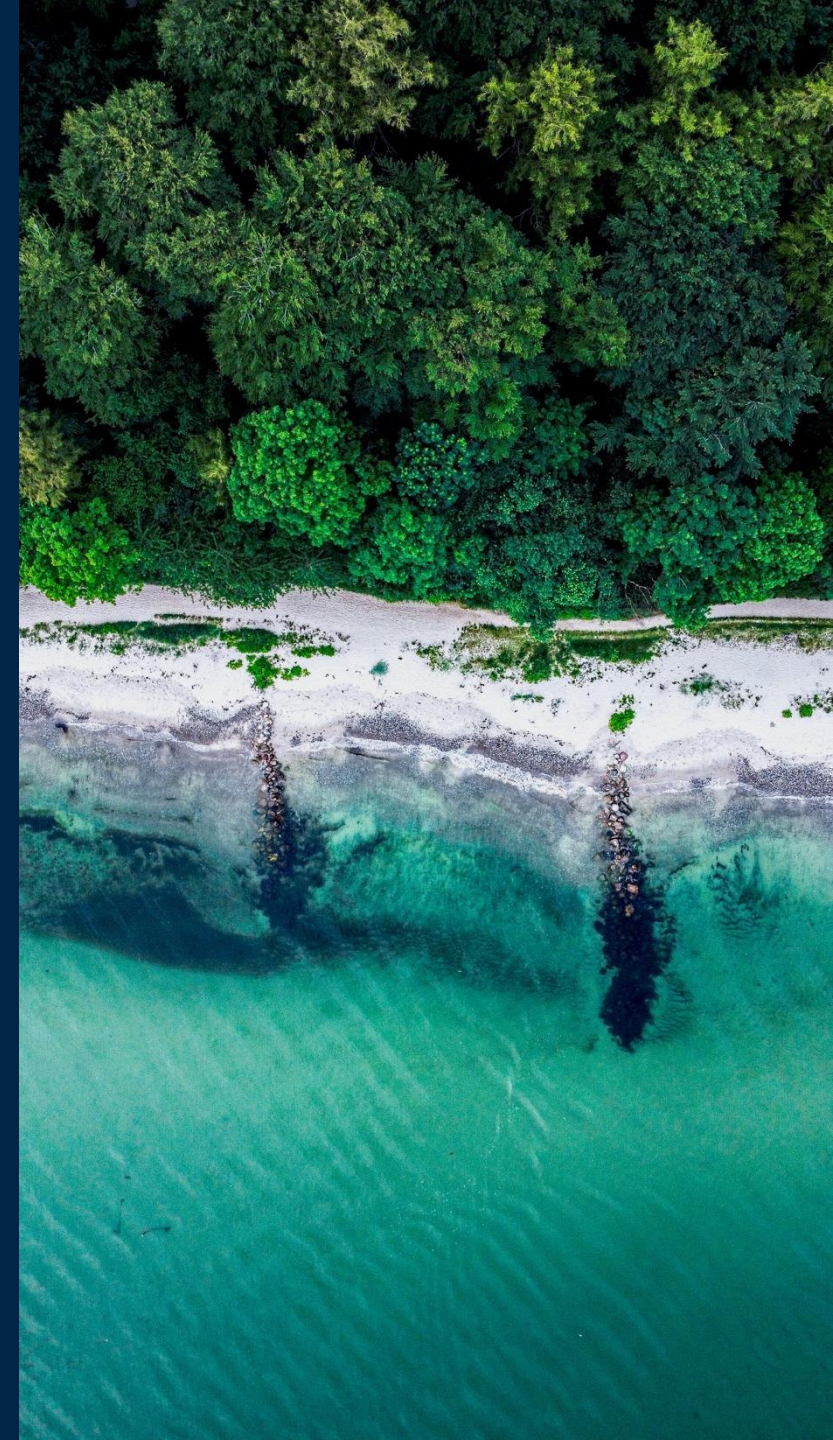


AARHUS UNIVERSITY

MSC BIOTECHNOLOGY AND CHEMICAL ENGINEERING

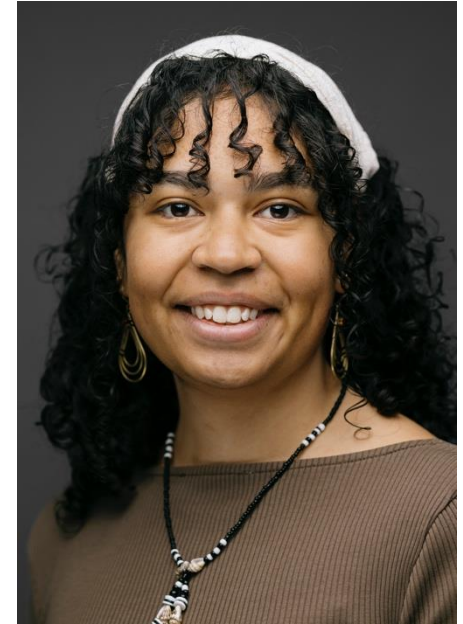
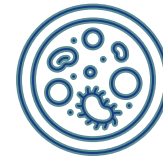
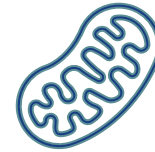


WHO AM I?

Johanne Warenu Mark

5th semester BAs student in Biotechnology

Student counsellor for Biotechnology and Chemical Engineering



AGENDA

- **Study structure**
- **Mandatory courses**
- **Specialization packages**
- **Electives**
- **Schedule**
- **Contact information**



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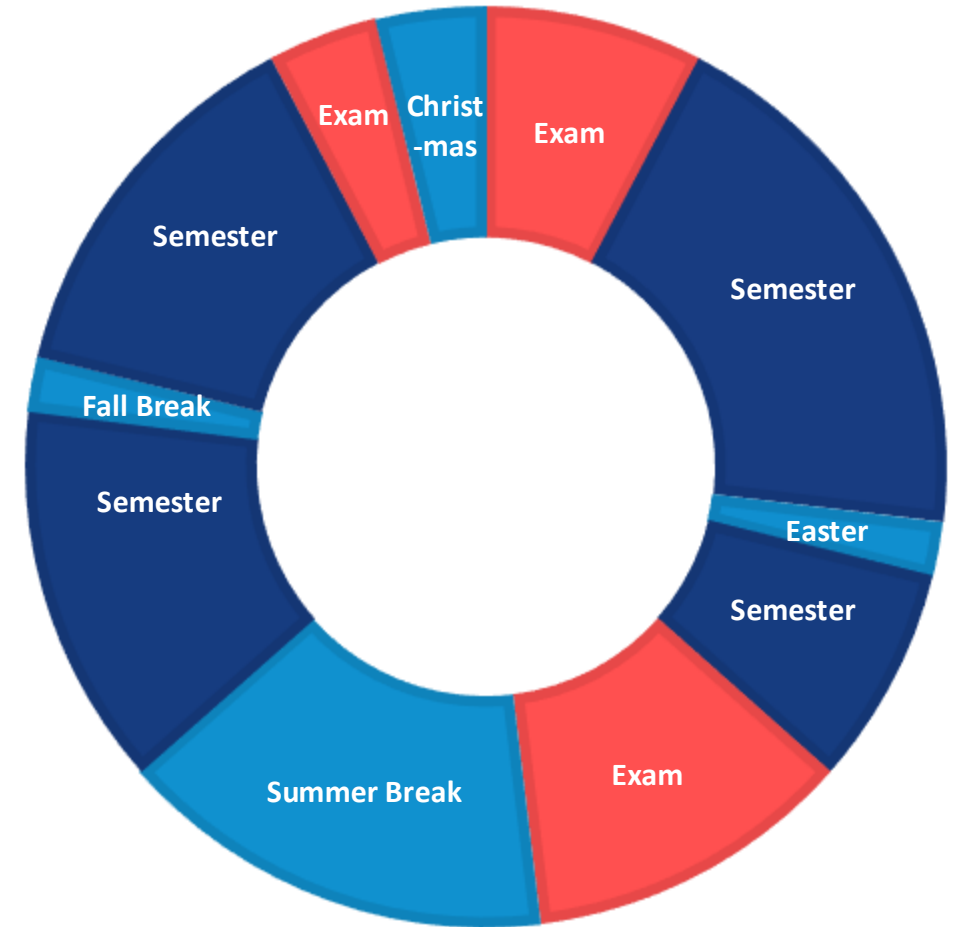
OVERVIEW

General structure:

- 120 ECTS total
- 4 semesters (2 years)
- 30 ECTS per semester
- Usually 3-5 courses per semester
- 15 weeks of lectures per semester

Teaching hours per week: Typically 24 hours

Total workload per week: Around 40-50 hours



STUDY STRUCTURE (WINTER START)

Option 1:

1. semester (S)	Elective (5)	Mandatory (10)	Specialisation package (15)
2. semester (F)	Mandatory (15)		Specialisation package (15)
3. semester (S)	Electives / Study abroad (30)		
4. semester (F)	Master thesis (30)		

Option 2:

1. semester (S)	Elective (5)	Mandatory (10)	Specialisation package (15)
2. semester (F)	Mandatory (15)		Specialisation package (15)
3. semester (S)	Electives (15)		
4. semester (F)	Master thesis (45)		

Option 3:

1. semester (S)	Elective (5)	Mandatory (10)	Specialisation package (15)
2. semester (F)	Mandatory (15)		Electives (15)
3. semester (S)	Specialisation package (15)		Electives (15)
4. semester (F)	Master thesis (30)		

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MANDATORY COURSES

Biotechnology programme:



1. semester (spring):

- Industrial Bioseparation Technologies (5)
- Microbial Biotechnology (5)

2. semester (fall):

- Lipid Biotechnology (5)
- Protein and Carbohydrate Biotechnology (10)

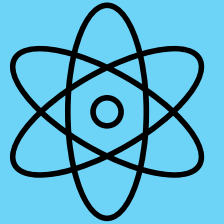
Chemical Engineering programme:

1. semester (spring):

- Modern Chemical Process Technologies (10)

2. semester (fall):

- Transport Phenomena (5)
- Sensors and Process Control (10)



Course descriptions for all courses can be found in the [course catalogue](#)

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SPECIALISATION PACKAGES

FALL COURSES ECTS

Biomacromolecules (mandatory for biotech.)

Lipid Biotechnology	5
Protein and Carbohydrate Biotechnology	10

Applied Lipid and Protein Biotechnology

Applied Lipid Biotechnology	5
Applied Protein Biotechnology	10

Biomaterial Engineering

Tissue Engineering	5
Biofabrication	10

Environmental Technology

Air Treatment Technologies	5
Water Treatment Technologies	10

Energy and Storage

Renewable Energy Technologies	5
Energy Conversion and Storage Technologies	10

Plastic Materials

Plastics Engineering	5
Advanced Polymer and Nanomaterials	10

Process Technology (mandatory for chem. eng.)

Transport Phenomena	5
Sensors and Process Control	10

SPRING COURSES ECTS

Industrial Biotechnology

Biocatalysis and Enzymatic Processes	5
Microbial Cell Factories	10

Medical Biotechnology

Biomolecular Interactions	5
Immunological Biotechnology	10

Computational Systems Biology

Applied Systems Biochemistry	5
Systems Biochemistry	10

Biorefining Technology

Experimental Biorefining	5
Integrated Biorefining Technologies	10

Chemical Processing

Catalysis and Materials Engineering	5
Platform Molecules – Production and Processes	10

Remember, It is possible for you to take two spring packages instead of one fall and one spring

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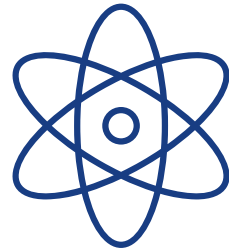
ELECTIVES

You can choose whichever course you like as an elective as long as:

1. It is a relevant master level course
2. You fulfil the academic prerequisites
3. It fits into your study plan (fall/spring and ECTS)

It is possible to follow courses from other departments at Aarhus University

You can also choose to do a 5 to 20 ECTS Research and Development Project (with or without industry)



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SCHEDULE

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
8:00		8.15 – 12.00	8.15-12.00	8.15-12.00			
9:00		Classroom	Classroom	Classroom			
10:00							
11:00							
12:00	12.15-16.00	12.15-16.00			12.15-16.00		
13:00	Classroom	Practical exercises			Practical exercises		
14:00							
15:00							
16:00							

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WANT TO LEARN MORE?

Web:

- **Overview of the programme:** masters.au.dk/biotechchemical
- **Study portal:** [Studerende.au.dk/en/](https://studerende.au.dk/en/)
- www.international.au.dk/education/meetau/chat-with-our-students

Contact:

Admission's office: Master's programmes: ma.admission@au.dk

International Center: Questions regarding practical matters: ic@au.dk

BCE Student Counsellor (Johanne): studievejledning1.nat-tech@au.dk





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