

Rules and regulations

Kaj-Åge Henneberg

Director of Undergraduate Studies, Biomedical Engineering

B.Sc. and M.Sc. projects

En bachelor fra DTU:

- kan **arbejde selvstændigt** og er i stand til at **strukturere** et større arbejde, herunder overholde tidsplaner og **organisere og planlægge** arbejdet.
- kan sammenfatte og tolke teknisk information og **behersker teknisk problemløsning** gennem projektarbejde.
- er i stand til at arbejde med alle faser i et projekt, herunder udarbejdelse af forslag, løsning og dokumentation.
- er i stand til **selvstændigt at tilegne sig ny viden** og er desuden i stand til at forholde sig kritisk til tilegnet viden samt udføre relevant og **kritisk informationsøgning** og på den baggrund finde de rette metoder, til at belyse den aktuelle problemstilling.
- kan **formidle teknisk information**, teori og resultater skriftligt, visuelt/grafisk og mundtligt.

<https://studieinformation.dtu.dk/Bachelor/Medicin-og-Teknologi/Studieordning#Bachelorprojekt>

A graduate of the MSc programme from DTU:

- can identify and reflect on technical scientific issues and understand the interaction between the various components that make up an issue
- can, based on a clear academic profile, apply elements of current research at an international level to develop ideas and solve problems
- masters technical scientific methodologies, theories, and tools, and can take a holistic view of and delimit a complex, open issue, put it into a broader academic and societal perspective, and, on this basis, propose a variety of possible actions while considering sustainability
- can develop relevant models, systems, technologies, and processes aimed at solving technological problems
- can communicate and mediate research-based knowledge both orally and in writing
- is familiar with and can seek out leading international research within their specialist area.
- can work independently and reflect on own learning, academic development, and specialization
- masters technical problem-solving at a high level through cross-disciplinary teamwork, and can work with and manage all phases of a project – including preparation of timetables, design, solution, and documentation

[https://studieinformation.dtu.dk/english/master-of-science-in-engineering/biomedical-engineering/programme-specification#Master's thesis](https://studieinformation.dtu.dk/english/master-of-science-in-engineering/biomedical-engineering/programme-specification#Master's%20thesis)

- **Finding a project:**

- The student must actively find a project. Visit home pages, talk to researchers.
- Choose a supervisor who is not overloaded with student projects. Is the supervisor the professor or a PhD student?

- **Project agreement:**

- If the project is with a supervisor located at DTU, the supervisor registers the project in DTU's database no later than 14 days before project start.
- If the project is with a supervisor located at KU SUND, the project is registered with Nina Kjærgaard. Nina will forward information to KU SUND. Ask the supervisor/Nina what information is needed.
- Director of studies will disapprove if project is outside the focus of the education. If you hear nothing from the director of studies, you can assume that the project has been approved.
- Study administration acknowledge the project by mailing the supervisor and students an e-mail receipt.
- BSc & MSc: 1 to 4 students

Rules and requirements	B.Sc.	M.Sc.
Minimum ECTS to start	120 ECTS.	75 ECTS.
Duration (ECTS)	15, 17.5, 20. 9 weeks plus 3 weeks per 5 ECTS simultaneous course work.	30, 32.5, 35. 5, 5½, 6 months.
Documenting qualifications	Supervisors may ask to see grades.	Supervisors may ask to see grades.
Can supervisors reject a student or a project?	Yes.	Yes.
Project binding	From first day in project period.	From first day in project period.
Discontinuing a project	You may decide to discontinue a project and start another within a nonrelated topic. You have three attempts.	You may decide to discontinue a project and start another within a nonrelated topic. You have three attempts.

Rules and requirements	B.Sc.	M.Sc.
Project start date	As soon as possible, but no specific date.	As soon as possible, but no specific date.
Project plan	One month after starting date. The original and a revised project plan must be submitted at the end of the project.	One month after starting date. The original and a revised project plan must be submitted at the end of the project.
Evaluation	Written report in a Scandinavian language or English. Oral defense.	Written report in English. Oral defense.
Grading	7-step scale, external examiner.	7-step scale, external examiner.
Exam date	Supervisor and student agree.	Supervisor and student agree.
Exam organizer	Supervisor.	Supervisor.
Deadline for exam	Within 10 days of submission.	Within 10 days of submission.

- **Weekly meetings** of one hour for the whole project group. Meetings should not be canceled.
- A **group contract** defining expectations and sanctions if there is more than one student in the project.
- Project group is encouraged to write a **weekly log**, max one page, where they:
 - Review what has been accomplished since the last meeting.
 - Describe unresolved problems encountered since last meeting.
 - Discuss decisions to be made.
 - List next weeks tasks.
 - Discuss the status of the time schedule.
- Mail the log to all supervisors at least 24 hours before the weekly meeting.
- The students plan and steer the meetings. **No plan, no help.**
- Discuss nature and frequency of assistance with supervisor.
- **The supervisor is only a consultant, not an active problem solver.**

Typical tasks of a project.

	Task	BSc	MSc
1	Literature study and narrowing the scope of the project.	1 week	2 weeks
2	Detailed plan. Introductory experiments and/or programming.	2 weeks	4 weeks
3	Short mid-term report.	1 week	1 week
4	Project.	3 weeks	10 weeks
5	Writing report. (No experiments!).	2 weeks	3 weeks
6	Plan and prepare oral presentation.	1 week	1 week
		9 weeks	20 weeks

Elements	Recommendations
Significance:	The report is the first impression and one that can be very hard to change in a positive direction.
Structure:	Make a tentative plan for the report structure and discuss it with the supervisor within the first four weeks.
Feedback:	Discuss nature and frequency of feedback on report writing with supervisor.
Length:	No specific expectations to page numbers. Too many is just as bad as too few.
Writing style:	Apply “academic language style”. Professional terminology.
Editing:	Do thorough editorial reading and correct mistakes (spelling, missing parts, missing references). This is not the task of the supervisor.
Writing tools:	Use professional writing tools like Word or LaTeX (e.g., Overleaf).

- Exam
 - Your objective must be to show the depth and scope of your knowledge.
 - Present both the relevance, scope and technical depth of the project.
 - In the oral presentation, share technically deep topics equally among team members.
 - Always argue your explanations based on evidence.
 - Be prepared to answer questions of methods and facts without consulting written material.
 - Be prepared to reflect on the strength of decisions you have made and what alternatives you could have chosen.

Questions?