

Teacher's FAQ

Department of Computer Science

Revised January 12, 2024

Scheduling a course

- The [academic calendar](#) lists teaching, examination and re-examination periods.
- Time and location will be published in the [timetable](#) prior to semester start.
- How do I change the number of hours for my course?
 - The number of hours is specified in the course description. If the number of hours must be changed, it must therefore be changed in the course description.
 - For master level courses there should be at least 5 hours scheduled per week and for bachelor's courses at least 6 hours per week.
- How do I communicate restrictions to the schedule?
 - In the previous year, the course coordinator will receive an email asking you to report restrictions. You will be asked in approximately October of year x for changes and restrictions to the schedule in the fall of year x+1. You will be asked in approximately March of year z for changes and restrictions to the schedule in the spring of year z+1.
- "Academic quarter":
 - Teaching 10-11 means you teach from 10:15-11. The 15 minutes delay is the "academic quarter" that allow students and instructors time to move between activities on campus. Teaching 10-12 means that you have a break 11:00-11:15, so you teach 10:15-11:00 and again 11:15-12:00.

Planning and teaching a course

- [Web portal for students](#)
- Course descriptions
 - [AU Course catalogue](#)
 - Twice a year teachers receive a call for changes to the course description. Then you may submit changes. Ideally, you first formulate the objectives (learning goals) of the course then you design a form of examination that is customized to measure in detail to what degree the student satisfies the learning goals. Finally, you select a course contents and teaching method that helps them to perform well at the exam.
 - See <https://stll.au.dk/en/resources/learning-objectives-taxonomy-and-course-descriptions/>
 - See more about [constructive alignment](#) and the video "Teaching Teaching – Understanding Understanding":
https://www.youtube.com/results?search_query=Teaching+Teaching+%E2%80%93+Understanding+Understanding .
 - There has been some discussion about the benefits and drawbacks when hand-ins/projects during the course counts towards the final grade. This may be a source of student stress. At the end of this document is an appendix, "Continuous Testing", listing some proposals for best practice in this regard.

- Changes to existing courses and descriptions of new courses are submitted using the Course Catalogue Editor <https://cce.au.dk/>.
- Expect the deadline for fall courses to be in the previous December/January and expect the deadline for spring courses to be in the previous June/August. Note that the deadline for information used in scheduling the courses (number of weekly hours etc.) is earlier.
- Course administration web services
 - Brightspace (joint learning management system at Aarhus University) <https://educate.au.dk/en/teaching-with-technology/technical-guides/brightspace/>.
 - Note that all ordinary courses in the course catalogue will be set up automatically in Brightspace.
 - Brightspace course pages for unofficial courses like PhD courses, TA teaching courses, can [be requested here](#).
- How to get on the mail alias for teachers at the department
 - The Department of Computer Science has a mail alias for the lecturers and it is very important that all lecturers are on the mail alias.
 - Please send an email to Helena Luna Bach hlb@cs.au.dk to get on the laerer.cs@maillist.au.dk alias.
- How does my course fit into the (Bachelor) study program / box diagram
 - <http://bachelor.au.dk/en/computerscience/> (select “uddannelsens opbygning”)
 - <http://bachelor.au.dk/en/itproductdevelopment/> (select “uddannelsens opbygning”)
- Course workload and ECTS
 - One ECTS is equivalent to 28 hours of work (EU definition is 25-30 hours of work).
 - A 10 ECTS course requires the student to work 280 hours all included (classes, homework, examination, preparation).
 - The workload should be distributed evenly. For a 10 ECTS semester course the workload is 15 hours weekly over the 14-week teaching period and the remaining 70 hours are spent in the 1-week mid-semester break, the 2-week break between the teaching period and the examination period, and during the examination period preparing for the examination.
 - Ideally, the course website (slides for the first lecture) explains to the students how they are supposed to spend their time. As an example you may specify that the 15 hours weekly during the 7 weeks of teaching are spent like this
 - 4 hours of lectures
 - 3 hours of exercise classes
 - 2 hours for preparing lectures
 - 2 hours for preparing exercise classes
 - 4 hours for solving homework assignments
 - If there are study café hours associated with the course, then the preparation and the home work can take place in the study café
 - Deadlines for project work in a course should be within the teaching period, so the breaks and the examination period is free to prepare for the examinations in this and other courses
- Improve quality of teaching
 - [Centre for Educational Development](#) offer various support, including
 - Online Teaching / Examinations: help and guidelines
 - Teaching with technology
 - Courses: e.g. teacher training <https://ced.au.dk/en/courses/>.

- The Department offers Introduction to Science Teaching to all teaching assistants each semester.
- Teaching Assistants
 - The teacher of mandatory courses and in some cases elective courses may have help from teaching assistants (TA's)
 - The teacher is expected to conduct weekly meetings with the TAs to ensure a common understanding of the goal of the exercise classes, rules for grading hand-ins, etc. Preferably, solutions to exercises are distributed to the TAs at the weekly meetings including explanation of the points of an exercise and possible pitfalls. At the meeting, pros and cons of solution alternatives may be discussed as well. This allows the TAs to concentrate on helping the students as opposed to spend their paid time working solutions out themselves.
 - TAs get paid for 10 hour/week. At most 4 of these hours can be exercise classes.
 - Most bachelor's courses have the participants divided into classes with 20-25 students per class for so-called "theoretical exercises". In such case, one TA is assigned per class.
 - For Master's courses, you don't get a TA, when less than 40 students sign up. For 40-59 students you get one TA (but no TAs if you are already two persons teaching the course). For 60-79 students you get 2 TAs if you are 1 person teaching the course, if you are more teachers you will only get TAs by special agreement.
 - If you need extra TAs beyond the above principles, you must apply by answering an email call sent out twice a year (May & November) before the TA hiring for the next semester. Exceptions may be when developing a new course, developing new material, use of special software packages requiring support, restructuring a course etc.
- Course evaluations
 - All courses are evaluated at the end of the semester, and you actively participate in the evaluation of your course and interact with the students, see <https://educate.au.dk/en/teaching-with-technology/technical-guides/brightspace/managing-a-course/course-evaluation/>
 - The Head of Department and the Chairman of the Education Committee will receive the complete course evaluations and may contact the lecturer for a dialogue on how to remedy possible problems.
- Buying books / printing material
 - Students may buy books at [Stakbogluden Naturfag](#).
 - Please let the [bookshop](#) know which books you want the students to buy several months before teaching starts.
 - Books for you or for TA's are ordered via the [bookshop](#). You have to supply account/payment information when ordering. Your research group coordinator can help with this.
 - If you require customized compendia, you may negotiate a printing of a custom collection with the relevant publisher (most publishers offer such deals).
 - Alternatively, you may make your own compendium for printing locally, see <http://trykkeri.au.dk/en/>. In this case you must respect the [copy right rules](#) negotiated with the university.
- [Copyright](#)
- Illness

- If you fall ill on a day, where you have lectures and if it is not possible to find a replacement lecturer, you may have to cancel the lecture. With only few attendants rescheduling may be an option.
- In any case, please notify participants via email using the course administration system.
- Project work (formerly Study groups)
 - A "project work" activity is 5 or 10 ECTS and the number of participants are normally 1-3 master students.
 - The activity is supervised by a tenure track ass. / assoc. / full professor at the department.
 - A "project work" activity must follow the course description for "project work in computer science" / "project work in IT-product development", see the course catalogue [https://kursuskatalog.au.dk/en?search=Project work&department=15](https://kursuskatalog.au.dk/en?search=Project%20work&department=15).
 - Concerning formalia:
 - The participants include the project work in their master's contracts and sign up for it like any other course.
 - In addition, the students must make a project work contract using the web service <https://kontrakt.nattech.au.dk/> before the start of the project. The contract contains a project description (pdf document) and specifies supervisor and dates. For restriction on dates and submission time, see the newest course description [https://kursuskatalog.au.dk/en?search=Project work&department=15](https://kursuskatalog.au.dk/en?search=Project%20work&department=15).
 - The student hand-in the project work report through digital exam.

Ordinary Exams

- The [academic calendar](#) lists teaching, examination and re-examination periods
- Who is planning the exam?
 - The Study Administration plans time and place for all written and oral exams in courses.
 - The main supervisor plans time and place for the oral defense for master's theses, bachelor projects, project works and vocational training projects.
 - The teacher finds the co-examiner/external examiner. See External examiner / co-examiner -bullet
- Time and location are listed in [the examination schedule](#).
- How to find participants lists WITH STUDENT ID NUMBERS (login required):
 - <https://timetable.scitech.au.dk/adgang>
 - Contact Sille Stenild stenild@au.dk to get username and password.
- Form of examination
 - The course description contains detailed information about the form of examination in the specific course, see the [course catalogue](#). The course description must be followed! This includes
 - [Project work](#)
 - [Vocational training project](#)
 - [Bachelor's project](#)
 - [Master's thesis](#)
 - For changes to the course description, see "Course description bullet".
- External examiner / co-examiner

- **External co-examiner.** If the course description specifies external grading then an external co-examiner from the list <https://services2.brics.dk/censor/> must participate in the grading. An external co-examiner cannot be used within 2 years from the latest AU employment. This also applies to adjunct faculty, external lecturers, and employment at other faculties within AU.
- **Oral examination.** At oral examinations there must always be at least two examiners or examiner+co-examiner present.
- **"Law on access to documents" applies to examiner's notes:** It is compulsory for the examiner and the co-examiner to take notes during grade deliberation for use in case there is a complaint. The student and other citizens can claim these notes according to the law on public access to documents. The law on access to documents also applies to other notes that have been taken during an oral exam, and to the examiners corrections and comments to written exams - therefore use courtesy language. The notes must be kept for at least one year and in addition until the processing of any complaints has been completed.
- **Internal co-examiner.** The requirement for an internal co-examiner is the same as the requirement for an examiner. You must be ass., assoc. or full professor.
- **No mutual co-examination.** This requirement applies to both internal and external co-examiners. When there are several teachers on a course, they may conduct the exam together. For Master's theses mutual co-examination is also acceptable.
- **Number of examination attempts**
 - If a student passes an exam, then the grade cannot be improved by retaking the exam.
 - If a student fails an exam, then he/she may retake the exam up to a total of 3 examination attempts.
 - In special circumstances, the Study Administration may grant a 4th examination attempt.
- **Grading**
 - The course description specifies whether to use pass/fail grades or the 7-scale.
 - The Danish grading scale (7-skalaen) is described in [karakterskalabekendtgørelsen](#)
 - 12: For an excellent performance displaying a high level of command of all aspects of the relevant material, with no or only a few minor weaknesses.
 - 10: For a very good performance displaying a high level of command of most aspects of the relevant material, with only minor weaknesses.
 - 7: For a good performance displaying good command of the relevant material but also some weaknesses.
 - 4: For a fair performance displaying some command of the relevant material but also some major weaknesses.
 - 02: For a performance meeting only the minimum requirements for acceptance.
 - 00: For a performance which does not meet the minimum requirements for acceptance.
 - -3: For a performance which is unacceptable in all respects.
 - The grading is absolute and based on the objectives (learning goals) stated in the course description. However, Danish grades are translated to the relative ECTS grade scale, where the distribution of pass grades is expected to be approximately

Danish grade	percentage	ECTS equivalent
12	10%	A
10	25%	B

7	30%	C
4	25%	D
02	10%	E

- Examination protocols
 - All grades are given through digital eksamen (DE) <https://eksamen.au.dk/>
 - For help regarding DE, see <https://medarbejdere.au.dk/en/administration/au-studies-administration/study-systems/digital-exam/assessor/>
- Written exams (online)
 - You will receive instructions from Silje Stenild stenild@au.dk or one of her colleagues.
- Written exams (paper-based)
 - Assignments for written exams must be prepared by the teacher, and he/she can get help on copying the assignments by our [student assistants](#). Silje Stenild stenild@au.dk (or one of her colleagues) will send you a front page template that you must fill out and attach.
 - The pile of assignments must be packed and submitted to the examination supervision, 1st floor in Fredrikshus, room 123 (building 1445), Att. Louise Elbro by the teachers themselves. The student assistants might help transporting the assignments to the examination supervision.
 - Note that the assignments must have reached the examination supervision **no later than 5 weekdays** before the exam.
 - Please notify the examination supervision at eksamenstilsyn@au.dk ASAP if you need to make changes after the deadline.
 - You will be contacted if you have to take action with regards to making USB keys for students, who have been granted special terms and conditions for their exam.
- How to handle exam anxiety
 - Information for examiners: http://nat.medarbejdere.au.dk/fileadmin/site_files/studier/Exam_anxiety_long_UK.pdf
 - Information for students: <http://studerende.au.dk/en/boost-your-student-life/>
- Students with disabilities
 - Students with disabilities, such as dyslexia = dyslectic or read and writing problems or wheelchair bound.
 - Students with disabilities may apply to the board of studies for dispensation like extended examination time, examination in a private room, use of computers for exams, etc. Applications should be sent via the self-service system (<https://mitstudie.au.dk/>). The student can apply for special educational support (PC and special tools) at the Counselling and Support Unit at AU.
 - If a student wishes to have prolonged time for the examination for an **oral examination** (e.g. due to stuttering or other speech problems), he can make the examiner aware of this in due time before the exam. In the exam situation, the internal and external examiners must show due consideration towards the student. Therefore, it is acceptable to spend extra time in the examination, if it is clear that there is a need for it. The student should not apply for prolonged time to the Board of Studies. However, the student must always apply for prolonged preparation time to the Board of Studies.
 - The examiner is not allowed to promise a student prolonged time at **written exams**. If a student needs to have prolonged time at a written exam, he/she should contact

Rådgivnings- og Støtteenheden (Counselling and Support Unit) and apply to the Board of Studies for prolonged preparation / examination time.

- Cheating
 - At the course web site you may refer the students to this [web site](#)
 - If you discover cheating then follow these [guide lines](#)
- If you fall ill
 - If the examiner falls ill during or before an (oral) exam, the default is that the exam continues with a replacement examiner, since cancellation will create scheduling problems – and the students supposedly have prepared to take the exam at this very point in time.
 - If you are not able to find a colleague that can replace you then please contact the Chair of the Teaching Committee
- If the student falls ill
 - <http://studerende.au.dk/en/studies/subject-portals/computer-science/examination/illness-in-connection-with-exams/>

Reexams

- Fall courses have reexamination late May, and spring courses have re-examination in August, see [the examination schedule](#).
- Are there any special rules for re-examination when few people have signed up?
 - There are no special rules for re-examination when few people have signed up.
 - Generally, the exam form is the same for ordinary exam and re-exam

Master's Thesis Supervision

- General information:
<https://studerende.au.dk/en/studies/subject-portals/computer-science/bachelors-project-masters-thesis-and-other-projects/masters-thesis/>
- Course description: <https://kursuskatalog.au.dk/en?search=thesis%20-%2030%20ects&department=15&page=1>
- Information meeting for students: see link to slides “specialeorientering” in right column <https://studerende.au.dk/studier/fagportaler/datalogi/undervisning/studieorientering>.
- Theses written in the spring: start date 1st February, submission date 15th June, completion date 30th June.
- Theses written in the fall: start date 1st September, submission date 15th January, completion date 31st January.
- The thesis contract should be filled out and approved before the start date <https://kontrakt.nattech.au.dk/>.
- The students submit the thesis using “[Digital Eksamen](#)”.
- The oral exam must take place no later than the completion date.
- What are the obligations of main supervisor and project supervisor, respectively?
From the Master's Thesis course description: *The Master's thesis is prepared under the guidance of one or more academically qualified and research-active supervisors. One main supervisor is appointed. The student's main supervisor is appointed and approved by the department where the degree programme is offered. All tenured professors, associate professors, senior researchers, tenure track assistant professors, and tenure track researchers at Faculty of Natural Sciences can act as main supervisors once they have been approved. Other supervisors are assigned to the*

project as project supervisors. Scientific research-active employees at Aarhus University, other public research institutions or private research institutions/companies can be appointed as project supervisors. Project supervisors must be approved by the head of department where the degree programme is offered.

If one or more project supervisors are assigned, an agreement is entered into with the main supervisor, specifying the workload allocation between the supervisors, so that the main supervisor ensures that the thesis complies with the requirements stipulated for theses carried out at Faculty of Natural Sciences, Aarhus University. The main supervisor has the formal responsibility for the student's academic guidance during the thesis project, and the main supervisor must take part in the final exam.

- The duties of the main supervisor includes
 - Find an external co-examiner
 - Agree on the date for defending the thesis
 - Book a room
 - Send the examination question to the student and co-examiner
 - Take part in the defense and grade deliberation
- How much time to spend on supervision?
 - Usually you agree on meeting one hour per week. It is recommended that you encourage the student to submit material in writing to you ahead of each meeting. You will have to read and comment on this material.
 - We recommend that you also comment on a draft version of the entire thesis before final hand-in.
- Grading
 - For the Master's Thesis, learning objectives and form of examination are specified in the [Master's Thesis course descriptions](#).
- Can I turn down a prospective thesis student?
 - If a student has followed a specialization (30 ECTS) offered by your research group then the student should be offered a thesis project with supervision from you or some other member of your research group.
 - You may encourage several students to work together in a single group. They benefit from internal discussions in the group, and you save time compared to advising them individually. A win-win situation.
 - You are not obligated to advise projects that students have come up with.
- Is it possible to dissolve a Master's thesis contract?
 - No. It is the responsibility of the main supervisor that the initial subject of the thesis has the necessary potential for both academic depth and for finishing within the deadline.
 - If the student falls ill, he/she may apply for extension of the deadline.

Miscellaneous

- Collaboration with external partners
 - In connection with courses, project work or thesis supervision there may be collaboration with private companies. As a university employee you should only sign nondisclosure agreements and other legal documents after consultation with the [technology transfer office](#).
 - For students there is information here <https://studerende.au.dk/en/studies/subject-portals/computer-science/project-collaboration>.

- Use of lab equipment
 - The department has a number of research and teaching labs. Please contact the lab committee if you need special equipment, access to labs, etc., see <http://cs.staff.au.dk/boards-and-committees/lab-committee/>.
- Students working in groups
 - In connection with Master's Thesis, Bachelor's project, some courses and independent project work it is allowed and encouraged that students work in groups.
 - The group size must be 1-3. I.e. if 4 students want to work together they can split in two groups of two people each. It must be possible for a single-person group to complete a project/assignment/thesis etc. This may be necessary when other members of a larger group drop out of the course or a group member falls ill for a longer period.
 - There must be an individual component in the grading of students. The course description specifies the details of the examination form. The individual component is often an oral exam. If students have handed in a group projects/thesis then they are not allowed to attend each other's individual oral exam.
 - If an exam has a written group assignment/report but no individual oral exam, then the group assignment/report must specify the contribution of each participating student.
 - You may refer students to this page <http://studerende.au.dk/en/boost-your-student-life/study-groups/>.

Appendix A: Best Practice: Continuous Testing

There has been some discussion about the benefits and drawbacks when hand-ins/projects during the course counts towards the final grade. In particular, this may be a source of student stress. Here are 3 proposals for best practice in this regard. Also remember the rule of thumb:

- If students do major project work during the course, it is natural to reward them for this work in the final grade. This fits neatly with an oral exam.
- If students do some minor/weekly hand-ins during the course, it may be enough to make the hand-ins mandatory and not let them count towards the final grade. The final exam could be multiple choice (, written or oral).

Model 1: Accept/reject of hand-in (exercise-based hand-ins). Mandatory hand-in and acceptance of a number of assignments each semester or half semester (e.g., 5 of 7 assignments each half-semester). Assignments do not count towards grade but multiple re-handins may occur.

Course example: Machine Learning, Computability & Logic

Pro	Cons
Allows for re-handin to ensure that the student has learned the content	The model puts all pressure on the final exam
The student can fall ill	The student might skip important and demanding assignments, e.g., at the end of the course
It is easier to ensure uniform grading across TA classes	Students might give a low priority to these assignments compared to point earning assignments.

Model 2: Coarse grained evaluation of hand-in (project-based hand-ins). Hand-ins are only evaluated in overall categories: Insufficient (require a re-handin) / Sufficient / Good / Very good. In order for the hand-ins to count towards the grade, students must clearly specify their individual contributions. It is encouraged to use a mix of group and individual hand-ins.

Course example: ?

Pros	Cons
Allows for re-handin to ensure that the student has learned the content	Re-handins are restricted in some manner (e.g., can only give medium grade or the TAs shouldn't give elaborate feedback)

The student has to prioritize each assignment	
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Model 3: Only a percentage of full score counts. Max score can be achieved by handing in a subset of the assignments. A score of 70% counts as full score. In this way it is possible to work ahead (do the more challenging parts of the first hand-ins and then work less on later hand-ins).

Course example: Algorithms and data structures

GSB: Concerning Algorithms and Data Structures. Only 4 programming handins count towards the final grade ([course page](#)). The questions are available from the beginning of the course. Handins are automatically tested by a server - and students can resubmit until the deadline. TAs are allowed to help. I changed the scoring policy in the Fall 2019, to enforce students to work on all handins, to avoid the experience I had that students skip all the challenging final exercises - essentially the students should make $\frac{3}{4}$ of the exercises in each of the rounds to get full score. Most students get full points. The programming scores can change the final grade by +- one grade.

GSB: In the course "Introduction to Programming with Scientific Applications" the final 4 week project counts toward the final grade, where it can change the grade by +-one grade. TAs do the scoring - questions from the students about scores should be addressed to me. Grading is based on a rubric, see [course webpage](#), allowing most students to focus getting full points with them from the project.

Pros	Cons
The student can prioritize throughout the semester	Re-handin are restricted in some manner (e.g. can only give medium grade or the TAs shouldn't give elaborate feedback)
The student can be sick (but only if they can put in an extra effort in the other weeks)	The fine grained grading might lead to discussion between TAs and students. Risk of nonuniform grading across TA classes.