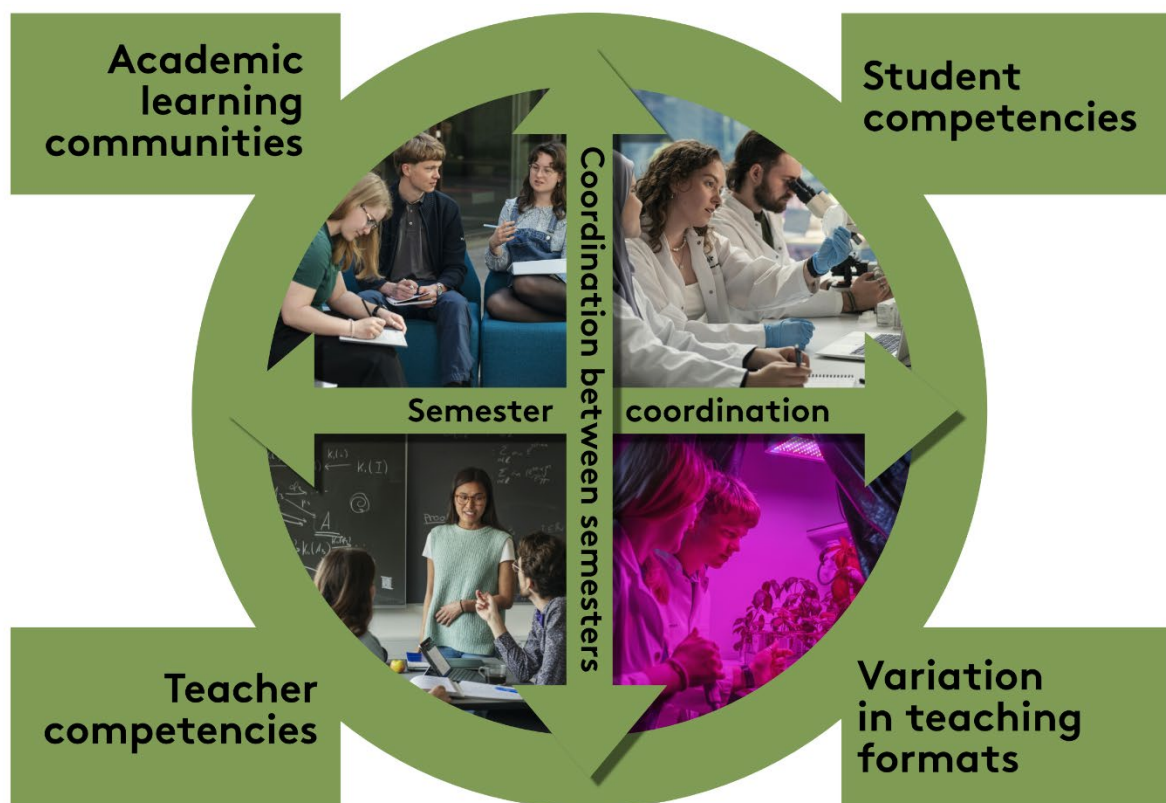


Pedagogical Framework at the Faculty of Science



Pedagogical Framework at the Faculty of Science

Purpose

The pedagogical framework at the Faculty of Science establishes clear expectations for both teachers and students and ensures programmes that are flexible while maintaining clarity and coherence.

We ensure students' sense of belonging through both academic and social integration and by creating academically and socially engaging learning communities from day one.

We support students throughout their progression from upper secondary education to bachelor's programmes, onwards to master's programmes, and subsequently into their first job.

We ensure that students develop relevant competencies and competency awareness, work independently, and maintain their academic curiosity throughout their studies.

Objectives

Alignment with SDU's Quality Assurance System

We adhere to the underlying principles for education at SDU student-centered learning, activating teaching and learning communities with mutual responsibilities.

Our evaluation culture supports programme coherence, among other things through semester meetings and semester evaluations. Course evaluations are a shared responsibility within the programme and are used to strengthen coherence within individual semesters and between semesters.

Academic Learning Community

The implementation of the pedagogical framework ensures student retention and well-being through an attractive and engaging academic learning environment. Teaching is engaging and promotes in-depth learning rather than surface learning.

The teaching is inspiring for both students and teachers and contributes to joy, engagement, and well-being for all participants, aiming other things through the involvement of, for example, study groups in day-to-day teaching activities throughout the programme.

Clear communication and expectation alignment between teachers and students creates mutual understanding of learning and study activities. We help students understand academic conventions and university discourse.

Teacher Competencies

We support teachers in the continuous development of their teaching. Professional development of teaching staff has a central role at all levels, including academic staff, technical-administrative staff, and student instructors. Heads of Department pay particular attention to newly appointed staff.

Implementation in Practice

Programmes

Each programme regularly reviews the program in relation to curriculum overload, redundancy, unclear learning outcomes, active and engaging teaching methods, exam formats, and workload.

Semesters

We work with variation in teaching and pedagogy within individual courses and with coherence between courses to ensure that the programme forms an integrated whole. Content-related semester coordination and coordination of student workload play a central role in this process.

Semester coordination ensures that there are periods during which students acquire knowledge and competencies through, for example, cases or projects that cover key parts of course content.

Study groups may be self-organised, but decisions regarding the formation of study groups are made as part of semester coordination, except in the first semester where this is organised by the faculty.

Semester coordination also helps making it explicit where competence awareness is directly integrated into teaching activities.

Courses

To promote high academic standards and in-depth learning, we vary our teaching methods. Students' learning, creativity, self-directed learning processes, and initiative are supported through student directed teaching formats. In course descriptions, we describe and justify the individual learning activities and ensure alignment between learning outcomes and assessment methods.

Varied Teaching Methods

We limit the number of teacher-directed teaching hours in the programmes to create space for student-directed activities and engaging teaching with feedback. Inspiration for this approach can be found in the Study Activity Model (see appendix). In this way, we strengthen students' responsibility for learning within the educational setting. Teachers prioritise feedback, dialogue, active learning, and coordination with student instructors.

Open teaching methods allow students to experiment and test ideas and hypotheses. Mistakes are recognised as a natural part of the learning process through dialogue with teachers and fellow students.

Learning communities

We involve students in dialogue and alignment of expectations regarding roles and responsibilities in teaching and learning activities, and all participants share responsibility for creating a well-functioning learning environment.

Study groups at all semesters strengthen students' academic social integration and support academic discussions and peer feedback among students.

Competence Awareness

Reflection on one's own learning, personal development, and professional development is a core element of university education. This takes place both through in-depth learning and through reflection on one's own competency development.

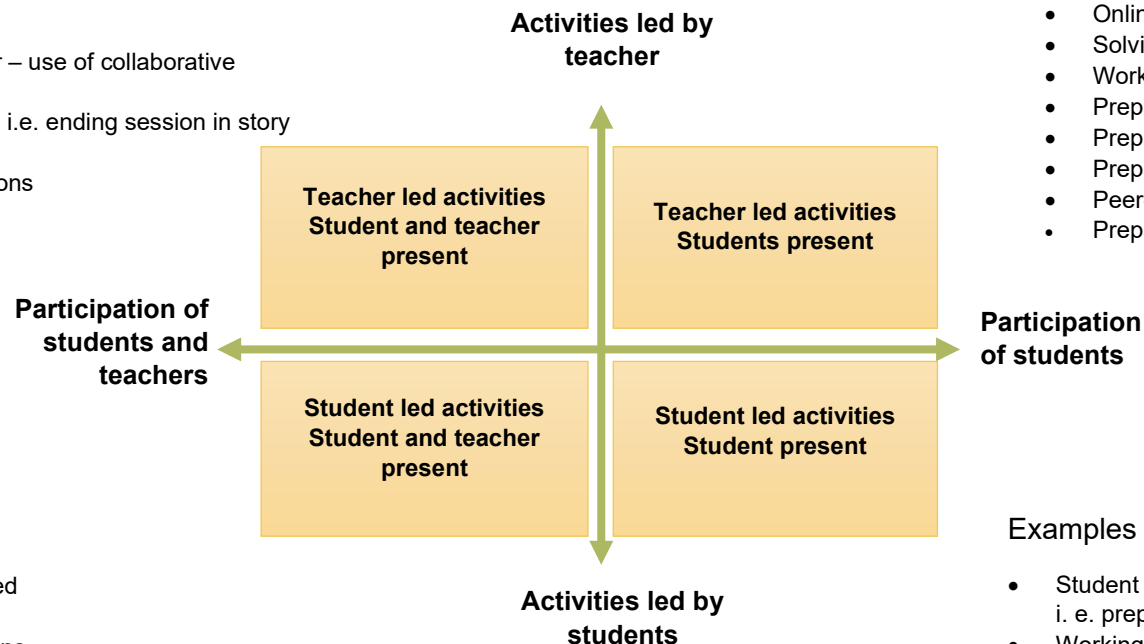
Competence awareness is an integral part of all programmes and courses and plays a key role in academic onboarding. Reflection on competency development clarifies coherence throughout the educational journey and supports the transition from pupil to university student and from student to professional.

The Competence Portfolio serves as a key tool in facilitating students' work with developing competence awareness.

Study activity model*

Examples

- Interactive lectures
- In class case work
- Discussion classes
- Student activating hold-timer – use of collaborative methods
- Presentation of assignments i.e. ending session in story line
- Team Based Learning sessions
- Lab exercises, organized
- Peer feedback elements



Examples

- Open training lab, supervised
- Student planned tutorials
- Postersessions, pitchsessions
- Other student presentations
- Requested guidance from teacher (typically in casework and project work)
- Student led lectures
- Back-up for student initiated study groups

Examples

- Following teachers' suggestion for lecture preparation
- Online exercises before in class activities
- Solving theoretical exercises
- Working on case or project (with set limitations)
- Preparation for specific lab exercises
- Preparing assignments or presentations
- Preparation for tutorials
- Peer-feedback between groups
- Preparation for Team based learning sessions

Examples

- Student directed lecture preparation i. e. prep for discussion classes in flipped classroom
- Working on open projects with broad limits
- Free training lab without supervision
- Preparation for postersessions, pitches, and other student presentations
- Working on story line. Activities like Literature studies, company visits, field studies, ...
- Self initiated peer feedback between groups or individually
- Student initiated study groups
- Working on bachelor project or master thesis
- Exam preparation

The content in this overview is detailed on the following page: [METHOD CATALOGUE UniPedPrak](#)

Other important references:

[Underlying principles for education at SDU](#)

[SDU's Pedagogical Competency Profile](#)

[Min Kompetenceportfolio](#)

*Studieaktivitetsmodellen : erfaringer og refleksioner / Hanna Mølgaard & Ane Qvortrup (red.) Grete Dolmer... [et. al.],
ISBN: 9788761671707, Aarhus Systime profession 2015