Quality management in the departments Department 05 (Geosciences)

The Department 05 adopts, in accordance with §87 Sentence 1 Nr. 6 BremHG, the following concept within the framework of the central quality management of the University of Bremen.

I. General

- The quality management (QM) for teaching and learning at the Department 05 of the University of Bremen serves to ensure efficient and sustainable teaching with appropriate teaching content, methods and structures.
- It is based on the principles of the Bremen Higher Education Act (version of 21.10.2015), conforms to the QM statutes of the University of Bremen (resolution of the Academic Senate of 23.06.2021) and takes into account the European Standards and Guidelines for Quality Assurance (version 2015).
- It builds on the previous QM concept of Department 05 (version of 21.01.2009) and extends or supplements it with the QM principles newly defined in the context of the System Accreditation of the University of Bremen.
- It takes into account criteria of feasibility, transparency and data protection with respect to the persons involved.

II. Aims

1. Department level

- The quality objectives are summarized in the department's mission statement for QM (see below) and are based on the mission statement for teaching and studies at the University of Bremen (January 2021).
- The overriding goal of teaching at the department is the education of graduates who
 can use the knowledge and skills they have acquired to succeed in their future
 careers.
- Quality goals to achieve these aims include a state-of-the-art range of courses, the studyability and teaching quality of the courses offered, as well as the sustainability of teaching.

| Overriding goal | | Successfull graduations | | |
|--------------------------------|--|--|---|---|
| Quality goals | State-of-the-art teaching content | Studyability | Teaching quality | Sustainability |
| Operational quality objectives | Research orientation, practical relevance, interdisciplinarity International competence | Optimized study structures, examination planning Adequate equipment, councelling, support | Student selection Teaching staff qualification Participatory teaching development transparent QM | Generate enthusiasm, convey key skills, promote personal responsibility, prepare for life-long learning |
| Indicators, measures | Course evaluation, student and teaching staff survey, workload survey, graduates survey | | | |
| Control | internal quality cycles, external evaluation | | | |

2. Study program level

The objectives mentioned under II.1 also apply to the individual degree courses offered at Department 05, but with different weightings:

- Providing a fundamental, scientifically based understanding of the Earth System is
 the top priority, especially in the Bachelor degree programs. The Bachelor
 Geosciences emphasizes applied and terrestrial topics, while the international
 Bachelor Marine Geosciences focuses on marine topics. Research-based learning,
 but also professionally relevant practical components, should prepare students for
 professional requirements and be able to contribute to a sustainable development of
 our environment.
- The Master programs Applied Geosciences, Marine Geosciences, and Materials
 Chemistry and Mineralogy are designed to enable students to critically assess
 scientific findings and research related content. This is closely linked to the
 acquisition of in-depth laboratory and field skills and the development of international
 competencies.

III. Actors, Organization

1. Actors

- Studiendekan*in (Study Dean) is responsible for the quality management of studies and teaching of all degree programs in the department.
- Studien- und Praxisbüro (Academic Advisory and Career Orientation Office) coordinates the individual measures, prepares the collected data, develops quality
 management instruments (e.g. surveys).
- Studienkommission (Advisory Board for Study Affairs) as a committee with equal representation of teachers and students, monitors quality management at the department, evaluates the results of the various quality management measures, recommends measures to improve studies and teaching.
- Teaching staff, students provide feedback in the individual QM measures, are regularly informed about the status of the evaluations.
- Externe Gutachtende (External evaluation) Representatives of the university and non-university environment (staff and students from other universities, representatives of public bodies and industry, a total of approx. 6-8 people) advise the department in matters concerning the quality of teaching and learning, review the progress of the measures implemented and the further development of quality management. The reports of the external reviewers are used for the re-accreditation of the study programs every eight years.
- Dekanat, FB-Rat, Rektorat (Dean's Office, Department Council, University Management) - evaluate the QM reports submitted annually and initiate any necessary corrections.

2. Organization

- The quality management measures of the department are organized in a regular cycle at specified intervals, regular checks, measures to be carried out if necessary, and continuous further development of quality management.
- The implementation is documented annually in a quality management report and submitted to the Dean's Office, the Department Council and the University Management for evaluation.

IV. Instruments, Applications, Measures

The quality management of Department 05 includes various instruments of internal evaluation, internal communication and external assessment.

1. Internal Evaluation

The internal evaluation makes use of the following instruments:

- Lehrveranstaltungsevaluation (course evaluation) takes place every two years in the
 winter and summer semesters on a random basis with questionnaires specifically
 adapted for the courses, in close dialog between lecturers and students. Individual
 lecturers can have their course(s) evaluated more frequently at their own request,
- Studiengespräche (study discussions) carried out in dialogue between one staff
 member and one student each year in the 3rd semester of the Bachelor's programs,
 aim to ascertain the progress of studies combined with individual advice,
- Stichprobenartige Absolventenstudien (sample survey of graduates) should occur every 3 years as part of a targeted alumni survey, to review the skills of applying what has been learned,
- Befragung der Lehrenden (survey of teaching staff) should be carried out every 4
 years, including a documentation of participation in further training courses in higher
 education didactics. Both should serve to improve the studyability and teaching
 quality,
- further surveys of different interest groups as necessary e.g. on previous education in the STEM subjects, on the workload of the students, on other topics,
- specific discussions, remedial actions should occur when there is sustained criticism of the form, content, and delivery of courses,
- appropriate student complaint procedure according to the complaint management in the study programs of the department 05 - should help to be able to efficiently initiate remedial measures.
- consideration of university-provided data serves to supplement the data collected at
 the department itself, includes a core data set from Controlling, the results of the
 cohort surveys, and other information.

2. Internal Communication

Internal communication between students, teaching staff, and those responsible for quality management is seen as an important instrument of quality management at the department. This includes:

- Sitzungen des Dekanats, des FB-Rats, der Studienkommission (Meetings of the dean's office, the department council, the Advisory Board for Study Affairs),
- Studierenden-Lehrenden-Dialog (Student-teacher dialogue) held annually as part of the Tag der Lehre (Day of Teaching),
- Versammlung der Lehrenden (Meeting of the teaching staff) held once to twice a year,

- *information for teaching staff* made accessible on the web pages of the department (internal area),
- Modulgespräche (module meetings) are held with the respective participants if required.

3. External Evaluation

The external evaluation includes:

 a program evaluation of the individual study programs with external reviewers at least once every 8 years.

V. Documentation

The documentation of the quality management measures includes:

- reports of course and module evaluations, study interviews, other surveys, core data sets provided by the university (Dean of Studies, Academic Advisory and Career Orientation Office, Advisory Board for Study Affairs),
- the minutes of the meetings of the Studienkommission (Advisory Board for Study Affairs),
- the summary of all results and measures derived from them in the annual quality management report of the Dean of Studies to the Rectorate. In addition, a perspective discussion takes place every 2 years,
- results are announced in the course of internal communication (IV.2).