

NTNU's Quality System for Education

Approved by the University Board on 9 March 2016

Updated in Rector's decision of 10 March 2017

NTNU
Norwegian University of Science
and Technology

NTNU's Quality System for Education

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Amendments in Rector's decision 10 March 2017

1. About the quality system for education

NTNU's strategy focuses on the quality of education and has the following objectives: 'All the programmes of study are to be characterized by academic quality at a high international level' and 'All academic groups are to develop first-class educational management and a quality enhancement culture that uses systematic evaluation and effective follow-up'. The aim of the quality system is to help NTNU achieve these goals.

NTNU's system for quality of education describes the goals of the quality processes and defines roles, responsibilities, tasks and follow-up processes. In addition to the quality system, there are guiding principles established in law, administrative regulations and local regulations. See link 1, 'Regulations at NTNU that refer to quality of education'. Tools, templates, and examples of best practice are available to support the quality processes.

The faculties may have local advisers who describe forums and processes to support the goals, requirements and roles defined in this document.

The purpose of NTNU's quality system for education is to develop the quality of the education programmes at all levels - bachelor's, master's and PhD - and to ensure the quality of processes and activities that influence the quality of education. Specific requirements that apply to particular levels or areas of education are described in link 2, 'Common Standard of Quality for PhD education at NTNU' .

2. Objectives for the quality processes

The aim of the quality processes is to help ensure that students achieve the learning outcomes defined for the courses and the programmes of study.

Quality of courses: The aim is to ensure that the learning outcomes of the course are up to date and relevant, that the learning activities in the course help students to achieve the learning outcome and that there is consistency between the learning outcome descriptions, the learning activities and the forms of assessment.

Quality of study programmes: The aim is to ensure that the learning outcomes for the programme of study are up to date and relevant, and that the courses included in the programme help students to achieve the learning outcome.

Quality of the portfolio of study programmes: The aim is to ensure that NTNU fulfils its societal obligations by offering a comprehensive portfolio with relevant education of high international quality in accordance with NTNU's strategy.

Quality in administrative processes: The aim is to ensure that NTNU has effective and appropriate administrative functions and information systems coordinated with its primary responsibilities and the students' learning.

3. Roles, responsibilities and tasks in the quality system

The Board approves the portfolio of programmes of study and has the overall responsibility for ensuring that NTNU conducts systematic quality assurance. The responsibility for ensuring that the quality processes are implemented in accordance with the requirements follows the lines of authority. It is thus the responsibility of Rector, Dean and the Heads of Departments.

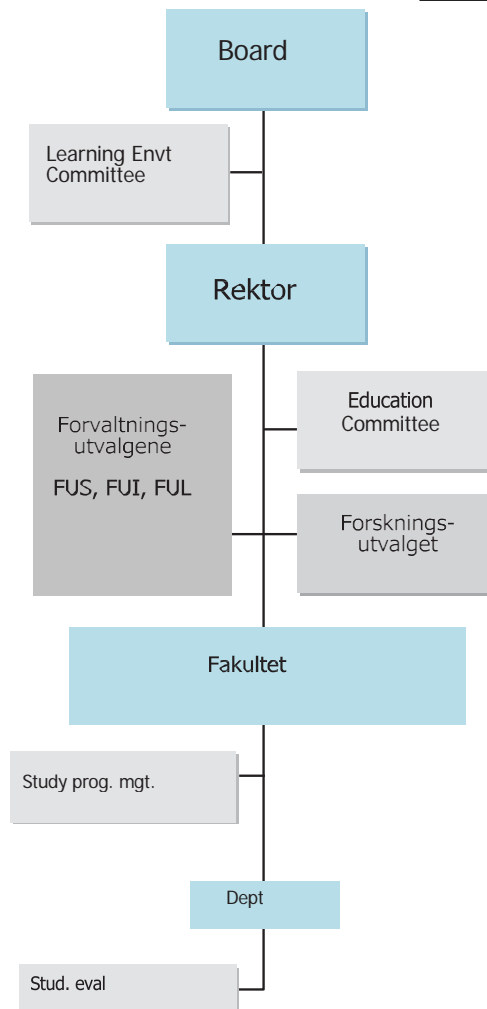
To ensure continuity and to ensure that objectives are followed up through priority setting and actions, the quality processes must be firmly embedded in NTNU's lines of authority.

Responsibility cannot be delegated, but tasks may be delegated. For example, the Dean may delegate tasks related to the development of quality in programmes of study to the Head of Department or the Study Programme Coordinator (Head of Programme). See link 3, 'Management of programmes of study'.

The figure below shows NTNU's lines of authority with the Board, councils and committees as well as the relationship between them in the quality processes:¹

¹ The figure will be revised in line with the organizational changes at NTNU.

Students are involved at all levels through representation on the Board, UU, FU, LMU, FU, FUS, programme councils and reference groups, and with representatives at faculty and department level



Each student is expected to participate actively in evaluation by providing continuous feedback to members of the teaching staff and the reference groups for his or her courses, and to participate in reference groups, surveys, meetings, etc.

If students find that evaluations are not conducted or followed up in accordance with the requirements of NTNU's quality system for education, they must report this to student representatives, department management, study programme management or faculty management. NTNU has an online system for reporting problems or non-conformances, in which students can report lack of follow-up. See link 8 for details of the system for reporting these issues.

The reference group must have an ongoing dialogue with all the students taking the course and must represent the students at reference group meetings. The reference group must write a reference group report with proposals for

measures, which are submitted to the course coordinator.

Reference group method

All course evaluations are to include student evaluation, normally using the reference group method. See link 4, 'Reference group method' .

Student democracy must represent the students in quality processes at all levels in the organization: The Board, the Education Committee, the Research Committee, the Learning Environment Committee, the Executive Committee for Teacher Education, the Executive Committee for Engineering Education and the Executive Committee for the Three-Year Engineering Programmes. Student democracy has representatives at faculty and department levels, as well as in all the councils for programmes of study.

The Student Parliament has a political leadership that will help in the processes at central level and assist the various student representatives.

PhD candidates are involved in the quality processes similarly to other students in relevant bodies at all levels.

The association representing the interests of doctoral candidates (DION) contributes to the processes when necessary.

The course teacher is to implement teaching and learning activities that help students to achieve the learning outcomes for the course. Where there is only one member of the teaching staff, he or she is also the course coordinator.

The course teacher is to have an ongoing dialogue with the students about the quality of the course and is to discuss any academic, pedagogical and practical aspects that could improve the quality of the course with the course coordinator.

The course coordinator is responsible for planning, coordination and implementation of the course, so that the relationship between teaching, learning activities and assessment is appropriate and helps students to achieve the learning outcome for the course.

The course coordinator must follow up the plan of action decided by the Head of Department.

Course evaluation

Requirements

During each course, the course coordinator must conduct a course evaluation. All course evaluations must include a student evaluation, normally based on the reference group method. At least every third time the course is completed, the course coordinator must actively ask for feedback from all the students in the course to ensure that there is representative information.

Each time the course is completed, the course coordinator is to prepare a course report (see link 5 for template) with proposals for a plan of action. The report is stored and available in the document management tool Doq. All faculties are to have a process for managing reports containing sensitive information.

Subject

Learning outcome description: Is it up to date and relevant? Has it been clearly communicated to the students? Is there consistency and coherence between the learning outcome description for the course and parallel and previous courses?

Teaching and learning activities: How do they help students to achieve the learning outcome for the course? Are the learning activities, the level and progression appropriate? What about the students' own efforts and motivation? What is the learning environment like? Forms of assessment: Are these consistent with the learning outcome description and with the teaching and learning activities, so that students are tested in an appropriate way that contributes to their learning?

Basis

The basis for the course evaluations is previous course and programme reports with plans of action, comments from the reference group, comments from learning assistants and feedback actively gathered from the entire student group taking the course as well as relevant statistics.

Examples of statistics: percentage of fails, dropout rate, distribution of grades.

The Head of Department is to ensure that quality assurance of the department's courses is implemented in accordance with the above requirements and that the quality processes are documented and included in the annual quality reporting process. The Head of Department approves plans of action and follows these up through resource allocation and personnel management.

The Study Programme Coordinator is to contribute to developing the learning environment as well as the academic and pedagogical quality of the programme of study, in terms of the mandate (link 3). The Study Programme Coordinator has an advisory function and works in close dialogue and cooperation with the Dean, Head of Department, course coordinator, teaching staff and students. The development of quality in the programme of study is a collective task for the academic community. The Study Programme Coordinator chairs the council for the programme of study and reports to the responsible line manager. The report on the programme of study is included in the annual quality reporting process. One person can serve as study programme coordinator for several programmes of study.

The **programme council** is an advisory body that contributes to efforts to enhance the quality of the programme of study. The programme council is to consist of students, academic and administrative staff. The programme council is to have external representatives or provide for input from external parties. A programme council may serve several programmes of study.

Study programme evaluation

Every year: Requirements

Every year, the study programme coordinator is to carry out an evaluation of the programme of study focused on the inner quality of the programme. The study programme coordinator is to prepare a report on the programme of study (see link 6 for template) with proposals for a plan of action and assessment of whether the programme should undergo evaluation in greater depth.

Topics

Is the learning outcome description academically up to date and relevant? Do all courses and the relationship between them help to ensure that students achieve the learning outcomes for the programme? Does the programme of study provide a learning environment of high quality? Are there challenges that indicate that the programme of study should undergo a periodic evaluation earlier than planned?

Basis

Course reports, programme reports and underlying data such as numbers of applicants, completion and dropout statistics, Studiebarometeret (information from the national student survey on the quality of education) and other surveys.

At least every 5 years: Requirements

At least every five years, the Dean must ensure that a periodic evaluation of the programmes of study is conducted with input from students, the working world and external parties at the national or international level. The report is stored and available in the document management tool Doq, and must be available to the public. The Dean reports to the Rector in the quality report.

Topics

As well as the topics in the annual evaluations of the programmes of study, the periodic programme evaluation is to focus on the programme's relevance to society and the working world, as well as the relationship to NTNU's profile and strategy. Do the annual programme evaluations identify specific challenges that call for particular attention? Should the programme of study be continued in its present form, modified, or discontinued?

Basis

The same basis is relevant as for the annual evaluations of programmes of study, combined with strategic plans as well as relevant national and international surveys and analyses. In addition, it may be necessary to gather targeted data as a basis for any area of focus that has been selected for the evaluation.

See the guide to periodic evaluation of programmes of study.

The Dean is responsible for ensuring that quality assurance of the faculty's programmes of study is carried out in accordance with the requirements. The Dean must ensure that all the programmes of study have a study programme coordinator and a programme council, as well as sufficient resources for the management of the programme and quality enhancement work.

The Dean decides and follows up on plans of action. The Dean's assessment of proposals and decisions on measures are submitted to the study programme coordinator, the Heads of Departments involved, and - in connection with inter-faculty programmes of study - to the cooperating Deans. The Dean reports to Rector through the annual quality assurance report.

The Learning Environment Committee (LMU)* reports directly to the Board, and provides recommendations to the Board and management in matters concerning the learning environment at NTNU. LMU is to have a comprehensive and overarching perspective on NTNU's work with the learning environment. LMU submits an annual report to the Board and provides input to the annual quality reporting process.

The Executive Committee for Engineering Education (FUS), the Executive Committee for Teacher Education (FUL) and the Executive Committee for the Three-Year Engineering Programmes (FUI) report to the Rector. FUS, FUL and FUI must ensure inter-faculty coordination of the integrated five-year master's programmes in engineering (sivilingeniør) education, the integrated five-year master's programmes in teacher (lektor) education, and the three-year programmes in engineering (ingeniør) education. In addition, FUS, FUL and FUI must develop common quality requirements for the programmes. FUI, FUL and FUS approve curricula and learning outcome descriptions. In accordance with their mandates, these committees must ensure that quality improvement is followed up and they must each prepare an annual report with emphasis on quality improvement initiatives. The reports are considered by the Rector during the quality reporting process.

The Research Committee (FU) is a strategic advisory body for the Rector. The committee's tasks include developing the organized research training programme and ensuring that ethical standards are maintained in research.

The Education Committee (UU) is a strategic advisory body for the Rector concerning education and is to advise the Rector about quality assurance of education at NTNU and the annual quality assurance report.

The Rector is responsible for the quality processes. The Rector reports to the Board through the annual quality assurance report, which also includes plans for measures and follow-up.

The Rector conducts learning environment, graduate and employer surveys in 3-year cycles.

**For complete versions of the committees' mandate, see link 7.*

These surveys are designed in such a way that the faculties can use the data in their quality assurance processes.

NTNU has a **consultative council for cooperation with working life** (Råd for samarbeid med arbeidslivet, RSA), in which representatives of business and industry provide advice and input regarding NTNU's educational profile and programmes to meet future needs for skills.

The Board is responsible for ensuring that NTNU has a quality system for education and that it is evaluated at least every five years. Every year, the Board approves NTNU's quality assurance report and portfolio of the programmes of study. The basis for this work is the Rector's quality assurance report to the Board and the item on the agenda regarding the portfolio of programmes, supplemented by relevant data on NTNU's activities as well as the needs of society.

Development of the academic portfolio

Initiatives from the course evaluations and the annual programme evaluations are implemented in the annual process for planning of studies.

In the light of the periodic evaluations of programmes of study, phasing out or change of existing programmes must be considered. 'Requirements for programmes of study' and accompanying guides describe the process, requirements for procedures and content.

When new programmes of study are established, the requirements specified in 'Requirements for programmes of study' and accompanying guides must be met. How the new programme contributes to fulfilling NTNU's strategy is one of the aspects that must be highlighted.

The Board considers the overall academic portfolio as an agenda item in June, and decides on changes in the academic portfolio in October. Admission capacity is determined by the Board in November/December.

Summary of roles, responsibilities and tasks

Students	Tasks
Each student is expected to participate actively in evaluation by providing continuous feedback to members of the teaching staff and the reference groups for his or her courses, and to participate in reference groups, surveys, meetings, etc.	<ul style="list-style-type: none"> - If students find that evaluations are not conducted or followed up in accordance with the requirements of NTNU's quality system for education, they must report this to student representatives, department management, study programme management or faculty management. - The reference group must have an ongoing dialogue with all the students taking the course and must represent the students at reference group meetings. - Student democracy represents the students in quality processes at all levels in the organization. - PhD candidates are involved in the quality processes similarly to other students in relevant bodies at all levels.
Course teacher	Tasks
The course teacher is to implement teaching and learning activities that help students to achieve the learning outcomes for the course.	<ul style="list-style-type: none"> - The course teacher is to have an ongoing dialogue with the students about the quality of the course and is to discuss any academic, pedagogical and practical aspects that could improve the quality of the course with the course coordinator.
Course coordinator	Tasks
The course coordinator is responsible for planning, coordination and implementation of the course.	<ul style="list-style-type: none"> - The course coordinator must ensure that the relationship between teaching, learning activities and assessment is appropriate and helps students to achieve the learning outcome for the course. - The course coordinator is to follow up the plan of action as decided by the Head of Department.
Head of Department	Tasks
Must ensure that quality assurance of the department's courses is performed in accordance with the requirements.	<ul style="list-style-type: none"> - The Head of Department must ensure that quality assurance processes are documented and are included in the annual quality reporting process. - The Head of Department is to approve plans of action and must follow these through by resource allocation and personnel management.
Study Programme Coordinator	Tasks
Heads the council for the programme of study and reports to the responsible line manager.	<ul style="list-style-type: none"> - The study programme coordinator is to contribute to developing the learning environment as well as the academic and pedagogical quality of the programme of study. - The study programme coordinator has an advisory role and works in close dialogue and cooperation with the Dean, Head of Department, course coordinator, teaching staff and students.
The programme council	Tasks
The programme council provides advice in connection with the initiatives to enhance the quality of the programme of study.	<ul style="list-style-type: none"> - The programme council consists of students as well as academic and administrative staff. - The programme council must have external representatives or provide for input from external parties. - One programme council can serve as the council for several programmes of study.

Dean	Tasks
<p>The Dean is responsible for ensuring that quality assurance of the faculty's programmes of study is carried out in accordance with the requirements.</p>	<ul style="list-style-type: none"> - The Dean must ensure that all the programmes of study have a study programme coordinator and a programme council, as well as sufficient resources for the management of the programme and quality enhancement work. - The Dean decides and follows up on plans of action. The Dean's assessment of proposals and decisions on measures are submitted to the study programme coordinator (the head of programme), the heads of departments involved, and - in connection with inter-faculty programmes of study - to the cooperating deans. - The Dean reports to the Rector through the annual quality assurance report.
The Learning Environment Committee (LMU)	Tasks
<p>LMU provides recommendations to the Board and management in matters concerning the learning environment at NTNU.</p>	<p>LMU is to have a comprehensive and overarching perspective on NTNU's work with the learning environment. LMU submits an annual report to the Board and provides input to the annual quality reporting process.</p>
Executive committees (FUS/FUL/FUI)	Tasks
<p>FUS/FUL/FUI must ensure that there is inter-faculty coordination of engineering and teacher education.</p>	<ul style="list-style-type: none"> - FUS/FUL/FUI must ensure that there is inter-faculty coordination of engineering (sivilingeniør) education and the integrated five-year master's programmes in teacher (lektor) education as well as the three-year programmes in engineering (ingeniør) education. In addition, they must develop common quality requirements for the programmes. - FUS/FUL/FUI approve curricula and learning outcome descriptions. - In accordance with their mandates, these committees must ensure that quality improvement is being followed up and they must each prepare an annual report with emphasis on quality improvement initiatives. The reports are considered by the Rector during the quality reporting process.
The Education Committee and the Research Committee	Tasks
<p>Are the Rector's strategic consultative committees in the areas of education and research.</p>	<ul style="list-style-type: none"> - Advise the Rector on quality assurance of the education activities and on the annual quality assurance report.
Rector	Tasks
<p>Responsible for the quality processes.</p>	<ul style="list-style-type: none"> - The Rector reports to the Board through the annual quality assurance report, which also includes plans for measures and follow-up. - The Rector conducts learning environment, graduate and employer surveys in 3-year cycles.
Board	Tasks
<p>The Board is responsible for ensuring that NTNU has a quality system for education and that it is evaluated at least every five years.</p>	<ul style="list-style-type: none"> - Every year, the Board approves NTNU's quality assurance report and portfolio of the programmes of study.

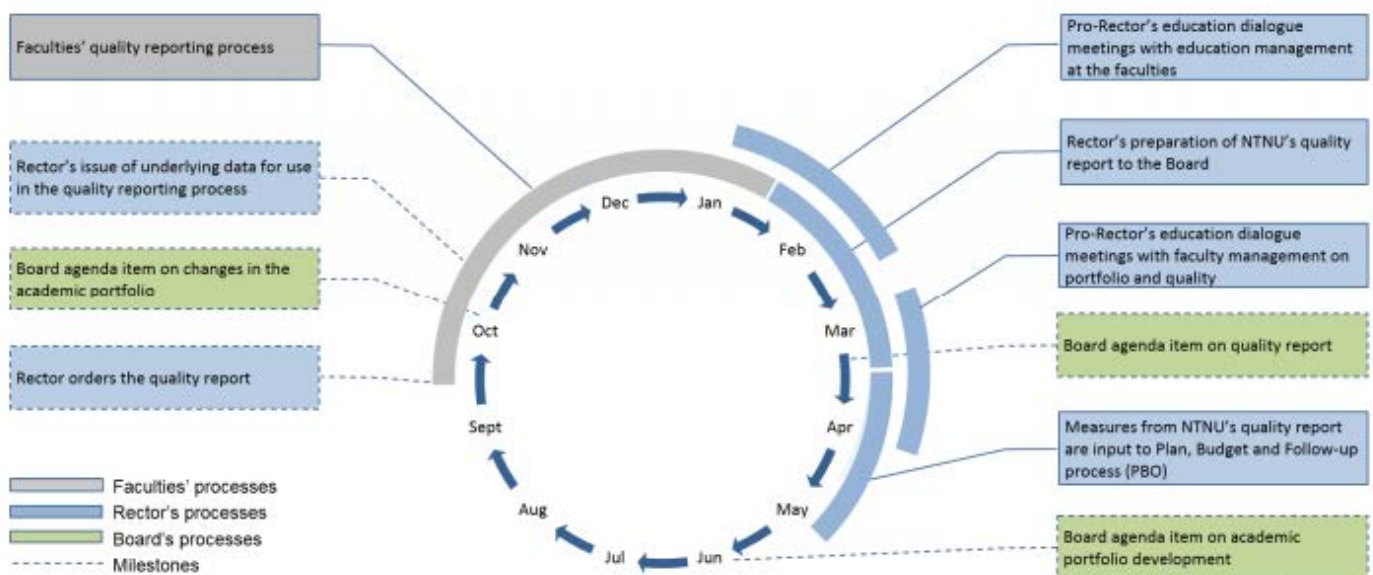
4. Planning, reporting and follow-up process

Follow-up of the quality initiatives forms part of the management of NTNU's activities. The annual quality report to the Board is an important tool in NTNU's quality system for education and for work on education quality in the organization.

Work on the quality assurance report and the academic portfolio is based on the Rector's dialogue meetings and on reporting and follow-up processes at all levels in the organization.

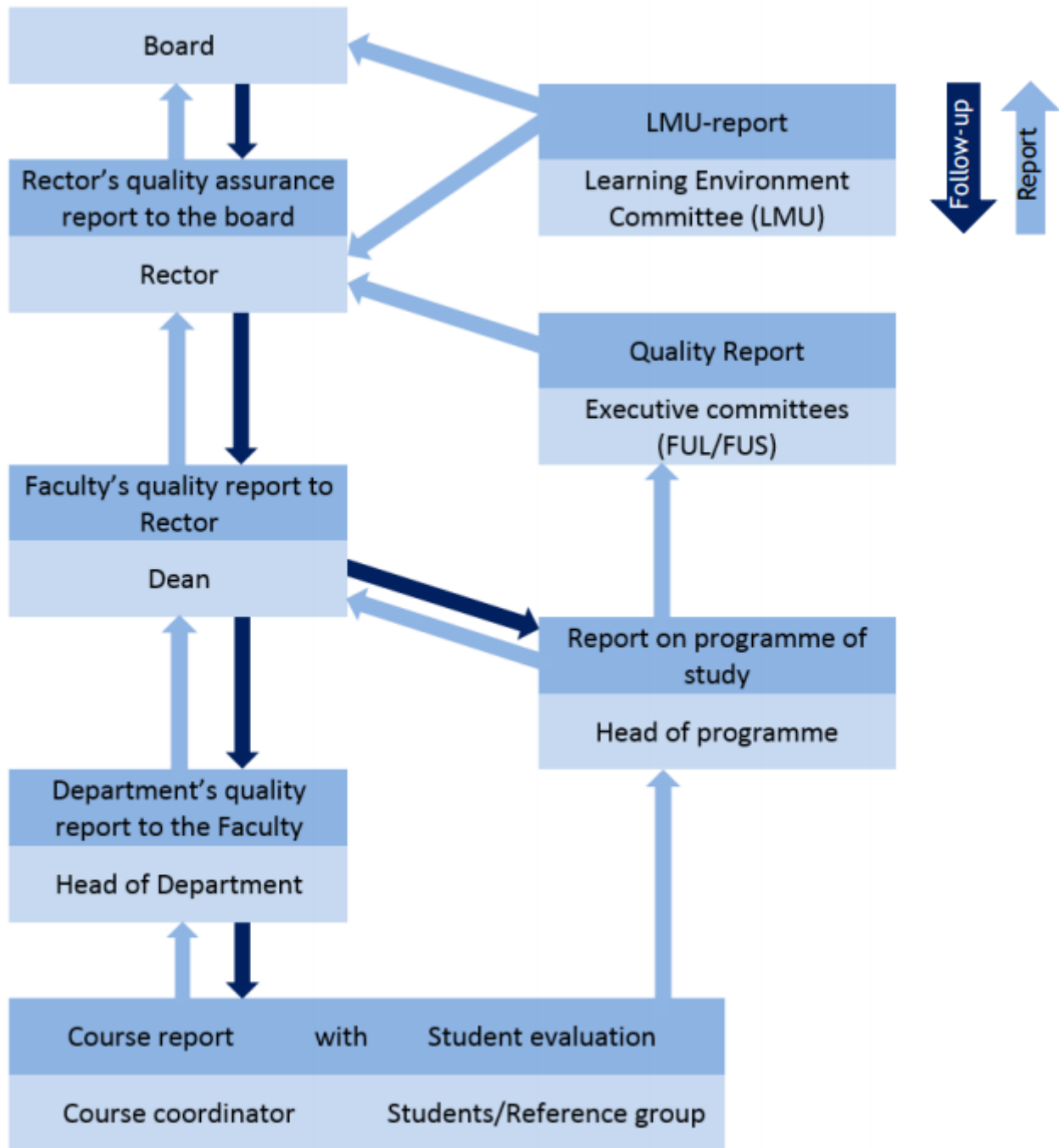
Every year, the Rector prepares common supporting data at programme and faculty level, which are used in the quality reporting process. The quality assurance report describes the activities during the academic year and this is an ongoing process: each department and faculty analyses the quality of its courses and programmes of study as well as the measures that are required at department and faculty level, and possibly at Rectorate level. Together with reports from FUI, FUS, FUL and LMU, the faculties' reports form the basis for the Rector's quality report for NTNU, which is submitted to the Board of NTNU.

Annual cycle for the quality and portfolio process:²



² The annual cycle will be revised in line with changes in the quality and portfolio process.

The figure shows the process for reporting and follow-up through decisions and plans of action in NTNU's quality system for education:



* The study programme coordinator reports to the Dean or to the Head of Department, depending on how the tasks related to quality assurance of the programme have been delegated. Where the study programme coordinator reports to the Head of Department, follow-up can also be done by the Head of Department.

List of links

- 1) Regulations at NTNU that refer to quality assurance of education
<https://innsida.ntnu.no/wiki/-/wiki/Norsk/Generelle+lover+og+regler+--+studier>
- 2) Common Standard for NTNU's PhD Programme: <https://innsida.ntnu.no/wiki/-/wiki/Norsk/H%C3%A5ndbok+for+doktorgradsutdanningen>
- 3) Management of programmes of study: <https://innsida.ntnu.no/wiki/-/wiki/Norsk/Ledelse+av+studieprogram>
- 4) Reference group method: <https://innsida.ntnu.no/wiki/-/wiki/Norsk/Referansegruppe+--+kvalitetssikring+av+utdanning>
- 5) Template for course report: <https://innsida.ntnu.no/wiki/-/wiki/Norsk/Skrive+emnerapport#section-Skrive+emnerapport-Mal+for+emnerapport>
- 6) Template for report on programme of study: <https://innsida.ntnu.no/wiki/-/wiki/Norsk/Evaluere+studieprogram+--+for+studieprogramleder>
- 7) Mandate for committees: <https://innsida.ntnu.no/wiki/-/wiki/Norsk/Oppgaver+for+r%C3%A5d+og+utvalg+i+kvalitetssikring+av+utdanning>
- 8) System for reporting problems or non-conformances: <https://innsida.ntnu.no/avvik>

