REQUIREMENTS FOR THE ACADEMIC PORTFOLIO AT NTNU

NTNU 2019

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Appendices:

Guide to the design of programmes of study and courses at NTNU (the Programme Description Guide) Guide to periodic evaluations of study programmes

Adopted by Rector December 2015 Amended by Rector January 2019

Strategic development of NTNU's portfolio

"Requirements for the academic portfolio at NTNU" defines parts of NTNU's quality system for education in terms of the operations involved. The document includes the requirements that NTNU specifies for all credit-bearing programmes. The requirements apply to regular programmes of study, to further education, to master's degrees (both ordinary and experience-based) and to PhD studies Two guides have been developed with a focus on programme and course descriptions and on periodic evaluations of courses.

- The document with guidelines is used when the faculty wants to develop new credit-bearing programmes.
- The document with guidelines is used in the programme description process during the maintenance of existing study programmes.
- The document with guidelines is used in quality assurance of educational provision, for example in periodic evaluations.

NTNU's academic portfolio is developed in accordance with NTNU's overall strategies and policy signals. Documents governing development are:

- the Letter of Allocation from the Ministry of Education and Research (annual)
- NTNU's Strategy Knowledge for a Better World (2018-2025)
- The faculty's strategic plan
- NTNU's policy for the academic portfolio
- The faculties' 3-year rolling plans for the academic portfolio.

The faculties' 3-year rolling plans for the academic portfolio are developed in accordance with the Letter of Allocation from the Ministry of Education and Research, NTNU's strategy, the faculty's strategy, NTNU's policy for the programme portfolio, and the market's needs. The 3-year plans for the academic portfolio at the faculty provide an overview of how the faculty's strategies for research and education influence the development of the portfolio with the development, merger, establishment and closure of studies and programme options; of multi-campus study programmes; of collaboration, distribution of work and concentration within a subject area at the faculty; and also provides a general overview of the faculties' future needs for competence. The periodic evaluation of programmes is key to the work on the strategic development of the programme portfolio at the faculty; see the guide to this document.



The requisition to the faculty in December specifies the timelines for the future annual cycle and addresses the policy signals for the future period.

The Pro-Rector for Education has educational dialogue meetings with the faculties in March. Here, the quality assurance reports from the faculties and the 3-year plans (see above for the content) are discussed, as well as any input for strategic development of NTNU's academic portfolio for the Board's June meeting with the establishment, closure or merger of studies.

In mid-June, the Board discusses NTNU's academic portfolio at a strategic level. The portfolio is considered in the light of the Letter of Allocation from the Ministry of Education and Research, NTNU's Strategy - Knowledge for a better world (2018-2025) as well as NTNU's quality assurance report. The Board of NTNU exercises its strategic role in the development of the academic portfolio through the Board's decision. Here, the overall academic portfolio is discussed, where the faculties' 3-year plans for the portfolio are submitted to the Board for approval. In addition, plans for the establishment and closure of educational offerings are outlined. The outlines follow the set-up in this document for establishing new programmes.

After the Board meeting, the Rector has a dialogue with the faculties for further development of the faculties' plans for establishment and closure of programmes.

In October, the Board makes the formal decision on establishment of new programmes of study; also see Section 4-1 of NTNU's Academic Regulations on quality assurance of establishment and termination of programmes. A prerequisite for a decision on accreditation is that the new educational offerings meet the requirements of the Regulations concerning supervision of educational quality in higher education (studietilsynsforskriften) and NTNU's own regulations. Section 4-2 of NTNU's Academic Regulations governs the minimum requirements for programme descriptions and course descriptions. Documentation to the Board is provided in accordance with the Guide to Developing Programme Descriptions and Course Descriptions.

The guide for design of study programmes and courses at NTNU (The Programme Description Guide) should also be used at the faculty in the annual reviews and approvals of ongoing educational offerings.

The Board makes the decision on admission capacity for each programme at the Board meeting in December.

Process for creating new educational offerings

The process for creating a new educational offering is initiated through the faculty's rolling 3-year plans for the academic portfolio. The Rector's letter of requisition at the beginning of December includes the timelines for the process of establishing new studies.

The faculties present plans for the June meeting as Stage 1 in the development of the academic portfolio. The plans must follow the template provided in this document.

At the October meeting, the specific applications will be considered. This Stage 2 must follow the requirements in the Guide for design of programmes of study and courses at NTNU. If the Board and Rector comment on documentation submitted during Stage 1, updated documentation must accompany the application during Stage 2.

Memorandum describing what plans for establishing new studies should include

1. Strategic assessments

Describe the strategic aspects that have been considered in the plan for establishing the study programme.

The faculty must have considered the extent to which the proposed programme is consistent with the faculty's strategy and NTNU's strategy, including links with research strategies. Similar links with other types of governing documents such as NTNU's overall priorities, international action plan or other guiding principles must also be elucidated.

If the studies have a link with one of NTNU's strategic areas of focus (TSOs), or the centres of excellence in higher education/research/innovation (SFU/SFF/SFI), this must be stated here.

It is assumed that the faculty has considered whether similar programmes of study exist at NTNU or other educational institutions, primarily in Norway, but also internationally where this is relevant. This also includes whether similar programmes of study are being planned. When establishment of a new study programme is considered, it must explicitly be considered whether the planned programme could be created as a programme option within an existing programme, or whether studies could be merged or adjusted in other ways in connection with establishing the programme.

2. About the studies

The programme must fulfil all requirements in relevant laws and regulations, with accompanying supplementary regulations. See NTNU's web page <u>Generelle lover og regler – studier</u> (General laws and regulations – studies):

Name of the studies (in Norwegian Nynorsk, Norwegian Bokmål, English)		
Name of the degree (the graduate's title) (if applicable		
How is the name appropriate to the profile and level of the studies?		
Host faculty		
Field of education ¹	ESTETISK (AESTHETIC)	Aesthetic disciplines, art, design, crafts, music, etc.
	HELSEFAG (HEALTH SCIENCES)	Health sciences, medicine, nursing, social work, child welfare, social educator disciplines, pharmacy, medical laboratory technology, radiography, etc.
	HISTORIE (HISTORY)	History, religion, ideas, philosophy, archaeology
	IDRETT (SPORTS)	Sport sciences, physical education and outdoor education
	INFOTEKN (INFO TECH)	Information technology, computer and information science

As a minimum, the description must include:

¹ See Norwegian Universities and Colleges Admission Service (NUCAS) - §amordna Opptak

	LANDOGHAVBRUK (FARMING AND	Farming, animal husbandry, fisheries, aquaculture,
	OCEANS)	forestry, agriculture
	LÆRER (TEACHER)	Teacher, general teacher, specialist teacher,
		vocational teacher, five-year master's
		programmes in teacher education
		(lektorutdanning)
	MEDIEFAG (MEDIA)	Media subjects, journalist, publishing, librarian, film and TV
	PEDFAG (PEDAGOGY)	Educational sciences
	REALFAG (NATURAL SCIENCES)	Mathematics, chemistry, biology, physics
	SAMFUNN (SOCIETY)	Social sciences, psychology
	SPRÅK (LANGUAGE)	Languages, literature
	TEKNO (TECH)	Technological disciplines, engineer, Master of Science
		in Engineering (sivilingeniør), architect,
		maritime/nautical studies
	ØKADM (ECONOMICS AND ADMIN)	Economics, administration, management
Level of study (one-year programme, bachelor's degree, master's degree)		
Scope (credits)		
Start (year and semester)		
Admission requirements and ranking of applicants (with reasons) ²		
Campus-based, decentralized, based on		
group sessions, online		
Provide information on practical		
training, if applicable		
(implementation, usefulness, and		
placement agreements)		

3. Academic management of studies

Give a brief account of the resources that have been assigned to management of the study programme: lede studieprogram.

All programmes of study must have a programme council and a study programme coordinator, but several programmes of study may have a joint programme council as long as it meets the requirements for composition and tasks according to NTNU's quality assurance system. See the description and mandate for programme councils: <u>Studieprogramråd</u>.

4. Academic environment linked with the studies

Requirements for the academic environment linked with the studies are defined in Section 2-3 of the Academic Supervision Regulations. The academic environment linked with the educational offering consists of people who directly and regularly contribute to its development, organization and implementation. It includes people who contribute in different ways in addition to teaching, supervision or other arrangements to promote learning. Examples include laboratory work, research, development work, transfer of experience from the field of practice, practical teaching, pedagogical and academic exploitation of digital technology, innovation and collaboration with business and the working world.

In this report, NTNU requires consideration of the entire Section 2-3 of the Regulations concerning supervision of educational quality in higher education. Note, in particular, that the academic environment linked with the educational offering must have relevant competence in the discipline of education. This means pedagogy and didactics in higher education, as well as competence in exploiting digital technology to promote learning.

² This must be clarified with the Academic Administrative Division through the admissions office before submission of the report.

4.1 The size and competence of the academic environment

Fill in table 2³, The academic environment's academic contribution to the study programme, for submission by 1 May. For this Stage 1, the table's column for describing courses can be in the form of an outline. For Stage 2 with 15 September as the deadline, Table 2 must be completed in detail.

Describe the academic environment's competence in educational disciplines,	
including competence in using digital technology to promote learning	
How is the size of the academic environment adapted to the number of students	
and to the teaching and academic supervision that take place in the studies?	
Describe the academic environment's overall competence; both formal	
competence and field of study, and how this covers the subject area of the	
programme	
Explain how the digital learning methods and digital environment for the	
programme have been designed and how the academic environment's	
competence supports them.	
Percentage of full-time equivalents for employees with a main position	
Percentage of full-time equivalents for employees with qualifications equivalent to	
associate professor level or above ⁴ 4	
Percentage of full-time equivalents for employees with competence at professor level	

4.2 The national and international networks of the academic environment

National and international collaboration and networks in which the academic	
environment participates actively	
Explain why these networks are relevant to the study programme	

4.3 The research connections of the academic environment

The faculty must clearly define the link to research in the new study programme.

Explain how the studies have a satisfactory link to academic development work	
and/or research adapted to the level, scope and distinctive character of the studies,	
as well as how students will encounter this work.	
Describe the research and/or scholarly development work that the academic	
environment conducts and has conducted during the past 5 years. Attach a	
publication list from Cristin showing publications relevant to the programme of	
study	

5. Learning outcomes

The studies must be described through requirements for learning outcomes, in accordance with the Norwegian Qualifications Framework for lifelong learning (NQF). NQF is an overall framework without discipline-specific learning outcome descriptions; these are available in national curricula and national guidelines. The studies must reflect the requirements for learning outcomes in NQF in relation to the levels described there. One overall learning outcome must be formulated for each programme of study, defined in the categories of knowledge, skills and general competence:

Knowledge: Knowledge is the understanding of theories, facts, terms, principles and procedures in a discipline, subject area and/or profession.

Skills: The ability to apply knowledge to complete tasks and solve problems. There are different types of skills: cognitive, practical, creative and communicative.

³ Excel file, distributed with the letter of requisition

⁴ Here, gualifications equivalent to associate professor level or above comprise postdoc., associate professor (førsteamanuensis or førstelektor), professor and dosent 7

General competence: General competence is the ability to use knowledge and skills in an independent manner in different situations in study and work contexts, by demonstrating the ability to cooperate, the ability to act responsibly, and a capacity for reflection and critical thinking. These are the studies' benefits to society.

The students' expected learning outcomes must be relevant to employment, further studies, or both. Regarding relevance to employment, statements from forums for collaboration, networks with business and industry, the council for cooperation with the working world, firms that employ graduates, graduate surveys or similar may be used in the report.

When a new programme of study is established based on extensive reuse of courses from existing programmes, an explanation must be provided to describe how the courses' learning outcomes are consistent with the learning outcome for the new programme.

6. Relevance to society

6.1 Relevance to the discipline

Describe how the programme of study is relevant to the discipline in the context of working life, further studies or both.

6.2 Internationalization

Describe arrangements for internationalization of the programme.	
These must be specific to the programme's level, scope and	
distinctive character	
Describe schemes for student exchange. These must be specific to the	
programme's level, scope and distinctive character	
Describe the timing of student exchange arrangements in	
the studies	

6.3 Recruitment base and job market

An assessment of the market and the recruitment base for the proposed studies must be presented. Here, the assessment must specify whether there are other similar programmes nationally.

The recruitment of students must be large enough for the institution to establish and maintain a satisfactory learning environment and stable studies. The faculty must describe how it envisages maintaining a stable and robust learning environment over time. If a programme with relatively few students is planned, an explanation for this must be provided, for example if the assessment of the job market suggests the need to avoid educating too many graduates each year.

External assessment of the job market and societal needs for the studies must be obtained and documented in the form of market research, confirmation from working life or similar.

6.4 Number of students

Give reasons for the number of students that will provide a satisfactory learning environment	
Description and steps to be taken to ensure a satisfactory learning environment ⁵⁵ , the digital learning environment	

⁵ For this aspect, especially stringent requirements apply to studies the are not ordinary campus-based programmes.

7. Collaboration

Collaboration may take place internally at NTNU, with other educational institutions or with other external parties. For all types of collaboration, NTNU's Academic Regulations apply when students take examinations at NTNU.

7.1 Collaboration at NTNU

Describe which faculties contribute to the studies	
Describe collaboration with associated academic environments	

Attach the collaboration agreement(s) between the host faculty and the contributing faculty.

7.2 Collaboration with external parties

7.2.1 Educational institutions

Collaboration with external educational institutions applies to dual degrees, joint degrees, double degrees, or multiple degrees⁶. Attach the collaboration agreement, or confirmation of collaboration if the programme is to be created. This applies even if no joint degree is involved.

All requirements imposed by the Norwegian Agency for Quality Assurance in Education (NOKUT) for the quality of education in sections 2-1 to 2-3 of the Academic Supervision Regulations must be fulfilled in such collaboration. However, Section 2-4 of the Academic Supervision Regulations may apply. For international collaboration, NTNU is only responsible for ensuring that the requirements of the Academic Supervision Regulations are fulfilled for the parts of the programme that NTNU itself provides.

Describe collaboration within the programme that includes other partners. The Academic Supervision Regulations apply – in particular, see Section 2-3, fourth subsection, on the percentage of employees in the academic environment whose main position is at the institution. Section 2-4 of the Academic Supervision Regulations may apply.

Give reasons for the scope and type of collaboration	
Describe which partner is responsible for which aspects of the	
studies	
Give reasons for any use of external communities of expertise	
Describe and give reasons for the quality assurance procedures	
for the educational offering as a whole	
Attach a draft of the collaboration agreement	

7.2.2. Practical training

For programmes of study with external practical training, there must be satisfactory agreements governing key aspects that are important to the students.

Summary of the academic environment's competence	
from the field of practice	
Summary of the competence and experience of supervisors of	
practical training	
Draft of agreement on practical training with allocation of responsibility	

⁶ For collaboration with educational institutions in other countries, contact the person with responsibility for internationalization in the Pro-Rector for Education's staff or the NTNU Office of International Relations. 9

8. Studies with external funding

This applies primarily to further education programmes at NTNU.

Programmes of study with external funding may be experience-based master's degree programmes, further education programmes, specially commissioned teaching or international collaborative programmes with external support.

Due to the increased level of precision in the interpretation of regulations for funding of continuing and further education, the faculty's finance staff must be involved in this section. Also read the report from Universities Norway (UHR)⁷.

Provide justification for any fees as well as the level of fees, if applicable	
For master's programmes: If an experience-based programme is	
proposed, explain the background for this.	

8.1 Specially commissioned teaching

The term "specially commissioned teaching" refers to training, courses or programmes that are credit-bearing and that the institution provides against payment from an external client. Such a programme of study will be reserved exclusively for the client. The external client must cover all the costs of the programme, both direct and indirect costs, with a small additional margin⁸. All other requirements that apply to other programmes of study must also be met for these programmes. Specially commissioned teaching must not be equivalent to an existing offering in the academic portfolio. The collaboration must be of academic interest to the institution, and an agreement must be signed with the external party. A faculty that is planning to offer new educational offerings in the form of specially commissioned teaching must explain the background for establishing them in this way.

Explain why specially commissioned teaching is desired	
Description of the academic benefits for the academic environment	
Draft of the collaboration agreement	

8.2 Other further education

Other further education offerings may range from individual courses to programmes of greater scope. All the requirements in effect for other educational provision apply to these studies. For further education programmes that involve collaboration with external parties, see also Chapter 7.2 Collaboration with external parties.

9 Cost estimates and funding

The new Budget Allocation Model (RFM) has been adopted (see S-sak 2/17) and is to be introduced from and including the budget year of 2018.

In connection with a proposal to establish a new programme of study, the faculty must set up a cost and funding overview. The overview must include an estimate for start-up and development costs and an estimate of the expenses involved in ordinary operation of the studies. The faculty must further describe how the costs will be financed. If financial support is needed for development and start-up of the studies, the faculty must consider using its own strategy and restructuring funds for this purpose. The faculty cannot expect to receive funding beyond the increase in the performance-based allocation due to the increased number of credits obtained.

Costs involved in ordinary operation of the programme must be estimated per year until it has reached the maximum number of students. Table 1, the template for the summary of costs and funding, must be completed.

⁷ <u>https://innsyn.uhr.no/wfdocument.ashx?journalpostid=2018001072&dokid=40149&versjon=1&variant=A&</u>

⁸ <u>https://www.regjeringen.no/no/dokumenter/reglement-om-statlige-u0</u>iversiteter-og-h/id510495/

Table 1: Template for summary of costs and funding

Expenses		Funding sources			
Start-up and development costs	(Enter the amount here)	Faculty's own funds	(Enter the amount here)		
		Any external funding, if applicable	(Enter the amount here)		
Total	(Enter the amount here)	= (that is, costs equal funding)	(Enter the amount here)		

Expenses		Funding sources	
Normal operation, year 1 (year = calendar year)	(Enter the amount here)	Faculty's own funds	(Enter the amount here)
		Stipulated performance-based allocation in the budget allocation model	(Enter the amount here)
Normal operation, year 2	(Enter the amount here)	Faculty's own funds	(Enter the amount here)
		Stipulated performance-based allocation in the budget allocation model	(Enter the amount here)
Normal operation, year 3	(Enter the amount here)	Faculty's own funds	(Enter the amount here)
		Stipulated performance-based allocation in the budget allocation model	(Enter the amount here)
Normal operation, year, etc. until full escalation has taken place	(Enter the amount here)	Faculty's own funds	(Enter the amount here)
		Stipulated performance-based allocation in the budget allocation model	(Enter the amount here)
Total	(Enter the amount here)	= (that is, costs = funding)	(Enter the amount here)

Table 2: The academic contribution of the academic group to the educational offering <year of study> -EXAMPLE ONLY: USE AN EXCEL FILE

The table should provide a quantitative overview of the academic environment. The same academic employees can naturally be specified for different programmes of study, if applicable.

Specify the employees' contribution in <u>FTEs</u> as follows: One full-time equivalent = 1.0, half a full-time equivalent = 0.5 etc.

Name of the program	nme:										
Specify the number of h	iours per year f	for a full-time ec	uivalent: 1687.5	5							
Total full-time equivalents (calculated automatically):											
Name of employee who contributes academically to the study programme	Title of position (select from drop- down list)	Main position (select from drop-down list)	Type of employment (select from drop- down list)	Courses in the study programme to which the employee contributes	Percentage of academic full- time equivalents in the programme - teaching and supervision	Percentage of academic full-time equivalents in the study programme - R&D	Percentage of academic full-time equivalents in the study programme - Other	Percentage of academic full-time equivalents in the study programme - Total	Relevant practical competence in teaching (including digital competence)	For studies with practical training: Experience from the field of practice (number of years)	Comments
								0			
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