



Universiteit Utrecht



UMC Utrecht

Quality assurance plan for the Master's degrees of the Graduate School of Life Sciences, Utrecht University

**For the CROHO Master Degrees
Biomedical sciences, Health Science, Neuroscience and cognition,
Biosciences, Science and business**

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1. Vision on quality

The Graduate School of Life Sciences (GSLs) is an interfaculty cooperation between the faculties of Science, Medicine and Veterinary Medicine in cooperation between Utrecht University (UU) and the University Medical Center Utrecht (UMC). The primary responsibility of the GSLs is to provide *and* to safeguard high-quality education. The GSLs comprises several Master's degrees and programmes and maintaining high academic quality requires the support and cooperation of all those involved in the GSLs. This way GSLs is home to an open academic community and provides a Life sciences landscape with strong bonds and ample opportunities for students and staff. Openness, mutual trust and close cooperation are the basis of a collective quality culture which stimulates both a formal and more informal feedback structure for quality improvement.

The vision of the GSLs is to create a quality culture where teachers are intrinsically motivated to offer high quality education, are open to feedback (formal and informal) and work on continuously monitoring the quality of education while adapting to current legislation, and act on requests from GSLs quality management, students, and society. The GSLs aims to achieve this by offering inspiration, motivation and value to all students and staff involved and the opportunity to reflect together on what goes well or should be improved. For this purpose, the GSLs has a shared mission and vision, creates an atmosphere of strong cross-faculty cooperation on education and innovation projects, keeps close contact with all stakeholders and organises several network events.

Educational quality at the GSLs is one of the strategic aims related to the mission and vision of the School

>Our mission is to improve life, by providing an inspiring and innovative academic environment that enables our graduates to thrive in the dynamics of life science and society.

>The GSLs vision aims for:



- Master's and PhD programmes tailored to the needs of science and society, based on Utrecht Life Sciences' research themes and according to the prevailing (inter)national standards;
- An academic environment to develop professional competences with a distinct profile and tailored to individual needs and talents;
- Inspiring and state-of-the-art teaching and supervision by a qualified team that actively and effectively facilitates academic and personal growth;
- A governance and quality control structure with clear responsibilities, trust and transparency.

2. GSLS quality framework

2.1 Key elements of educational quality

The GSLS strategy¹ and vision is translated into a matching policy and governance structure to ensure high quality education, taught by knowledgeable staff, and supported by a professional policy team, thus optimizing the progress and performance of all students in the interfaculty context. The composition of the curriculum and the general organisation of the GSLS has been further described in the 'Governance and Educational plan' of the GSLS². Chapter 3 describes the roles for quality assurance in more detail.

Quality is aligned with the student journey, from admitting the right student for the right programme, till ensuring that our graduates meet the standards of the learning outcomes. Several key elements form the basis of the GSLS policy on quality, laid down in several regulations. At the inflow side of the masters the GSLS has defined clear admissions criteria and fair and transparent selection tools. For the outflow side we have set a framework for uniform learning outcomes for all Degrees and underlying programmes. In addition, all educational components fulfil the required constructive alignment of entry requirements, educational methods, assessment methods, their learning goals, and the relation to the end terms of the Degree. Furthermore, quality of staff and supervision and support for students play an important role in the quality standard we envision for our School. These elements are described further below.

2.2 Rules and regulations

Rules and regulations introduce clarity into the complex educational process. The main rules and rights of the students are described in the Education and Examinations Regulations (EER). The EER are revised annually by policy officers and recommendations are made by the programme coordinators and Board of Examiners (BoE.) The Educational committee (EC) has formal right of approval on several parts of the EER and formulates also formal recommendations for the BoS and Faculty councils. The EER are ultimately adopted by each of the Utrecht Life Sciences deans. The Rules and Regulations of the BoE and Board of admissions (BoA) are revised by those boards annually. The EER and the Rules and Regulations of the BoE are posted on the GSLS study and teacher guide. The regulations of the BoA are posted on the GSLS teacher guide. The Student Statutes can be found on the site of the UU Student Service.

Substantive changes to a programme that may result in a programme no longer complying with the GSLS admission procedures, the learning outcomes, and/or (internal) accreditation requirements must be submitted to the Degree director and BoS for approval. Subsequently, major changes should be sent to the Joint deans and the Executive board of the UU (URO process) for final approval. The EC and Faculty councils have representation rights in these cases.

2.3 Admission criteria

The criteria for admission to a programme are expressed in terms of knowledge, insight and skills, and the procedures for admission and selection are designed in such a way that the admission criteria can be applied and checked. The standard of the students entering the School is safeguarded by the work of the School's Board of Admissions (BoA) and selection committees of the programmes. They draw up and use the admissions criteria and on basis of the application files they decide whether the student has enough prior knowledge to complete the study successfully within the nominal period of time. To safeguard the transparency and fairness of the selection an assessment matrix is provided by the GSLS.

¹ The GSLS strategy also includes elements from UU strategy, faculty strategic plans and themes of 'de Nieuwe Utrechtse school'.

² Governance and Educational plan, Graduate school of life sciences, master domain, update 2020'

2.4 Learning Outcomes and constructive alignment

The GSLS provides standardised GSLS-wide learning outcomes as a framework for the degree/programme specific learning outcomes. Each degree must provide the definition of the learning outcomes for the degree and the associated programmes on the level of the curriculum as well as for components thereof, i.e. the theoretical courses, research project, writing assignment, Life sciences academy and profiles. For each educational component a constructive alignment matrix is provided with the description of the content, learning goals and the relation to educational methods, the assessment system and the connection to the end terms of the degree. These are approved by the degree directors and EC, BoE, and the Assessment support panel (ASP) in the developing phase and monitored regularly through periodical evaluations. During, and at the end of the study, the BoE determines whether a student has the knowledge, understanding and skills that are required for the Master of Science degree, in an expert and objective way. Details on assessment quality control can be found in the 'Assessment policy plan' of the GSLS.

2.5 Periodical evaluation of the curriculum

The GSLS is responsible for the quality of education evaluations. The Educational Committee (EC) annually analyses the evaluations of the various programme components: the courses, research projects and writing assignments. In addition, exit evaluations and profile evaluations are available to cover programmes or profiles as a whole. The policy teams analyse the data per programme, per degree and for GSLS as a whole and discuss the outcomes with the EC and BoE. The student body Life Sciences Representatives (LSR; comprised of students from all Master's programmes) also conducts evaluations, and reports to the policy teams, and delegates of LSR are members of the EC and BoS. In effect, all evaluations establish insight into the educational standards and the secondary factors of the educational organisation as perceived by students. In addition to students' views, the teaching staff receives a survey every two years from the EC. The EC also visits programme coordinators each year for an annual review which is reported in the annual OC report. The GSLS director and degree directors visit the programme directors each year for an update on programme developments.

2.6 Supervision and student support

The GSLS provides a study supervision system that is appropriate for the goals of the curriculum. The goal of supervision is to allow students optimally use their talents, the opportunities offered by the curriculum and also to give them the opportunity to complete their studies as efficiently as possible. In the Master's programmes, the curriculum is centred around a core of conducting high-quality scientific research. First-line supervision is supplied by the research staff of the UU/UMCU, and PhD candidates. Second-line support is given by the programme coordinator in terms of the substance and planning of the Master's programme as a whole. Third-line counselling comes from the academic counsellor, who provides help with problems that cross programme boundaries and problems of a personal nature. The academic counsellor can, if necessary, also refer students to specialist advisers at the UU or the UU confidentially officers.

Career officers are available for individual questions and support students in improving the quality of their curriculum vitae and job interview skills. The international officers offer support in all issues related to study option abroad. Research project coordinators provide support and advice in all matters related to research projects and writing assignments to both students and examiners. The policy teams provide information on regulations via the online study guide and, for the research projects and writing assignments, through guides for both students and teaching staff/supervisors. The student desks offer service to students for all administrative related questions.

Where rules, guidelines and individual discussions between the students and the parties involved prove inadequate, the complaints procedure is available. Students can submit their problems first to the academic counsellor and/or the BoE. The Life Sciences Representatives (LSR) form an informal student body for student complaints with delegates in the BoS and EC. If no

solution is reached, the GSLS has general complaints coordinators to whom students can turn. Finally, students can also submit complaints to the Examination Appeals Board (UU CBE).

2.7 Teaching staff and facilities

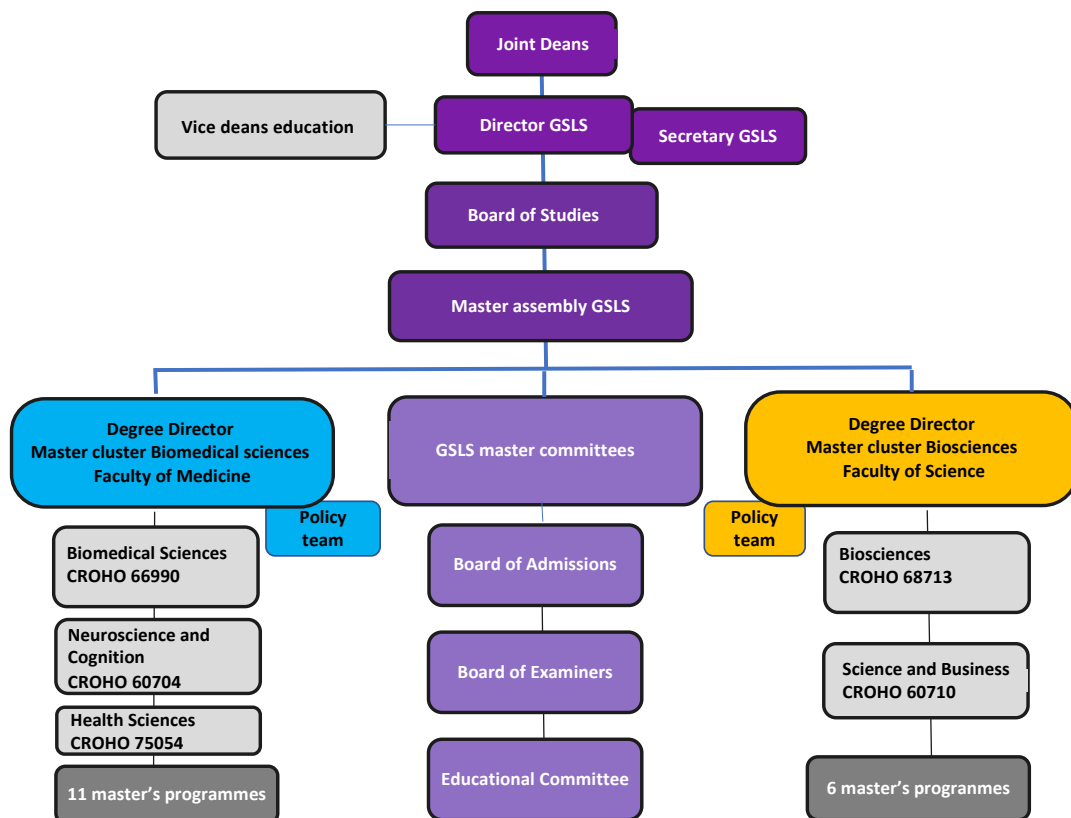
The faculties, under accountability of the Dean, are responsible for the staffing of programmes, courses and the teaching and supervision workload. The faculties are also responsible for the academic standard, including teaching quality, of the staff in the programmes. According to GSLS standards all examiners of courses should have at least a basic teaching qualification (BKO certificate) or be engaged in the application procedure for BKO. Examiners are appointed by the BoE. Other teaching staff, including PhD candidates in teaching roles, should at least have a relevant training on teaching courses or supervising projects. A general impression of the quality of teachers can be given by the number of basic or senior teaching qualifications (BKO/SKO certificates) and number of teachers with high level training. In addition, the EC can monitor the results of quality improvements by teachers in courses (based on student evaluations and feedback).

GSLS education also requires facilities that are adequate for the implementation of the curriculum, such as: scheduling and administrative support, well equipped rooms, ICT facilities, lab facilities, and enough workplaces for students in the research phase. The quality of these facilities is assessed in course, project and programme evaluations, which have a signalling function. These provisions fall under the responsibility of the faculties.

3. Governance and roles in quality assurance

3.1 GSLS organisation

The GSLS works with uniform policy and processes for all degrees and programmes including quality assurance. This requires well-defined tasks by well-defined bodies so that responsibilities are clear to all. The final responsibility for the quality assurance of the education at GSLS resides with the Deans of the three faculties that shape the GSLS. The Deans mandate this responsibility to the Director of the GSLS and subsequently to the Degree directors of the degree clusters Biosciences and Biomedical sciences. The Director GSLS consults with the three Vice deans of education of the three faculties on a regular basis. The Board of Studies (BoS) of GSLS advises the Director GSLS and Deans on the quality of Master’s programmes. The Master assembly life sciences (MALS) connects all people with decision-making authority, either by the GSLS mandate or by their function as chair of a Committee as described in the WHW. The MALS also combines all relevant expertise and provides sufficient time for detailed information sharing and thorough discussions. This way the Board of Studies and Joint deans can be sure of synchronized and complete information for topics that need their advice or approval. See organisation scheme below.



3.2 GSLS roles in quality assurance

In order to safeguard all quality assurance processes within the GSLS an elaborate network of meetings is set up in which all stakeholders cooperate closely. Formal responsibilities and more supportive roles are connected as to achieve an efficient and effective network. All actors function within the GSLS vision, policy and framework as described above. Table 1 provides more detailed information on the tasks of the formal functions and bodies of the GSLS that play a role in quality assurance.

Table 1: Overview of the formal Quality assurance functions and bodies of the GSLS

GSLS functions and bodies	Main role	Context
Joint deans	Accountable for general management of the GSLS and organization of the education and scientific practice; this includes the quality of teaching/supervising and support staff and adequate educational facilities	The deans are charged with concluding a joint agreement for interfaculty education (WHW 9.15) ³
Director GSLS	The Director GSLS is responsible for GSLS wide quality assurance policy and processes	The Degree director is responsible under the mandate of the Joint deans GSLS
Secretary GSLS	Secretary GSLS oversees GSLS wide quality assurance on strategic level	Is accountable to the Director of the GSLS and advisor to Degree directors master
Board of Studies (BoS)	The BoS consist of scientific personnel of the three faculties as well as a Master and PhD student. The BoS advises the Director GSLS and the joint deans on all quality-related matters in general	This body is defined in the Faculty regulations for Graduate school organisation.
Degree director	The degree director is responsible for implementing GSLS policy and creating conditions and promoting the importance of quality assurance.	The Degree director is responsible under the mandate of the Joint deans and the Director GSLS (WHW 9.17). Regularly consults with the Vice deans of education
Policy team	Supports the degree director in quality assurance matters on tactical and operational level	The policy teams within GSLS work closely together on interfaculty uniform processes
Master assembly (MALS)	The MALS consists of the Degree directors and chairs of the formal committees as well as policy staff. MALS checks quality-related matters in detail and advises the BoS	MALS also is involved in project management for GSLS wide projects related to education and quality
Programme director	Responsible for a 'state of the art' and high quality master's programme within the Degree framework and adhering to GSLS policy	The master's programme director is accountable to the Degree director.
Programme coordinator	First contact for GSLS staff and students on all quality-related matters	The programme coordinator is accountable to the programme director.
Course coordinator	The course coordinator is responsible for all educational efforts within the course, including content and quality assurance, such as the course surveys	The course coordinator functions within the framework of the Master's programme and /or the framework of Degree and the GSLS
Board of Admissions (BoA)	Responsible for developing and monitoring of the admissions policy and selection process	Chair of BoA is mandated by Joint deans to make decisions on

³ Gemeenschappelijke regeling GSLS 2020

		admission for applicants to the GSLS master's programmes
Educational Committee (EC)	The EC advises the Degree directors, Director GSLS and the BoS on promoting and guaranteeing the quality of the GSLS programmes	The EC has (among others) consent and advice rights on the EER, is consulted for all major curriculum adjustments and is involved in external audits (WHW 7.13)
Board of Examiners and Assessment Support Panel (BoE and ASP)	The BoE and the ASP (subcommittee of BoE) are together responsible for, advising on and monitoring of, the quality of the degree in general and of the assessments of educational components specifically.	The BoE determines in an objective and expert manner whether a student meets the conditions of the end terms and the rules set in the EER (WHW, art.7.12)
Faculty councils	The three faculty councils have formal advise rights on quality control and consent rights about (parts of) the EER	Task are related to article 9.30a WHW and as stated in the Faculty regulations
Life sciences representatives (LSR)	The LSR represents the students voice for all quality related items.	Some LSR members are also part of the EC and one member is part of the BoS.

3.3 Cross faculty cooperation

Members of all three faculties are represented in the quality assurance bodies. In addition to that, the GSLS cooperates with partners at the three faculties such as the Expertise centre UMC and the IT department of the faculty of Sciences for advice and operational support on educational surveys and tooling. The departments of educational and student affairs of the UMC and Faculty of sciences offer student support and administrative support.

4. The quality assurance system

The GSLS monitors the quality by means of a PDCA (plan, do, check, act) based control system, that maintains GSLS wide uniform procedures that serve multiple purposes in quality assurance. In addition, teachers and programme coordinators may collect feedback from students in tailor made ways in order to retrieve useful information for quality improvement. This has also been described as an IMVR cycle (Inspire, Mobilize, Value and Reflect) that combines personal, social and cultural elements that are essential to quality assurance (INK foundation 2008). These IMVR elements do not need to be measured, but rather form the context in which the PDCA system allows for monitoring the intended objectives of quality assurance GSLS wide.

4.1 PDCA cycle

Quality systems in higher education are generally based on the *Plan-Do-Check-Act* (PDCA) cycle of W.E. Deming. This model links up to the way traditional scientific research is conducted. The iteration process is fundamental to the PDCA cycle. Repetition of the complete evaluation cycle should enhance the achievability of the intended objectives (objectives from the cycle “Plan”) and the associated process (the cycle “Do”). The GSLS uses the PDCA cycle as follows:

- Plan = Establishing standards and objectives reflecting strategy and vision. Includes development of policy and a plan for the process.
- Do = Implementing the process in cooperation with all involved parties.
- Check = Checking the process systematically if objectives are met. Also includes analysis of available data and recording of deviations from the required standard.
- Act = Drawing conclusions, formulating recommendations and implement improvements.

The GSLS uses this cyclic way of working to continuously monitor the quality and make improvements when needed. The vision and policy regarding Quality assurance is laid down in this plan and process descriptions (Plan). The process entails collecting management data and feedback from students and staff annually (Do). The input is analysed and discussed in different settings and conclusions and suggestions are written down in an annual report (Check). The report serves as a basis for action lines which are distributed over the several quality assurance functions and bodies (Act).

4.2 Components of quality assurance

The PDCA quality assurance system contains several components, which are laid down in the following documents: 1) regulating documents aimed at a common ground and uniform policy throughout the GSLS, 2) monitoring documents with quality-related data and information generated annually through surveys and reports, and 3) accountability documents for internal and external accreditation. It should be noted that all documents can be part of an audit and are archived by the GSLS secretary or the committees. See table 2 for details.

Table 2: Overview of quality assurance related documents

QA related document	Content
Regulating documents	
Joint agreement GSLS ‘Gemeenschappelijke regeling’	The mutual GSLS regulation contains the most important agreements between the three GSLS faculties on the School governance. The separate faculty regulations refer to this mutual regulation.
Mandate regulation	Mandates on education are described in a separate mandate regulation of the GSLS. The three deans mandate the Director of the GSLS, and a subsequent second mandate to the master degree directors .
Strategic plan	The GSLS formulates its mission, vision and strategic goals for both master and PhD education every three years. This plan is governed by the three deans of the GSLS faculties.

Educational plan	The Educational plan describes the end terms and the principles of the education and curricula at GSLS.
Quality assurance plan	The quality assurance plan describes the system, the components and actors involved in quality assurance.
Assessment policy plan	The plan describes policy of the assessment support panel on 1) assessment of the programmes as a whole, 2) courses, 3) research projects and writing assignments and 4) profiles
Educational and examination regulation (EER)	The EER (art 7.13 WHW) contains the rights and obligations of students and staff. The EER governs all GSLS based education and is based on the model of the UU.
Regulations of committees	The Board of Examiners and Board of Admission have 'regulations' that contain an elaboration of the EER, clarifying the role of the committee and the way they work. The educational committee has a 'EC manual' for this purpose.
Process descriptions	Procedural descriptions on the most important and more complicated quality assurance processes (e.g. EER, URO, course information and evaluation)
Monitoring documents: quality related data and information	
Management data overview	Annual overview of data on admissions, graduation, yields and some demographic data per programme, per degree cluster and for the GSLS as a whole.
Assessment matrices/plans	Each educational component has an assessment plan, containing the learning goals, working methods, assessment methods and the connections to the end terms of the degree.
Course and curriculum evaluations and analysis	Each educational component is evaluated annually through standardized student surveys. The curriculum as a whole (programme based) as well as profiles are also evaluated through surveys. Analysis on degree and GSLS level as well as time trends are provided.
National student survey (NSE) analysis	The NSE survey is analysed on the level of the GSLS, level of the CROHO Degree and (if possible) on the level of a programme.
Survey among teachers	The EC takes initiative for a teacher survey bi-annually. Teachers also provide feedback on student surveys.
Reports of structured conversations	The EC hosts annual conversations with the programme coordinators based on results of evaluations and the management information available. Summaries are part of the EC annual report. In addition, GSLS management talks to the programme directors annually on most important strategic developments.
Annual report GSLS master domain	The GSLS annual report combines the most important, information on management data, innovations/developments and the annual reports of each committee. It contains the most important activities, findings, points of attention for the GSLS and future plans. The report serves as a basis for actions on improvement.
Accountability documents: Internal and external accreditation	
UU education guidelines and internal UU accreditation (URO)	The UU education guidelines provide a framework for all UU education. For URO (a process of internal accreditation) the UU provides a set of forms and criteria as a tool for consent for big changes in educational programmes or starting a new one.
Advisory board input	The GSLS advisory board consist of ~ 25 members from a variety of future employers (some alumni) of our graduates. Annual meeting provide input for our curriculum and opportunities for cooperation in education as well as for audits.
Audit docs – external accreditation	The NVAO undertakes an audit on quality control once in six years on the level of the University. In addition, each CROHO Degree is audited once in six years on specifics of their educational programmes: aim/end terms, curriculum composition, assessment policy and evaluation of quality of graduates. Specifically, it involves a self-assessment and/or SWOT analysis.

The regulating documents are posted publicly on the GSLS corporate site and/or Master teacher and supervisor guides. Monitoring documents and accountability documents are stored internally under supervision of the GSLS secretary with the exception of course and curriculum evaluations that are stored internally under supervision of the Educational committee.

The most important interactions between actors, tasks and documents in the PDCA cycle (as mentioned in table 1 and 2) are integrated in the flowchart below.

4.3 Flow chart quality assurance

