

HAN UNIVERSITY OF APPLIED SCIENCES

Degree Statute and Education and Examination Regulations of the Masters degree course Molecular Life Sciences 21-22

School of Applied Biosciences and Chemistry
Academic year 2021-2022

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PART 1 General part

Adoption

This degree statute was adopted by the dean on 01-07-2021, after consent was received from the school council on 01-07-2021, and consent from the degree committee on 20-05-2021.

1 About the degree statute

The Higher Education and Research Act stipulates in article 7.59 that an institution such as HAN University of Applied Sciences (hereafter HAN) is obliged to adopt and publish a student charter. The Student Charter consists of two parts: the institution-specific part (which we call the 'Student Charter') and the degree-specific part (which we call the 'Degree Statute').

The degree statute consists of three parts:

- Part 1: General part.
- Part 2: The Education and Examination Regulations, which outline the education, final assessments, exams and modular exams for your degree course.
- Part 3: Other regulations.

Part 1 is purely informative. No rights can be derived from it. Rights and obligations can be derived from the other parts; these are legally applicable regulations.

1.1 Which degree course does this degree statute apply to?

This is the Degree Statute for the following HAN degree courses:

Degree course	Degree format	CROHO number	Degree after graduation
M Molecular Life Sciences		49293	Master of Science

This degree statute contains information on the structure, organisation and execution of the degree course, the student facilities, counselling and study coaching, the education and examination regulations and the degree-specific regulations that describe student rights and responsibilities. When this document subsequently refers to 'the degree course', we mean the above degree course(s).

1.2 How do you read this degree statute?

We use regular UK spelling rules.

When we use 'you', we mainly mean you as an internal or external student enrolled in this degree course at HAN. But we also mean others, such as prospective students.

1.3 How long is the degree statute valid for?

A new degree statute is written for each HAN degree course every academic year. The degree statute for a certain academic year applies to everyone enrolled in the degree course for that academic year. It does not matter which phase of your degree course you are in, whether you are an internal or external student, or when you started. You can find the digital version of the degree statute

here: <https://hanuniversity.com/en/programs/master/molecular-life-sciences/fulltime/practical-info/#student-services-and-support>.

This degree statute applies to the 2021-2022 academic year: from 1 September 2021 to 31 August 2022. For students starting their degree course on 1 February 2022, two different degree statutes apply consecutively during their first 'year': the current one and that of the next academic year.

Did you enrol in the degree course in a previous academic year? And is the degree course working with a renewed curriculum or modifications in the education and examination regulations? You can read how this is organised in

Part 2, chapter 8 (Transition Regulations).

1.4 How does the degree statute come about?

The degree statute for the degree course is adopted by the dean each year. It is based on the model degree statute: a model that applies for the entire HAN.

The school council exercises the participation rights on the degree statute, but only in so far as the HAN participation council has not already exercised these rights through the model degree statute and in so far as these rights have not been conferred to the degree committee. How this works exactly is set out in the Participation Council Regulations and the Regulations of the Degree Committee.

Advice is requested in advance from the degree course's board of examiners.

The relevant HAN organisational bodies strive to publish the new degree statute each year before 1 July.

1.5 Consistency of degree statute, student charter and enrolment regulations

The Degree Statute is part of the Student Charter. The Student Charter applies to the entire HAN. The Student Charter lists all the rights and obligations of students and HAN.

The Student Charter can be found

here: https://www1.han.nl/insite/student-support/content/Student_charter_English_.xml?layout=standard&sitedir=/insite/student-support

You can find the rules for application, admission, educational requirements, selection and enrolment in the Enrolment regulations. The degree statute only contains a number of specific additions to this. These additions may not contradict the rules from the enrolment regulations.

The enrolment regulations can be found at: www.han.nl .

2 Education at HAN

Your degree course is part of the HAN educational offerings. HAN has an overarching mission and vision on higher education. Your degree course embodies this vision in its own way. This chapter describes HAN's mission, vision and culture.

2.1 Mission

At HAN we educate you in such a way that you are optimally prepared for your (future) profession. But that is not the only goal of our education. Other goals are for you to continue developing your social awareness and for you to be able to contribute to innovation in a complex, dynamic and international society, now and in the future. We have subdivided this mission as follows:

- We want to give you a good **qualification** for your (future) profession.
- As a professional, you never work alone, but always in collaboration with others. We call that educating you as a **network Professional**. As a result, you learn to work well with others and across borders. You also learn how you as a professional relate to the (historical) context of your field. This gives you insight into what is expected of you now and in the future.
- We want to offer you a challenging education at **master level** where you can learn to address problems in a systematic, solution-led manner underpinned by applied research.
- We want to contribute to your **personal development**, so that you grow as a professional and pursue lifelong learning. After all, your knowledge and skills are the basis of your profession, but who you are, your qualities and your approach make the difference.
- We want you to learn a sense of social responsibility, ethics and citizenship for your profession; to learn in your profession you have to mean something for other people. This is often indicated with the term **bildung**.

2.2 Vision

We achieve these goals together with you. How? Below you can read how.

- **You learn in context.** You gain experience in practice. That helps you to understand the complexity of your work. Learning is not something you do on your own. Your lecturers stimulate learning together.
- **You learn in the triangle of education-research-professional practice.** You conduct research, for example on the quality of work in a professional field of your choosing, or on the possibilities for innovation. This allows you to contribute to the development of your profession. Also, in the case of new developments, you can quickly adapt to what is needed to perform your work optimally.
- HAN has numerous **research groups**. Apart from conducting applied research, these groups are also involved in the degree courses. For example, by allowing students to get research experience with them in collaboration with the professional field. You can find all the research groups on our website: www.han.nl/onderzoek/kennismaken/lectoraten.
- **Study coaching and the student as partner.** You are assigned a study coach for the full duration of your degree course.

At HAN we want you as a student to feel recognised, seen and heard. We also involve you in the organisation of the degree course. This is what we call 'student as partner'. Each course department has the freedom to organise its education in a way that suits both you as a student and the degree course. You can read more about this in Part 1, chapter 3 and Part 2, chapter 4.

- **Education with options.** Besides your regular study programme, we also give you various options to choose from. The options depend on the degree course you are following. You can read more about these options in Part 2, the education and examination regulations. We stimulate you to get research experience, for example within the HAN research groups, at an innovation lab or work-based learning location. Your lecturers and other advisers at HAN can help you with your choices.

Internationalisation @home or abroad. During their studies, all HAN students get to experience the international context of the field in which they are studying.

You can read more about internationalisation in Part 1, chapter 3.

2.3 Quality culture

HAN fosters a culture of quality. A culture in which everyone takes responsibility in some way for high-quality education and a smooth-running organisation. Below you can read how.

2.3.1 Highly qualified staff

Our lecturers are highly educated. Many of them have worked in the professional field for which they are educating students. Others have research experience relevant to the field.

Over 80 of the lecturers you encounter during your studies have a master degree. Some of these have their PhD.

The lecturers have sufficient teaching skills, which they have acquired through training. This means they know the best way to guide you in your learning. The examiners also have the necessary qualifications. All our support staff are also properly trained in their fields. They all perform high-quality work.

Because our course departments collaborate with our research groups, researchers and professors are also involved in education. This helps you to further develop your own inquiring attitude, for example.

The research groups also allow you to discover the latest research results and innovations in your professional field.

2.3.2 Stimulating growth and a learning attitude

We want you to grow so you can successfully complete your degree course. This is not achieved simply through coaching and guidance. We also challenge you to get the most out of yourself and we train you to become ever more independent in your studies. We stimulate you to take initiative, expect you to be proactive in your studies and we guide you in developing a professional attitude. You can expect your lecturers to be available and respond to your questions quickly and clearly. You can also ask for support if you are falling behind or if you are willing and able to do more. You can read more about this in the education and examination regulations.

2.3.3 Responsible for quality

There is a quality plan for each degree course. This plan, but also the education and examination regulations, describe how students evaluate the education and indicate what needs to be improved. It also describes how students are closely and actively involved in improving their degree course. Student involvement and participation are important to us. But it is even more important that staff members, students and the professional field related to your degree course at HAN, each in their own way, are involved in or take responsibility for the degree course and the educational institution. For example, for the quality of lectures, timetables, course content, supervision at your work/internship, examinations and other forms of renewal and improvement.

We invite you, as a student, to play an active role in this. This attitude will also be important in your profession. So we also regularly ask you to give your opinion about the degree course. We do this in (digital) surveys, an annual national student survey, and in evaluations at the end of a term. We also invite you to actively collaborate on renewal and quality improvement. For example, by improving education and examinations or improving logistical or organisational points: together with lecturers and/or support staff.

We also reflect on how we organise education and research, on who we do it for and why we do it the way we do. We check our conclusions regularly with all involved parties. This means you, but also lecturers, researchers and professionals from the field.

Also, every 6 years each degree course is officially monitored by the NVAO (Accreditation Organisation of the Netherlands and Flanders).

2.3.4 Inspiring and interactive environment

We want you to be inspired by your degree course. For example, by getting the latest information on developments in your field. And we always try to create an open, interactive, safe and familiar learning environment. We encourage everyone to give each other honest feedback.

3 Information about your degree course

3.1 Mission and vision of your degree course

The professional field of our master programme is the bioscience sector. This sector branches into pharmaceuticals and biotechnological companies, molecular research and diagnostic departments at (academic) hospitals, and university research groups who are active in applied or translational research and product development. This HAN Master in Molecular Life Sciences is a Professional Master that is specialised in applied/translational research and product development in the bioscience sector. The programme is strongly focussed on combining the laboratory and technical skills students previously acquired with competences required for managing projects within the bioscience sector. Therefore, the focus and characteristics of a Professional Master graduate will be different in comparison to the academic Master graduate (See figure 1).



Figure 1. The figure illustrates the characteristics of the Academic Master (green) compared to the Professional Master (HAN Master in Molecular Life Sciences; blue) in the area of Life Sciences (which includes the bioscience sector).

The Master in Molecular Life Sciences graduate has a profound knowledge of biochemistry and of molecular and cell biology of prokaryotic and several eukaryotic organisms, thereby being specialised to perform Bioscience-related projects. Moreover, being trained in project management, interdisciplinary thinking and communication, in combination with an entrepreneurial focus (such as patent searches and business development), the HAN Master in Molecular Life Sciences is prepared for a role in applied research and product development phase in industry, or in applied/translational research in research institutions of the bioscience sector.

Social and organisational context

As indicated in figure 1, the HAN Master in Molecular Life Sciences graduates is prepared for working in different stages of the business pipeline that the bioscience industry uses for product development. As such the HAN Master Molecular Life Sciences programme takes in a unique position in the master programmes offered in the Netherlands. It serves the industry need for interdisciplinary, goal- and market-oriented professionals specialised in applied research and product development of both biotechnology companies as well as research institutions active in applied/translational research.

The Master Molecular Life Sciences graduate can be employed at:

1. Companies active in biotechnology, in fields such as pharmacy, personal health care, diagnostics, food- and feed industry etc. These can be small and medium enterprises as well as multinationals.
2. Research institutions such as universities, hospitals or governmental/private (contract) research institutes.

Examples are:

1. MSD, MSD Animal Health, DSM, DuPont, Byondis, Batavia Biosciences, Qiagen, European Veterinary Laboratory, QM Diagnostics.
2. TNO, RIMLS, NKI, Universities and (University) Hospitals.

Key features

A key feature of the programme is the strong link between the profession or practice and the degree course. This emerges clearly from the requirements set for students' practical experience and the close relationship between the education, professional field and organisations or businesses at which the student is employed. We strive for a high-quality connection between practice-based research and education.

Our basic standard for all this is the human scale, which means: small-scale, clear and with directly accessible lecturers and coordinators.

HAN describes its vision on part-time and work-study education as follows: 'The HAN policy is specifically aimed at lifelong personalised learning, research and work in a technology-assisted, social and open work-based learning environment. Collaboration with the professional field is an essential part of this. We shape our education and research in close collaboration with the professional field and our environment. As a co-owner, the professional field gives real shape to our education and research.'

Education in our part-time and work-study programmes is both **customised and standardised**. That means it is organised based on standard components, also referred to as **modules**. Modules have the following characteristics:

1. Each module is built around distinctive task areas from the professional practice.
2. A module can be taken as an independent unit and is concluded with a certificate.
3. Part of the course content is required and part is elective. This allows us to cater for the different career ambitions of our students.
4. Within the modules, students can to a limited extent design their own programme.
5. Blended learning (a mix of face-to-face instruction, workplace learning and online learning) offers possibilities for personalisation within a module.
6. Because students have the option of following different learning paths, it is crucial that the learning outcomes are well defined. Everyone is assessed on the same competences.

Because different learning paths should lead to the same learning outcomes, all exams and modular exams are designed so they can be taken independently of the standard programme. This allows students to include professional products from their own work environment.

3.2 Content of your degree course

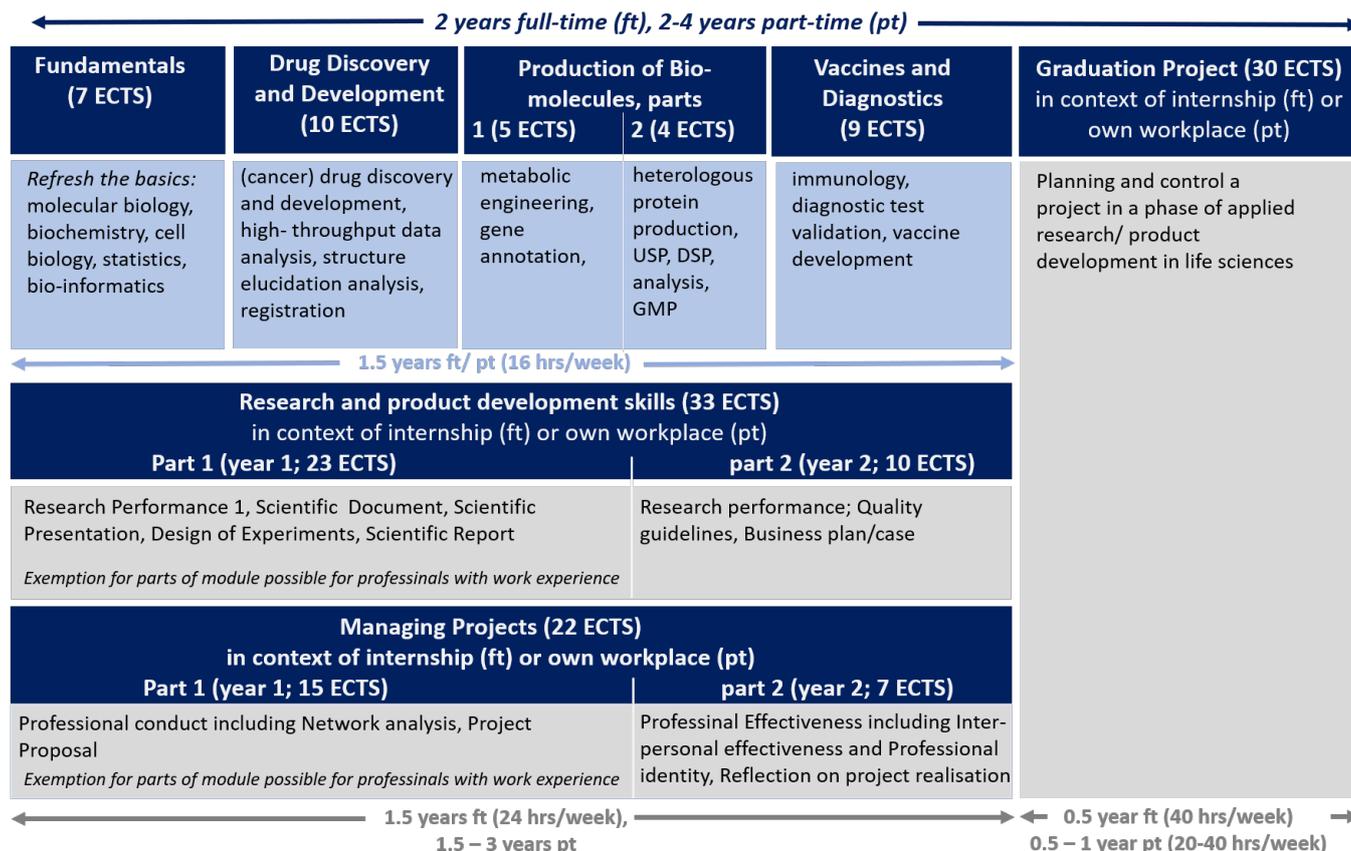
This section gives a broad description of your degree course. You can find the rules and details in Part 2, the education and examination regulations, and in the regulations in Part 3.

3.2.1 Scope

The scope of the degree course is represented in credits and study load. One credit is equal to 28 hours of study (this is an average indication). This is also stipulated as such in the Higher Education and Research Act. Your master course has a study load of 120 credits.

In the part-time and work-study degree format, these are grouped in 7 modules

3.2.2 Degree content



3.3 Organisation of your degree course

Management and organisation at degree course level

The programme is designed and organised by a core team. The core team is responsible for continuity, content, cohesion and coordination of the education. The team is supported in this by the secretarial office, which is located in room 0.07 of the Institute of Applied Sciences (on Mondays) and can be reached via 024-3530586 on all other work days.

The core team of the Master's degree programme is composed of the following members:

Andrea Thiele (PhD), coordinator

Remko Bosch (PhD), responsible for curriculum

Marloes Vissers (PhD), member of the examination committee

Hans Visser (PhD), industry member

Organisation at School level

MMLS belongs to the School of Applied Biosciences and Chemistry. The director (a.i.) of the School of Applied Biosciences and Chemistry is H. Neidig. The SABC management reports to the directors of HAN (see also Chapter 6, HAN organisation, of this document).

3.4 How we educate and supervise

Good higher professional education is attuned to the developments in society and the professional environment. We are in close communication with potential employers to monitor what they demand and desire in a graduate. With that goal in mind we offer a programme with a very distinctive and unique character attuned to market demands to prepare best for the job market.

We are convinced that learning in the professional context is most effective. Therefore, we value the central role of professional practice in our education and we have made learning through practicing professional tasks the key principle of our curriculum. Professional tasks are meaningful tasks, as complex as those that are performed in the 'real' working environment. Students will work on projects in their entirety, not on parts thereof to practise a professional task in full. In our curriculum, this is realised in two ways: firstly, by learning in professional practice (workplace learning) and secondly by learning on project cases. Learning in professional practice implies that student work on projects within the product development pipeline in bioscience in practice and in this, develop from project member to being responsible for a project.

The 'projects cases' that we have selected represent different product development pipelines present within different areas of the bioscience industry. In our programme, projects are defined as course units and all assignments within a particular course unit represent professional tasks belonging to one project. This means that multiple competences will be addressed in each course unit. We aim to acquiring the necessary set of competences with accompanying knowledge that are immediately and sustainably profitable for both students and their respective employers. Our defined set of competences, supported by a number of criteria (indicators), are the scaffold of our programme and the student's activities are always reviewed using the indicators as reference. The competence training is placed in the context of our so-called Body of Knowledge and Skills (BoKS). Both the competences and the BoKS are regularly reviewed and verified by representatives of the professional practice. We provide lectures, workshops, trainings, current literature and feedback by experts to support students in realising assignments (representing professional products) to complete a task (see figure 2). In doing so we ensure proper development of skills and attitude with accompanying Body of knowledge for all students. This way of active learning in the professional context enables students to apply their competences and knowledge in other situations and projects at their work place.



Figure 2. Schematic presentation of the case-based education of the Master in Molecular Life Sciences education programme. Assignments related to the professional practice are central in the learning process and supported by lectures, workshops, trainings, the literature and feedback by experts.

In the final module (major project), all competences are integrally applied and all individual indicators are reviewed and must be assessed sufficient. This is done through an integral assessment in which a project proposal, the project work, the master thesis, and the presentation and discussion are evaluated by a group of examiners. As such, a graduate will demonstrate that he/she has required all the competence indicators that belong to our professional master in molecular life sciences.

International orientation

An undeniable feature of the bioscience sector is the many collaborations across borders and the international composition of staff. In accordance, the Master MLS is entirely offered in English and students are from various countries. The curriculum structure represents the professional practise, and therefore the degree programme intrinsically applies international standards and competences.

We train professionals who can independently carry out their professional tasks, continuously improve their

professional practices and independently develop their careers. We expect students to develop an increasing degree of independence and self-management in shaping their learning track.

HAN is committed to offering you support your studies and with structuring your degree course at HAN. Study coaching is therefore an important part of our education. The study coach Study coach helps you to develop the level of self-management you need to complete your studies. They are also your first point of contact in special situations, for example if your studies are not going as planned or if you have a chronic illness or disability. They can help you look for ways to improve your study progress.

Exams, modular exams and final assessments may only be administered by examiners designated by the board of examiners. The quality of exams, modular exams and final assessments is monitored by the board of examiners.

3.5 Internships and/or workplace

Full-time students spend 3 days a week working as an intern in a laboratory at either a company or institute during the first three semesters of the programme. The other 2 days are used for attending lectures and other study activities. Semester 4 is dedicated for the graduation project during which students spend 5 days a week as an intern.

In this degree course you are required to have a suitable workplace or internship for one or more units of study or modules. We set this requirement because our education is designed so that the learning outcomes for the module(s) have to be developed in a work setting. If you lose your job or move to another job during your studies, this does not mean you can no longer do the degree course. In that case we look for a solution together, which could be an internship. Part 2 gives a list of the units of study or module(s) for which this requirement applies.

If you do part of your learning route at your workplace, we record this in an agreement between you, your employer and HAN.

3.6 How the professional field is involved

Professional advisory committee

In monitoring the quality of the programme, HAN attaches great importance to the opinions of experts from the professional field in question. These experts meet at least once a year in the meetings of the professional advisory committee.

The professional advisory committee consists of the following members:

- Henny Hofs PhD (Pharmaceutical Consultant & Toxicologist), PSDD, Nijmegen
- Willemijn Hobo PhD (Assistant Professor, Department Laboratory Medicine), Radboudumc Nijmegen
- Nienke Vriezen PhD (Head Upstream Biotechnology), Byondis
- Martijn van Hal MSc (Director Operations), MSD
- Riet Hilhorst PhD (Senior Scientist), PamGene
- Markus Mueller PhD (CEO), BioEcho (Germany)
- Jan-Paul Favier PhD (Director) CLS Services

External supervisor

External supervisors are appointed to monitor and assess the quality of the final assessment.

Assessing the quality of the final assessment concerns in particular:

- the quality of examinations and assessment

- the quality of students (realisation of intended exit qualifications)
- the quality of the organisation of the final assessment.

The external supervisor is: Drs. Paul Smeets

External Advisor

The External advisors are chosen from companies or institutes of the biosciences sector. The External Advisor has an advising role for the assessment of the candidates for the Master's degree. The External Advisor has the following tasks:

- Judges the final report and presentation based on the assessment criteria.
- Formulate questions based on the Graduation Project Portfolio and presentation.
- Advises about the final assessment.
- Gives feedback on the final assessment with respect to content and process.

3.7 Research groups and research centres

Research groups relevant to the programme

The research groups Biodiscovery and Drug Discovery are involved in the Degree Programme.

The research groups are active in research and development in biotechnology and Drug discovery. Expertise are bioinformatics, molecular biology, (bio-)chemistry, (bio)analytical chemistry, fermentation technology and downstream processing. Current projects focus on efficient protein production using micro-organisms, on microbial oil production, development of tools for biorefineries, on the identification of new antimicrobial compounds, The contract research organisation HAN BioCentre is part of the research group Biodiscovery.

Staff of the research centre is structurally involved in the master degree course and the module Production of Biomolecules is directly related to research activities of the research group Biodiscovery.

The Research group Drug Discovery started in 2020 and focuses on improving processes necessary for the development of new medicines, such as the discovery of new targets for diseases (biological targets). They develop validated test systems with increased translation possibilities to humans (reduce animal testing), such as using *C. elegans* as a screening system for various compound activities (e.g. toxicity). In addition, the research group focusses on the discovery of green molecules that interact with these biological targets.

The professor of the research group Drug Discovery is involved in the module Drug Discovery and Development of the degree course.

Further, some students of the masters course can combine the study with an internship at HAN research groups. They apply the knowledge and skills acquired in the master degree course in their internship as research member/technicians, and *vice versa*, the master course helps them to fulfil their role in the dynamic research environment in applied research for industrial clients.

3.8 Quality assurance of the degree course

The aim of quality assurance within the Masters degree programme is to work continuously on improving and guaranteeing quality. Quality assurance is carried out according to the parameters drawn up by the HAN University of Applied Sciences and elaborated for the Masters programmes in the "*HANdboek Kwaliteitszorg Onderwijs*", 2011, update 2015 (HANdbook of Quality Assurance in Education).

Different stakeholders, which are students, professional field (professional advisory committee, the HAN Research

group Biodiscovery and diverse other contacts), lecturers and alumni are involved in the quality assurance cycle. They are formally asked about their opinion about various quality aspects of the programme on a regular base, and are stimulated to give informal feedback. Evaluation scores are compared to targets. Possible causes for scores lower than targets are discussed, and improvement actions are initiated, carried out, communicated and evaluated. By continually going through Deming's Plan-Do-Check-Act cycle (PDCA cycle), the programme aims for continuous improvement of the quality of the programme.

In addition, the external supervisor has the task to give feedback on the realization of the final qualifications, their assessment and teaching supporting students in acquiring these.

The quality assurance system of the Master Molecular Life Sciences is described in the annual "Kwaliteitszorgrapportage" of the programme.

4 Exit qualifications and professional requirements

4.1 The professional field

The professional field of our master programme is the bioscience sector. This sector branches into pharmaceuticals and biotechnological companies, molecular research and diagnostic departments at (academic) hospitals, and university research groups who are active in applied or translational research and product development.

Aim of the programme

The aim of our programme is to educate masters that are able to plan and control a project(*) in applied research and/or product development in the bioscience sector.

(*) Projects can also be parts of projects and have a length of at least 3 months.

Professional tasks:

To meet this aim, we have discerned three professional tasks for our Professional Master in Molecular Life Sciences:

1. to understand practical, economic, social and/or ecological needs of businesses, market and society that can be anticipated by biotechnology;
2. to apply fundamental knowledge in the area of molecular life sciences to find sustainable solutions for these needs;
3. to implement such solutions in a successful and efficient way by organizing their realisation in projects, considering the interdisciplinary dimension and communicating with different experts. Such projects have a duration of at least three months.

The professional master is responsible for the realisation of projects in applied research and product development. In this role, our professional master is of added value for organisations in the bioscience sector (companies, hospitals or the R&D institutions) as he/she supports senior project leaders by creating a short and effective link between company policies and hands-on projects operational at bench level. The Master in Molecular Life Sciences graduates can take position in the interphase between research/innovation and standardised processes (such as production, analysis and diagnostics). Such functions can be for instance scientific QC support or technical operations support. The function name of our masters varies within companies. Examples are Senior Researcher, Junior Scientist, Assistant Project Leader, Associate Project Leader or Junior Project Leader. Some graduates have decided to continue his/her career with a PhD project in applied or translational research or product development.

4.2 Professional requirements

Not applicable

4.3 Exit qualifications

Competences

To apply and translate knowledge for the realisation of innovation and implementation of projects in the bioscience sector, the Master in Molecular Life Sciences needs to have specified competences.

These core competences are defined in dialogue with representatives of the professional practice. The six competences are:

- Professional conduct and professional development.
- Designing strategies for applied research and product development
- Design, analysis and control of experiments
- Communication
- Managing Projects
- Advising

These competence indicators, together with the Body of Knowledge and Skills, form the final qualifications of the Master in Molecular Life Sciences.

The following section gives a more general description of the competences of the Professional Master in Molecular Life Sciences, and is compared with the Professional Bachelor graduates in the area of Life Sciences, and with the academic Master equivalent (see figure 3).



Figure 3. Schematic presentation of the competence profile of the Master in Molecular Life Sciences (a Professional Master) in comparison to the Professional Bachelor and the Academic Master in the field of life sciences. The characteristic Competences of the Master in Molecular Life Sciences are Designing Strategies for applied research and product development and Managing Projects.

The comparison of figure 3 shows that the two competences 'designing strategies for applied research and product development' and 'managing projects' are prominent competences for the Professional Master in Molecular Life Sciences. This is in sharp contrast to the Academic Master programme in which designing (fundamental) research based on theory, curiosity and new ideas is key. Below follows an evaluation of the competences of our programmes and compares them with competences of the equivalent academic masters and bachelor graduates.

1. Graduates of all three type of programmes need to be professional in terms of being pro-active, team-oriented personalities who reflect on their own actions, deal with feedback and are open to learning. Both master graduates are expected to learn autonomously. While the academic master is mostly a theory-driven curious personality however, the professional master shows an entrepreneurial attitude. As the professional master functions at the interphase between different expertise, establishing a coherent network belongs to his/her professional conduct as well. In addition, we expect that masters are able to reflect on the quality of their projects, their own role in projects, and on their own professional personality.
2. Our Professional Master designs strategies for applied research and product development in a product-, goal- and market-oriented way. He/she understands practical, economic, social and/or ecological needs. He/she is aware of the information obtained by fundamental research, but also of other factors such as costs, competitors or the patent situation and uses this information to achieve the company aims.
3. The competence design, analysis and control of experiments is important for all programmes of figure 3. Professional experience will increase after graduation at bachelor level but master employees are expected to conduct design, analysis and control of experiments at a higher level of quality, complexity and independency compared to bachelor trained employees.
4. Communication is another competence necessary for both bachelor and master graduates. However, whereas bachelors communicate predominantly over their experiments within research groups, masters are expected to have professional written and oral communication skills enabling them to communicate beyond their own group. Moreover, while for academic master, communication occurs mostly with peers through publications and presentations, communication of the professional masters often occurs in an interdisciplinary context. Communication with experts of different fields such as biology, statistics, patents specialists, legal affairs or finance departments is important for the efficient realisation of entrepreneurial projects.

5. Managing Projects in terms of project aims, deliverables, value, risks, responsibility, communication time and costs is typical for the professional master. It is a minor competence of the bachelor graduate and of the Academic Master graduate.
6. In line with competence 4, the professional master mainly informs and advises about aims, multidisciplinary interest, project approaches and results to people within and outside their own department. In contrast, the academic master is able to provide argument-based advice about research projects to others. The Bachelor, in contrast, advises about lab equipment or experimental techniques within the research group.

The professional tasks defined for our MMLS programme versus the needed competences:

Competences Professional tasks	Professional conduct and guiding professional development	Designing strategies for applied research and product	Design, analysis and control of experiments	Communication	Managing projects	Advising
to understand practical, economic, social and/or ecological needs of businesses, market and society that can be anticipated by biotechnology	x	x		x	x	x
to apply fundamental knowledge in the area of molecular life sciences to find sustainable solutions for these needs		x	x		x	x
to implement such solutions in a successful and efficient way by organizing their realization in projects, considering the interdisciplinary dimension and communicating with different experts. Such projects have a duration of at least three months.	x	x		x	x	x

Body of Knowledge and Skills of the Master in Molecular Life Sciences

Upon graduation, the student ...

Molecular biology (techniques)

- has knowledge and insight of genes, chromosomes, plasmids mutations/ SNPs

- Has knowledge and understanding of the principle of all standard techniques to detect DNA (such as Southern Blot, PCR, FISH, (next generation) sequencing), RNA (such as Northern blot, (q) RT-PCR, expression array, RNAseq, in situ hybridization) and proteins (such as SDS-PAGE, Western blot, immunocytochemistry, immunohistochemistry, protein array, mass spec) and to detect the interaction between biomolecules (e.g. immune-precipitation, chromatin-immunoprecipitation) and can apply the appropriate technique to answer a question about the presence, quantity, alteration/modification, or localization or interaction of DNA, RNA or protein"
- understands how gene expression is regulated in prokaryotes and eukaryotes and applies this knowledge to heterologous gene expression
- is able to design a strategy for gene cloning and heterologous expression
- understands the mechanisms of gene silencing by siRNA and is able to apply siRNA to downregulate gene expression
- is able to design a (conditional) knock-out strategy (e.g. by Crispr-Cas)

Cell biology (techniques)

- has knowledge and insight of prokaryotic and eukaryotic cells, function of organelles, cell cycle regulation, DNA repair, signal transduction, protein modification and localization
- understands the principle of techniques to analyze cell proliferation, cell cycle, apoptosis, protein modification and can apply these techniques to answer question on such cellular functions
- has knowledge and insight of the molecular mechanisms that contribute to cancer development and can apply this knowledge for the design of cancer diagnostics and anti-cancer drugs

Biochemistry (techniques)

- has knowledge and understanding of the physico-chemical properties of proteins, nucleic acids (DNA, RNA), sugars, lipids, endotoxin, salt, viruses and bacteria
- has knowledge and understanding of biomolecule purification methods (such as size exclusion chromatography, ion exchange, hydrophobic interaction, ultrafiltration, affinity chromatography, precipitation, filtration, drying) and is able to choose a purification method depending on the composition of the original sample and the biomolecule to be purified
- has knowledge and understanding about methods to analyse biomolecules (such as NMR, chromatography, enzyme assays, ultrafiltration, absorption measurement, selective breakdown, enzyme immune-assay) and is able to choose an analytical method based on the biomolecule(s) to be analyzed
- has knowledge and insight of metabolic pathways, cell chemistry and biosynthesis and can apply this knowledge to optimize metabolite production (metabolic engineering)

Enzyme production

- knows the industrial applications of enzymes

Vaccine discovery

- has knowledge and understanding of the immune response to pathogens (action of innate and adaptive immune system, induction and effects of cellular and humoral immunity, mechanisms for induction of memory)
- understand the mechanisms by which micro-organisms can cause disease
- knows different types of vaccines (such as attenuated, inactivated, subunit, recombinant, DNA), their mode of action and their advantages and disadvantages
- is able to choose a vaccine antigen, adjuvant and administration route depending on the immune response that is required and on practical aspect
- knows different vaccine production platforms, their advantages and disadvantages

- is able to design experiments to test the potency of a vaccine

Development of diagnostic tests

- knows different types of diagnostic tests, their principle of action and their advantages and disadvantages
- is able to define the importance of sensitivity, specificity, and other performance characteristics based on the desired application of the diagnostic test
- has insights in the principles, advantages and disadvantages of different diagnostic tests, e.g. serology and molecular diagnostics
- is able to choose a type of diagnostic test based on the required specificity, sensitivity, precision and practical aspects such as duration, requirement for staff training

Drugs Discovery, Development and Delivery

- understands the principles of pharmacology, pharmacokinetics & drug-biotransformation, and pharmacodynamics
- knows and understands drug design principles
- knows and understands the principle of different types of drugs and treatment approaches (small molecules, antibodies, gene therapy, chemotherapy, radiotherapy, immunotherapy), their advantages and disadvantages.
- Understand the procedures and principles involved in the preparation and structural analyses of unknown substances using UV, IR, MS, and NMR.
- is able to choose one type of drug as an active pharmaceutical ingredient depending on the desired biological effect
- is able to choose a delivery system based on desired selectivity and bio-availability
- is able to design a strategy to measure the bio-availability of the drug
- is able to choose appropriate in vitro and in vivo assays to test the efficacy and the toxicology of a drug
- knows with animal models can be used to test drugs, and the advantages and disadvantages of these models
- knows the different phases of clinical studies and what is required to enter the clinical phase of drug development
- knows that structure-analysis can be used to predict the function of the biomolecule and to discover interaction partners/ drugs

Quality assurance and quality control

- is able to define quality requirement for products and processes based on regulatory guidelines
- is able to describe a target product profile and critical quality attributes
- is able to design a strategy to validate a diagnostic test
- is aware of the requirements for entering the clinical phase, and for market entry
- is able to design a strategy to validate a diagnostic test
- is able to determine the sensitivity, specificity and precision of a diagnostic test
- Process development and optimization
- knows the advantages and disadvantages of different production strains and is able to choose a suitable production strain for the production of specific proteins
- is able identify critical parameters in the process
- tests critical parameters in the production process (USP and DSP) and interprets the outcome
- is aware of the fact that scaling up or down requires process re-optimization

Biobased economy

- Is able to explain the main principles of a biobased economy and its new technological challenges
- Is able to explain the difference between first, second and third generation feedstocks

- Is able to describe the steps needed to convert plant biomass into fermentation feedstock
- Is able to describe the technological challenges by using biomass as fermentation feedstocks

Statistics and experimental design

- understands the meaning of: statistical hypotheses, type of variable (continuous / categorical), association versus causation, confounding variables, variation, normal distribution, population versus sample, dependent and independent observations, Type I and Type II error, descriptive statistics, the relationship between central tendency (mean, median) and variance, p-value and statistical significance, log-transformation, one- or two-sided tests, multiple testing problems and its solutions
- is able to translate the research question into an appropriate statistical question, experimental setup and corresponding statistical analysis
- has awareness of power and sample size calculations
- understands the basics of design of experiments (DOE)
- methodology, including: design of experiments, randomization, blocking by nuisance factor, factorial design, screening design, comparative designs, optimization design, one-factor at a time
- is able to design and analyze a screening and / or process optimization experiment using experimental design
- is able to choose the appropriate statistical method for data Analysis, including t-test, ANOVA, multiple regression, chi square tests
- is able to determine the precision, sensitivity and specificity of a diagnostic test; and to understand ROC curves
- is able to report the results with tables and graphics

Bioinformatics

Data Mining

- The student is familiar with biological databases Databases (such as Uniprot, Genbank, PDBe, PFAM, PROSITE, CDD, PubMed, KEGG.EBI, EMBL, NCBI)
- The student is able to formulate a data strategy to answer a biological question.

Sequence annotation (DNA and protein sequences)

- Is able to use the principles of transcription, mRNA processing, translation, post-translational modifications and protein structure/domains to evaluate sequence annotation.
- Is able to perform BLAST-searches and analyse the results in a correct way.

Sequence alignment, score matrices and phylogeny

- Knows the features of a qualitatively good alignment.
- Is able to illustrate the use of (multiple) sequence alignments.
- Is able to evaluate the evolution of sequences

High-throughput data analysis

- understands the principle steps in analyzing high-throughput data obtained by –omics approaches.
- has analyzed and interpreted a limited number of high-throughput data and is able to communicate to specialists about such analyses

Intellectual properties

- is aware of the rights derived from intellectual properties and understands which implications these have for the production of generics and biosimilars
- is able to use patent databases to identify patent blocks

- is aware that he/she needs to contact patent experts if he/she is not sure how to interpret patent databases

Bio-business

- understands the meaning of the terms business models and business development, business value and financing
- is able to translate his/her projects plans in a concise business plan

Interpersonal skills

- is aware of his own cognitive style and recognizes the styles of team members
- has insight in different factors that contribute to an effective communication process
- knows the principles of situational leadership
- knows how to deal with possible conflicts
- is aware of intercultural differences

This section describes your exit qualifications at the end of the degree course. These exit qualifications are formally set in the education and examination regulations.

When you graduate you conform with the exit qualifications of the degree course. In other words, you have certain (required) knowledge, understanding, skills and (if relevant) attitude, for the profession you are educated for. The exit qualifications for your degree course are outlined below.

Nr.	Exit qualification	Description
1	Professional conduct and guiding professional development	1.1. Shows a professional, pro-active, curious, scientific and entrepreneurial attitude: adapts quickly, motivates him/herself, shows initiative, is goal-oriented, and acts honestly and efficiently 1.2. Works efficiently in a team (colleagues, project leader, client) during all phases of the project through open communication and by considering the needs of others. 1.3. Pro-activity contributes to setting up and maintaining a professional network. 1.4. Critically reflects on the project with respect to scientific project management approach and results. 1.5. Critically reflect on the own role in the course of a project. 1.6. Critically reflects on the own personality and how this influences professional conduct. 1.7. Defines personal learning goals (based on project/work requirements) and guides personal development to reach learning goals.
2	Designing strategies for applied research and product development	2.1. Is able to independently acquire knowledge in a new subject by consulting specific literature and other resources; is able to identify reliable and suitable sources; Discriminates between major and side issues 2.2. Combines information from different sources in the context of the own project 2.3. Defines the project aim in terms of products and/or results based on the acquired background information 2.4. Defines the quality requirements for products and processes based on legal requirements. 2.5. Designs different approaches that could lead to the project aim. Evaluates these possibilities and justifies the choice based on scientific arguments and practical parameters such as time, costs, quality and personnel 2.6. Designs a complete strategy leading to the project aim (project of about 3-4 months; see also: managing projects) 2.7. Identifies opportunities to patent products, results and strategies.

Nr.	Exit qualification	Description
3	Design, analysis and control of experiments	3.1. Designs experiments based on the required quality and quantity of the product or result. 3.2. Applies strict logical thinking to draw conclusions from the results and interprets them: - in the context of the experiments - in the context of the project aim (helicopter view) - in comparison to other analyses, reference/theoretical values, and quality requirements. 3.3. Solves practical problems if experiments do not work as planned (trouble shooting); couples back to the theory or consults colleagues if necessary; suggests alternative experiments.
4	Communication	4.1. Reports project plans and results according to the standard format of scientific documents and meets the scientific international conventions criteria 4.2. Presents project plans and results in English to colleagues, other researchers in the field or to clients. The presentation is at a level equivalent to a presentation at an international symposium 4.3. Describes the key message of the project relevant for patenting, registration, and/or business development. Uses terminology that is understandable for experts from different departments 4.4. Organises and moderates meetings 4.5. Contributes to the efficiency of meetings by being prepared and actively participating 4.6. Keeps client and project members informed about project progress at all stages, especially when the project is not progressing as planned 4.7. Shows initiative to adapt communication styles to the others and the situation at hand.
5	Managing projects	Takes responsibility for a project by: 5.1. Defines project deliverables based on the needed quality and quantity 5.2. Identifies project risks based on the (experimental) approach and on (putative) competitors 5.3. Defines project exclusions 5.4. Organizes the project in phases and defines decision points/ milestones 5.5. Describes the project organisation including the responsibilities of all project members 5.6. Writes a communication plan concerning all project members and parties involved 5.7. Describes a schedule based on the (experimental) plan 5.8. Describes the required budget 5.9. Performs his/her responsibilities 5.10. Approaches others if they do not perform to their responsibilities 5.11. Sets priorities and works efficiently towards the defined project aim/deliverables 5.12. Is in control of the project during all phases by being pro-active if the project does not run according to the plans and initiating an alternative strategy 5.13. Is flexible with changing circumstances by adapting the experimental, project and/or communication strategy 5.14. Obtains the deliverables in time and with the described resources; if not, reasons and justifies the decisions that have been taken in the course of the project.
6	Advising	6.1. Actively involves different specialist to collect advise contributing to the progress of the project. 6.2. Actively participates in a discussion about related projects by asking critical questions and suggesting follow-up experiments. 6.3. Advises about follow-up projects of the own project. 6.4. Integrates own project results in the multidisciplinary defined goals and advises other departments 6.5. Gives advice about choosing new equipment or methods based on project goals, overall goals and available resources

We have geared the level of the exit qualifications to the Dublin Descriptors..

As a result, our degree courses are guaranteed to be at the correct national and international level. The degree certificates meet all legal requirements and are therefore comparable with and equal to similar degree certificates from other educational institutions in the Netherlands and abroad.

Relation between the EQF descriptors and the competences matrix

	<i>Professional conduct and guiding professional development</i>	<i>Designing strategies for applied research and product development</i>	<i>Design, analysis and control of experiments</i>	<i>Communication</i>	<i>Managing projects</i>	<i>Advising</i>
- have demonstrated knowledge and understanding that is founded upon and extends and/or enhances that typically associated with Bachelor's level, and that provides a basis or opportunity for originality in developing and/or applying ideas, often within a research context;		x	x			x
- can apply their knowledge and understanding, and problem solving abilities in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their field of study;		x	x		x	x
- have the ability to integrate knowledge and handle complexity, and formulate judgements with incomplete or limited information, but that include reflecting on social and ethical responsibilities linked to the application of their knowledge and judgements;	x	x	x		x	x

- can communicate their conclusions, and the knowledge and rationale underpinning these, to specialist and non-specialist audiences clearly and unambiguously;				x		x
- have the learning skills to allow them to continue to study in a manner that may be largely self-directed or autonomous.	x					

Relation between the competences and examinations (modules in bold):

	Professional conduct and guiding professional development	Designing strategies for applied research and product development	Design, analysis and control of experiments	Communication	Managing projects	Advising
Fundamentals						
Exam			x			
Drug Discovery and Development						
High-throughput analysis		x	x	x		
Drug Discovery poster presentation		x	x	x		x
Fundamentals of Pharmaceutical Chemistry		x	x	x		
Structure Elucidation Analysis			x			
Production of Biomolecules, part 1						
Strategy for microbial oil production (presentation)		x	x	x		x
Production of Biomolecules, part 2						

Planning and quotation for small scale protein production		x	x	x	x	
Vaccines and Diagnostics						
Vaccine proposal		x	x	x	x	x
Validation plan for analytical validation of diagnostic test		x	x	x	x	x
Research and Product Development, part 1						
Scientific document		x	x	x		
R&D presentation				x		
Research performance 1		x	x		x	x
Design of Experiments		x	x	x		
Scientific Progress report			x	x		
Research and Product Development, part 2						
Research performance 2		x	x		x	x
Assignment on Quality regulations		x		x		
Business plan		x		x	x	x
Project management, part 1						
Professional conduct including network analysis	x			x	x	
Project proposal		x	x	x	x	
Project management, part 2						
Professional effectiveness	x			x	x	
Reflection on realization of proposal and own contribution	x				x	
Graduation project						
Project Proposal		x	x		x	

Report		x	x	x		x
Project Reflection	x	x		x	x	x
Workplace Activities	x	x	x	x	x	x

5 Academic calendar

This chapter outlines the lecture days, lecture times and the holidays and lecture-free weeks.

5.1 Lecture days and lecture times

Regular tuition day of the programme is Monday. Not every Monday is scheduled as contact day. In addition, a complete week of lectures and course activities are scheduled in November of the first year.

The dates of the course-specific holidays, contact days and deadlines for assignments are provided as a preliminary year schedule at the beginning of the course.

The definitive dates, including lecture times and exact deadlines for assignments are provided at least two weeks prior to each module in the detailed module schedule.

In addition to the contact days at HAN, full-time students spend 3 (first 1.5 years of the study programme) to 5 (final 0.5 year of programme) days a week at their internship placement to complete their workplace learning modules. The exact days and times are set in agreement with the placement supervisor.

5.2 Holidays and lecture-free weeks

The calendar for this academic year can be found on HAN Insite. It gives the lecture weeks and holidays.

The lecture weeks and holidays indicated in the calendar for this academic year on HAN insite can deviate from the lecture weeks and holidays of this degree course. Please consult the year schedule of the degree programme as indicated in chapter 5.1 of this document.

6 HAN organisation

This chapter gives information about the organisation of HAN. Here you also find information on participation, quality assurance and the facilities you as a student can use.

6.1 Schools

At HAN, the degree courses are divided over 14 schools.

Your degree course belongs to the School of School of Applied Biosciences and Chemistry..

Below is a list of all the schools.

School	Academie (NL)	Abbreviation
School of Business and Communication	Academie Business en Communicatie	ABC
School of Built Environment	Academie Built Environment	ABE
School of Education	Academie Educatie	AE
School of Engineering and Automotive	Academie Engineering en Automotive	AEA
School of Finance	Academie Financieel Economisch Management	AFEM
School of Health Studies	Academie Gezondheid en Vitaliteit	AGV
School of IT and Media Design	Academie IT en Mediadesign	AIM
School of Social Studies	Academie Mens en Maatschappij	AMM
School of Organisation and Development	Academie Organisatie en Ontwikkeling	AOO
School of Allied Health	Academie Paramedische Studies	APS
School of Law	Academie Rechten	AR
School of Sport and Exercise	Academie Sport en Bewegen	ASB
School of Applied Biosciences and Chemistry	Academie Toegepaste Biowetenschappen en Chemie	ATBC
International School of Business	International School of Business	ISB

6.2 Management and organisation of the school

On HAN Insite you can find information about the set-up, organisation and staff of your degree course, and about the school they belong to.

6.2.1 Board of examiners and examiners

The members of the board of examiners can be found

on: https://www1.han.nl/insite/hlo/english/content/International_Office.xml?inno_gen=gen_id_410&sitedir=/insite/hlo/

english

You can contact the board of examiners for your degree course via the board of examiners secretarial office examencommissie.atbc@han.nl

The members of the board of examiners are appointed by the HAN Executive Board.

The tasks and responsibilities of our board of examiners can be found in the Regulations of the Board of Examiners. These include additional rules regarding final assessment and examination in so far as these are within the powers of the board of examiners. See also the Regulations of the Board of Examiners in Part 3 of this degree statute.

The board of examiners decides, amongst other things, whether you meet the conditions set out in the education and examination regulations.

The board of examiners appoints examiners for each exam and modular exams. One or more appointed examiners administers that exam or modular exam and determines the result.

Other duties and powers of the board of examiners include:

- Assuring exam quality.
- Granting exemptions.
- Handling requests for an extra opportunity for an exam or a modular exam.
- Handling requests for modified exam or modular exam formats.
- Handling complaints.

You can find all the further rules on exams, modular exams and the final assessment that apply to you in the education and examination regulations (see Part 2). For rules on how these are organised, please refer to the Exam Regulations (see Part 3).

6.2.2 Participation and consultation

Below is a short overview of the HAN committees and councils. They discuss and also influence the policies and decisions made at HAN.

Degree committee

There is a degree committee for each degree course or group of courses. A degree committee consists of an equal number of staff members and students. The degree committee advises the course department about promoting and guaranteeing the quality of the course department. Each year it also evaluates the degree course's compliance with the education and examination regulations. The degree committee also has a right of consent and advisory rights. Through this committee, you can contribute ideas and make decisions about the education and organisation of your degree course.

Would you like to become a member of the degree committee? You can request more information from Opleidingscommissie-MMLS.ATBC@han.nl. The degree committee has its own regulations (see Part 3).

School council

Each school has its own school council. This council has the right to discuss all matters concerning the school and to ask the dean about these matters. The council also has the right to be consulted on school policies. The school council gives you the opportunity to contribute ideas and decide on school policies.

Would you like to know more about the school council? Contact the school council secretarial office: academieraad.atbc@han.nl

Participation Council

The participation council allows staff and students to participate at HAN level. This council has a right of consent on certain aspects of policy, on the main features of the institution budget, the general applicable part of the education

and examination regulations and more. The participation council has an equal number of students and staff. The participation council deals with general HAN policy.

Would you like to join the participation council? You can ask for more information from the secretarial office for the participation council: secretariaat.mr@han.nl. Would you like to learn more about the participation council? Go to <https://www.han.nl/over-de-han/organisatie/bestuur/medezeggenschap/index.xml>.

6.3 Student facilities

6.3.1 Support

As a student, you can rely on good coaching and guidance during your academic career. Within your degree course, you and your study coach look at what coaching you need, your study progress and your career development. We look at your talents, ambitions and support needs.

In addition to the coaching offered within your degree course, you can use the services offered by HAN Study Success. This is a team of experts who work together on one goal: your growth as a student.

HAN Study Success

All HAN students can contact HAN Study Success for support, advice, training and coaching. This is a network of experts in various areas of student supervision. They have expertise in:

- Study skills, language skills and personal development.
- Degree transfers and study delays.
- Psychological support.
- Student finance, support funds and support and questions about finances.
- Studying with a functional disability, chronic illness or pregnancy.
- Course selection and further studies.
- Various statutory and university of applied sciences regulations.
- Complaints, objections and appeals procedures.
- Studying as an elite athlete.
- Purpose and spirituality.

I: https://www1.han.nl/insite/studiesucces/home_opl.xml?

HAN Language Centre

HAN Language Centre can help you with all your language and translation needs. You can also sign up for various language courses, coaching sessions or workshops. HAN students receive a discount on all foreign language courses.

At HAN Language Centre you can also take a writing or spelling course. There is also a special course (in Dutch) for students with dyslexia. The courses are intended for both Dutch and international students.

T: (024) 353 03 04

E: talencentrum@han.nl

I: <https://www.han.nl/werken-en-leren/vakgebieden/talen/>

Confidential counsellors

At HAN we treat each other respectfully. Unfortunately, incidents can occur in which you as a student or staff member have to deal with unacceptable and/or disruptive behaviour. If this happens, contact one of the confidential counsellors to discuss what you can do about it. You can choose which confidential counsellor you speak to. More information and the contact details of the confidential counsellors can be found on HAN Insite:

<https://www1.han.nl/insite/randomhetwerk/Vertrouwenspersonen.xml?>

Complaints and Disputes Office

Do you have a complaint, dispute, objection or appeal? The first step is to try to work it out together, possibly with the support of the study coach. If this does not help, you should submit your complaint to the Complaints and Disputes Office. The Complaints and Disputes Office ensures that complaints and letters of appeal are delivered to the right persons within the HAN organisation. The office also takes care of the secretarial duties of the Examination Appeals Board.

E: Bureau klachtengeschiil@han.nl T: 026-3691504

A: Verlengde Groenestraat 75 Nijmegen / Postbus 6960, 6503 CD NIJMEGEN

I: [https://www1.han.nl/insite/randomdestudie/Bureau Klachten en Geschillen .xml?sitedir=/insite/randomdestudie](https://www1.han.nl/insite/randomdestudie/Bureau_Klachten_en_Geschillen.xml?sitedir=/insite/randomdestudie)

Ombudsman

Do you have a complaint that does not fall under the existing complaints and appeals procedures? Then you can turn to an independent ombudsman. The ombudsman has a mediatory role.

The position is vacant at the moment. Discuss your complaint with one of the confidential counsellors. You can also go to the Complaints and Disputes Office.

6.3.2 Information facilities

Student Affairs Enquiry Desk

Do you have questions about your degree course? For example, about enrolment, payment of tuition fees, examinations, lecture timetables or the study information system (SIS)? You can ask the staff at the Student Affairs Enquiry Desk. You can find more information on <https://www.han.nl/studeren/>.

Study and Multimedia Centres

The Study and Multimedia Centres offer a physical library collection at diverse HAN locations. The locations also have places to study and quiet zones.

On the website www.han.nl/studiecentra you can find the digital collection, which you can also consult at home. Here you can also find study materials for the Information Skills lessons.

More information about the services, opening hours and contact details can be found on the website of the Study and Multimedia Centres: <http://www.han.nl/studiecentra>

HAN Information Centre

The staff at the HAN Information Centre can tell you everything about degree courses, forms of collaboration, promotional activities and the organisation of the entire HAN.

Opening hours: Monday to Friday 9.00 - 16.30 (until 15.00 during holidays)

I: www.han.nl/contact

International Office

HAN is also active internationally. The activities are extremely varied. For example, the International Office works on internationalisation of the curriculum, expanding the international network of partner universities, studying abroad for HAN students and lecturer exchanges. The International Office also coordinates HAN's efforts in three important internship projects for community work in South Africa, India and Curacao. Finally, the International Office offers practical support regarding scholarships (including Erasmus+) and filling in forms such as the Learning Agreement.

The International Office is also the first point of contact for international students. The International Office is located in Arnhem (Ruitenberglaan 31) and Nijmegen (Kapittelweg 33). Drop by to ask your questions or visit the Insite page of the International Office.

I: NL: https://www1.han.nl/insite/internationaloffice/home_opl.xml?

I: EN: https://www1.han.nl/insite/internationaloffice_english/home_opl.xml

6.3.3 Other facilities and services

Sports facilities

As a HAN student you can purchase a sports card. This allows you to use the sports facilities of HAN Seneca (the HAN centre for sport and health), the sports facilities of the Arnhem council and the sports facilities of Radboud University Nijmegen.

For more information, see:

I: <https://www.han.nl/studeren/voltijd/tijdens-je-studie/naast-de-studie/sporten/index.xml>

HAN Employment

HAN Employment mediates between employers and jobseekers doing a work-study or part-time degree course. HAN Employment also publishes vacancies for alumni.

HAN Employment offers companies the opportunity to post vacancies on the job bank.

Students doing work-study and part-time degree courses are offered training sessions (SollicitatieBoost) and network sessions (Meet & Match).

I: www.hanemployment.nl

Entrepreneurship

Students with entrepreneurial ambitions can come here for coaching/starter supervision, entrepreneurship education, help in applying for financing, networking and entrepreneurial events.

You can also contact the centre about doing an internship or graduation assignment in your own company. And HAN offers various minors on entrepreneurship.

I: www.han.nl/ondernemerschap

Health and safety for students

Would you like to know more about the rules for safe and healthy work practices at HAN? Or do you want to know which resources we have in this area? Visit the special health and safety pages for students on Insite: I:

https://www1.han.nl/insite/pz_new/arbo/content/Studenten.xml?sitedir=/insite/pz_new/arbo.

PART 2 Education and Examination Regulations

1 About the education and examination regulations

These education and examination regulations are included in the degree statute that apply to your degree course. The education and examination regulations are adopted each academic year. The education and examination regulations cover the education, exams, modular exams and final assessments for your degree course and your rights and obligations.

1.1 Terms and definitions

The terms and definitions used in these education and examination regulations are given below.

The Dutch term is given between brackets.

School (<i>Academie</i>)	An organisational unit with interconnected degree courses, research and knowledge services.
Graduation specialisation (<i>Afstudeerrichting</i>)	A specialisation within a degree course as defined in the education and examination regulations.
Assessment criteria (<i>Beoordelingscriteria</i>)	Clearly defined and unambiguous standards that can be used to give a motivated assessment of whether and to what extent a student meets the required level of knowledge, understanding and skills and (if relevant) attitude assessed in an exam or modular exam.
Assessment dimensions (<i>Beoordelingsdimensies</i>)	Assessment dimensions give a global description of the aspects on which a student's performance and/or the resulting products should be assessed. These descriptions need to be global because the assessment dimensions should apply to any type of student performance that demonstrates their qualification.
Professional task (<i>Beroepstaak</i>)	A meaningful, complete task as carried out in all its complexity by a professional practitioner in an actual professional setting with all its complexities.
Professional requirements (<i>Beroepsvereisten</i>)	Well-defined qualifications regarding the knowledge, understanding and skills and (if relevant) the attitude a student needs to carry out the profession they are studying for.
BRIN number (<i>BRIN-nummer</i>)	The Basisregistratie Instellingen (BRIN) is a database for educational institutions that is published by the Dutch Ministry of Education, Culture and Science. It contains all schools and related institutions. Each educational institution is identified in the database with a number. The BRIN number for HAN is 25KB.
Examination Appeals Board (<i>College van Beroep voor de examens</i>)	This is the board referred to in article 7.60 of the Higher Education and Research. The board deals with appeals submitted by students against decisions made by HAN. The Regulations from the Examination Appeals Board are included in the HAN Student Charter.
CROHO	CROHO is the central register for degree courses in higher education.

Exit qualifications (<i>Eindkwalificaties</i>)	Well-defined outcomes regarding the knowledge, understanding and skills and (if relevant) the attitude a student should acquire by the time they complete their degree course.
Recognition of Prior Learning (<i>Erkenning Verworven Competenties, EVC</i>)	Recognition of prior learning gained outside the degree course that leads to a Certificate of Prior Learning from the Nationaal Kenniscentrum EVC, the national research centre for the recognition of prior learning. Recognition of prior learning can lead to exemption from exams and modular exams for unit(s) of learning outcomes or unit(s) of study that focus on the competences already gained through the prior learning.
External student (<i>Extraneus</i>)	A person enrolled at a university of applied sciences or university who can participate in exams, modular exams and final assessments but not in the education or supervision.
HAN	HAN University of Applied Sciences This abbreviation is used in internal documents to improve the readability of documents.
Head examiner (<i>Hoofdexaminator</i>)	Appointed by the board of examiners as the head examiner responsible for the results of examination and assessment in cases where more than one examiner has been appointed for an exam or modular exam.
Degree format (<i>Inrichtingsvorm</i>)	The manner in which a degree course is organised: full-time, part-time or work-study.
Elective unit of study (<i>Keuzeonderwijseenheid</i>)	A unit of study that can be chosen from two or more elective units of study. Once selected, the unit of study becomes part of the student's study programme and final assessment. The exams and modular exams for the non-mandatory units of study that the student did not select do not need to be taken for the degree certificate.
Learning outcome (<i>Leeruitkomst</i>)	A measurable result of learning experiences.
Exams taken independently of the standard programme (<i>Leerwegaafhankelijk tentamen</i>)	An exam or modular exam that the student can take without having participated in the educational activities linked to that exam.
Module (<i>Module</i>)	An internally coherent and to some extent independent part of the part-time and work-study degree course. A module consists of one or more units of study and is aimed at a realistic cluster of qualifications derived from professional practice.
Module certificate (<i>Modulecertificaat</i>)	Written statement by the board of examiners that a student has successfully completed a module in a part-time or work-study degree format.
Unit of study / study unit (<i>Onderwijseenheid</i>)	A basic unit of HAN education that is aimed at achieving clearly defined objectives in terms of knowledge, understanding, skills and (if relevant) attitude. These are assessed in an exam and awarded a certain number of credits.
Degree committee (<i>Opleidingscommissie</i>)	The statutory public participation body as referred to in article 10.3c of the Higher Education and Research Act, which is responsible for e.g. guaranteeing the quality of the degree courses listed in Part 2, chapter 1.

SIS	The HAN study information system
Student	A person enrolled as a student in a degree course at HAN with the aim of participating in educational activities and sitting for exams and modular exams.
Study coach (<i>Studiebegeleider</i>)	A staff member responsible for the study coaching of one or more students.
Study load in hours (<i>Studiebelastinguur</i>)	A unit of 60 minutes that is spent on study and is used to measure the study load of each unit of study.
Academic year (<i>Studiejaar</i>)	The period starting on 1 September and ending on 31 August of the following year.
Credit (<i>Studiepunt</i>)	One credit is equal to 28 hours of study (this is an average indication).
Exam (<i>Tentamen</i>)	A test of the student's knowledge, understanding, skills and (if relevant) attitude in conjunction with each other. Also, the assessment of the results of that test. The exam is the concluding component of a unit of study or unit of learning outcomes.
Exam opportunity (<i>Tentamengelegenheid</i>)	An opportunity offered within the degree course to sit for an exam or modular exam.
Exam sitting (<i>Tentamenmoment</i>)	The sitting/time at which an exam or modular exam is administered/held.
Track with special feature (<i>Traject met bijzondere eigenschap</i>)	A degree track that distinguishes itself from the standard track because of a different duration, intensity, language or format. In all cases, the study load and the qualities in the area of knowledge, understanding and skills that a student has to acquire by the end of the track are the same as those of the degree course.
Exemption (<i>Vrijstelling</i>)	A decision made by the board of examiners that a student does not have to take exam(s) and modular exam(s) relating to one or more specific units of study. This decision is based on the board's opinion that the student already sufficiently masters the required knowledge, understanding, competences and/or skills and (if relevant) attitude.
Higher Education and Research Act (<i>WHW</i>)	Higher Education and Research Act (in Dutch: <i>Wet op het Hoger Onderwijs en Wetenschappelijk Onderzoek - WHW</i>).

Other terms and definitions have the meanings given to them in the national laws and regulations.

1.2 Which degree course(s) do these education and examination regulations apply to?

These are the education and examination regulations, as defined in article 7.13 of the Higher Education and Research Act, for the following HAN degree course(s):

Degree course	Degree format	CROHO number	Degree after graduation
M Molecular Life Sciences		49293	Master of Science

1.3 Which education and examination regulations apply to you?

At HAN, the education and examination regulations are renewed every year. This does not mean everything changes each year. Generally only a small number of changes are made to the study programme and the organisation.

These education and examination regulations apply to the 2021-2022 academic year, so from September 2021 to 31 August 2022.

Amendments made to the education and examination regulations do not apply to events or matters in the past, but only to the new academic year. Special rules may apply when switching from 'earlier' education and examination regulations to new education and examination regulations. These rules can be found in the transition regulations: Part 2, chapter 8.

In exceptional cases the education and examination regulations must be amended during an academic year. Amendments can only be made during an academic year if this is reasonably necessary and does not disadvantage the students. Transition regulations may also apply in these cases: see Part 2, chapter 8.

In cases not provided for in these education and examination regulations, the dean will decide. If a case is subject to the authority of the board of examiners, a decision will be made by the chair of that board of examiners. Those with an interest in the decision will be informed of that decision within four weeks.

2 Regulations concerning admission

The rules concerning application, admission, admission requirements, selection and enrolment can be found in the Enrolment Regulations: School of Applied Biosciences and Chemistry..

This chapter contains the applicable rules for admission into the degree course and which by law must be included in the education and examination regulations.

2.1 Maximum number of admissions

Not applicable

2.2 Admission requirements

A requirement for admission to a master course is holding a bachelor degree from a university of applied sciences or university or possessing knowledge, understanding and skills at the level of a bachelor degree from a university of applied sciences or university.

- Bachelors degree in the field of molecular life sciences (molecular biology, cell biology, biochemistry) or having the equivalent knowledge, understanding and skills according to the enrolment regulations,
- Professional use of English (B2 level of English according to the Common European Framework of Reference recommended)
- Practical lab research experience in the field of molecular life sciences during or after the bachelors course of at least 5 months.

If the applicant is unable to submit a degree certificate or other documents demonstrating that he or she meets the entry requirements, he or she may take an admission test to demonstrate that he or she meets the entry requirements.

2.3 Employment requirements for part-time degree course(s)

If you do the part-time variant of this degree course, you need to meet certain network requirements. Those requirements also apply if you are self-employed.

The units of study to which this applies to research and product development skills 1 & 2 and managing projects 1 & 2.

The entry requirements are further detailed in the unit of study descriptions in Part 2, chapter 6.

2.4 Workplace-learning agreement for the work-study degree format

Not applicable

2.5 Extra contribution

Not applicable

3 Description of the degree course

In this chapter you can read about the format in which the degree course is offered, where it is taught, how it is structured and what each component involves. You can also read about the study load of the different units of study modules offered in the degree course. This chapter contains a general description. Part 2, chapter 6 describes the exact content of the degree course.

3.1 Structure and format of the degree course

3.1.1 Structure of the degree course

The degree course consists of a coherent set of units of study. In the part-time and/or work-study degree format, units of study are grouped in modules.

The study load of a degree course is represented in credits. The study load of a unit of study is at least one credit. One credit is equal to 28 hours of study (this is an average indication). The study load of this master course is 120 credits.

Each year of study is structured so that the standard study load for a full-time degree format is 60 credits.

The standard study load of this part-time/work-study degree course is 60 credits per year of study.

You can follow the degree course in the following degree formats:

Full-time

Part-time

At location: Nijmegen.

The standard scheduled duration of the degree course is 2 years of study.

The part-time degree format has a standard scheduled duration of 2-4 years of study.

The structure of the study programme for this degree course is provided in Part 2, chapter 6.

3.1.2 Structure of the work-study degree format

Not applicable

3.1.3 Elective units of study

Not applicable

3.1.4 Graduation specialisation

Not applicable

3.2 Tracks with special features

3.2.1 Combined track

Not applicable

3.2.2 Other track with special feature

Not applicable

3.3 Language in which the units of study are offered

The degree course MMLS is offered in English.

The degree course also offers units of study/modules in a language other than Dutch. The units of study that are [also] offered in another language can be found in the overview of units of study in Part 2, chapter 6.

3.4 Extra educational components

As a student you can take one or more extra modules, units of study or units of learning outcomes at HAN. If you choose to do this, you will be expanding your study load. You can do this at HAN by:

- taking one or more extra modules,
- taking one or more extra units of study or units of learning outcomes.

You do not need approval from the board of examiners to participate in an extra module or one or more extra units of study or units of learning outcomes.

Capacity limits may apply for participation in an extra unit of study or an extra module.

3.5 If the content or structure of your degree course changes

We regularly change or update components of the study programme so we can guarantee the quality of the degree course and the value of your degree (certificate). This means the education and examination regulations for a following academic year may contain amendments to the study programme you will follow.

Changes to the study programme can have certain consequences. If you have a study delay, for example, you may need to pass a different exam or modular exam than you initially thought. A change may also mean an exam or modular exam is still offered, but you can no longer follow the educational activities for that particular component.

A change cannot mean that units of study or exams and modular exams you have already passed no longer count towards the final assessment. The law only allows this in highly exceptional cases.

The transition regulations in Part 2, chapter 8 stipulate, where needed, how this works for each change made to the study programme.

4 Study coaching and study facilities

The learning objective and basic principle at HAN is that you are responsible for your own learning process. We also want you to feel acknowledged during your entire time as a student. You are entitled to good study coaching. Each degree course offers support for this. If needed, HAN can also offer you academic, psychological and financial support. The HAN Study Success network offers you support for successful study progress.

4.1 What does HAN offer to assist you with your studies?

HAN offers facilities that enable you to do well in your studies. Examples of these are:

1. facilities for students with a disability;
2. facilities for pregnant students and students with informal care tasks;
3. special support for international students;
4. special support for students from minority groups.

HAN Study Success also offers support for successful study progress. Students who need this can get extra support. You can contact your study coach or HAN Study Success for more information about the facilities and coaching offered at HAN. See also Part 1, chapter 6

In addition to the general facilities, your degree course also offers at least the following facilities:

1. study coaching as described below;
2. two exam opportunities each academic year.

4.2 How is study coaching organised?

The study coaching starts with the introduction to the Study coach at the start of the academic year. In the first year of study, your personal Study coach will invite you to come and talk with them at least 3 times. Furthermore, study coaching is integrated in the education in the units of study.

General information about study coaching

The aim of study coaching is to support and guide students personally to optimal study success.

Though students work rather independently during their master education, personal attention is an important aspect of the master programme in Molecular Life Sciences. The study is seen as an integral part of the professional and private life of students and adjusted as much as possible to the needs of individuals.

For mastering the competences developed with the modules Research and Development Skills and Managing projects, the context of workplace plays a pivotal role.

Specific elements of study coaching

Study tutoring in the Molecular Life Sciences master course is based on the master level professionals are educated to. Each student has a study coach (tutor). Personal discussions of the student, student career coach and workplace supervisor will be scheduled on a regular basis. During these discussions, the competence development, study progress, learning goals and individual needs of students will be discussed. Furthermore, combining study with professional and private life can be subject of these discussions.

Next to the structural discussion, students can always contact their student career coach, lecturers, the programme coordinator or the administrative support (secretary) with specific questions or problems. There is an 'Open door policy'.

Personal requirements of students are met as much as possible and sensible with respect to the regulations, practical feasibility and the student's study progress.

5 Exams and final assessment

This chapter covers, in general terms, the exams, modular exams and final assessment for your degree course.

5.1 Coherent set of units of study

The degree course consists of a coherent set of units of study that are stipulated and described in Part 2, chapter 6. For each unit of study there is an exam.

The degree course consists of a coherent set of units of study and modules in the part-time and work-study degree format that are stipulated and described in Part 2, chapter 6. For each unit of study there is an exam.

An exam can consist of two or more modular exams that have a predetermined weight factor and jointly determine the exam grade for the unit of study.

5.2 Exam

The result of an exam for a unit of study is used to determine whether the student has the knowledge, understanding and/or skills and (if relevant) attitude required to successfully complete that unit of study. The assessment dimensions and assessment criteria of the exams and modular exams are set out in Part 2, chapter 6.

5.2.1 Entry requirements

Some units of study have entry requirements for participating in the educational activities, exams and modular exams for that unit of study. You can request permission from the board of examiners to deviate from these entry requirements. The entry requirements are described in the units of study in Part 2, chapter 6. The following entry requirements apply to your degree course:

- You need to have passed one or more other specific exams or modular exams.
- You need to sufficiently master the language in which the unit of study is given.
- Successful completion of a unit of study.

5.2.2 Mandatory participation

In some cases you may only do an exam or modular exam if you have actually participated in the educational activities for the unit of study belonging to that exam or modular exam.

Part 2, chapter 6, further stipulates which units of study have full or partial mandatory participation.

The board of examiners may grant full or partial exemption of mandatory participation. In that case, an equivalent requirement is imposed .

5.2.3 Exam format

The format of an exam or modular exam is specified in Part 2, chapter 6, in the description of the unit of study concerned. The board of examiners may deviate from this format in special cases, on request or at their own initiative.

5.3 The examiner

Each exam and modular exam is designed and assessed by one or more examiners, as decided and appointed by the board of examiners.

The examiner determines the result of the exam or modular exam. If more than one examiner is appointed, the head

examiner determines the final result.

5.3.1 When have you passed an exam?

The examiner gives the result of an exam as a grade.

The result of an exam is expressed in one of the following numbers: 1, 2, 3, 4, 5, 6, 7, 8, 9 or 10.

You pass the exam if you earn a grade of 6 or higher.

You fail the exam if you earn a grade of 5 or lower.

5.3.2 When have you passed a modular exam?

The examiner gives the result of a modular exam as a grade.

A grade for a modular exam is rounded to a number with 1 decimal place.

Grades with the decimals 1, 2, 3 or 4 are rounded down.

Grades with the decimals 5, 6, 7, 8 or 9 are rounded up.

Contrary to the main rule above, the result of one or more modular exams can be expressed in a grade or in a 'pass' or 'fail'. The unit of study descriptions in Part 2, chapter 6, specify which modular exams are assessed with a grade and which with a 'pass' or 'fail'.

You pass a modular exam if you earn a grade of 5.5 or higher or a 'pass' qualification.

You fail a modular exam if you earn a grade of 5.4 or lower or if you receive the 'fail' qualification.

5.3.3 How is the overall grade calculated for an exam with modular exams?

When the overall grade for the exam is calculated, the grades earned for the modular exams are weighted as specified in the unit of study descriptions given in Part 2, chapter 6. The final exam grade is then rounded off as follows:

Exam grades with the decimal 1, 2, 3 or 4 are rounded down to whole numbers.

Exam grades with the decimal 5, 6, 7, 8 or 9 are rounded up to whole numbers.

5.3.4 Applicable result

The highest grade achieved for an exam or modular exam counts as the obtained result. You are allowed to take an exam or modular exam again even if you have passed it.

5.3.5 When do you get a 'pass/fail' qualification for an exam?

Contrary to section 5.3.1, a pass/fail can be given instead of a grade in the following cases:

- you have an exemption for one or more modular exams, so the result of that exam cannot be expressed in a grade,
- the HAN conversion tables do not apply.

5.4 Number of exam opportunities each academic year

You have two opportunities each year to take an exam or modular exam. The descriptions of the units of study in Part 2, chapter 6, specify how many exams and modular exams are conducted each academic year and in which term.

Please note that if the degree course has more than 2 exam opportunities a year, you may still only use two of those opportunities.

In the following exceptional situations, the unit of study description in Part 2, chapter 6, may stipulate that only one

opportunity will be offered each academic year to take an exam or modular exam:

- if the nature of the education and assessment of the unit of study make it impossible to offer a second opportunity. In that case, the student will always be notified sometime during the unit of study about whether their performance to date is sufficient for them to pass the exam or modular exam for that unit of study, or,
- if it is not possible to offer a second opportunity due to physical or logistic reasons and the next opportunity cannot be offered until the following academic year, and
- an alternative has been offered that prevents further study delay.

The student will be informed of this exception when they apply for the unit of study and, if possible, before the start of the academic year.

5.4.1 Registration for an exam

Part 2, chapter 6, describes whether, how and by which date you must register for an exam or modular exam.

5.4.2 Request for extra exam opportunity or different exam format

You can submit a request to the board of examiners for an extra opportunity for an exam or modular exam.

You can submit a request to the board of examiners to take an exam or modular exam in a different format.

The request must be motivated and include at least a description of the reason and importance.

The Regulations of the Board of Examiners (see Part 3) gives further details on the procedure.

5.5 Modified exam format

Do you have a disability or chronic illness, or is there another reason such as pregnancy that means you cannot participate in the regular format of the exam or modular exam? Then you can ask the board of examiners to conduct the exam or modular exam in a format adjusted to your situation.

The board of examiners will decide, if needed after consultation with you and the examiner, which format can reasonably be used for the exam or modular exam, which facilities will be offered and which different rules will apply.

5.6 Oral exams and oral modular exams

An oral exam or oral modular exam is conducted by means of a conversation between the examiner(s) and the student. Oral exams and oral modular exams are public. In special cases, the board of examiners can deviate from this rule. This decision will be announced and explained to everyone involved.

5.7 When is the result of an exam announced?

It depends on the exam format when the result of an exam or modular exam is announced:

- You will be informed of the result of a written exam or written modular exam within at least 15 working days. This result will be recorded in the study information system (SIS).
- The result of an oral exam or oral modular exam will be decided directly after the exam and announced within no more than 5 days. This result will be recorded in SIS.
- You will be notified of the result of a practical exam or practical modular exam immediately after the exam, or if that is not possible, within 5 working days. This result will be recorded in SIS.

A result entered into SIS may only be adjusted in the following cases:

- If a demonstrably incorrect result has been entered into SIS.

- In cases of fraud, deceit or impersonation.
- If an examiner has revised their assessment for a well-founded reasons.
- If you have lodged an appeal to the Examination Appeals Board or the Higher Education Appeals Tribunal against an assessment, the appeal is judged to be valid and the result has been revised by the examiner.

Has a result changed after being entered into SIS? Then you will receive notification of this.

5.8 Exams: review and discussion rights

Did you think the assessment of your exam/modular exam or the discussion about it were unclear? Then you can ask the lecturer for further explanation. Discussion and individual reviews are closely monitored to ensure no fraud takes place during this phase. Discussion and review rights are organised as follows:

5.8.1 Group discussion

Within 10 working days after the results of an exam or modular exam, the examiner organises a group discussion, unless there is clearly no need for this among the students.

5.8.2 Review and discussion of individual work

After the group discussion or if there was no group discussion, you as an interested party are entitled to review and discuss your own work with your lecturer and the examiner, unless you could reasonably have already done this during the group discussion. You are allowed to review and discuss everything: the assessed exam or modular exam, the questions, assignments and grading system.

Students must have the option to review and discuss their own work within 6 weeks after the result.

5.8.3 Other exam formats

If an exam has been administered in a format that cannot be reviewed or discussed as outlined in the procedure above, the unit of study description in chapter 6 will specify how the review and discussion is organised. The same principles will be guaranteed as in sections 5.8.1 and 5.8.2 above.

5.9 Exams taken independently of the standard programme

An exam or modular exam taken independently of the standard programme is an exam or modular exam you can participate in without following any of the educational offerings of the unit of study. If you would like to participate in an exam or modular exam taken independently of the standard programme, you can submit a motivated request to the board of examiners. The request must include at least a description of the reason and importance.

The board of examiners will make a reasoned decision within 20 working days based on the evidence submitted.

If this decision is positive, you can participate in the exam or modular exam. If the regular exam or modular exam is not suitable for this purpose, the board of examiners will appoint the examiners and decide on the exam format, in accordance with the relevant exit qualifications and assessment criteria given in Part 2, chapter 6.

5.10 When and how can you request exemption from an exam or modular exam?

Part 2, chapter 6 describes for each exam and modular exam which knowledge, understanding, skills attitude you need to demonstrate and how they will be examined and assessed. You can request an exemption from the board of examiners for one or more exams or modular exams if you demonstrate that you already master the knowledge, understanding, skills attitude associated with the exam or modular exam.

You can demonstrate this with:

- evidence showing you previously passed an exam in higher education;
- an official report showing recognition of prior learning;
- evidence that you gained the required knowledge, the required understanding and/or the required skills elsewhere.

The learning outcomes assessment criteria of the exams and modular exams as specified in Part 2, chapter 6, form the guidelines for the board of examiners to grant the exemption.

Instead of a grade or the 'pass' qualification, you receive the qualification of 'exemption' for an exam or modular exam.

The procedure for granting exemptions can be found in the Regulations of the Board of Examiners (Part 3).

The board of examiners may designate certain previously passed exams and modular exams and/or any previously earned credits and degree certificates as entitling students to exemption from one or more exams or modular exams.

The designated exams, credits and certificates are outlined in an appendix to the Regulations of the Board of Examiners. The board of examiners may also consider these as grounds for exemptions from one or more exams or modular exams for units of study that are part of abridged tracks.

5.11 Final assessment

You pass the final assessment if you have passed all of the exams related to that final assessment. This will differ if the board of examiners has specified that an extra assessment is needed of your knowledge, understanding and skills. In that case, you will also need to pass that extra assessment (exam). Only then will you pass the final assessment.

5.11.1 Cum laude

If you pass all the exams that count towards the final assessment with a grade of 8 or higher on your first attempt, you will pass that assessment 'cum laude'. These are the overall exam grades for each unit of study; separate grades for the modular exams are not taken into account. If an exam comprises several modular exams, only the grades for the modular exams that were passed on the first attempt will count towards the required grade of 8 for the exam. One exception can be made to this rule. This exception is that a student may resit one modular exam and the highest result then counts towards determining whether they receive the 'cum laude' distinction. If an exam does not consist of several modular exams, students can resit that exam.

Exams that are part of an increase of your study load, as described in Part 2, chapter 3, are not taken into consideration when determining the 'cum laude' distinction.

You may earn no more than 60 credits in exemptions or 'pass' qualifications in the degree course.

5.11.2 With merit

If you pass all the exams that count towards the final assessment with a grade of 7 or higher on your first attempt, you will pass that final assessment 'with merit'. These are the overall exam grades for each unit of study; separate grades for the modular exams are not taken into account. If an exam comprises several modular exams, only the grades for the modular exams that were passed on the first attempt will count towards the required grade of 7 for the exam. One exception can be made to this rule. This exception is that a student may resit one modular exam and the highest result then counts towards determining whether they receive the 'with merit' distinction. If an exam does not consist of several modular exams, students may resit that exam.

Exams that are part of an increase of your study load, as described in Part 2, chapter 3, are not taken into consideration when determining the 'with merit' distinction.

You may earn no more than 60 credits in exemptions or 'pass' qualifications in the degree course.

5.12 Overview of results, supporting documents, and declarations

5.12.1 How to request a - certified - overview of your study results

You can make a printout of your exam results as recorded in the study information system. If you want to use this overview as an official document at HAN or elsewhere, you can submit a request to the Student Affairs Enquiry Desk for a certified grades list. This certification does not guarantee that the relevant authorities will also consider the document official.

5.12.2 Exam documentation

You will receive signed documentation from the examiner for each exam or modular exam you take. This may be a digitally signed document. It gives the name and code of the exam or modular exam, the unit of study, and your result. The examiner is required to provide you with this document. Keep these documents in a safe place.

5.12.3 Statement

If you quit the degree course and are not entitled to a degree certificate, but you have passed more than one exam, you will receive, on request, a statement from the board of examiners listing the exams you passed, for which degree course, how many credits you earned for these exams and, if applicable, the programme for which the statement is being issued. This statement includes an appendix with a certified grades list.

5.12.4 Module certificate

Not applicable

You receive a statement from the board of examiners for each module you have passed. This statement specifies the name of the module, the units of study within the module, the accompanying study load and the results you obtained for the exams.

5.13 Degree certificate, degree and diploma supplement

5.13.1 Degree and degree title

Once the board of examiners has confirmed you have passed the final assessment, the Executive Board will award you a Master of Science.

This degree title is also stated on your certificate.

The related official abbreviation you can place after your surname in the Netherlands and abroad is: MSc.

5.13.2 Master degree certificate and diploma supplement

Once the institutional board has awarded the degree confirmed that you are enrolled in the degree course at HAN and have met all your financial requirements towards HAN, the board of examiners will award you the degree certificate for the master course and the corresponding diploma supplement in English.

5.13.3 Different issuing date for master degree certificate

You can request the board of examiners to postpone issuing your degree certificate. This postponement can be granted for no more than two years.

5.14 Appeal

You can lodge an appeal with the HAN Examination Appeals Board against a decision concerning education, exams, modular exams and final assessments within 6 weeks based on the education and examination regulations.

For more information about which decisions you can appeal and how, go to HAN Insite Complaints and Disputes Office:

[Queries and Complaints Desk for students \(han.nl\)](#)

6 Description of the education (the units of study)

This chapter describes your degree course in the form of a curriculum overview and description of the units of study. It also specifies whether the course offers modules and of elective units.

Name of degree course: MMLS			
CROHO number: 49293			
Degree format	Full-time	Part-time	
Language	English	English	
Variants and tracks			

Below is a schematic overview that gives you an overall impression of the degree course. It also gives the units of study modules in the degree course.

6.1 Units of study

See Appendix to chapter 6 description of the education units.

6.2 Graduation specialisations

Not applicable

6.3 Other

Not applicable

7 Evaluation of the degree course

7.1 Evaluation structure

A quality framework has been adopted for all HAN degree courses. This is in line with the accreditation framework of the Accreditation Organisation of the Netherlands and Flanders (NVAO) and the education policy formulated by HAN. This framework stipulates, among other things, that regular evaluations must be held among students, graduates, the professional field and staff.

HAN also carries out evaluation studies to support the evaluations done at degree course level.

Each year all HAN degree courses participate in the National Student Survey (NSE) in which students indicate how satisfied they are with different aspects of their degree course.

Every year an alumni survey is held via the HBO-monitor. This evaluates for each degree course how alumni look back on their degree course and how well it was geared to the labour market in their experience.

HAN students who leave a degree course without a degree certificate are contacted to enquire about their reason for leaving. Also, study progress and drop-outs are monitored for each degree course.

Every six years an accreditation is held by the NVAO, with external reviews beforehand by a committee of experts. Halfway through the accreditation cycle, an audit is conducted by an internal committee complemented by an external expert in the relevant field. The aim is to monitor and test the progress of improvement measures relating to the last external assessment of the degree course. This internal audit results in a report with improvement recommendations for the dean, for the degree committee and for those responsible for the course content.

The audit is conducted according to a set protocol. It includes quality assurance with regards to administrative and educational law and good implementation of the education and examination regulations.

7.2 Evaluation by the degree course

The core team is responsible for the structure and the quality of the degree course.

Each year the dean adopts an annual quality assurance report on the degree course. This document, along with the internal audit report or review report, forms the basis for dialogue about the quality of the degree course. This report concerns the improvement activities that were agreed on for the reported year, how they were executed and what results they delivered.

Based on the analysis of evaluation data for the reported year, a description follows of the improvement activities to be implemented in the current year. The evaluation data come about through evaluations of units of study, annual evaluations and curriculum evaluations by lecturers, students, alumni and the professional field. Also through evaluation studies conducted centrally by HAN.

The core team and/or the degree committee, curriculum committee and the board of examiners are involved in this cycle at degree course level by means of a brief response to this. Their responses are included in the appendixes to the annual report.

7.3 Role of the degree committee

The tasks, role and responsibilities of the degree committee in the evaluation are set out in the Regulations of the Degree Committee (see Part 3). The degree committee can also take the initiative to conduct specific evaluations or have them conducted.

7.4 Degree-specific quality assurance

Different stakeholders, which are students, professional field (professional advisory committee, the HAN Research group Industrial Microbiology and diverse other contacts), lecturers and alumni are involved in the quality assurance cycle. They are formally asked about their opinion about various quality aspects of the programme on a regular bases, and are stimulated to give informal feedback. Evaluation scores are compared to targets. Possible causes for scores lower than targets are discussed, and improvement actions are initiated, carried out, communicated and evaluated. By continually going through Deming's Plan-Do-Check-Act cycle (PDCA cycle), the programme aims for continuous improvement of the quality of the programme.

In addition, the external supervisor has the task to give feedback on the realization of the final qualifications, their assessment and teaching supporting students in acquiring these.

8 Transition regulations

8.1 Effective date for amendments

An amendment to the education and examination regulations can only become effective as of 1 September in the following academic year. Exceptions to this rule are clerical error, force majeure, fulfilment of legal regulations or when the amendment is in your favour.

This chapter sets out the rules for respecting acquired rights and legitimate expectations.

8.2 Obtained credits and study results

The result of an exam and its corresponding credits remain valid until the board of examiners has made a substantiated decision that the examined material is so outdated that it can no longer be used in the profession and the term of validity has expired as of a date stipulated by the board of examiners.

Results obtained for modular exams remain valid, and may – if they still fit in the new programme – lead to exemptions.

8.3 Participation in education, but not in exam or has not passed exam

A student who has participated in the educational activities for a unit of study in the academic year prior to the programme amendment, but who has not completed an exam or modular exam or has not passed an exam or modular exam, is entitled to repeat the educational activities at least during the academic year in which the amendment takes effect, and is entitled to at least two opportunities to take the exam and modular exams.

The board of examiners can deviate from this in exceptional cases, in the favour of the student.

If you like, you can directly choose the new programme structure and register for a renewed or modified unit of study. By doing so, you waive your rights concerning the transition rules.

8.4 Degree-specific transition regulations

Students who need to take (modular) exams of previous academic years have the right to take old formats of these (modular) exams, equivalent to current (modular) exams, according to the following transition regulations:

UOS in previous study years	Equal to UOS in 2021-2022	Brief commentary	Option to take old (modular) exams	Deviating provisions with respect to old UOS and (modular) exams

Drug Discovery and Development	Drug Discovery and Development	<p>From 2018-2019 onwards, - the Drug Discovery presentation (DRD-PRES) is not marked anymore, but converted to a class activity (poster presentation) in which students have to demonstrate their knowledge and skills at sufficient level; - Structure Elucidation Analysis (DRD-SEA) is part of the examination of this module</p> <p>From 2020-2021 onwards, the study load of the Drug Discovery and Development module is 10 ECTS due to its actual study load.</p>	<p>Yes, students of the 2016 year group can take the DRD-PRES in the old format and complete the Unit of Study without DRD-SEA</p> <p>Students from year groups prior to 2020 can complete the Drug Discovery and Development module with 4 ECTS (2016 year group) and 9 ECTS (2019 year group).</p>	-
Vaccines and Diagnostics	Vaccines and Diagnostics	<p>From 2020-2021 onwards the summary for the financial department is not part of the Vaccine Development proposal anymore.</p>	<p>Yes, students of 2019 year group and earlier take the old modular exam.</p>	-
Research and Product Development 1	Research and Product Development 1	<p>From 2018-2019 onwards, the "Design of Experiments" will not be a marked document but changed into a class activity in which students have to demonstrate their knowledge and skills at sufficient level</p>	<p>Yes, for students of 2016 and 2017 year group</p>	-

Project Management 2	Managing Projects 2	<p>From 2018-2019 onwards:</p> <ul style="list-style-type: none"> - the assessments Professional Identity and Interpersonal Effectiveness will be merged to one assessment "Professional Effectiveness"; and - the assignment "Reflection on project realisation and own contribution" are converted into a class activity students have to actively participate <p>From 2019-2020: The name of the unit of study changes from "Project Management 2" into "Managing Projects 2"; the assessments are not changed.</p>	Yes, students of 2016 year group can take the old modular exams of "Project Management 2" Students of 2016 and 2017 year group complete their unit of study "Project Management 2"	-
Graduation project	Graduation project	From 2020-2021 onwards, the assessment of the Graduation project changed. The assessment consists of 4 modular exams instead of one integral exam.	Yes, student groups of the 2018 year group and earlier can take the old integral exam for the "Graduation project".	-
Managing projects	Managing Projects	From 2021-2022 onwards the score sheets for PC1 and PC2 are combined into scoresheet PT (professional toolbox)	Yes, student groups of the 2020 year group and earlier can take the PC1 and PC2 exams.	

PART 3 Other regulations

Appendix 1 Appendix Exam Regulations

1 Exam Regulations

These regulations stipulate the following:

1. The rules of conduct for students in written and digital exams and modular exams, insofar as these are not laid down in the Student Charter and the Education and Examination Regulations or related regulations.
2. The rules of conduct for students in review sessions and discussions of exams and modular exams, insofar as these are not laid down in the Student Charter and the Education and Examination Regulations or related regulations.

1 Code of Conduct for students during exams

The facilities provided by HAN for students with respect to exams and modular exams are laid down in the Student Charter and Education and Examination Regulations or related regulations. There is a code of conduct for students. In addition to general provisions, this code of conduct also contains provisions governing the conduct of students at exam venues. These exam regulations contain additional provisions regarding student behaviour during written and digital exams in particular.

Behaviour

The student:

1. follows the instructions given by the supervisor and treats him/her with respect;
2. behaves in such a way that he/she does not disturb other students at any time during the exam or when entering or leaving the exam venue. The student is must be silent before, during and after the exam when in and near the room where the exam is being held;
3. contacts the supervisor a.s.a.p. if anything is unclear before and/or during the exam.

Identification and admission

The student:

1. reports to the supervisor 15 minutes before the start of the exam at the exam room;
2. will only be admitted to the HAN exam if they can identify themselves with a valid student card or a valid proof of identity. This means:
 - a passport;
 - a European identity card;
 - a Dutch driving licence;
 - a valid driving licence from one of the member states of the European Union or from another state that is a party to the Agreement on the European Economic Area;
 - a Dutch residence permit.
3. if a student is sitting for a national exam they may only identify themselves with proof of identity;
4. must place his/her valid student card or other form of identification at the top right-hand corner of the desk during the exam so the supervisor can check his/her identity;
5. will have their name checked off the attendance list by the supervisor to confirm his/her participation in the exam;
6. must immediately inform the supervisor if they are not listed on the attendance list. That student will only be given the opportunity to participate in the exam if the course department or school has given prior approval for additions to the attendance list.

Theft/loss of identification

If the student is unable to show identification due to theft or loss, they can apply for a certificate of registration at the Exams Office, which will give them admission to the exam venue. This certificate will only be issued if the student can show the original police report and/or official request to the municipal authorities for new identity papers. The student needs to apply for the certificate well in advance of the exam.

Before the start of the exam

The student:

1. may only place items needed to complete an exam on/next to the table;
2. may not – unless expressly stated otherwise – have any of the following in their possession during the exam: digital data carriers or equipment with an integrated digital data carrier, such as USB flash drives, calculators, special watches, special glasses, special earphones, etc.;
3. may not wear a watch. A clock is provided in all exam venues;
4. may not – unless expressly stated otherwise – use the following resources during the exam: hard-copy versions of dictionaries, law books, textbooks, etc.; if these resources are permitted, they may be checked by the supervisors;
5. must put their coat, scarf, hat, bags, cases, mobile phone(s), smartphone(s), digital data carrier(s) and any equipment with an integrated digital data carrier(s) in the place specified by the supervisor;
6. must turn off mobile phones, smartphones, etc. before putting them away;
7. must write their name, student number, class/group and other details requested by the supervisor on all exam documents at the start of the exam. The student must also write his/her name on any note paper he/she uses;
8. will not have direct access to the exam venue after the actual start of the exam. Students who do not make it to the exam venue on time are still allowed to enter the exam venue 30 minutes after the actual start of the exam and are allowed to sit the exam for the remainder of the exam time. The supervisor makes a note of which students are late. Students strictly observe instructions given by the supervisors regarding where they are allowed to sit and they do not disturb students who have already started the exam.

During the exam

The student:

1. may not take toilet breaks during exam sessions of 120 minutes or less. During exams that last longer than 120 minutes, students may take a toilet break after 120 minutes if accompanied by a supervisor. Exceptions are possible for all exams in cases of physical discomfort, provided the supervisor is notified no later than 15 minutes before the start of the exam or immediately upon entry when arriving 30 minutes after the start of the exam;
2. may not leave or submit their work during the first 30 minutes of the actual start of an exam (to prevent disruption to other students and/or irregularities); If there are any students who enter the exam venue 30 minutes after the start, any students who want to

- leave may only do so after the late students have started their exam;
3. will be given access to additional exam facilities if they are entitled to those facilities in accordance with a study contract or a decision to that effect by the board of examiners. These facilities apply if the student has registered for the exam well in advance;
 4. may not consume any food during exams that last less than 150 minutes; students may consume food during exam sessions of 150 minutes or longer if this does not cause a nuisance to fellow students;
 5. may only consume drinks from a resealable bottle/container;
 6. must use the writing materials specified on the cover sheet (black or blue pen or lead pencil) to complete the exam;
 7. must ensure that multiple-choice forms are filled in correctly and according to the instructions given by the supervisor;
 8. may not copy an exam or parts thereof in any way or take the exam or its contents outside the exam venues in any manner.

Resources

The student:

1. may not use resources other than those permitted. The permitted resources will be announced in advance by the course department and will be listed on the exam cover sheet;
2. must ensure that resources do not have notes, etc. on them unless the exam cover sheet states that this is permitted.

Suspected irregularity

The student:

1. will be referred to Part 2 of the degree statute (the education and examination regulations), and Part 3, chapter 2, of the degree statute (the regulations of the board of examiners) for provisions concerning irregularities or fraud, penalties for irregularities or fraud and confiscation of evidence;
2. will be permitted by the supervisor to complete the exam in the event of a reasonable suspicion of an irregularity or fraud and will sign the 'Form for suspected irregularity or fraud' (filled in by the supervisor) to confirm they have seen it.

Handing in exam documents

The student:

1. checks before handing in the exam script and assignment(s) whether their name, student number, class/group number and any other details requested by the supervisor have been written correctly on all of the exam documents to be submitted;
2. submits all the exam documents including used and unused note paper to the supervisor and signs the attendance list for confirmation;
3. makes sure everything is left neat and tidy before leaving the exam venue.

2 Code of conduct for students during review/discussion sessions of assessed exam work

There is a code of conduct for students. In addition to general provisions, this code of conduct also contains provisions governing the conduct of students at exam venues.

Below are additional regulations regarding the review of assessed exam work, hereafter referred to as 'review'.

Before the review: Only students who have taken part in the exam for which the review is organised may be present in the classroom. A lecturer and a supervisor will be present during the review.

Behaviour

The student:

1. follows the instructions given by the supervisor and treats him/her with respect;
2. should behave in such a way that he/she does not disturb other students at any time during the review or when entering or leaving the room in which the review takes place (hereafter referred to as the 'room');
3. must contact the supervisor a.s.a.p. if anything is unclear during the review.

Identification and admission

The student:

1. must show the supervisor a valid student card or another valid form of identification:
 - a passport;
 - a European identity card;
 - a Dutch driving licence;
 - a valid driving licence from one of the member states of the European Union or from another state that is a party to the Agreement on the European Economic Area;
 - a Dutch residence permit.

If the student cannot show a student card or a valid form of identification, they will not be allowed to take part in the review/discussion.

In the case of theft or loss of the identity document, the student can apply for a certificate of enrolment at the Exams Office, which will give them admittance to the room. This certificate will only be issued if the student can show the original police report and/or official request to the municipal authorities for new identity papers.

2. should have their name checked off the attendance list by the supervisor to confirm their participation in the review/discussion;
3. must place their valid student card or other form of identification at the top right-hand corner of the desk during the review/discussion so the supervisor can check their identity.

Start and resources

The student:

1. must ensure they have a copy of their answer sheet (yellow carbon copy) when reviewing a multiple-choice exam with OMR answer sheet;
2. may only place on the table the permitted resources that are listed on the review cover sheet or that are announced by the supervisor at the start of the review;

3. may not – unless expressly stated otherwise – have any of the following in his/her possession during the review: digital data carriers or equipment with an integrated digital data carrier, such as mobile phone, smartphone, USB flash drive, calculator, special watch, special glasses, special earphones, etc.;
4. must put their coat, scarf, hat, bags, cases, mobile phone(s), smartphone(s), digital data carrier(s) and any equipment with an integrated digital data carrier(s) in the place specified by the supervisor;
5. must ensure their mobile phone(s), smartphone(s) or other digital data carrier(s) and any equipment with integrated digital data carrier(s) are switched off before putting them away;
6. must carefully complete all requested details on the protest form.

During the review/discussion

The student:

1. may not take a toilet break during the review;
2. may not eat anything during the review;
3. may only consume drinks from a resealable bottle/container;
4. may only place one or more of the following permitted documents on the table:
 - a. assessment form
 - b. yellow carbon copy (of the multiple-choice exam with OMR answer sheet)
 - c. exam script
5. may not make any annotations or amendments to the completed exam script. If the student does this anyway, it is reported to the board of examiners as an irregularity.
6. may not copy or take with them any model answers or assignments. Neither may students copy their own exam scripts and/or those of other students.
7. may not copy an exam or parts of an exam in any way or take the exam or its contents outside the exam venues by any other means.

Suspected irregularity

You can refer to the applicable provisions in Part 2 of the degree statute (the education and examination regulations) and Part 3, chapter 2, of the degree statute (the regulations of the board of examiners) for the applicable provisions concerning irregularities or fraud, sanctions for irregularities or fraud and confiscation of evidence.

Submitting reviewed (assessed) exam work

The student:

1. submits all the exam documents received for review to the supervisor and signs the attendance list to confirm this;
2. must make sure everything is left neat and tidy before leaving the room.

3 Final provisions

Unforeseen circumstances

In exceptional situations and cases not provided for by these regulations and in which an immediate decision is necessary, the decision will be taken by:

- a. the head of the exams office (in so far as this is within the powers of the exams office);
- b. the examiner (in so far this is within their powers);
- c. the chair of the board of examiners (in so far as this is within their powers);
- d. the supervisor, in consultation with the coordinating supervisor if it is not possible to wait until one of the above authorised people is present.

The interested parties will be informed of the decision as soon as possible.

Complaints and appeals concerning decisions and procedures of the exams office

For more on this, see these HAN regulations:

- 'Complaints Regulations';
- 'Regulations for Legal Protection of Decisions Concerning Education'.

4 Appendix

Formulier geconstateerde vermoedelijke onregelmatigheid of fraude **Form for suspected irregularity/fraud**

Naam surveillant *Name of supervisor*

.....

Naam student *Name of student*

.....

Studentnummer *Student number*

.....

Code/naam tentamen *Code/name of exam*

.....

Datum *Date*

.....

Tijdstip van de vermoedelijke onregelmatigheid of fraude *Time of suspected irregularity/fraud*

.....

Tentamenlokaal *Exam room*

.....

Plaats *Place*

.....

Beknopt verslag door de surveillant van het gebeurde:

Brief written report of the events by the supervisor:

.....

.....

.....

Korte reactie van de student (je bent niet verplicht dit in te vullen, je krijgt nog de kans je verhaal te doen bij de examencommissie):

Brief response by the student (you are not required to fill out this form, you will still have the opportunity to tell your story to the Board of Examiners):

.....

.....

.....

Handtekening surveillant *Supervisor's signature*

.....

Handtekening 'voor gezien' van student

Student's signature to confirm he/she has read the form

.....

De surveillant grijpt in geval van een redelijk vermoeden van een onregelmatigheid of fraude direct in. Hij laat de student onder voorbehoud het tentamen afmaken en neemt alle bescheiden in waarmee de vermoedelijke onregelmatigheid/fraude heeft plaatsgevonden. De surveillant vult dit formulier in en levert dit met alle bescheiden na afloop van het tentamen direct in bij de coördinator-surveillant. De student ontvangt een kopie van het ingevulde formulier en de flyer 'Informatie voor student bij vermoedelijke onregelmatigheid of fraude tijdens het tentamen'. Via het Tentamenbureau gaat het formulier vervolgens naar de examencommissie. De examencommissie neemt contact op met de student.

The supervisor intervenes immediately in case of a suspected irregularity or fraud. He or she provisionally allows the student to finish the exam, and seizes all documents that he or she suspects are involved in the suspected irregularity/fraud. The supervisor fills in this form and submits it to the coordinating supervisor along with all accompanying items immediately after the exam. The student in question receives a copy of the completed form and the flyer 'Student information in case of suspected irregularity/fraud during the exam'. The form is then sent to the Board of Examiners via the exams office. The Board of Examiners will contact the student.

Appendix 2 Appendix Regulations of the Board of Examiners

REGULATIONS OF THE BOARD OF EXAMINERS 2021-2022

Section 1: General Provisions

Article 1.1 Terms and definitions

The terms and definitions applied in these regulations are those set out in Section 1.1 of the Education and Examination Regulations.

Article 1.2 Status and scope of these regulations

1. These regulations contain rules about the duties and powers of the School of Applied Biosciences and Chemistry board of examiners and measures they may take in this context, as well as rules about the implementation of those measures.
2. These model regulations are adopted annually as part of the model degree statute by the Executive Board with approval from the participation council.
The board of examiners may change paragraphs, articles and sections, provided the changes do not conflict with the degree-specific Education and Examination Regulations (EER), the HAN Student Charter or the Higher Education and Research Act (*Wet op het Hoger onderwijs en Wetenschappelijk onderzoek, WHW*).
3. These regulations were adopted by the board of examiners and apply to (the units of learning outcomes/study, exams, integrated exams and final assessments for) the
 - Bachelor degrees: Bioinformatics, Biology & Medical Laboratory Research, Life Science and Chemistry.
 - Master degree: Master of Molecular Life Sciences

Section 2: Decision-making and Mandates, Tasks and Meetings

Article 2.1 Decision-making and Mandates

1. The chair of the board of examiners signs decisions by the board of examiners, unless this duty has been delegated to someone else.
2. The board of examiners can appoint a managing committee for matters concerning day-to-day affairs, a daily committee (DC). This committee is composed of the chair of the board of examiners and another member and – insofar as this position is occupied – is supported by the official secretary. The managing committee is authorised to make provisions for current matters based on a general mandate. When the DC is unable to agree on a decision, the situation will be promptly brought to the attention of the board of examiners.
3. The board of examiners can be supported in its activities by an official secretary.
4. The duties delegated by the board of examiners are listed in appendix 1 to this set of regulations. The board of examiners remains fully responsible for any duties and/or powers it delegates to others.
5. The duties delegated by or on behalf of the Institutional Board to the board of examiners are listed in an overview in Appendix 2.
6. The board of examiners ensures that it regularly receives written reports on the duties and powers that it has delegated to other persons or bodies.

Article 2.2 Duties and Powers of the board of examiners

The board of examiners has the following duties and powers:

1. Ensuring the quality of exams and final assessments.
2. Adopting guidelines and instructions in addition to the EER about making objective, reliable, valid and transparent assessments of modular exams, integrated exams and final assessments and grading those exams.
3. Deciding to invalidate results for exams and modular exams and the corresponding ECTS credits. Also deciding on what date the validity of these exam results expires. This is only done in cases where reasoned arguments can be given showing the knowledge, understanding and/or skills are so outdated that they are no longer useful for the profession.
4. Deciding on student requests for exemptions. If a decision is later shown to be based on incorrect evidence submitted by the student, the board of examiners is authorised to withdraw the decision.
5. Deciding that certain previously passed exams and modular exams, certificates and other declarations, diplomas and certificates entitle a student to exemptions for one or more exams and/or modular exams. An overview of designation orders for groups of students can be found in Appendix 3 of these regulations.
6. Determining further rules and regulations regarding possible fraud and/or irregularities on the part of students, prospective students or external students, including any measures to be taken.
7. Adopting policies and rules about how the duties and powers should be performed as described in paragraphs 1, 2, 3, 4 and 5.
8. Ensuring the quality of the organisation of exams and final assessments.
9. When establishing guidelines and instructions as specified in paragraph 2, protocols are used for assessing (final) projects that meet national requirements as far as possible.
10. Appointing examiners and head examiners to administer exams and integrated exams and to determine the results of those exams. The board of examiners sets guidelines about appointing and assigning tasks to examiners for each exam format.
11. Terminating the appointment of examiners.
12. Making proposals to the Executive Board to end the enrolment of a student at serious fraud.
13. Advising the Executive Board on the discontinuation of a student's enrollment in a degree course as a consequence of the student's behavior in relation to future professional practice.
14. Deciding in the event of a suspicion that a student has committed irregularities and/or fraud and, if necessary, taking measures in that regard, in accordance with the regulations of the board of examiners as laid down by the board of examiners.
15. Deciding on a student's request to take a minor in accordance with the EER.
16. Deciding which HAN minors are approved as minors for the degree certificate. The overview of these HAN minors approved by the board of examiners can be consulted via the online environment of the board of examiners under overviews: <https://work.han.nl/sites/InstituutABC/examen/SitePages/Introductiepagina.aspx> and on #OnderwijsOnline under the tile 'ITBC minors'.
17. Deciding on a student's request for an extra opportunity to take an exam or modular exam.

18. Deciding on student requests to take an exam for a unit of study independently of the standard programme.
19. Deciding on a student's request to take exams and modular exams for the final bachelor assessment before they have passed the final propaedeutic assessment.
20. Deciding on a student's request to take units and complete exams and modular exams contrary to the applicable entry requirements.
21. Deciding on a student's request to take exams and modular exams in a different format from what is stipulated in the education and examination regulations.
22. Deciding on a student request, based on a functional disability or chronic illness or other condition such as pregnancy, to take exams and modular exams in an adapted format.
23. Deciding on a student's requests for an oral exam to be closed to the public. The board of examiners may also decide (in principle) to close certain exams to the public without the student's request in cases where there are special reasons such as company confidentiality during a graduation meeting.
24. Issuing documentation, module certificates and declarations.
25. Contributing to the formulation of the exam and examination policy for the degree programme or group of degree programmes.
26. Advising the dean on the education and examination regulations.
27. Awarding a certificate as proof of passing a final assessment once the Executive Board has declared that the procedural requirements for issue have been met.
The requirements for receiving a degree are that:
 - a) the student is enrolled at HAN University of Applied Sciences;
 - b) the tuition fees have been paid;
28. Deciding whether or not to grant student requests for postponement of certification.
29. Issuing a statement of successfully completed exams, at the request of a student, in cases where the student has successfully completed more than one exam and to whom a certificate as referred to in article 7.11 paragraph 2 of the Act cannot be issued.

Article 2.3 Board of examiners meetings

1. The board of examiners shall meet at least 10 times a year.
2. The meetings of the board of examiners are scheduled in such a way that they concur with the scheduling cycles of the degree course(s) and the school.
3. The board of examiners decides by a simple majority of votes.
4. If the votes are equally divided, the chair has the deciding vote.
5. At each meeting, the board of examiners ratifies decisions taken in the intervening period by the daily committee based on its general mandate regarding day-to-day affairs, as well as any other decisions taken based on delegated duties/powers.
6. The official secretary to the board of examiners ensures that a report is drawn up of every meeting. The report is adopted at the next meeting. The report includes a list of decisions made during the meeting.
7. The official secretary to the board of examiners ensures that the dean and any other members of the board of examiners receive a copy of the final report as soon as possible.
8. The official secretary to the board of examiners ensures that the final, anonymized reports of the meetings can be viewed digitally by lecturers/students/professors and others from the degree course concerned.

Article 2.4 Joint meeting of the dean and board of examiners

1. The board of examiners meets with the schoolmanagement at least 4 times per academic year.

Section 3: Quality assurance of exams, final assessments and organisation

Article 3.1 Ensuring the quality of exams

1. The board of examiners is responsible for ensuring the quality of exams.
2. The board of examiners will check if the guidelines and instructions as referred to in Article 3.2 are observed in practice and result in high-quality exams.
3. The board of examiners offers suggestions for improvements where needed.
4. Each year, the board of examiners prepares a monitoring plan / quality control plan to ensure the validity, reliability, feasibility and transparency of exams. This plan can be consulted via the annual report of the board of examiners.

Article 3.2 Guidelines and instruction for exams

1. Exams and modular exams are administered and graded by examiners and head examiners appointed by the board of examiners.
2. The examiners and head examiners examine and assess the exams and modular exams based on the criteria listed in the EERs and the guidelines and instructions adopted by the board of examiners.
3. The board of examiners adopts guidelines and instructions regarding:
 - the construction of exams; These can be consulted via the online environment of the board of examiners under the rules for decisions and points of attention: <https://work.han.nl/sites/InstituutABC/examen/SitePages/Introductiepagina.aspx>
 - the administering of exams; These can be consulted via the online environment of the board of examiners under the rules of decisions and points of attention, via the testing policy plan and via the educational descriptions in the EER of this study programme charter.
 - Extension of the examination time is not permitted for practical tests. The speed of action is part of the assessment.
 - the assessment and adoption of the result of exams. These can be consulted via Article 3.3 of these regulations, the online environment of the board of examiners under the rules of decisions and points of attention, via the testing policy plan and via the educational descriptions in the EER of this study programme charter.

Article 3.3 Ensuring the quality of final assessments

1. The board of examiners is responsible for ensuring the quality of the final assessments. They adopt and follow a policy for this.
2. The board of examiners regularly inspects whether the entirety of exams test all of the intended exit qualifications.
3. The board of examiners determines whether a student has the knowledge, understanding, skills and (if relevant) attitude, as described in the EER, required for obtaining a degree. The board of examiners will also determine whether a judgement is awarded. To this end, the board of examiners uses a (graduation) protocol that can be

consulted via the online environment of the board of examiners, subject to rules on decisions and points of attention.

4. The board of examiners is authorised to administer their own further investigation/exam to reach a careful decision about the matters outlined in the previous paragraph.
5. The board of examiners periodically reviews the quality of final graduation projects. The board of examiners may have these reviewed by other persons, who then submit a report to the board of examiners.
6. The board of examiners will prevent the undue awarding or withholding of study credits by examiners by:
 - The partial examination and the answer model are made and evaluated by 2 examiners or an assessment form belonging to the course unit description is used (Chapter 9 EER).
 - The test is assessed on the basis of the response model.
 - The Assessment Committee randomly tests modular exams with the corresponding answer model. When in doubt, the modular exam is assessed by the board of examiners.
 - The assessment of a modular exams and the establishment of the grade takes place according to the assessment criteria described in the course unit descriptions (Chapter 9 EER) by the indicated examiners.
 - The exam grade is calculated automatically by the formula according to the weighting as described in the assessment programme.

Article 3.4 Ensuring the quality of the organisation and procedures around exams and exams

1. The board of examiners is responsible for ensuring the quality of the organisation and procedures regarding exams and final assessments.
2. The board of examiners shall ensure compliance with the directives and guidance on the examinations as set out in article 3.2 paragraph 3. The board of examiners meets periodically with the exams office about this and if needed also with the school board.

Article 3.5 External validation of the quality of final assessments

The board of examiners ensures that the quality of the final assessment is validated by external parties by the following measures:

- degree programme and school-wide examination;
- implementing a joint protocol for assessing final graduation projects;
- hire of external experts to assist in preparing exams and assessment procedures;
- hires external experts to assess exam results;
- hire of external supervisors to monitor the quality of the assessment of final graduation projects (appendix 4);

Section 4: Appointment and expertise of examiners

Article 4.1 Appointing examiners and expertise of examiners

1. The board of examiners appoints (external) examiners to construct, administer, assess and grade exams. If there is more than one examiner for an exam or modular exam, the board of examiners also appoints a head examiner.
2. Depending on their role in the exam process, examiners and head examiners are experts in their subject field and possess the necessary knowledge and skills to prepare exams, set out methods and standards for assessing exams, organise examinations and analyse the results of exams based on guidelines and criteria for reliable, valid and transparent examinations and assessments. For examiners of written tests in the MMLS programme, the English Life Sciences variant of the Biology and Medical Laboratory Research programme, in the English Chemistry variant of the Chemistry programme or other written tests taken in English, they must at least have the Cambridge certificate C1 (CAE) or be proficient in English at an equivalent level. For the assessment of professional products and practical work is a minimal command of the English language required, equivalent to the Cambridge certificate B2.
3. The board of examiners promotes the adequate expertise of the examiners. If necessary, the board of examiners can ask the dean to take the necessary measures to facilitate the professional development of examiners.

As a way of ensuring the expertise of examiners and head examiners, the board of examiners has a profile they use when appointing examiners. The profiles can be consulted via the Teams environment Jaartaak en Rooster.

- Bachelor:
 - i Teachers can be appointed examiner of written tests and 1st examiner of graduation assignments if they have been employed for at least one year and have at least obtained the Basic Examination Qualification (BKE), the course Pedagogical/Basic-Didactical Competence (PDB/BDB) or Basic Qualification Education (BKO) or an equivalent programme. The 1st examiner of the graduation project must also have completed a relevant Master's programme.
 - ii Lecturers who have been employed for less for one year and / or (external) teachers who do not meet the profile for examiners may only under the supervision of an examiner who has pedagogical knowledge and skills drafting and reviewing written tests. In the joint assessment of written examinations, at least 50% of the lecturers who assess must have obtained their BKE.
 - iii Lecturers can be appointed as 1st examiner of the internship if they have been employed for at least 1 year and have completed a relevant Bachelor program. In the first year of employment, teachers can only be appointed as 2nd examiner of the internship.
 - iv Lecturers can be appointed as 2nd examiner of the graduation project if they have been employed for at least 1 year and have completed a relevant Master's programme.
- Master
 - i Lecturers can be appointed examiner when they have been employed for at least one year and have at least passed the Basic Qualification Exams (BKE), the Pedagogical / Basic Didactic Competence (PDB / BDB) or Basic Teaching Qualification (BKO) course or an equivalent training. They must have at least a Master.
 - ii Lecturers can be appointed as 1st examiner of graduation assignments if they have been employed for at least one year and have obtained at least the Basic

- Qualification Exams (BKE), the Pedagogical / Basic Didactic Competence course (PDB / BDB) or Basic Teaching Qualification (BKO) or equivalent training. The 1st examiner of the graduation project must also have completed a relevant Master's degree and have a PhD or equivalent experience in research or projectmanagement.
- iii Lecturers can be appointed as 2nd examiner of the graduation project if they have been employed for at least 1 year and have completed a relevant Master's degree.
 - iv Lecturers who have not yet been employed for one year and / or (external) lecturers who do not meet the profile for examiners may only prepare and assess tests under the supervision of an examiner who has educational knowledge and skills. When jointly assessing examinations, at least 50% of the lecturers who assess them must have passed their BKE.
4. Examiners are appointed for one or more specific programme components (unit of learning outcomes, unit of study, exam or modular exam, phase, specialisation) and for a specific period.
 5. The board of examiners informs examiners about their appointment and the profile description used.
 6. If necessary, examiners and other parties involved may be heard by the board of examiners and asked to provide the board with specific information and/or advice.
 7. If requested, examiners must be able to provide the board of examiners with materials for evaluating the quality of exams, assessment methods and assessment results (such as learning outcomes, test plans, test matrices, answer keys, assessment schemes, assessment criteria for assignments, the actual exams and/or assignments, the exam results and the analysis of the results).
 8. If an examiner does not meet – or no longer meets – the required level of expertise, the board of examiners is authorised to revoke that examiner's appointment.

Section 5: Further rules for decisions regarding individual students

Article 5.1 EER as model document

The EER contains model stipulations regarding exams, modular exams, minors, integrated exams, assessment criteria, exemptions, exams and modular exams taken independently of the standard programme, language proficiency, extended study load, study recommendations and studying with a functional disability, chronic illness or other special condition such as a pregnancy.

Article 5.2 Further rules regarding exemptions from exams and modular exams

1. The procedure for requesting and granting exemptions for the bachelor degree programme is as follows:
 - The student must submit a written request for exemption from taking a (modular) exam/assessment or making a pathway independent (modular) exam/assessment-including the associated evidence - directly to the board of examiners.
 - The board of examiners may consult examiners or an external expert in order to come to a decision.

- The board of examiners decides within 20 working days over the submitted request and informs and justifies this decision in writing to the student.
 - If the exemption is granted or a learning pathway-independent exam is assessed as satisfactory or higher, the board of examiners ensures registration of the exemption or the assessment rating in the automated student information system.
2. The procedure for requesting and granting exemptions for the master degree programme is as follows:
- Please send your completed form Request for Exemption (found at the Onderwijsonline site of the degree programme) to Examencommissie.ATBC@han.nl. You will receive an e-mail confirmation that the request will be processed within 15 working days. The written decision will follow as soon as possible after this meeting. The procedure describe above for requesting an exemption from the board of examiners is the regular procedure.
 - There is another, shorter procedure. You submit your request for exemption to the programme of study, the programme of study will then contact the board of examiners. Contact your degree programme for more information; see also the information in this degree statute/EER about whether the student can be granted an exemption and based on which knowledge, skills and background.
 - If the exemption is granted or a learning pathway-independent exam is assessed as satisfactory or higher, the board of examiners ensures registration of the exemption or the assessment rating in the automated student information system.
3. Designation decisions which offer the prospect of exemptions for special target groups (e.g. as part of an abridged programme), can be found in Appendix 3.

Article 5.3 Further rules on studying with a functional disability, chronic illness or with some other special condition such as pregnancy.

1. If the student requires non-standard facilities relating to examination, the senior study advisor submits the request on behalf of the student to the board of examiners.
2. The study career coach or senior study career coach advises the board of examiners about the request and is responsible for the communication about the required measures. He/she also ensures that the measures are implemented in an effective manner and that the special facilities approved by the board of examiners are recorded in an agreement.

Article 5.4 Further rules regarding flexible minors

1. The board of examiners will request documentation from students for passed exams that were approved by the board of examiners for a flexible minor. This documentation may comprise a certificate, a statement or other documents showing the student passed the approved exam.
2. The documentation will be archived by the board of examiners.
3. After the board of examiners has received the documentation, the board will record the results of the exam or the exams for the flexible minor in the HAN student information system.
4. For a free minor of 30 credits consisting of non-foundation year subjects at university (WO) level, a fail mark (4.0 or higher) may be obtained for a maximum of 6 credits. The weighted

average result of the examination results should be 5.5 or higher to complete the free minor successfully.

Article 5.5 Further rules for the Bachelor's examination

Students who want to pass the Bachelor exam register online via Insite. In addition, after the deadline, the board of examiners checks whether there are any other students who are eligible for the Bachelor's exam, but who have not registered. These students will also be discussed in the next exam meeting.

Article 5.6 Further rules regarding requests for an extra exam opportunity

Students can use the application form on #OnderwijsOnline - general information to request for an extra exam opportunity and / or another exam moment.

Section 6: Irregularity and fraud in (modular) examinations

Article 6.1 Definition of irregularities and fraud

1. An irregularity is defined as "any action or omission by an interested party in which they either intentionally or unintentionally give the wrong impression of their own or one or more other interested parties' knowledge, understanding, skills and attitude."
2. Fraud is defined as "any action or omission of which the interested party knew or should have known that this action or omission made it partly or wholly impossible to form a correct judgement of their or someone else's knowledge, understanding and (if relevant) attitude. And/or intentionally influencing (components of) the exam or exemption awarding process with the purpose of influencing the results of the exam or modular exam or decision about exemption or with the purpose of obtaining a different result for the exam or modular exam or request for exemption."
3. The following situations are in any case considered to be an irregularity or fraud:
 - a) intentionally or unintentionally submitting work in a portfolio and/or presenting or submitting work as a group's or an individual's own work (such as a thesis, project, assignment or other written piece for submission), while it was wholly or partly copied or created by the student in unauthorised collaboration with one or more other students; This also includes the following rules:
 - i paraphrasing the content of someone else's texts with insufficient references;
 - ii using or copying someone else's texts, data or ideas without providing the complete and correct references;
 - iii unclearly indicating in your text, for example without quotation marks or some other formatting, that the text has literally been copied from another author, even if you have provided the right references;
 - iv submitting text you have previously already submitted or that is comparable to what you have previously submitted for assignments or other exam components;
 - v submitting other types of written pieces acquired from a commercial institute or that have been written by someone else (whether or not for a fee);

- vi not or barely contributing to a (group) assignment, but placing or having someone else place your name under the (group) work.
- b) allowing exam questions and/or answers to be disclosed or obtaining knowledge of these during and/or before the exam sitting;
- c) aiding or assisting another student in a way that gives in an incorrect impression of that other student's knowledge, understanding and/or skills;
- d) seeking and/or receiving aid or assistance from a fellow student or other person in a way that gives an incorrect impression of the student's knowledge, understanding and/or skills;
- e) obtaining access to resources that are not permitted during an exam;
- f) using permitted resources during an exam that contain unauthorised notes and/or additions (e.g. margin notes or notes or additions on separate pieces of paper);
- g) leaving the exam room and returning to the room during an exam without explicit permission;
- h) leaving the exam room with the completed exam or part of it, also in cases when that answer sheet is subsequently handed in to the supervisor or their substitute;
- i) making changes to a completed exam already submitted to an examiner or a written exam or integrated exam already assessed by the examiner;
- j) sitting an exam under someone else's name, or having another person sit an exam for you;
- k) violating the rules that apply to reviewing and discussing marked exams;
- l) any other matters or incidents which the board of examiners sees as constituting an irregularity.

Article 6.2 Confiscation of evidence

In the event of a reasonable suspicion of an irregularity or fraud, the examination committee, (principal) examiner and those involved in the examination on behalf of the school board are authorised to confiscate any material that may serve as evidence of the irregularity or fraud. After the decision of the board of examiners as referred to in article 6.5 has become final and conclusive, the board will return the confiscated materials to the student.

Article 6.3 Measures taken in the event of fraud and irregularities

1. The board of examiners may impose one or more of the following measures if a student commits an irregularity or fraud during any part of an exam or modular exam:
 - a) giving a written warning;
 - b) giving a written reprimand;
 - c) invalidating an administered exam and the exam result if the board of examiners is unable to guarantee the quality of that exam due to the irregularity or fraud. If an exam is invalidated, this will lead to an exam result of 0;
 - d) withholding a student's degree certificate (if the irregularity or fraud is not discovered until after an exam has taken place);
 - e) deciding the degree certificate can only be awarded after the student has retaken an exam in a manner, on a date and at a time to be decided by the board of examiners (if the irregularity or fraud is not discovered until after the exam has taken place);

- f) revoking the degree certificate after it has been issued (if the serious fraud was not discovered until after the certificate was issued to the student).
2. In the event of an irregularity or fraud, the board of examiners may deny a student access to one or more exams for a period not exceeding one year;
3. In the event of serious fraud, the board of examiners may recommend that the Executive Board terminate the student's enrollment for the degree course concerned.
4. If, in the opinion of the examination board, an examination taken does not meet the quality criteria for testing as a result of an irregularity or fraud committed by a person other than the student, the examination board may decide to declare (part of) the examination and/or the examination result invalid. Invalidating a past exam leads to the exam results being annulled or not being awarded. Students affected by this are offered the opportunity to redo the exam (or part of the exam) concerned.

Article 6.4. Hearing the student, the reporter of the irregularity and any third parties

1. The board of examiners will notify a student immediately, if possible orally but always in writing, of any reported irregularity or fraud involving that student at an exam.
2. The student will be given the opportunity to be heard by the board of examiners before a final decision is made.
3. If the student wishes to be heard, they need to make this known in writing within eight working days of the date on which he or she was notified of the opportunity to be heard.
4. The student must be heard no later than 10 working days after receipt of their request.
5. The board of examiners can hear the person who reported the irregularity and any third parties before making a final decision on the irregularity or fraud.
6. Before the hearing takes place, the student is informed of their right not to answer the questions posed by the board of examiners.
7. Any third parties brought along by the student may not be refused. They are permitted to be present as an observer.

Article 6.5 Announcement of decision

1. If the student does not respond in writing within 8 working days of being informed about the possibility to be heard, the board of examiners will presume that the student does not wish to be heard. After expiry of this period, the board of examiners will inform the student in writing of the decision or proposal/recommendation to the Executive Board within 10 working days.
2. If the student, reporter or any third parties are heard, the board of examiners will inform the student in writing within 10 working days after the hearing of the decision or of a proposal/recommendation to the Executive Board.

Section 7: Degree certificate and diploma supplement

Article 7.1 EER as model document

1. The EER stipulates model provisions with regard to units of learning outcomes / units of study¹, exams and degree certificates.
2. The board of examiners uses the formats for degree certificates, diploma supplements and other certificates adopted by the Executive Board and when awarding certificates ²follows the principles and procedures set out in the notes of that decision.
3. After the examination committee has determined that the bachelor or master examination has been passed, a student may submit a request to have his certificate handed over earlier than at the established moments. The board of examiners will grant this request, and the student needs to take into account a processing period of at least 10 working days.

Article 7.2 Translation of degree certificate

For translations, graduates can contact a certified translator at their own expense (see: www.ngtv.nl).

All costs for the translation are to be paid for by the student.

Section 8: Annual report of the board of examiners

Article 8.1 Annual report of the board of examiners and dean

1. Each year in November, the board of examiners writes a report on its activities during the previous academic year and sends this to the Executive Board and dean.
2. The board of examiners makes use of the guidelines for the annual report.
3. The relevant school manager receives a copy of the annual report.

Section 9: Final provisions

Article 9.1 Unforeseen circumstances

Matters not provided for by these regulations in which an immediate decision is needed will be decided on by the chair of the board of examiners, provided that doing so falls within the powers of the chair. The chair will communicate their decision to all interested parties as soon as possible.

Article 9.2 Complaints and appeals concerning decisions and procedures of a board of examiners

1. A student can submit an appeal to the Examination Appeals Board against a decision made by the board of examiners or an examiner within 6 weeks after this decision was announced. The procedure is outlined in the 'Regulations for Legal Protection of Decisions Concerning Education' in the HAN Student Charter.

¹ This should be read as 'units of learning outcomes' for modules that are part of the experiment and 'units of study' for modules that are not yet included in the experiment or for the full-time degree format.

² Last adopted version: Executive Board decision 2019/1533. Always check if a more recent version has been adopted.

2. Every decision taken by the board of examiners or individual examiner contains a remedy clause. This clause stipulates at least the following:
 - a. an appeal must be made within six weeks of the date of the decision;
 - b. an appeal can be lodged with the Examination Appeals Board;
 - c. The correct and current address details of the Examination Appeals Board;
 - d. a reference – for more information – to the ‘Regulations for Legal Protection of Decisions Concerning Education’ of the HAN Student Charter.
3. If a student wants to file a complaint against an examiner or member of the board of examiners, they can consult the procedure set out in the complaints regulations of the HAN Student Charter.
4. If a complaint or appeal concerns a member of the board of examiners, this member of the board of examiners does not take part in processing the complaint or appeal on behalf of the board of examiners.

Article 9.3 Adoption, effective date and amendments

1. These regulations were adopted by the ATBC board of examiners on 29 April 2021 and will take effect from 1 September 2021.
2. These regulations replace the Regulations of the ITBC board of examiners that were adopted on 28 May 2020.
3. These regulations will be made available to the students and staff of the degree programme(s) as referred to in article 1.2 paragraph 3 of these regulations by inclusion in the Degree Statute.
4. Amendments to these regulations can be made by the board of examiners in the form of separate decisions. Amendments during the current academic year will be made only if this is necessary for the protection of students’ interests.
5. Amendments to these regulations may not have any adverse impact on decisions that were made earlier by the board of examiners and were made based on these regulations.

Nijmegen, 29 April 2021



On behalf of the examination board C. H. Smit, chairman

Appendix 1: Duties delegated by the board of examiners

Overview of duties delegated by the board of examiners (by board of examiners – mandate giver – mandate decision(s) taken)

	Duties delegated by the board of examiners	Mandated body, or job title or specific duties of the mandated staff member,
1	approve or disapprove of a student to follow a Free Minor, i.e. a minor from another HBO institution or university	daily committee consisting of chairman and (vice-) secretary
2	contrary to the main rule, grant a student access to take examinations of the final examination before the propaedeutic examination has been passed successfully	
3	decides on handling of irregularities of modular exams/assessments.	
4	draw up an amicable settlement/rejection in the event of objections by students submitted to the Examination Appeals Board.	
5	decide on individual exemption requests of students;	
6	deciding on requests for special learning pathways and examinations that are independent of the learning pathway	
7	provide examiners with further guidelines and instructions on the assessment of the person taking the examination and on the determination of the results of the examinations	
8	decides to offer a student an extra (third) opportunity to take a modular exam/test;	
9	decide whether the student has access to an examination	
10	decides on the request of (senior) study coach (on behalf of student) regarding extra exam facilities (relating to taking part exams)	
11	decides on other special requests of students;	
12	establishing of overview of successfully completed exams	
13	to continuously monitor and promote the quality of examinations.	ATBC Assessment committee
14	continuously monitor and promote the competence of examiners.	
15	hear the student before a binding negative study advice is issued by the board of examiners. The hearing will be communicated to the board of examiners during the examination meeting of the foundation year phase when the study advice is adopted.	Study Coach.
16	giving permission for a student to follow a certified HAN minor. The list of approved HAN-minors can be found at #OnderwijsOnline under content - ATBC-minors.	

Note:

- The mandate will remain valid unless revoked by the board of examiners and as long as the mandated person remains employed by HAN and performs the duties specified above.

- Unless otherwise explicitly stated, those mandated are not authorised to further delegate these duties.

Nijmegen, 29-4-2021

A handwritten signature in blue ink, appearing to be 'C.H. Smit', is written over a light blue rectangular background.

board of examiners C.H. Smit, chairman

Appendix 2: Duties delegated to the board of examiners by or on behalf of the Institutional Board

Overview of duties delegated to the board of examiners

	Duties delegated to the board of examiners
1	Granting the degree of Bachelor of Science or Master of Science
2	issuing the foundation year study advice. The exception to this is the binding negative study advice.
3	the declaration at the written request of a student and/or the management of a university masters course that the student is registered at the relevant Higher Vocational Education bachelor course and the expectation when this student will have taken the final examination of this course successfully.

Note:

- The mandate will remain valid unless revoked and as long as the mandated party remains employed by HAN and performs the duties specified above.
- Unless otherwise explicitly stated, those mandated are not authorised to further delegate these duties.

Appendix 3: For the right to specific exemption(s) for previously obtained (partial) examinations, certificates and other statements, diplomas and certificates

Decree on the abridged learning route MLO 2021-2022

For the academic year 2021-2022, the exam committee of the School of Applied Biosciences and Chemistry has decided that students with an MLO diploma may participate in a abridged route. Students are not required to take the abridged route, and are free to choose for the regular 4-year degree programme.

The board of examiners shall grant students who participate in the shortened registration route access to one or more parts of the final examination, before they have successfully completed the foundation year examination of the selected programme of study.

As soon as students with an MLO degree enter the abridged programme, they are granted exemption for the examinations belonging to OWE CHLS1B and OWE CHLS2B (Practical and Tutor) and OWE CHLS1C and CHLS2C (Basic Theory BML and C) and the mini internship (LS4T-St/CH4T-St).

Students participating in the abridged route meet the requirements for the propaedeutic exam if they can demonstrate that OWE CHLS1A and CHLS2A (General skills) have been completed and master the professional tasks of OWE3 and OWE4 (LS3KPT/CH3KPT and LS4KPT/CH3KPT), including the general higher professional education competencies, at level 1 by passing the examinations associated with them:

- a. course unit 3 and course unit 4.

or

- b. course unit LS5A2 or LS6A2 (professional competencies semester 2)
and
Course unit LS5B (Molecular and biochemical research practical) or Course unit LS6B (interaction between human plant and micro-organism practical)
and
Course unit LS5C (Molecular and biochemical research theory) or Course unit LS6C (interaction between human plant and micro-organism theory) from the second year of the study Life Science programme (level 2).

After earning LS5A2/LS6A2 and LS5C/LS6C, exemption shall be given for LS3K, LS4K, LS3T and LS4T. After earning LS5B/LS6B, exemption shall be given for LS3P and LS4P.

or

- c. course unit CH6K, CH6-8Po (or CH5-7Po), CH6T (or CH8T) and course unit CH5K, CH5-7Pa (or CH6-8Pa), CH5T from the second year of the full-time course in chemistry (level 2) and the general higher professional education competences level 1. Course unit CH6K gives exemption for CH3K, CH6-8Po (or CH5-7Po) gives exemption for CH3P and CH6T (or CH8T) gives exemption for CH3T. Course unit CH5K gives exemption for CH4K, CH5-7Pa (or CH6-8Pa) gives exemption for CH4P and CH5T and the higher professional education competence card gives exemption for CH4T.

or

- d. Module A (level 2), the general higher professional education competences level 1, and BKCH (or BMC1) of the part-time chemistry programme.

CHLS1B, CHLS1C and CHLS2B, CHLS2C are introductory courses in which basic theory and basic skills are discussed. This basic theory and skills have already been discussed at the MLO.

A comparison of the competencies of the foundation year phase (level 1) in the competency profile of the Chemistry programme or the Life Science/Biology and Medical Laboratory Research programme shows that the competency development in Course unit 1B/1C and 2B/2C is a continuation of the competency development in Course unit 2, both in terms of knowledge and skills. In the document 'Relationship between competencies and modular examinations level I' that was made for both the Chemistry programme and the Life Science/ Biology and Medical Laboratory Research programme, it has been made clear that the competencies and corresponding indicators of level 1 that are tested in course unit 1B/C and 2B/2C are also tested in course unit 3 and/or 4 of the Chemistry programme or the Life Science/Biology and Medical Laboratory Research programme.

A comparison of the competencies at level 1 and level 2 in the competency profile of the Chemistry programme and the Life Science/Biology and Medical Laboratory Research programme shows that the competency development in the second year (level 2) covers that of the first year (level 1). The documents 'Relationship between competencies and part examinations level I' and 'Relationship between competencies and part examinations level II', which were made for both the Chemistry programme and the Life Science/Biology and Medical Laboratory Research programme, show that all competencies with their corresponding indicators at level 1 and level 2 are tested in the part examinations of year 1 and year 2 respectively.

Based on this, the board of examiners has decided that for a student with an MLO diploma, if he can demonstrate that he has passed an examination for an course unit at a higher level (level 2), he has also demonstrated that he has mastered this examination for an course unit at a lower level (level 1).

This regulation for students with an MLO diploma has been drawn up because years of experience have shown that if these students meet the conditions (see above) it is quite possible to obtain the course units from the second year without first having done the course units from the first year, due to the extra knowledge and skills gained during their MLO training. If participation in the abridged route proves to be too difficult, it will be possible to return to the first year of study and to participate in course unit 3 and course unit 4 in the semester 2.

Nijmegen, 29-4-2021



C.H. Smit, Chair, board of examiners ATBC

Decree on the abridged learning route for VWO, HBO or WO 2021-2022

For the academic year 2021-2022, the board of examiners of the School of Applied Biosciences and Chemistry has decided that students with a VWO diploma may participate in a abridged route. Students with obtained credits from a related HBO or WO study programme may also participate in this abridged route. Students are not required to take the abridged route, and are free to choose for the regular 4-year degree programme.

The board of examiners shall grant students who participate in the shortened registration route access to one or more parts of the final examination, before they have successfully completed the foundation year examination of the selected programme of study.

As soon as students with a VWO diploma enter the abridged programme, they will receive an exemption for the partial exams in lab calculation (CHLS1A-Lab and CHLS2A-Lab) for a qualification 7 or more for chemistry on the VWO diploma and an exemption for the modular exams in mathematics (CHLS1A-Wis and CHLS2A-Wis) for a qualification 7 or more for mathematics B on the VWO diploma. In the case of students with a HBO or WO study programme, the board of examiners will assess whether the examinations obtained with the related study programme lead to an exemption from the partial examinations for lab calculations and/or mathematics.

Students participating in the abridged route meet the requirements for the propaedeutic exam if they can demonstrate that CHLS1A and CHLS2A have been completed and master the professional tasks of OWE3 and OWE4 (LS3KPT/CH3KPT and LS4KPT/CH3KPT), including the general higher professional education competencies, at level 1 by passing the examinations associated with them:

- a. course unit 3 and course unit 4. After completion of OWE3 and OWE4, exemption is granted for OWE LS1B/LS1C and LS2B/LS2C.

or

- b. course unit LS5A2 or LS6A2 (professional competencies semester 2)
and
Course unit LS5B (Molecular and biochemical research practical) or Course unit LS6B (interaction between human plant and micro-organism practical)
and
Course unit LS5C (Molecular and biochemical research theory) or Course unit LS6C (interaction between human plant and micro-organism theory) from the second year of the study Life Science programme (level 2).

After earning LS5A2/LS6A2 and LS5C/LS6C, exemption shall be given for LS3K, LS4K, LS3T and LS4T. After earning LS5B/LS6B, exemption shall be given for LS3P and LS4P. After completion of course 3 and course 4, exemption shall be granted for CHLS1B/CHLS1C and CHLS2B/CHLS2C.

or

- c. course unit CH6K, CH6-8Po (or CH5-7Po), CH6T (or CH8T) and course unit CH5K, CH5-7Pa (or CH6-8Pa), CH5T from the second year of the full-time course in chemistry (level 2) and the general higher professional education competences level 1. Course unit CH6K gives exemption for CH3K, CH6-8Po (or CH5-7Po) gives exemption for CH3P and CH6T (or CH8T) gives exemption for CH3T. Course unit CH5K gives exemption for CH4K, CH5-7Pa (or CH6-8Pa) gives exemption for CH4P and CH5T and the higher professional education competence card gives exemption for CH4T. After passing Course 3 and Course 4, exemption is granted for CHLS1B/CHLS1C and LS2B/LS2C.

or

- d. Module A (level 2), the general higher professional education competences level 1, and BKCH (or BMC1) of the part-time chemistry programme. After passing Course 3 and Course 4, exemption is granted for BMC1B/BMC1C and BMC2B/BMC2C.

A comparison of the subject matter of mathematics and lab calculations (course unit 1A/1B) with the contents of the Mathematics B and Chemistry VWO 2015 exam programme shows that the exemption of the mathematics and labeling part examinations is justified.

A comparison of the competencies of the propaedeutic phase (level 1) in the competency profile of the Chemistry programme or the Life Science/Biology and Medical Laboratory Research programme shows that the competency development in Course unit 3 and 4 is a continuation of the competency development in LS1B/LS1C and LS2B/LS2C, both in terms of knowledge and skills. In the document 'Relationship between competencies and modular examinations level I' that was made for both the Chemistry programme and the Life Science/ Biology and Medical Laboratory Research programme, it has been made clear that the competencies and corresponding indicators of level 1 that are tested in LS1B/LS1C and LS2B/LS2C are also tested in course unit 3 and/or 4 of the Chemistry programme or the Life Science/Biology and Medical Laboratory Research programme.

A comparison of the competencies at level 1 and level 2 in the competency profile of the Chemistry programme and the Life Science/Biology and Medical Laboratory Research programme shows that the competency development in the second year (level 2) covers that of the first year (level 1). The documents 'Relationship between competencies and part examinations level I' and 'Relationship between competencies and part examinations level II', which were made for both the Chemistry programme and the Life Science/Biology and Medical Laboratory Research programme, show that all competencies with their corresponding indicators at level 1 and level 2 are tested in the part examinations of year 1 and year 2 respectively.

On this basis, the board of examiners has decided that for a student with a VWO diploma, or examinations obtained at a related HBO or WO study programme, if he can prove that he has passed an examination belonging to an course unit at a higher level (level 2), he has also demonstrated that he has mastered this examination belonging to an course unit at a lower level (level 1).

This regulation for students with a VWO diploma has been drawn up because years of experience have shown that if these students meet the conditions (see above) it is quite possible to obtain the course units from the second year without first having done the course units from the first year, due to the extra knowledge and skills gained during their VWO study. If participation in the abridged route proves to be too difficult, it will be possible to return to the first year of study and to participate in course unit 3 and course unit 4 in the semester 2.

Nijmegen, 29-4-2021



C.H. Smit, Chair, board of examiners ATBC

[Decree on the abridged learning route Bonn-Rhein-Sieg 2021-2022](#)

For the academic year 2021-2022, the board of examiners of the Institute of Applied Biosciences and Chemistry has decided that students who have completed the first two years of the three-year Bachelor's programme at the Hochschule Bonn-Rhein-Sieg may enter the third year of the Life

Science variant of the Biology and Medical Laboratory Research programme, graduating in Biomedical Research with a compensation programme for HBO competencies (level 2). They are also given the opportunity to complete the internship (course unit LS11) by means of an independent examination.

The compensation program consists of following the workshops Professional skills where Conversation and feedback skills and Conflict management are discussed and the workshop Applying for internships / jobs. During the study coaching programme the students are guided in writing a POP and reflection reports. If a student has already arranged an internship during his study at BRS, an exemption can be requested from the board of examiners for the Applying for internships/jobs workshop.

The compensation programme is sufficiently completed if the student

- has 2 sufficient assessments on the HBO competency card (LS5A2-HBO or LS6A2-HBO) for chairman including agenda.
- 2 has satisfactory assessments on the HBO competency card (LS5A2-HBO or LS6A2-HBO) for minutes.
- 2 PDPs, one at the beginning and one at the end of the first semester.
- 2 performance reviews (LS5A1-FG1, LS6A2-FG2 or LS6A1-FG1, LS5A2-FG2) and concluded with a reflection report.
- The workshops, Professional skills 1, 2 and 3 (LPO-PS1, LPO-PS2, LPO-PS3) and Applying for internships/jobs (LS5A1-LPO-JA) have been sufficiently completed.

The document 'Argumentation Double Degree LS - Applied Biology H BRS_revised January 2019' compares the competence development and knowledge development of the regular Life Science students and the double degree students of Hochschule Bonn-Rhein-Sieg.

Only the 2nd year of the Life Science/Biology and Medical Laboratory Research programme programme was compared because a comparison of the competences at levels 1 and 2 in the competence profile of the programme shows that the competence development in the second year (level 2) covers that of the first year (level 1). In the documents 'Relationship between competencies and part examinations level I' and 'Relationship between competencies and part examinations level II', which were made for the Life Science/Biology and Medical Laboratory Research programme, it has been made clear that all competencies with their corresponding indicators at levels 1 and 2 are tested in the part examinations of year 1 and year 2 respectively.

On the basis of the above, the examination committee has decided to grant these students exemption from the propaedeutic exam, LS5B, LS5C, LS6B, LS6C and the minor upon registration. After sufficient completion of the compensation programme, exemptions will be granted for the course units LS5A1 and LS6A2.

The aim of the internship and graduation project is to train students to work individually on a project in professional practice. Students learn to deal with a complex project and develop self-responsibility for their work. In addition, the theoretical understanding of the experiments in the context of the project will be developed.

Students of Bonn-Rhein-Sieg have a deeper and broader theoretical knowledge than regular Life Science students. They are also well trained to think in a broader context in processes with a high biological complexity. This additional knowledge makes it easier for Bonn-Rhein-Sieg students than regular Life Science students to understand the theoretical background of experiments and place it

in a broader context. They do not need the traineeship in order to be able to graduate after the completion of course unit BMLS10 and the graduation project (competence level 3).

On this basis, the board of examiners has decided that these students will be given the opportunity to complete the internship by means of a learning path independent examination. The examination takes place 6 weeks after the start of the internship, in which the student demonstrates that he meets the requirements of the internship according to the course unit LS11 test program. If the examination is assessed with an insufficient grade, the student will continue his internship and at the end of the internship will be assessed according to the regular assessment of the course unit LS11. For the graduation project (course unit LS12) a new workplace has to be found.

Nijmegen, 29-4-2021



C.H. Smit, Chair, board of examiners ATBC

Appendix 4: Regulations for External Supervisors or Exams

POSITION AND APPOINTMENT OF EXTERNAL SUPERVISORS

- 1.1 The examination board appoints one or more external experts (hereafter called 'external supervisors') for each of the degree courses within the school, as defined in article 3.5 of the examination board regulations. These experts are responsible for monitoring the quality of the final assessment for the Bachelor or Master degree course (hereafter called 'the final assessment').
- 1.2 An external supervisor is not a member of the Examination Board for the relevant degree course and does not work as a lecturer or examiner for the course department where he/she acts as an external supervisor.

2. DUTY OF EXTERNAL SUPERVISOR AND RELATED DUTIES OF THE SCHOOL MANAGEMENT

- 2.1 An external supervisor is responsible for judging the quality of the graduation project and reporting on this in writing to the examination board via the Quality Assurance Committee. The evaluation by the external supervisor concerns the following in particular³:

A.	<i>The quality of exams and assessment</i>	Important aspects ²⁴ : - validity (a), - reliability (b), - quality assurance and monitoring (c), - professional expertise of examiners (d).
	The external supervisor selects from the six core questions listed in Appendix 1 with regard to aspects a to c.	
B.	the quality of students (realization of the intended exit qualifications)	Important aspects: - competency level, - integration of theory and practice, - vision of professional practice, - suitability as an entry-level professional.
C.	<i>The organisational quality of the final assessment</i>	Important aspects: - applying relevant rules and provisions, - organisation of the final assessment, - providing information to students.

The external supervisor has no task as examiner of the products of the graduation project.

³See also annex 2 ("quality objectives of the BA – exam) 24 for more details on the first three aspects (a -c) see annex 1.

- 2.2 Relevant documents are made available to the external supervisor in a timely fashion – and if necessary explained further – by or on behalf of the examination board.
- 2.3 The external supervisor, in consultation with the dean, prepares a screening programme to evaluate the quality of the final assessment.
- 2.4 The dean ensures that the secretary of the relevant Examination Board is informed in a timely fashion and in writing of the name(s) of the external supervisor(s) and the screening programme.
- 2.5 The examination board and the Internship Bureau from the relevant Degree assists the external supervisor in carrying out his/her duties. This involves providing the opportunity for the external supervisor to:
 - inspect, in a timely fashion, a representative sample of the final assessment/exam assignments and products, as well as their assessment;
 - provide opportunity to attend one or more exams/final assessments;
 - attend one or more meetings of the Examination Board.
- 2.6 Before November, the quality control committee sends a concise, written report based on the findings of the external supervisor on the final assessments of the *preceding academic* year to the examination board. If necessary, this report also gives suggestions for improving the quality of the assessments.
- 2.7 If needed, the external supervisor may also use appendix 2 with 11 with statements to prepare his or her report.
- 2.8 The examination board discusses the report referred to in 2.6 with the internship bureau and if applicable with the external supervisors. The examination board sends a report of this meeting to the external supervisors. The reporting of the quality control committee is attached to this report.

3. COMPETENCE PROFILE OF THE EXTERNAL SUPERVISOR

- 3.1 Knowledge:
 - Is familiar with the current theory and practice of the professional fields relevant to the degree course.
 - Is familiar with the exit qualifications for the relevant degree programme.
 - Is familiar with the examination and assessment systems and the teaching methods used at Universities of Applied Sciences.
- 3.2 Skills:
 - Capable of working/interacting in such a way that both students and examiners feel they are communicating with an expert in their field.
 - Capable of assessing assignments and products for exams and final assessments in terms of relevance and consistency.
 - Capable of evaluating research from a perspective – and relevant to – the professional field in question.
 - Capable of giving a well-founded judgement on the content of the final assessment, as well as the knowledge, understanding, skills and attitudes (competences) of the student and can clearly justify his judgment.
 - Examiners may be assessed in terms of their method(s) of examining and assessing.

3.3 Attitude:

- Capable of empathising with students participating in a final assessment/exam interview.
- Confident and capable of giving examiners and/or students constructive feedback.

3.4 Other conditions:

- Bachelor: Works at minimally HBO/Bachelor level or higher and holds a Master's degree. Master: Works at master level and hold a PhD.
- Several years of work experience in a profession relevant to the degree programme.
- Independent from the student and his graduation project.
- Willing and able to attend (a representative number of) exams/final assessments and meetings of the Examination Board.

4. FEES

The external examiner receives the standard financial compensation customary at the HAN. The dean ensures that the external supervisor is provided with expense claim forms for attendance fees and travel and accommodation costs. Payment of compensation is made by or on behalf of HAN.

5. ADOPTION AND EFFECTIVE DATE

These regulations were adopted on 29 April 2021 by the examination board School of Applied Biosciences and Chemistry and shall enter into force on 1 September 2021.

Appendix 1: Additional details on the quality of examinations and assessments (aspects a-c)

The Accreditation Organisation of the Netherlands and Flanders (NVAO) applies the following criterion, amongst others, for evaluating a degree course. This criterion is a 'knockout' factor.

'The degree course has an effective system of examination and clearly shows that the intended exit qualifications are achieved'.

The key elements of an appropriate key and assessment system are summarized in the overview below.

Keyword: Validity	
Core questions	<ol style="list-style-type: none"> 1. Does the degree course measure what it intends to measure? 2. What benchmark/cut-off points does the degree course use?
Intended results	<ul style="list-style-type: none"> - Learning outcomes (e.g. competences), operationalized at the exit and intermediate levels, are set out clearly⁴ (e.g. by indicators) in such a way (e.g. in a schematic overview) that they are clear to all internal and external parties. - Assessment criteria and the standard (cut-off) per modular and final exam/assessment have been set out in a clear and transparent manner (i.e. with a recognizable link to the exit qualifications at the relevant level of proficiency).
Keyword: Reliability	
Core questions	<ol style="list-style-type: none"> 3. Are all the assessors in agreement with one another? 4. How was this consensus reached (systematically or by chance)? 5. Are the considerations made to reach an agreement set out in a clear and transparent manner?
Intended results	<ul style="list-style-type: none"> - Systematic consultation should take place between assessors to reach agreement about procedures for administering and assessing examinations, the (interpretation of) assessment criteria and standards (i.e. cut-off points), and the assessment/feedback that will be given to students. - The organisational structure allows for systematic synchronization between internal and external assessors about procedures for exams, the (interpretation of) assessment criteria and standard (cut-off), and the feedback that must be given. - The considerations/arguments on the basis of which the judgement was reached are to be set out clearly after assessment (e.g. specified on assessment or feedback forms).
Keyword: quality and assurance	
Core questions	<ol style="list-style-type: none"> 6. How is the quality of examination and assessment assured and monitored?
Intended results	<ul style="list-style-type: none"> - The procedures for examining and assessing the exit qualifications (per level of proficiency) have been set out clearly (i.e. without cause for discussion between assessors). - Procedures for the development of examination and assessment are set out in a clear and transparent manner. - A structure that aims systematically (i.e. now and in the future) to increase consensus between assessors is outlined (plan), carried out in this way (do), and works (check, act). - The role and responsibilities of the Examination Board (and any other parties involved) in safeguarding and monitoring the quality of examinations and assessment are set out in a clear and transparent manner. - Competency requirements of internal and external examiners, supervisors and exam developers, and how to monitor and manage this (e.g. professional development, peer review), are set out in a clear and transparent manner.

⁴Set out clearly = reached in agreement, recorded (described in course documentation) and communicated

Appendix 3 Appendix Regulations of the Degree Committee

To be added

Appendix 4 Appendix to chapter 6 description of the education

This can be found in the description of the units of study.

Appendix 5 Appendix amendments

Not applicable, there are no amendments yet.