Guide research internships Master Biomedical Sciences

2017-2018

Radboudumc

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Introduction

This guide provides information on the master research internships for students and supervisors. During the master Biomedical Sciences each student will perform at least one major research internship. The requirements for the 'internship-component' are summarized in Table 1. During the internship students work full time (40 hours a week). The student will write a report and present his/her work orally in English to the research group.

Table 1: Overview of internships in the BMS MSc programme in the Education and Examination Regulations (EER) of 2016-2017 and 2017-2018

EER 2016-2017	EER 2017-2018		
Internships in ma	aster programme:		
1. At least 2 internships.	1. At least 2 internships; together minimal 60 EC		
2. At least 1 research internship; ≥ 38 EC	2. At least 1 research internship; ≥ 30 EC		
3. Additional for communicative and consultancy	3. Additional for communicative and consultancy		
profiles: at least 1 profile internship; ≥25 EC	profiles: at least 1 profile internship; ≥ 30 EC		
Scope of internships:			
25 ECs (18 weeks)	24 ECs (±16 weeks)		
25 ECS (18 WEEKS)	30 ECs (half an academic year)		
28 FCs (27 weeks)	36 ECs (±24 weeks)		
38 ECs (27 weeks)	42 ECs (±28 weeks)		
EQ ECs (26 wooks)	48 ECs (±32 weeks)		
50 ECs (36 weeks)	60 ECs (full academic year)		

Research project

Master internships are performed at a research department of the Radboudumc or another research group in the Netherlands or abroad. Students arrange the internship themselves. It is up to the student to identify suitable workplaces, contact potential supervisors, and negotiate the assignment. Of course, the major tutor or mentor is available for support. In all cases, the major tutor respectively mentor has to be timely consulted in order to check the appropriateness of the plans.

Definitions

<u>Internship supervisor</u>: The internship supervisor is a senior scientist or postdoc. He/she provides the means, both material and intellectual, to enable the student to carry out his/her research project. In particular, regular meetings are arranged with the internship supervisor to discuss progress. The internship supervisor will support the student, by giving feedback and asking the student to reflect, on his/her progress in achieving the end/final qualifications that are to be expressed in the report.

Daily supervisor (optional): The daily supervision of an internship can be done by a qualified professional.

<u>Radboudumc supervisor</u>: Only in case the internship is performed outside of the Radboudumc. The student contacts a senior researcher at the Radboudumc who is in the applicable field of research.

<u>Major tutor (before academic year 2016-2017)</u>: Each major is coordinated by a major tutor. The major tutor usually stays in the background, but might engage in regular consultations about your progress with the internship supervisor. The major tutor will provide a second assessor. The major tutor completes the final assessment form.

<u>Mentor (from academic year 2016-2017)</u>: Each student acquires a mentor from the research institute in which they are participating. The mentor usually stays in the background, but might engage in regular consultations about your progress with the internship supervisor. The mentor will provide a second assessor. The mentor completes the final assessment form.

Second assessor: Each internship report is assessed by a second assessor.

Learning objectives

Assessment of the master internships is performed according to the learning objectives that are formulated for the students' performance during the internship and the internship report. Prior to the start of the internship, student and supervisor should have a clear idea about the learning objectives and the skills that are to be mastered at the end of the internship. The learning objectives can be found in Appendix A and can be extended with student specific learning objectives.

Workplan

Once the research project and supervisor are arranged, the student should prepare a workplan for the internship. Hereto, the student, in consultation with the internship supervisor, completes the form "Description of research internship" (available on the website <u>Examinations, regulations and forms</u>). After completion, the workplan is checked

for its quality by the major tutor/mentor well before the start of the internship. Subsequently, the workplan is signed by the supervisor, major tutor/mentor and student, and submitted to StIP/Board of Examiners. All major internships require prior approval of the Board of Examiners.

Supervision and guidance

Practical research will be guided closely by the internship supervisor or daily supervisor during the research project. Consultation should be possible on a day-to-day basis. Weekly meetings with the internship supervisor are scheduled to discuss results and problems. Additionally, consultation with the major tutor/mentor is possible during the entire internship, should problems arise. The student will be encouraged to use own initiative based on acquired knowledge to proceed.

Internship agreement

For internships at departments outside the Radboudumc an internship agreement is required. Most of the time the hosting organisation will provide such agreement. An example of an agreement can be found in Appendix B. Both student and supervisor should fully read, understand and sign the internship agreement.

Guidelines report

The major internship must be concluded with a concept scientific article describing all of the research that was performed in the training. A minor internship can be concluded with a full report or concept article, by choice of the student and supervisor. The structure of the report follows the structure of an scientific article, guidelines can be found in Appendix C. The student must write the report himself/herself based upon his/her own work and will be the sole author of the article. The scheduled internship period includes the writing of the article. The almost-final version of the article should be submitted to the internship supervisor in time for proper assessment and to give students the possibility to include suggested improvements in the final internship report. Students should inform the internship supervisor and the second assessor when the report will be ready for assessment and allow for sufficient time for this assessment to occur. The second assessor should submit the grade within two weeks after receiving the internship report.

Guidelines presentation

At least at the end of the internship the student should give an oral presentation on his/her internship at the department of his/her supervisor. Depending on the major subject, also a presentation should be given at the department of the major tutor/mentor. In Appendix D some instructions and feedback items which can help the student and supervisor with creating and examining the oral presentation can be found.

Assessment

The major internship is assessed by the internship supervisor and a second assessor. The final assessment of a major internship is based on:

- Professional attitude and activities during the internship judged by the internship supervisor (50%)
- Written report judged by the internship supervisor (20%)
- Written report judged by the second assessor (30%)

Internship supervisor and second assessor determine their grades independently. A difference in grades for the written report of more than 1.5 points will require a third assessor. The major tutor/mentor is responsible for appointing a third assessor. The assessment of a minor internship is based on judgement of the internship supervisor and the final grade is determined by the major tutor/mentor. The assessment forms for the internships are available on the internet. All final reports will be checked for reuse of text by Turnitin by the major tutor/mentor. For non-Dutch supervisors and second assessors, a clarification of the Dutch grading system is provided in Appendix E.

Time schedule

Months before start:

• Student selects a suitable internship (subject, department and supervisor)

Weeks before start:

- Student writes an internship workplan for approval by the supervisor and major tutor
- Student hands in the approved and signed workplan to StIP/Board of Examiners

Whole internship period:

• Internship supervisor/daily supervisor is available for the support of the student and organises weekly meetings with the student

Weeks before end:

• Student informs the supervisor and second assessor on the date the report is submitted for grading

End:

• Student provides the report and assessment forms to the supervisor and second assessor

• Student plans meetings with supervisor, second assessor and major tutor/mentor (optional) Two weeks after end:

- Student has three meetings (optional):
 - 1. a meeting with internship supervisor to evaluate the internship and report
 - 2. a meeting with second assessor to evaluate the report
 - 3. a meeting with the major tutor/mentor to evaluate the internship supervision and grading process
 - Student hands in his/her report and assessment forms to major tutor/mentor for approval
- Major tutor/mentor hands in the assessment forms to StIP/Board of Examiners

Contact persons

Major tutors

Clinical human movement sciences: Esther Tanck, <u>esther.tanck@radboudumc.nl</u> Epidemiology: Femmie de Vegt, <u>femmie.devegt@radboudumc.nl</u> Health Technology Assessment: Wietske Kievit, <u>wietske.kievit@radboudumc.nl</u> Human health risk assessment: Paul Scheepers, <u>paul.scheepers@radboudumc.nl</u> Human pathobiology: Peter van der Kraan, <u>peter.vanderkraan@radboudumc.nl</u> Human toxicology: Jan Koenderink, <u>Jan.Koenderink@radboudumc.nl</u>

Mentors Radboud institute for Molecular life sciences (RIMLS): Esmeralda BlaneyDavidson, <u>esmeralda.blaneydavidson@radboudumc.nl</u> Joost Hoenderop, <u>joost.hoenderop@radboudumc.nl</u> Martijn Huijnen, <u>martijn.huijnen@radboudumc.nl</u> Anniek van der Waart, <u>anniek.vanderwaart@radboudumc.nl</u>

Mentors Radboud institute of Health sciences (RIHS): Wietske Kievit, <u>wietske.kievit@radboudumc.nl</u> Esther Tanck, <u>esther.tanck@radboudumc.nl</u> Femmie de Vegt, <u>femmie.devegt@radboudumc.nl</u>

Mentors Donders Centre for Medical Neuroscience (DCMN): Nael Nadif-Kasri, <u>nael.nadifkasri@radboudumc.nl</u> Marcel Verbeek, <u>marcel.verbeek@radboudumc.nl</u>

Appendix A Learning objectives major research internship

A: Assessment of professional competences by internship supervisor

The student:

2.

- 1. Is able to explain the goal and the relevance of the research project, and the usefulness of the results.
- 2. Is able to systematically review and critically appraise the literature and on this basis identify relevant information.
- 3. Is able to formulate a hypothesis that is in line with prior knowledge and translate this into a relevant research question.
- 4. Is able to define a project that is both useful and feasible within the time given.
- 5. Can develop an appropriate study design involving an experimental approach to answering the research question.
- 6. Is able to plan, organize, and perform an empirical/experimental study and demonstrates sufficient project and time management skills to ameliorate possible drawbacks.
- 7. Is able to employ the experimental techniques necessary to obtain relevant data (if applicable).
- 8. Is able to analyse data systematically and interpret them in view of hypotheses and prior knowledge of working mechanisms involved.
- 9. Demonstrates punctuality in presence, participates well, shows commitment, and assumes responsibility for the study.
- 10. Is able to work with persons enrolled in the study respectfully and productively (if applicable).
- 11. Conducts him-\herself properly in contact with other persons involved, particularly when it comes to teamwork and approaching stakeholders.
- 12. Shows a high level of independence.
- 13. Show a high level of analytical skills and problem solving capacities.
- 14. Is able to give a concise oral presentation (in English) on his\her work and discuss his\her findings with peers.
- 15. Is able to improve him-\herself on the basis of feedback and self-reflection.

B: Assessment of the research paper (concept scientific article) by internship supervisor and 2nd assessor The article:

- 1. Complies with academic standards concerning its contents, i.e.
 - a. Is well-structured.
 - b. Includes a background explaining the problem definition and an overview of prior knowledge.
 - c. Includes one or more research questions, the relevance of which follows logically from the background.
 - d. clearly describes the experimental and methodological approach for each research question.
 - e. Clearly and objectively describes the results, including measurement errors.
 - f. Includes a discussion section, in which results are interpreted against hypotheses and rival claims of other researchers, strengths and weakness are reported, and appropriate conclusions are drawn.
 - g. Correctly includes references to literature supporting claims wherever appropriate.
 - Complies with academic standards concerning style and layout, i.e.
 - a. Is grammatically well-written.
 - b. Stylistically conforms to reader expectations.
 - c. Includes tables and figures to summarize important findings.
 - d. Uses layout to emphasize the structure of the paper and important claims.
- 3. Demonstrates a capacity to work systematically.
- 4. Demonstrates a capacity to critically reflect on strengths and weaknesses of the study, and the interpretation of the results.
- 5. Is as concise as possible, transparent, and persuasive.

Learning objectives minor research internship

- 1. The student is able to describe the motive for the study, its relevance and its scientific medical context
- 2. The student can search, critically appraise and systematically review relevant literature
- 3. The student
 - a. can specify a research question or hypothesis that relates to findings discussed in relevant scientific literature
 - b. is able to describe a study design which addresses the research question
- 4. The student is able to plan, organise and carry out an empirical study
- 5. The student is able to systematically analyse data
- 6. The student is able to clearly describe the results and summarise these in tables and figures
- 7. The student is able to address measurement errors and other limitations of the collected data
- 8. The student is able to critically reflect upon the results, design and interpretation
- The student can write a research report (in English) which complies with the academic standards:
 a. contents: coherent, all inclusive and balanced
 - b. presentation: style, appearance, lay out, word choice, references
- 10. The student is able to give a concise oral presentation (in English) about the study for colleagues and discuss this afterwards

Appendix B Internship agreement Internship Biomedical Sciences



 "the Hosting Organisation": having its offices at Legitimately represented by

- "the Educational institution": Stichting Katholieke Universiteit, more in particular the Radboud university medical center, having its offices at Geert Grooteplein 10, NL-6525 GA Nijmegen, The Netherlands (PO Box 9101, NL6500 HB Nijmegen, The Netherlands)
 Legitimately represented by
- "the Trainee": Name and initials Mr./Ms./Mrs. Date of birth: Address

The Hosting Organisation, the Educational Institution and the Trainee collectively also referred to as "the Parties"

Wheras:

- the Trainee is a student at the Educational Institution's degree programme in Biomedical Sciences;
- it is the Educational Institution's policy and part of the Trainee's curriculum that the Trainee augment his/her education or practical experience by a traineeship outside the Educational Institution;
- the Trainee intends to complete a traineeship with the Hosting Organisation;
- the Hosting Organisation is prepared to provide a traineeship as described in Annex I to this agreement ("the Traineeship");
- the Hosting Organisation does not require any other work, results or efforts from the Trainee beyond those described in the Research Plan in Annex I;

Have agreed as follows:

Article 1 Period

1.1. The traineeship will commence on and end on	1.1. The Traineeship will commence on	and end on	
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Article 2 Purpose and activities

- 2.1. The Educational Institution decides on the purpose of the Traineeship as part of the Trainee's curriculum in Biomedical Sciences.
- 2.2. The Parties will collectively elaborate on the relevant details of the Traineeship. The final Research Plan is part of Annex I.
- 2.3. The Trainee shall execute the Traineeship in accordance with the Research Plan.
- 2.4. The Research Plan shall be amended only with consent of all Parties.
- 2.5. The Hosting Organisation nor the Educational Institution shall not require the Trainee to perform activities beyond the Research Plan
- 2.6. The Hosting Organisation shall enable the Trainee to have access to all means required to complete the Research Plan.
- 2.7. The Trainee shall follow the Hosting Organisation's directives in the execution of the Research Plan, including but not restricted to directives concerning occupational health and safety, and rules of conduct.
- 2.8 Unless agreed otherwise, the Trainee's daily working hours are the regular working hours at the department of the Hosting Organisation where the Traineeship is executed.

Article 3 Supervision

- 3.1. The Hosting Organisation shall appoint a Supervisor who shall be responsible for the supervision of the Trainee and his activities under the Research Plan, and who shall liaise with the Educational Institution's Traineeship Coordinator.
- 3.2. The Educational Institution shall appoint a Traineeship Coordinator who shall engage in regular consultations

about the Trainee's progress and assessment. The Traineeship Coordinator may advise the Hosting Organisation or the Supervisor on issues that will positively affect the outcome of the Traineeship.

Article 4 Periodical evaluation

4.1. During the Traineeship, the Trainee and the Supervisor shall every week evaluate the progress made by the Trainee.

Article 5 Final assessment

- 5.1. Before the end of the Traineeship the Trainee shall produce a final report (according to the guidelines of a scientific concept-publication) that will be assessed by the Supervisor and the Traineeship Coordinator.
- 5.2 The criteria for the overall assessment of the internship will be provided by the Traineeship Coordinator and are established as learning objectives in the Research Plan.
- 5.3 The Traineeship Coordinator is, in consultation with the Supervisor, responsible for final assessment and the mark to be awarded to the Trainee.

Article 6 Insurance and liability

- 6.1 The Hosting Organisation shall obtain and maintain for the Trainee during the Traineeship a liability insurance covering damages and loss suffered by third parties due to the Trainee's performance of work, unless caused by the Trainee's gross misconduct or wilful neglect or the Trainee's breach of obligations under this Agreement.
- 6.2 The Hosting Organisation shall be liable for any damages the Trainee shall suffer during his work with the Hosting Organisation.
- 6.3 The Hosting Organisation shall take all measures to warrant occupational health and safety for the Trainee in the execution of his/her duties under this Agreement.

Article 7 Confidentiality

- 7.1. Any information acquired by the Trainee in the course of the Traineeship that is marked as Confidential, will be kept strictly confidential by the Trainee and will not be used by the Trainee except as necessary to execute the Research Plan. The Trainee shall not disclose any confidential information to any third party without the Hosting Organisation's prior written consent. These obligations will remain in force for a period of 5 (five) years after expiry of the Traineeship. The obligations specified in this Section shall not apply to Information which the Trainee can demonstrate by written evidence: (a) is (at the time of disclosure) or becomes (after the time of disclosure) known to the public through no breach of any obligations by the Trainee; (b) is disclosed to the Trainee by a third party who is entitled to disclose it without breaching a confidentiality obligation; (c) was known to, or otherwise in the possession of, the Trainee prior to the time of disclosure by the Hosting Institution; or (d) is developed by the Trainee independently of any information disclosed by the Hosting Institution.
- 7.2 In case the deliverables produced by the Trainee as part of the Traineeship should necessarily contain confidential information, the Hosting Organisation, the Educational Institution and the Trainee shall timely discuss the possibilities of limited access to such deliverables or other measures to prevent unwanted disclosure, without jeopardizing the Trainees opportunity to complete the Traineeship according to the research Plan.
- 7.3 For the purpose of performance control, the Educational Institution will be entitled to keep on file copies of all documents produced by the Trainee during the Traineeship, which documents shall be considered confidential information to which Article 7.1 applies, unless expressly stated otherwise.

Article 8 Intellectual Property

8.1. The Hosting Organisation shall be entitled to all rights of intellectual property, including but not limited to copyrights and patents, related to works or inventions made by the Trainee as part of his Traineeship.

Article 9 Absence

- 9.1. In case of illness or absence for other reasons the Trainee shall duly inform the Hosting Organisation according to the internal procedures of the Hosting Organisation. When the illness or absence is expected to be lasting, the Supervisor and the Traineeship Coordinator will discuss the consequences in order to find an acceptable solution.
- 9.2. During the Traineeship the Trainee shall be allowed to visit the Educational institution for educational purposes, of which visits the Supervisor shall be notified in advance.

Article 10 Termination

- 10.1. This Agreement will terminate:
 - a. Through completion of the Traineeship period on the day indicated in Article 1;
 - b. At the Trainee's written request;

- c. In case the Educational Institution discontinues the curriculum which the Traineeship relates to;
- d. In case one of the Parties is in default regarding its obligations under this Agreement, and such default is not remedied within 1 (one) month after the other Party has given written notice of such default.
- Confidentiality obligations referred to in Article 7 will survive termination of this Agreement.

Article 11 Applicable law and settlement of conflicts

- 11.1 Unless the Hosting Institution is under a legal obligation to apply another national law, this Agreement shall be construed under the laws of The Netherlands.
- 11.2 Any conflicts between the Parties arising from this Agreement that, in spite of serious attempts to that effect, cannot be settled amicably will be referred to the competent judge in the District of Arnhem, The Netherlands, or, in case of applicable foreign law, of a competent judge in the state of the Hosting Organisation.

Signed in threefold

10.2

On behalf of the

Hosting Organisation

Name

Title

Place, date

Name

Trainee

Name

Trainee

Name

Title

Place, date

Name

Title

Place, date

Name

Title

Place, date

Appendix C Concept article

The results of the research internship should be written down in the form of an article, even if the results obtained are not (conclusive) enough to allow submission. In such situations the student can describe in the discussion section which other experiments would be required to obtain a more definite answer to the research question, and/or why the chosen approach was insufficient, and/or increase the review aspects of the manuscript in introduction and discussion.

In contrast to a full report, an article focuses on one particular, conclusive part of the results obtained during the research training period. It is written in concise wording and makes a clear point about a research question. For standard experimental procedures references to the relevant literature are sufficient. The article like report has to be written following the author instructions, including the format, approximate number of words, figures etc of an appropriate journal. In addition, supplementary data should be included as an appendix. Special attention should be given to the instructions for manuscript organization, figure preparation, data presentation and the image manipulation statement.

When more than one subject was studied during the research training period, or when not all the results can be described in the article, the other subjects and results should be described separately in supplements that are added as appendices. Even though the article-like report itself may be rather short, the student nevertheless should give a comprehensive account of the results of the research training period and for this purpose the supplements should be used.

The student, in correspondence with the supervisor, follow the instructions of one of the following journals:

- Journal of Biological Chemistry: http://www.jbc.org/site/misc/ifora.xhtml
- Proceedings of the National Academy of Sciences: <u>http://www.pnas.org/site/misc/iforc.pdf</u>
- British Medical Journal: <u>http://www.bmj.com/about-bmj/resources-authors/article-submission/article-requirements</u>

Layout:

- Cover page stating:
 - o Student's name and number
 - Department and institute of the research internship
 - Names, titles and email addresses of internship supervisor, daily supervisor (if applicable) and Radboudumc supervisor/second assessor
 - Period of the research internship
- Article
 - o Complete article following instructions of the above mentioned journal
 - Abstract
 - Introduction
 - Materials and methods
 - Results
 - Discussion and conclusions
 - Acknowledgements
 - References
 - Tables and figures
 - Appendices (obligatory)
 - Extended materials and methods section
 - Supplementary data/figures
 - Short reports on other projects performed

Full report

The student has to write the report himself/herself based upon his/her own work and will be the only author of the report. The major tutor will check the report for reuse of text by Ephorus.

The report should be written according to the following guidelines:

- Full title page (title, author, supervisor(s), department, start and end dates of internship, date of the report).
- Abstract: This is a short but full description of all important aspects of the research internship (250 words maximum) containing: aim, research question, methods, results and conclusion.
- Contents with numbered pages.
- List of non-common abbreviations.
- Chapter 1: Introduction. The introduction provides an overview into the field so that the reader can understand the motivation for conducting the research. Furthermore, it contains a brief introduction of the literature in the field concerned. The introduction concludes with stating what the most relevant open questions in the field are.
- Chapter 2: Research question. This chapter explains the specific research question(s) and the relevance of this/these research question(s) to progress in the field.
- Chapter 3: Methods. This chapter describes how the research was conducted. The following points will be addressed:
 - Research design
 - Materials, techniques and instruments
 - Methods of analysis
 - Ethics (were appropriate)
- Chapter 4: Results. This chapter presents the results. The results should be described in the text and this description should be supported with figures, graphs and tables. Figures including legends should be self-explaining, results should become clear from interpretation.
- Chapter 5: Discussion. In this chapter, the following points need to be addressed:
 - Results versus research question and hypotheses
 - Possible restrictions due to methods or execution
 - Consideration of the results relative to the present literature
 - Possible adjustments and future experiments
- Chapter 6: Conclusions and translational aspects. Overall conclusions and the translational and/or societal aspects of this research project should be specified in this paragraph, for example implications for diagnosis and treatment of specific diseases.
- References: Should be consistent, but the following design is advised:
 - Books: Surnames of authors with initials and if possible name suffixes (year, edition). Title, Place: editor.
 - Articles: Surnames of authors with initials and if possible name suffixes. Title. Name of the journal (year); year of publication, volume, first and last page.
- Appendices: for example: research instrument, letters, tables and figures, glossary, etc.; supplement with description of method development and results that did not reach the requirements to be used in the main text.

Appendix D Oral presentation instructions and feedback

Instructions

- First rule for presenting: Prepare.
- First rule for preparing presentations: Think about your audience. What would be interesting for them to hear, and how can you help them get your take home message.
- Do not add more slides than the time you have to your presentation (1/minute max), this includes title page etc.
- The backbone of your article can be used for the structure of your presentation as well. However, you should speed up your line of reasoning and tell your audience what is your central thesis soon. Do not linger too long on all kinds of background information but move quickly from a relevant medical and/or scientific problem to the take home message. Starting with a good example may be a good way to do this.
- Engage your audience in the story: make them think about the problem you have been studying over the last few weeks, and make them witnesses to the progress you have made during those weeks.
- Do not add (too many) bullet points to your presentation but add structure to your talk by sharing the arguments for your central thesis.
- Try to find good, high quality images to illustrate your story, instead of putting too much text on the slides. A few keywords and a good image are enough and help you be a 'natural presenter' instead of someone reading out loud a text on a powerpoint slide.
- Do not put too many figures in your presentation, but focus on maybe one or two that are central to your story and help your audience by pointing out the relevant aspects ("let me guide you through this graph").
- End your presentation by coming back to your central thesis, but also zoom out a bit to see what may the wide implications (e.g.: new directions you think are promising in a certain field).

Feedback form

Aspect	Criteria	Rating + comments
Structure	• Does the presentation has a proper, coherent structure? Does the	
	structure support the content/main message?	
	• Does the presentation starts with a compelling opening that engages	
	the audience and immediately flows into the take-home message?	
	• Are only the essentials presented and does the student not spend too	
	much time on minor findings?	
	• Is the presentation finished on time?	
Verbal skills	• Does the student speak clearly and not too fast?	
	• Does the student present independently of any written text?	
	• Does the student build in pauses where needed?	
Non-verbal	• Does the student have contact with the public?	
skills	 Does the student make adequately use of a pointer? 	
	• Does the student look free and relaxed, and he/she moves on	
	apparently naturally?	
Audiovisual	• Does the student make adequate use of slides?	
use	 Are the selected images/pictures are illustrative and attractive? 	
	 Are the slides a good addition to the narration? 	
	• Is there too much text on the slides (≤ 6 lines)?	
	• Is the text easy to read?	
	 Are the graphics clearly presented? 	
Clarity	• Does the message come across to the public?	
	 Does the student pick up signals from the audience? 	
Language	 Is the use of the English grammar and spelling correct? 	

Appendix E Dutch grading system

Dutch universities mark according to a system from 1 - 10 (1 = abysmal, 10 = absolutely outstanding). Besides full grades, half grades are given by adding 0.5 to the grade. The grade 5.5, however, is not awarded.

Students in the Netherlands must gain 6 or more to pass. The frequency of the grades is indicated in Table 1. The following provides some insight into the meaning of Dutch marks:

Table 1. Comparison of the Dutch grading system with US and UK systems, including frequencies of Dutch marks. The grade A++ does not exist in US/Canada or UK, but it is an indication of the acquired level. As half grades are not always allowed, frequencies are only given for round marks.

Netherlands	Frequency	US/Canada	UK (marks)	UK (grades)
10		No equivalent (A++)	96%-100%	No equivalent (A++)
9.5	0.6%	No equivalent (A++)	90%-95%	No equivalent (A++)
9	6%	A+	80%-89%	A+
8.5		A+	70%-79%	A+
8	28%	A/A-	60%-69%	A/A-
7.5		A/A-	54%-59%	B+/B
7	34%	A-/B+	50%-53%	B/B-
6.5		B+/B	45%-49%	C+
6	31%	B/B-/C	40%-44%	C/D
5.5 not allowed		D	35%-39%	Pass
5	0.5%	F	30%-34%	F

Source: "Cijfers ontcijferd", Nuffic afdeling Diplomawaardering en certificering, 2006.

The explanation of the grades as it accounts for internships are described in Table 2.

Table 2. Explanation of the Dutch grades for internships

	Explanation
10	exceptional ability, indicative of outstanding grasp of the subject, originality and independence
9	excellent, demonstrating confidence and insight in handling the subject, showing excellence and own ideas
8	good performance, good overall ability and grasp of subject
7	fair/average; reasonable level of performance, unexceptional with average grasp of the subject
6	sufficient performance, with scope for improvement
≤5	insufficient performance