Procedure for Master internships (Medical)Biology

Carefully follow the described stepping stones below in order to find, correctly register, start and finish your master internship:

Search

- 1. Find an internship position at a research department (internal/external), institute or company (Searching for an internship)
- 2. Arrange an examiner, second reader and optionally a daily supervisor(Examiners)

Register

- 3. Fill-out the template internship proposal with your examiner (<u>Registering your internship & Internship Forms</u>)
- 4. Register your internship in Osiris cases two weeks before the start of your internship the latest (Registering your internship)

Start & Finish

- 5. Start your internship (Starting your internship)
- 6. Arrange a mid-term evaluation with your examiner and/or daily supervisor (Internship Forms)
- 7. Finish your report and present your findings (Finishing your internship)
- 8. Submit your report in https://thesissubmission.science.ru.nl/ (Finishing your internship)
- 9. Evaluate your internship, report and presentation with your examiner and second reader (Finishing your internship)

If you have any questions or remarks regarding your internship, please contact the internship coordinators (Ilse Arnoldussen and Tina Reilink), via internship.biosciences@ru.nl

Internship coordinators

We are the internship coordinators of bachelor and master Biology, FNWI, Radboud University. You can contact us if you have any questions regarding:

- Your internship and your internship proposal.
- Requirements of your internship or internship proposal.
- Procedure concerning your internship proposal, mid-term evaluation, submission of your report.
- The examiners-list in Osiris cases.
- Suggestions or ideas to improve the provision of information concerning bachelor or master internships.

You can contact us (Tina Reilink & Ilse Arnoldussen) by sending a mail: internship.biosciences@ru.nl

Searching for an internship

Searching, obtaining and finishing an internship is a very independent process and is an important preparation towards your professional career. Based on your personal preferences you will have to search independently for a research group within your field of research.

Biology

At Radboud University, research in Biology is organised amongst others within Radboud Institute for Biology and Environmental Sciences (RIBES). The smaller unit of organisation of research within the institutions is the department. In the list you can see which departments fit in your specialisation.

Medical Biology

At Radboud University, research in medical biology is organised within three institutions: Radboudumc, RIMLS and Donders Institute. The character of Radboudumc is medical in a broad sense, RIMLS is working in the field of molecular and cell biology and Donders Institute in the field of brain and nervous system. Please study the sites to find the research of your interest. The RIMLS and Donders Institute have their own building. Researchers of Radboudumc sometimes have their laboratory in the hospital, sometimes in Donders Institute, but mostly in RIMLS. The smaller unit of organisation of research within the institutions is the department. Suggestions for this level you will find in the course guide. In the list you can see which departments fit in your specialisation.

Websites publishing internship-vacancies

Biosciences: https://bio.internship.science.ru.nl/index.php

Animal Ecology and Physiology: https://www.ru.nl/animal/education/internships-

ecophysiology/

Radboudumc: https://healthacademy.radboudumc.nl/prikbord/topics/index/26
Donders Institute: https://www.ru.nl/science/dcn/bsc-msc-programmes/internship-

vacancies/

When you search for an **internal** internship at a Radboud University or Radboudumc department, an authorised examiner is available at the department. Moreover, a second reader, an examiner associated with the (Medical) Biology programme of the Radboud University, will grade your report and presentation (see Examiners).

External Internship

When you arrange an internship abroad, at another university or company, it is an **external** internship. This external internship needs approval, which can be given by an examiner associated with the (Medical) Biology programme of the Radboud University on behalf of the Examination Board. The examiner will then also act as the examiner of your internship (<u>see Examiners</u>). Importantly, we urge you to discuss this with your <u>student advisor</u> as soon as you decided to search for an external internship (<u>Study Abroad</u>). In general, your plans for

going abroad can best start with an appointment with the coordinator exchange Faculty of Science: mrs. C. Mooren, c.mooren@science.ru.nl.

Of note, you can meet with the internship coordinators (internship.biosciences@ru.nl) to discuss general information regarding the internship proposal or procedure or when you experience difficulties in finding an internship. Questions regarding the planning of your master programme, please contact your student advisor.

Application for an internship

When you are considering a certain internship, you write a letter of application to a staff member of the department or assigned contact person. This letter of application is also an assignment of the master's portfolio. Some tips in the first contact towards your future supervisor:

- Write a personalized mail for the researcher in question and describe your motivation to do an internship in this research group, technique or topic.
- Enclose your CV and (detailed) motivation letter for the specific research group.
- Respond with academic professionality (e.g. in time and appropriate).
- Career service provides support in writing your letter of application and CV (https://www.ru.nl/fnwi/careerservice/).

Internship goals & requirements

In general, your internship has the goal to develop your academic competences and your independent professional practice. In more detail, in your internship your will learn and develop to formulate new scientific questions and hypotheses in the biological/biomedical field, conduct scientific experiments in an independent manner and discuss results in written form according to standards of an academic article and oral presentation. Specified learning goals can be found here: Master learning goals. Above all, your internship has to meet the EER- criteria (EER), and therefore the internship coordinators will evaluate your internship proposal at these four levels:

The internship project ...

- answers a biological/biomedical research question;
- includes fieldwork or labwork and academic data analyses;
- covers a specified amount of time (<u>Registering your internship</u>, <u>Table 1</u>).
- and its results are described in an individual report and presentation (<u>See Finishing</u> your internship).

Meeting with your future examiner and/or daily supervisor

Meet with your future examiner and/or daily supervisor, make adequate arrangements and discuss all the aspects of importance for your internship. The preliminaries below can be helpful in the meeting with your examiner and/or daily supervisor.

Moreover, the next sections of this guide "registering your internship" and "starting your internship" will be helpful in the discussion with your examiner. When you and your supervisor and/or examiner conclude that it is a "go", please register for your internship in consultation with your examiner of the current academic year (see Registering your internship).

Preliminaries

1. Content of the research

- What is the core question of the research within the internship?
- In which way is the internship part of the ongoing research of the department?

2. Research methods

- Which research techniques will be used?
- Which other specific research methods will be used?

3. Duration of the internship

- What is the time span of the practical work?
- What is the time span of the theoretical work?

4. Schedule

How much time is reserved for:

- studying literature and preparations;
- practical work;
- writing your report?

5. Time for supervision

- How intensive and in which way will the student be supervised?
- If there is more than one supervisor: how are the tasks divided?

6. Progress consultations

- How often will there be discussions between the student and the supervisor on the student's progress?
- What is discussed exactly?
- Will there be a mid-term evaluation?

7. Evaluation of the practical component

- Which items make up the practical component of the internship?
- How is the assessment of the practical work incorporated in the final mark?

8. Working hours

- What does a typical day in the lab look like?
- Are the working hours fixed or flexible?

9. Working environment and facilities

- Will the students have their own workplace?
- Are there any risks or safety issues that should be kept in mind?
- Can the student use computer facilities?

10. Completing the report and final presentation

- How much time is available for the completion of the report once the student has finished the practical work?
- When will the final presentation take place?

Registering your internship

Your internship has to be registered and approved in Osiris Cases (Osiris Zaak), at the latest two weeks before your internship starts. In Osiris cases you ...

- 1. start a Case in Osiris. Instructions can be found here (pdf, 407 kB).
- 2. contact your examiner as soon as possible and fill out the template for internship proposals (see <u>Master Internship Forms</u>).
- 3. provide details such as the name and email address of your examiner, second reader and external supervisor in Osiris cases and in the filled-out template for internship proposals.
- 4. check table 1 to select the correct course code.
- 5. fill-out the correct examiner and second reader (See Examiners).
- 6. when completed, submit your case at the latest two weeks before the start of your internship.
- 7. the internship coordinators will check your proposal.
- 8. when your proposal is approved, you will be registered for the course in Osiris.

Of note, internship coordinators evaluate your internship proposal and approve it in Osiris when sufficient (See internship requirements and guidelines). If you have any questions regarding your internship proposal please contact the internship coordinators (internship.biosciences@ru.nl).

*There are several course codes for several types of internships:

Table 1

Study programme	Course code	ECS	Hours	Weeks (fulltime 40 hours a week)	Specialisation
Biology	NWI-BM- STAGE1, MSc Bio research internship 1	36	1008	25,2	1st research internship for specialisations: Adaptive Organisms; Conservation and Restoration Ecology; Microbiology and Water and Environment
	NWI-BM- STAGE2, MSc Bio research internship 2	36	1008	25,2	2 nd research internship for specialisations: Adaptive Organisms; Conservation and Restoration Ecology; Microbiology and Water and Environment
	NWI-TWM22, Master Thesis	30	840	21	Transnational ecosystem- based Water Management Enrol via Osiris cases if your

					first examiner is from the Radboud University.
Medical Biology	NWI-BM- STAGE1, MSc (Med) Bio research internship 2	36	1008	25,2	1 st research internship for specialisations: Human Biology; Medical Epigenomics; Neurobiology
	NWI-BM- STAGE2, MSc (Med) Bio research internship 2	36	1008	25,2	2 nd research internship for specialisations: Human Biology; Medical Epigenomics; Neurobiology
	NWI-BM- STAGE-HB	60	1680	42	MSc Human Biology internship (Pilot 2021-2022)
Science and Education	NWI-BM- STAGEE1, MSc (Med) Bio education internship	30	840	21	1 st research internship
Science, Management and Innovation	NWI-BM- STAGES1, MSc (Med) Bio SMI/SIS internship	33	924	23,1	1 st research internship
	NWI-FMT033, Science, Man. & Innov. Research Project	27 or 30	756 or 840	18.9 or 21	2 nd SMI internship/project
Science in Society	NWI-BM- STAGES1, MSc (Med) Bio SMI/SIS internship	33 ECS	924 hours	23,1 weeks	1 st research internship
	NWI- SISSTAGE, Science in Society Research Project	30	840	21	2 nd SIS internship/project

One master research internship can be extended with 6 EC without permission of the examination board in agreement with your examiner and daily supervisor.

Examiners

According to the FNWI policy, there are always two examiners involved in the evaluation of your internship. See the overview below for what this means for your situation.

Internal internship:

First examiner: an internal, FNWI approved examiner *, who evaluates your internship, report and presentation.

Second reader: an internal, FNWI approved examiner *, who evaluates your report and presentation (optional).

Daily supervisor: does not have to be an examiner and supports your daily during your internship project. This may be the same person as your first examiner.

External internship:

First examiner: an internal, FNWI approved examiner *

Second reader: an internal, FNWI approved examiner OR an external examiner (from another University)

External supervisor: does not have to be an examiner and supports your daily during your internship project. This may be the same person as your second reader

*Commonly an assistant / associate / full professor appointed at the Radboud university or Radboudumc.

Tip: in general you can ask your portfolio mentor or BSc-essay mentor to be your second reader. If you want to know if your examiner is a FNWI approved examiner or if you have any other questions regarding examiners and second readers, please contact the internship coordinators (internship.biosciences@ru.nl). Importantly, when you are arranging an external internship always contact the internship coordinators.

Starting your internship

After your submission and approval of your internship proposal in Osiris cases, check whether the information about your examiner and second reader are correctly stated. This is important as all official communication takes places within Osiris and not having the documentation in place might result in problems with grading. With everything in place you can follow your internship as agreed upon with your examiner and/or daily supervisor.

Half-way through your internship, it is advised to schedule a midterm evaluation as it will help you and your supervisor to evaluate the progression you made and techniques or academic skills you can improve on during the last period of your internship. Use in this midterm evaluation the internship grading form (See Internship Forms).

Finishing your internship

The results of your internship have to be reported in a report and presented. Start writing your report as early as possible; easiest is to start with the introduction and subsequently material and method section. Your report should be written individually in one of the two formats: 1) a report-format or 2) an article-format that is commonly used for scientific papers in your field. In principle your report should contain:

- 1. A summary;
- 2. An introduction;
- 3. A materials and methods section;
- 4. A results section;
- 5. A discussion section;
- 6. A literature list.

Always discuss the format of your report with your supervisor. In principle you have to write a first version of the report and a revised (second) version. This second version is usually the final version of your report and needs to be uploaded to http://thesissubmission.science.ru.nl.

At the end of you internship, you should present your findings in your research group. The supervisor should tell the student which format to use and should reflect your report. Background) information regarding the report and presentation see: https://www.ru.nl/courseguides/science/bachelor/bachelor-biology-0/general-information/skills-guidelines-rubrics/ and in Internship Forms.

Grading

Your report will be graded by your examiner and your second reader, and your presentation will be graded by your examiner and optional your second reader. Grading of your internship is done digitally using an online survey. Upon submission of your final report in thesissubmission, your responsible examiner will receive four mails from the 'Onderwijscentrum FNWI' within 24-48 hours:

- 1. Mail 'SPIB {Student's name}: Evaluation process 1 Start Grading Internship' contains general information and an overview.
- 2. Mail 'SPIB {Student's name}: Evaluation process 2 Documents' contains the final report (PDF), testimonial and a plagiarism check of the student's final report.
- 3. Mail 'SPIB {Student's name}: Evaluation process 3 Link evaluation form examiner' refers to a survey-link for the examiner to evaluate the students internship, report and presentation.
- 4. Mail 'SPIB {Student's name}: Evaluation process 4 Link evaluation form second reader' refers to a survey-link for the second reader to evaluate the students report and presentation (optional). The examiner will forward the correct online assessment forms to the second reader.

The grading form and test-link to online evaluation survey are also available in Forms.

FAQ

Who can I ask to be my examiner/second reader?

Unfortunately not all researchers at the RU or Radboudumc can be an examiner. Some of them are so-called examiner, and are officially approved to grade students after their internship. Conceptually, an assistant / associate / full professor is, or can be, approved by the examination board to become an examiner. When you found an examiner who might be able to supervise you, always discuss this with them, and not just fill this in in Osiris Cases! (See Examiners)

If you want to know if your supervisor already is or could be an approved examiner, please mail the internship coordinators: internship.biosciences@ru.nl

My supervisor is not included in the list in Osiris cases?

Examiners approved by the examination board can be found in Osiris Cases. When your supervisor is not on the list, and/or you are not sure whether your examiner has been approved by the examination board, please contact edu.coord@science.ru.nl.

Optional, when a supervisor meets the criteria (e.g. assistant / associate / full professor), the supervisor can fill-out a form and request approval from the examination board to become a RU-examiner (mail edu.coord@science.ru.nl) When the researcher who offers the internship is not approved as a FNWI examiner, they can still be your daily supervisor.

Other questions? internship coordinators (<u>internship.biosciences@ru.nl</u>).

What can I do if I cannot find an internship (yet)?

Finding an internship, especially a research internship in the medical field, can be challenging. You can check the following sites to see if there is a job opportunity available (See searching for an internship). Moreover, you can also send e-mails to get in contact with researchers in the field you are interested in. Make sure you send a good motivation letter and CV. If you want to know more about this, please contact career service Science (https://www.ru.nl/fnwi/careerservice/). If you experience difficulties finding an internship, please contact the internship coordinators (internship.biosciences@ru.nl).

What do I need to do to register for an internship?

When you have found an internship, you need to register your internship in Osiris Case. This can be done using this manual and course guide for a Bachelor or Master internship (<u>See Registering your internship</u>).

What is required for an internship for (medical) Biology?

A research internship at (medical) biology has to meet the following requirements, according to the EER (https://www.ru.nl/courseguides/science/rules-requests/education-regulations/): The internship includes a (medical) biological research question that is investigated through laboratory experiments and/or data analysis. The findings are recorded and presented in a written report and an oral presentation. The internship must take place at a department of Radboud University or Radboud university medical center, or at an external research department, provided that permission in writing is given by the Examination Board prior to the start of the internship. The internship also takes place under the responsibility of an FNWI approved internal examiner (i.e. an examiner connected to the Radboud University or the Radboud university medical center). More information see: Searching for an internship and Examiners.

Where can I submit my report?

You need to submit your report in http://thesissubmission.science.ru.nl. (see Finishing your internship). Nevertheless, handing in your report in thesissubmission requires an approved internship proposal. When you are not able to hand in your report, please check first whether your proposal was approved, or not.

How can I arrange a non-disclosure agreement?

When internship and/or thesis is confidential, the content cannot be shared by other parties and therefore you must have signed a Non-Disclosure Agreement (NDA). When you need to upload the internship report/thesis, you can select in thesissubmission whether your report/thesis is part of an NDA or not. If yes, your report/thesis is stored confidentially on the faculty servers and no plagiarism check is performed.

When the company/university you are doing your internship/thesis at does not agree with storage on the faculty servers, a 'Declaration of storage of thesis for Review committee' must be uploaded instead of your report/thesis. In this form, the company/university declares that the thesis/report will be stored for 5 years and will only be (confidentially) shared for possible review by the Examination Board. This declaration can be found by your supervisor (examiner) under 'Forms' on Radboudnet, FNWI, or you ask internship coordinators (internship.biosciences@ru.nl).