#### 1. Programme information sources

In order to prepare yourself well, we advise you to carefully read and study this document, with important information regarding your degree programme. In this document, you can find:

- a) 'How to prepare for your degree programme' provides a step-by-step guide to prepare your degree programme before (and soon after) arriving in Groningen.
- b) The 'Course unit schedule' contains a schedule of the course units in our master programme.

Furthermore, you can find information online:

Ocasys is our online course unit catalogue. Here you can find detailed information about all mandatory and elective course units in our master programme. Please ensure to use the 2023/2024 setting, when you consult Ocasys. Some information may still be in concept modus and will be updated soon.

#### 2. Instructions and deadlines

Considering the preparation for your degree programme, we request you to inform us about these issues:

<u>Before June 25:</u> Inform us by e-mail (<u>msc.biosciences@rug.nl</u>) if you are planning to start
your master degree programme in September at the University of Groningen or not. You may
have already confirmed your attendance to the Admission Office, please note that this is a
separate procedure and <u>we request your confirmation as well</u>.

In case you do plan to start: In the same email, <u>inform us which mandatory courses you would like to be enrolled in</u>. Please use the following subject for your email: "Confirmation degree programme".

- During the summer months: Familiarize yourself with all information documents regarding your degree programme, as mentioned in this letter.
- **During the summer months:** We expect that the formal introduction to our programme will be on site on Friday 1<sup>st</sup> of September. You will be informed about the introduction in July/August. Plan your arrival in Groningen such that you can participate in all introduction events.

In case you have any questions about (the preparations for) your degree programme, please feel free to contact your academic advisor (Maartje Giesbers) by e-mail (<a href="mailto:academicadvisor.MScBIO@rug.nl">academicadvisor.MScBIO@rug.nl</a>). She will be happy to answer your questions.

## How to prepare for your degree programme

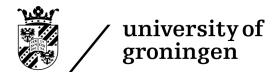
This information concerns the Master's degree programme

**Biomolecular Sciences (BiMoS)** 



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### **Preface**

This information guide concerns the preparations for the Master's degree programme in Biomolecular Sciences (BiMoS). As a student, you have a lot of freedom in planning your own study programme ('tailor-made'). One of the resulting advantages is that you can design a programme that fits best with your personal interests and planning. On the other hand, these choices come with considerable responsibility and require you to constantly think ahead during your studies.

This document describes the necessary steps you must take in preparing for your degree programme. Combined with the other information, this should allow you to properly start your programme. The last section of this document contains an extensive FAQ section with accompanying answers. In case you have any remaining questions, please do not hesitate to contact the <u>Academic Advisor</u>.

Version: May, 2023

### 1. Preparing for your degree programme

This chapter describes the best way to prepare for the Master's degree programme Biomolecular Sciences. It involves matters such as admission and registration, formulating and organizing your first research project, various administrative issues and a description of the main sources of information.

#### 1. Track and Specialisation

The Biomolecular Sciences Master's degree programme is research-oriented and only offers a single research track.

Study element	Research-profile
Protein and Enzyme Engineering	5 ECTS
Research Project 1	≥ 40 ECTS
Research Project 2	≥ 30 ECTS
Compulsory Master courses*	15 ECTS
Essay	5 ECTS
Colloquium	5 ECTS
Electives	≤ 20 ECTS
Total	120 ECTS

<sup>\*</sup> It is compulsory to pass three courses out of the following courses:

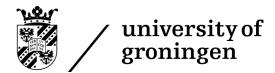
- 1. Tools and Approaches of Systems Biology; 5 ECTS
- 2. Molecular Dynamics; 5 ECTS
- 3. Advanced Light Microscopy; 5 ECTS
- 4. Molecular Modeling and Analysis in Structural Biology; 5 ECTS
- 5. Advanced Membrane Biology; 5 ECTS
- 6. Next-Generation Sequencing Methods and Data Analysis; 5 ECTS
- 7. Advanced Mammalian Cell Biology; 5 ECTS
- 8. Organelle and Membrane Biogenesis; 5 ECTS
- 9. Advanced Genetic Engineering; 5 ECTS
- 10. Electron Microscopy of Biological Macromolecules; 5 ECTS

Additionally, one can choose to complete a Specialization in Chemical Biology. You will need to think about whether you want to follow this Specialization (which has some mandatory course units) or prefer to follow the standard programme (containing more elective course units). The Specialization focuses on a particular specialist field within the Master's degree programme. Specialization requirements are available on Ocasys.

#### 2. Course units

Students in the Master Biomolecular Sciences start their programme in September with the mandatory course Protein and Enzyme Engineering. Subsequently, several courses are offered that have a limited capacity, so it is important to register well in advance. An important information meeting will be held just prior to the start of the academic year (make sure you are present there!). However, to be on time with your course unit enrolments for the first year, you will have to send your course unit preferences by email, **before June 25**. If you send them later, there might be no places left. If that would be the case, you can of course opt to participate in that course unit during your second year.

All important information about course units, programme and schedules can be found on the Student Portal and on Ocasys. Upon arrival in Groningen, we will introduce you to the internal Student Portal, for which you will need a personal computer account. We recommend to already familiarize yourself with the Student Portal before arrival.



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#### 3. Ideas for a research project

You may already have ideas about an interesting research area from your previous educational programme. The question is: which course units or topics that you have followed previously really inspired you? You may search for interesting research groups and the themes they are working on at <a href="http://www.rug.nl/research/fse">http://www.rug.nl/research/fse</a>. The most important research institute for the Biomolecular Sciences Master's degree programme is <a href="https://www.rug.nl/research/fse">GBB</a>, while <a href="https://www.rug.nl/research/fse">GELIFES</a> and <a href="https://www.rug.nl/research/fse">ESRIG</a> might also offer interesting options. Usually, you will carry out a research project that is part of a bigger project from a PhD student or a postdoctoral researcher. S/he will normally be your daily supervisor in the laboratory. You will carry out a research project, essay or colloquium under the supervision of any authorized examiner (a list of which is published on the Student Portal). The first research project should in any case be carried out 'internally', i.e. within one of the research institutes within the Faculty of Science and Engineering/UMCG and under the primary supervision of one of the authorized examiners from the list. S/he is usually not your daily supervisor in the lab, but is ultimately responsible for supervision, including assessment and grading of your project.

#### 4. Finding a research project

After selecting a few interesting research groups, you could contact the leaders of these groups to make an appointment to talk about possible research projects. Do not give up right away should you not receive a reply; sometimes researchers are simply very busy, and they may have missed your e-mail or have forgotten to reply. In other words, a lack of response does not necessarily mean that they do not have time for you. Try sending a reminder or visiting the research group in person. We recommend talking with at least two or three research groups to get a good idea of the differences and similarities between the groups and which project is most appealing. Prepare for the meeting by reading a few of the group's recent articles and use the opportunity to ask everything you want to know. For example, which projects they are working on, where and when you could start, what kind of work is involved, what you could learn there, which techniques are used, what kind of supervision they offer, who will be your day-to-day supervisor, etc. Ask to be shown around the lab and talk with the Master's students who conduct research there. This will help getting a feel for the atmosphere and you will be able to compare the various groups. Once you have met with all the research groups of interest, you can decide which one to join and on what date. Do not forget to politely inform both the group of your choice and the groups you have rejected of your decision.

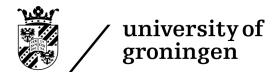
If you are an international student, arriving in Groningen just before the start of the programme, <u>we recommend</u> taking Steps 2 and 3 mentioned above before, and Step 4 after arrival in Groningen. You will start the programme with a compulsory course unit that includes the GBB symposium, during which you will be introduced to the research groups within the GBB institute. You will have enough time to arrange a research project in the first month(s) of the programme.

#### 5. Making choices and planning your study programme

An important characteristic of our Master's degree programme is that you yourself have to choose which course units, individual assignments (colloquium and essay) and research projects you want to do and when to do them (during the two years nominally allocated for the programme). This allows tailoring the degree programme to your interests. You do need to discuss these choices with your mentor first, to ensure that your plans meet the requirements of the programme.

The mentor will be your main point of contact throughout the entire Master's programme. You are responsible for contacting a mentor of your choice, and for making a first appointment and maintaining contact with your mentor during your entire programme. Students who completed their BSc degree at the University of Groningen may look for their mentor before the summer holidays. All other students should look for a mentor as soon as possible after the start of the first course.

Many students ask their mentor to be the supervisor of their first research project as well. This is not only convenient; conducting your research in your mentor's research group is also a good way to build on your relationship with her or him. Once you have made your choice and drawn up a preliminary study plan for the first year of the Master's programme, you need to discuss your plans with your mentor and complete the programme proposal form for your first individual study item together (Step 6).



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#### 6. Board of Examiners' approval and the Programme Proposal Form

Because the Master's programme involves many optional components, there is a risk that students include study elements that do not meet the minimum requirements e.g., an unsuitable research topic, a project that is too limited in time or subject matter, too little student workload, unauthorized supervisor, etc. The Board of Examiners is responsible for ensuring that the Master's degree programme maintains a proper level, which is why you require its approval for each individual study component before starting it. You will need to complete a special 'Programme Proposal Form' for each study component and discuss this with your mentor. You need to send the form to <a href="masc.biosciences@rug.nl">msc.biosciences@rug.nl</a> and will hear within a few weeks whether the component has been approved or not. If you do not request approval of a curriculum component in advance, you will be running a real risk: If the component is rejected after you have completed it, the ECTS credit points gained for that component will not count towards your Master's degree programme! It is not possible to graduate before all components have been approved by the Board of Examiners using the Programme Proposal Form. So, make sure to do this as early as possible before starting a new individual programme element, to prevent a potential problem!

You do not need to enter your entire study plan on the Programme Proposal Form. In fact, this is not possible, because course unit schedules change slightly every year and you will very likely only choose the subject of your second research project and/or essay and/or colloquium later in the programme. We recommend that you submit your first Programme Proposal Form as soon as you know where you will be doing your first individual element (research project or essay). Discuss your plans with your mentor and enter the information of the project on the Programme Proposal Form. Your mentor does not need to sign the form, but it is your responsibility to keep your mentor informed. After completing the Programme Proposal Form with all relevant information, you will need to send it by email to the Programme Management (msc.biosciences@rug.nl) for approval by the Board of Examiners. You will probably decide on other/further study elements sometime during your first research project. This will be a good moment to include your new plans to your existing Programme Proposal Form and submit that to the Programme Management. And so on.

#### 7. Information and communication

In the Master's degree programme, you have a lot more responsibility for obtaining information about schedules, the programme, registration, administrative matters, etc., than in your previous education programme. The most important sources of information on the Master's degree programme are:

- The <u>Student Portal on Brightspace</u>: for the latest news and announcements, important forms, information about study and internships abroad, tips for preparing for the labour market, information on graduation, contact details, etc. The Student Portal is explained in <u>these instructions</u> and upon arrival in Groningen.
- *Mentor:* for all information about programme content, discussing your study plan, agreeing on your Programme Proposal Forms, contacts abroad. A list of available mentors in the Biomolecular Sciences programme can be found here.
- <u>Academic Advisor</u>: for all other questions or possible flaws in information. Also, report any extraordinary circumstances affecting your study progress (illness, handicap, family matters, pregnancy, etc) immediately to your Academic Advisor! Conversations with the Academic Advisor are always 100% confidential.
- Other standard University of Groningen information systems: *e-mail, Progress Portal, Ocasys*, etc. In addition, these systems will be explained in <u>these instructions</u> and upon arrival in Groningen.

### 3. Frequently Asked Questions

#### • How does the document 'Course Unit Schedule' work?

The Course Unit Schedule shows all course units that we offer in our programmes, and the time periods in which they are scheduled. Please note that this is the schedule for the duration of one academic year, to be used by first-year and second-year students in the master. The academic year is divided into two semesters, which both are divided into two periods of 10 weeks (Period Ia and Ib for Semester I, and Period 2a and 2b for Semester II). During each 10-week period, you can take a maximum of three (consecutive) courses (15 ECTS).

Page 2 of the Course unit schedule document explains the abbreviations. Note the difference between fulltime course units, non-fulltime course units, and special course units:

- A) Fulltime course units usually have a study load of 5 ECTS and can be recognized by being scheduled in only 3 weeks. Examples in the Biomolecular Sciences Master's programme are: Protein and Enzyme Engineering, Tools and Approaches in Systems Biology, and Molecular Dynamics. Of course, one cannot participate in multiple fulltime courses simultaneously.
- B) Non-fulltime course units usually have a study load of 5 ECTS and can be recognized by being scheduled for about 5-10 weeks.

Use <u>Ocasys</u> for course unit descriptions and the <u>time table generator</u> for day-to-day schedules. Don't be misled by these day-to-day schedules of some fulltime course units: They sometimes have only few scheduled lectures, but also in these course units you will be working fulltime, for example because of non-scheduled group assignments, preparing presentations, writing assignments, self-study, etc.

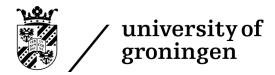
#### • What is the difference between 'Master courses' and 'Elective courses'?

You can find a list of all available course units in the <u>Biomolecular Sciences Master's programme on Ocasys</u>. It is compulsory to include 20 ECTS of programme-topic related course units ('Master courses') in your two-year study programme. This includes the mandatory course "Protein and Enzyme Engineering" and three courses from the compulsory course list (see above). All additional course units will automatically be part of the 'electives'. The difference between Master courses and Elective course units is that the latter do not necessarily involve the general topic of your degree programme and are followed to broaden rather than to deepen your knowledge (as Master courses do).

#### Are there any course units that are worth mentioning, because they differ from most other course units?

Yes, here are the most important ones, see also Ocasys for more details:

- <u>Laboratory Animal Science</u> is a course unit that you are only allowed to follow (and <u>must</u> follow) in case you are going to
  do a research project involving animal experimentation. Before registering for this course, your plans for the first (or
  second) research project need to be decided.
- Orientation on Non-Academic careers is a course unit for Master students who want to examine the possibilities of a career outside the academy. This is a non-fulltime course which students usually take while they are doing one of their research projects. In small groups (3-4 students) a case delivered by a company in the Netherlands or a neighbouring country is solved. The case report will be presented to the participating company during an excursion to all participating companies.
- <u>iGEM</u> is a worldwide competition on synthetic biology, in which the RUG partakes every year. You can receive maximally 20 EC of elective study points for participation. Selection takes place during wintertime.



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#### • Can I choose two course units that are scheduled in the same time period?

Usually no, because most course units are scheduled as fulltime course units, so you won't be able to do something else (or be at a different location), such as following another course unit (fulltime or part-time), writing an essay, preparing a colloquium or doing research. However, it is possible to combine a fulltime course unit with a lecture series course unit in which one or two lectures are scheduled during the month.

#### Can I follow a course unit at the same time as the research project?

Always consult with your supervisor well in advance before planning a course unit! They must approve your plans. In practice, it is usually possible to interrupt a research project to follow a course unit, but if you can avoid doing this then you should. If it is unavoidable, only interrupt your research project *once* for a course unit, otherwise you will make things very complicated for yourself. If you really need to follow a particular course unit, this will usually be possible, but only after consultation. If it concerns a single-block course unit (fulltime, usually 5 ECTS or 3 weeks), this will usually mean that your research will come to a halt during that period. Make sure you do not schedule any experiments then, but limit your research work to some cell maintenance, freezing cultured cells, etc. If it concerns a course unit that spans two blocks (often taking up only a few mornings or afternoons per week), you can usually continue your research at the same time (as long as the course unit is taught in Groningen, of course), albeit less intensively. The time that you cannot spend on your research (usually 3 weeks per 5 ECTS course unit) is added to the end of your research project to ensure you earn the required number of ECTS for the project.

#### • I will start my programme on 1 September. How should I plan my programme?

All students start their programme in September with a series of compulsory course units and then continue with a research project of 40 ECTS. We recommend aiming for approximately 60 ECTS in the first year.

#### • I wish to follow the SBP track. How can I combine this with the Biomolecular Sciences Master's Programme?

It is not possible to follow the Science Business and Policy (SBP) track in the Biomolecular Sciences Master's degree programme. If you wish to follow this track, we advise to register for the Biology Master's degree programme. It is possible to switch to this programme after one year. Within the Biology programme, you have the option to follow course units of the Biomolecular Sciences Master's degree programme and to conduct research projects within the field of Biomolecular Sciences.

#### • How long does a research project take?

A full working week for a research project is 40 hours. One ECTS point is equivalent to 28 hours. A research project of 30 ECTS is equivalent to  $30 \times 28 = 840$  hours, or 21 weeks (5 months) of fulltime work. This amounts to about one complete semester, including holidays. A research project of 40 ECTS is equivalent to 28 weeks, or 6.5 months of fulltime work. You can calculate the duration of research projects with other ECTS values in a similar fashion as is explained on the Programme Proposal Form.

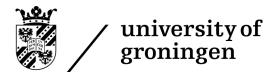
#### Should my first research project have a workload of 40 ECTS?

The first research project may also have a different workload, such as 30 ECTS, or even more than 40 ECTS (you can spend some of your elective ECTS on extra research). N.B., the last opportunity to increase the workload of your research project is during the Midterm evaluation, which takes place halfway through your research project.

#### How far do I need to plan ahead?

You do not have to, nor can you, draw up a detailed study plan for your entire Master's degree programme straightaway (see above). Make sure that at the start of the programme you have a rough idea of which study components you might want to follow during the coming two years. Hand in the first Programme Proposal Form as soon as you know the details of the first individual study components (usually including your first research project). Consult with your mentor when you are filling in the further details and planning of study plan.

#### Can I work on study elements during the summer break?



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This is not prohibited, but your supervisors will tell you whether this is practically feasible. Many research groups will have a few staff members who continue working through the holidays, so there will often be someone present to provide supervision. But first consult with your supervisors on whether this is both possible and feasible. Obviously, if you work on your essay or colloquium you will need supervision, which will not be possible if your supervisor is on holiday leave. Moreover, there are colloquium requirements regarding the minimum number of scientific staff who must be present during your presentation, which will be difficult to arrange in the holiday season.

## • Can I enrol for course units in the Progress Portal and follow course units without prior approval via the Programme Proposal Form?

Yes, you can; enrolment for course units is completely independent from the approval of the Board of Examiners for individual study components via the Programme Proposal Form. For Master courses and Elective courses listed on the Ocasys page of your degree programme, you do not need permission from the Board of Examiners. For courses that are not listed on this page, you need to obtain permission by submitting a request form that can be found on the Board of Examiners' page on the Student Portal.

Do not enrol for mandatory course units yourself, but send your course unit preferences by email to <a href="mask.biosciences@rug.nl">msc.biosciences@rug.nl</a> **before 25 June**. You will be instructed after arriving in Groningen about enrolling for course units yourself.

#### • My academic writing skills are somewhat poor. What can I do?

You will be required to write extensive reports and theses during your Master's degree programme. Many students have trouble finding the discipline to write or achieve the proper level of academic quality in their writing. The Student Service Centre (<a href="www.rug.nl/ssc">www.rug.nl/ssc</a>) offers various writing course units and has a thesis support group for students who are having difficulty writing their essay or research project report. The Faculty of Science and Engineering also has similar thesis support groups; these have the added advantage of a focus on science, instead of the broader focus you will find in the support groups for the students of other faculties. Ask your Academic Advisor for more information if you are interested. Make sure you hold your supervisor responsible for providing good supervision: for example, you could agree to have a short meeting once a week to discuss your progress or to submit draft sections of your essay or report for the supervisor to assess. You could also ask for a workplace in the department where you could work on fixed days. It can also be stimulating to work together with your fellow students on your essay if you do not have the discipline to spend whole days behind your computer. Contact the Academic Advisor as soon as possible if you get stuck and cannot find a way out.

## • What should I do if exceptional circumstances arise, such as illness, psychological problems, disability, family circumstances, pregnancy, etc.

Contact your Academic Advisor as soon as possible. Your personal circumstances will always be treated confidentially; the Academic Advisor will never discuss your situation with others (lecturers, parents, etc.) without your explicit permission. In many cases, the Academic Advisor may be able to help and otherwise s/he will refer you to another service if you so wish. If your studies are delayed due to such circumstances, financial compensation may be available via the University's Graduation Fund. It is important that you see your Academic Advisor as soon as possible to be eligible for this fund. If you fail to report or report too late you will not be compensated.

#### • I still have questions after reading all information. What should I do?

Please ask your questions to the <u>Academic Advisor</u> (Maartje Giesbers: <u>academicadvisor.MScBIO@rug.nl</u>), she is happy to help you out. Many incoming students find it quite hard to understand all the information before arriving in Groningen as the programme and environment may be very different from what you are used to in your home country. Please do not worry: before and after arrival in Groningen we will help you as much as possible, so you will soon understand the most important aspects of the programme, and you will settle in well within our Faculty. Good luck and we are looking forward to receiving you!

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Abbreviation	<u>Module</u>	Code	Abbreviation	Module	Code
Advanced Biocatalysis	Advanced Biocatalysis	WMCH033-05	Math models in E&E	Mathematical Models in Ecology and Evolution	WMEV013-06
AdvGenEng	Advanced genetic engineering	WMBS006-05	Masterstage 1	Masterstage 1	TEM0205
Adv Mem	Advanced Membrane Biology	WMBS007-05	MES-GC	Marine ecosystem service & global change	WMMB008-05
AdvMicros	Advanced light microscopy	WMBY016-05	Meta analyses in ecology	Meta analyses in ecology 22/23	WMBY013-05
AdvPCEcol	Advanced Population & Community Ecology	WMEV008-05	Modelling	Practical modelling for biologists	WMBY009-05
Adv. Statist.	Advanced Statistics	WMBY018-06	Mol. Dyn	Molecular Dynamics	WMBS003-05
ASM	Applied Statistics and Machine Learning	WMBM024-05	Mol. meth. in E&E	Molecular Methods in Ecology and Evolution 2021/2022	WMEV007-10
Agro-ecology	Ecology of sustainable farming 23/24	WMEV009-05	MM&ASBio	Molecular Modeling and Analysis in Structural Biology	WMBS021-05
Advances in chemical biology	Advances in chemical biology	WMCH014-05	MS	Microbiological safety	WMMP004-01
Adv MamBio	Advanced Mammalian Cell Biology	WMBS022-05	NIOZ	NIOZ-course: www.nioz.nl/marine-masters-en	NA
Basiscursus Lerarenopleiding	Basiscursus Lerarenopleiding	TEM0105	NBDC	Nutrition, Brain Development and Cognition	WMBM020-05
Behaviour EE	Behaviour, Ecology and Evolution	WMEV003-09	Oceanography	Principles of Biological Oceanography	WMMB003-05
	Big Data and Applications in Biomedicine	WMBM025-05	Org. Mem	Organelle and Membrane Biogenesis	WMBS012-05
	Biophysical Imaging & Manipulation Technique	WMPH047-05	Orientation on Non-academic Careers	Orientation on Non-academic Careers	WMBY032-05
BioComp	Practical Computing for Biologists	WMBY008-05	Polar Ecosyst	Polar Ecosystems	WMMB009-05
Coll.	Colloquium MEME	WMEV001-05	Pop.Genetics	Principles of Populations Genetics in Natural Populations	WMMB005-05
ConsPract	Conservation Ecology Practices	WMEV004-05	Prog C for biol	Programming C++ for biologists	WMBY010-05
DSB	Data Science in Biomedicine	WMBM023-05	Prot Enz	Protein and Enzyme Engineering	WMBS004-05
Ecol. Res. Skills	Ecology research skills	WMEV005-10	Radiolso	Radioisotopes in Experimental Biology	WMBY011-05
Ecosystems shores	Ecosystems Mediterranean Rocky Shores	WMMB010-10	res. methods science and comm	Research Methods in Science Education and Communication	WMEC005-05
EMDA	Evolutionary Medicine Diseases of Affluence	WMBY025-05	Res. Prop	Research Proposal Ecology and Evolution	WMEV012-05
EMID	Evolutionary Medicine Infectious Diseases	WMBY024-05	Skills in Science Communication EC	Skills in Science Communication EC	WMEC006-05
Evol. theory	Evolutionary Theory	WMEV006-08	SBP: Science & Policy	Introduction Science& Policy	WMSE002-10
EM BM	Electron microscopy of biological macromolecules	WMBS011-05	SBP: Science & Business	Introduction Science & Business	WMSE001-10
Flyway. Ec	Flyway Ecology 22/23	WMEV010-05	SBP: work placement	Work placement Business and Policy	WMSE003-40
Gen. EE	Genomics in Ecology & Evolution	WMEV011-08	SkillsBio 1	Skills for Biology 1: Professional Perspectives and Career Orientation	WMBY029-05
iGEM Competition	International Genetically Engineered Machine competition	WMBS013-20	SkillsBio 2	Skills for Biology 2: Quantitative Research Methods	WMBY028-05
Impacts of Energy and Material System	Impact of Energy and Material Systems (EES)	WMEE002-05	Sustainable Use of Ecosystems	Sustainable Use of Ecosystems	WMEE003-05
	Island Biology	WMEV016-05	Sustainability & Society EES	Sustainability & Society EES- master	WMEE005-05
LAS	Laboratory Animal Science	WMBY026-05	Synthetic biol. & Systems chem.	Synthetic bioloy & Systems chemistry	WMCH021-05
Marine biol.	Principles of Marine Biology	WMMB004-05	Systems Integration & Sustainability	Systems Integration and Sustainability EES-master	WMEE006-05
Marine cons.	Marine Conservation	WMMB011-05	Seq.methods	Next-generation sequencing methods and data analysis	WMBS023-05
MathBio	Mathematical models for Biology	WMBY031-05	Tools syst	Tools and approaches of systems biology	WMBS005-05
	Modelling Complex Biological Systems	WMBY027-05	Water management	Transitions in water management	GEMTRWATM