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2022

Manual Honours Program Biology

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HONOURS PROGRAM BIOLOGY, UTRECHT UNIVERSITY

Contents manual Honours Program

This manual contains information about the program and organisation of the honours program (HP) of the bachelor study Biology of Utrecht University (UU).

The target readers are:

- Honours students,
- First year Biology students thinking about participating in the HP,
- Teachers involved in the HP.

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I. General outline of the program and goals

General goals HP

Utrecht University (UU) offers honours programmes at different faculties and departments. The following goals of the Utrecht honours education were mentioned in the policy notes "*Honours Colleges aan de UU*" (16th of May 2012, M. Bok, A. Koster & R. van der Vaart):

- Providing extra challenges for the best students,
- Helping students to a better starting position for a future (master) study or on the job market,
- Creating an environment where excellent teachers, researchers and academic professionals can meet and thrive,
- Providing room to experiment with teaching methods and new ideas, eventually resulting in implementing these ideas in the current education program,
- Further establishing and strengthening the position of the UU as a leading research facility, appealing to talents (students and teachers) from The Netherlands and abroad.

General outline HP Biology

The regular Biology bachelor's degree encompasses 180 EC (points confirm the European Credit Transfer System). The HP Biology encompasses 45 EC, of which 15 EC extracurricular and 30 EC within the bachelor's degree major or profile:

- 15 EC is added to the existing regular 180 EC. These points will be awarded after successfully participating in multiple honours activities, including the Science Honours Academy (course code BETA-B2HRI) and participating in departmental activities and evening meetings in the first and second year of the honours programme. (course code BETA-B3DHB).
- 30 EC within the regular programme will be done at honours level and will not be added to the regular 180 EC.
 - In the course Academic communication (B-B2AS17) of year 1 in period 3, a special honours assignment will be done. The focus of this assignment will be on developing complementary skills ('21st century skills') and the broadening of knowledge.
 - A course in the regular program is followed on an honours level. The honours student will finish extra assignments without earning extra EC by increasing the workload. The extra assignment encompasses 40 hours in total (4 hours per week). Alternatively, students complete an interdisciplinary honours course outside the Biology curriculum.
 - The regular bachelor thesis and internship is done at an honours level by writing a short article instead of an internship report (B-B3ONSCR and B-B3ONST)
 - The students keep track of their progress in the HP by composing a portfolio containing proof of completed assignments and activities and reflective essays.

A separate honours certificate will be granted to the student after completing the HP and graduation from the bachelor Biology. Furthermore, it will be noted on the International

Certificate Supplement (*IDS*) which courses were completed on honours level (indicated with an H).

II. Entering and participating in the HP

The rules for the HP are documented in the *Opleidings Examen Reglement* (OER – lid 3.9). Admittance to the HP will only be granted in the first year of the study program; during period four. Who is selected and allowed to further participate in the HP during their second and third bachelor year will be decided by the honours coordinators.

Admittance to the HP

Students who achieve good grades during the first and second period of the first year (an average grade of 7.5 or higher) will be automatically invited to apply for the HP. Tutors can also nominate students who will be invited to apply for the program. To apply, students must write a short motivation letter, hand in a curriculum vitae (CV) and a short essay on a present-day Biology-related topic. Students will be selected after a short interview by the honours coordinators.

Continuing the HP

Students can be removed from the HP after the end of a year of studying if they:

- Have trouble in following their regular studies because of HP
- Have not participated actively in the (extra)curricular activities.

The program coordinators decide whether to remove a student from the HP. They will take exceptional personal circumstances in account when the student notifies him/her as soon as possible.

Individual meetings

Students will meet the honours coordinators every year to reflect on their progress, discuss reflection-essays and talk over special attention areas in the coming year to further stimulate personal development.

III. Science Honours Academy (SHA)

All honours students of the Faculty of Science participate in the Science Honours Academy (SHA, <https://sciencehonours.sites.uu.nl/>). This interdisciplinary community of honours students is composed of students from the departments Biology, Chemistry, Computing Science, Information Science, Mathematics, Molecular and Biophysical Life Sciences, Pharmaceutical Sciences and Physics. The main language of education is English.

The Science Honours Academy brings together the most motivated students of the science faculty and engages them in a broad range of challenging experiences. The aim of these activities is to deepen and broaden their knowledge, stimulate communication and teamwork across disciplinary borders and develop essential skills to excel in their future pursuit. To achieve these goals the SHA offers an interdisciplinary research module which is mandatory for science honours students. The results of these collaborations in small groups will be presented during a poster presentation to all the students of the SHA.

The SHA also organizes activities which carry a scientific and educational context. Examples of activities organised by the SHA are interdisciplinary symposia, masterclasses and excursions. The subjects discussed during these events are not part of the regular Biology curriculum. There are also informal gatherings where students can meet and connect with honours students from different disciplines. In addition, every year the SHA organises an international study trip. Participating in one trip or an alternative experience abroad is mandatory. It is the responsibility of the student to contact their teachers to discuss their absence during this trip. If necessary, the SHA dean will support the student's participation in the trip with a letter. Committees composed of honours students will organise the SHA activities. Committee members receive EC for organizing them and students will receive EC for attending them. Any updates or upcoming events will be posted on the SHA website.

At the end of the HP, students upload their portfolio with interdisciplinary and disciplinary contents on the SHA Blackboard and EC will be awarded for the portfolio as well. The required 7,5 EC for the interdisciplinary part should be completed for the student to graduate with an honours certificate. The disciplinary honours programme coordinator should be notified by the student when all the required SHA EC are fulfilled at the end of the final academic year.

IV. Honours assignments during the regular courses

Honours assignments ('*verzwaringen*') are executed during regular courses or by participating in an interdisciplinary course. These assignments add a broadening aspect to a regular course, in a way that is challenging to the honours student. The coordinator of the course will decide whether a student will work on an assignment on his/her own or collaborate with other honours students, which depends on the number of students wanting to do the assignment. The honours assignment will take 40 hours (4 hours per week for 10 weeks) to finish. The honours coordinator should receive a mail from the course coordinator that the student has finished the assignment in a satisfactory manner.

Procedure

If the student wants to do an honours assignment during one of the courses he/she is enrolled in, he/she must contact the course coordinator as soon as possible (preferably before the start of the course). The student proposes an assignment he/she would like to execute in consultation with the coordinator. After reaching the agreement on the content of the assignment, the student will start working on the task and finish the final product on the final day of the course unless otherwise agreed. The grade for the course will be determined in the same way as applies to regular students and does not depend on the assignment.

The honours coordinator should receive an email from the course coordinator that the student has finished the assignment in a satisfactory manner. If the honours assignment is not to the satisfaction of the teacher, the course will not be registered as completed on honours level.

Description honours assignment

The teacher will be asked, after deliberating with the student, to mention in their description of the honours assignment the following elements: name and level of the course, type of assignment and whether or not the assignment is satisfactorily completed.

Extra directions for the teachers:

- The assignment should contain extra study material and information not given to regular students. This includes teaching material that the honour student must process in his/her own time (self-study). To complete the assignment, the student must have extra insight in and comprehension of the matter which goes beyond the scope of regular students. The grade for the course does not depend on the assignment.
- The student must develop the assignment in consultation with the course coordinator. The idea does not need to be brought in by the student.
- The assignment could be, for example, to develop new teaching forms or tools for the course. It could also encompass a more difficult computational problem or challenge, for example, to take multiple subjEC and bring them together in one assignment. It is also possible to give the student an open assignment challenging him/her to structure his/her work and use a creative angle of approach to complete the task.

- For further information, see also the notes *“Verdiepende honours opdrachten bij een cursus”*, by Hanne ten Berge (18th of June 2013) or the report *“Bouwstenen voor een vernieuwd Honoursprogramma”* by Nora Assendorp *et al.* (2013).

Interdisciplinary honours courses

Instead of completing the disciplinary assignment (*‘verzwaring’*) during a regular course, it is also possible to take part in an interdisciplinary honours course with students from a different faculty or at the Descartes College.

V. First year of the HP

Next to taking part in the Science Honours Academy, the following activities are part of the HP during the first year, which is during the second year of the bachelor:

- Reading, discussing and writing a 'reflective essay' about several popular scientific books (for example 'The Selfish Gene' by Richard Dawkins). The first book will be read in the summer break between the first and second year of the bachelor's study, the second book in the Christmas break.
- Evening meetings will be organized and attended every month to discuss the subject of and prepare for the large group project
- The group project will take place in period 3 during and in addition to the course Academic communication (B-B2AS17).
- The focus will be on the following elements:
 - The group project (for example publishing a BioScope issue) which will be completed during period 3. This includes writing the first draft, giving peer-feedback, processing peer-feedback as well as feedback from experts and coordinators and finally producing the final draft.
 - Practicing and developing academic and honours skills ('21st century skills') which are not directly focussed on during the regular Biology bachelor education by inviting guest lecturers to present or to organise workshops. Examples of these skills are: creativity and innovativeness in writing, collaboration skills (during the group project the students will learn how to work together intensively), peer-feedback, ethics and ethical reflections, and leadership.
 - Organising an excursion to a scientific institution, a bio-related or biotechnical company or, for example, a museum.
- Goals of the disciplinary honours course
 - Expanding and broadening knowledge within Biology concerning the chosen subject of the group project,
 - Practicing and developing the so called 21st century and academic skills which are not (directly) focussed on during the regular Biology bachelor education.
 - Intensively practicing skills that are also addressed during the regular Biology bachelor education, such as interpreting and processing literature, writing reports, giving presentations and practicing the research cycle.
- Evening meetings in period 4 during which the focus will be on finishing the group project Furthermore, the students will choose a subject for their individual project which will be completed during the third year. This project can be used to broaden or deepen knowledge or can have an interdisciplinary component, but it must always be challenging and fit the personal development of the honours student.
- Lastly, the students will keep track of their development in their (reflective) portfolio.

Portfolio

The portfolio is a (digital) folder which will be used to keep track of the student's development of their (academic) skills during their study.

Setting up a portfolio is advised to every biology student at the beginning of their first year. However, it is not mandatory for regular students. Honours students must make extra

choices compared to the regular students, adding importance to keeping a portfolio. During the HP, the students are regularly asked to write essays, contribute to the group project, finishing an individual project, complete several reflection assignments; all this material should be included in a portfolio as a default. These assignments allow the students to reflect on their own participation and development as well as being able to reflect on the contents of the HP.

The following components can be included in the portfolio, for example:

- A motivation paper composed at the beginning of the bachelor,
- The honours essay written as part of the application process for the HP,
- The motivation letter written as part of the application process for the HP,
- Products, gradings and reflections which are part of the HP,
- An essay at the end of each study year, which discusses a student's personal development, goals and possible points of improvement and motivation.

Students are free to decide what the content or the form of their portfolio will be. The portfolio should be uploaded on the Blackboard site of the SHA.

VI. Second year of the HP

Besides participating in the Science Honours Academy, the following activities are part of the HP during the second year, which is the third year of the bachelor:

- A popular scientific book will be read between the summer between the second and third bachelor year. The book will be discussed in a short pitch.
- Evening meetings will be organized and attended. The content of the meetings should be the book pitches, individual project presentations and other Biology related activities.
- An honours assignment during a regular course will be completed.
- The individual project will be completed and presented.
- An honours thesis (15 EC) will be written.

Step by step plan honours thesis

1. The student chooses a research group to join and carry out their bachelor research project and thesis. In addition to the regular bachelor research project and thesis, an internship report in the format of a short paper should be written. It is also possible to go abroad or collaborate with a company for the bachelor research project and thesis.
2. The final grade of the honours thesis will be signed by both examiners and sent to the thesis coordinator (scriptie.bio@uu.nl).
3. The thesis coordinator notifies the honours programme coordinators that the student completed the thesis at honours level. However, to speed up the administration, the HP student should send a list of all the components of HP finished (honours thesis, individual project, portfolio, SHA participation, final reflection essay and regular course at honours level) in an email to the coordinator.

VII. Allocation of the EC in the HP Biology

Extra curricular honours courses:

	Course name	EC	Level	Remarks
BETA-B2HRI	Interdisciplinary part of the SHA	7,5	H2	added to the existing regular 180 EC
BETA-B3DHB	Departemental meetings	7,5	H3	added to the existing regular 180 EC

Curricular honours courses:

Course code	Course name	EC	Level	Remarks
B-B3AFSTP (equivalent to B-B3ONSCR and B-B3ONST)	Thesis at honours level	15	H3	Course B-B3AFSTP replaces B-B3ONSCR + B-B3ONST.
B-B2AS17	Honours course Biology	7,5	H2	
	Course at honours level	7,5	H#	Choice between course at honours level, Descartes course or an interdisciplinary course outside Biology

VIII. Contact information

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