



Honours Programme Pharmaceutical
Sciences
Manual 2015 – 2016

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1. Objectives and scope

1.1 General objectives

At Utrecht University (UU,) honours programs are being developed at several faculties and departments. The UU aims to have 12% of the entire student population involved in the honours program in 2016. The following objectives from the Utrecht honours program are named in the policy paper "Honours Colleges aan de UU" (16th of May 2012, M Bok, A Koster, R van der Vaart)

- Extra challenges for the best students
- A better perspective for future studies and employment
- Development of excellent teachers, researchers and academic professionals
- Room for educational experiments, so that new ideas can develop and integrate into the existing education
- To fortify the position of the UU as a leading research university, attracting national and international talents.

Students that successfully complete the HP and acquire the needed honours ECTS will receive their bachelor's degree with an honours note.

1.2 Scope of the HP pharmaceutical sciences

The regular bachelor Pharmaceutical Sciences covers 180 ECTS (points according to the European Credit Transfer System). 1 ECTS complies with 28 hours of studying, including contact hours. A year of study consists out of 4 blocks of 10 weeks, with two courses of 7.5 ECTS.

The HP Pharmaceutical Sciences includes 45 ECTS corresponding to 25% of the regular bachelor.

- 15 ECTS are reserved for extracurricular activities. These credits are given based on a successful participation in several honours activities, which includes the interdisciplinary Honours Academy (5-7.5 ECTS) and participation in bigger and longer (research) projects (7.5-10 ECTS in total).
- 15 ECTS can be acquired through the fulfilment of extra assignments in regular courses and attending honours-level courses. The extra assignments will be determined in cooperation with the course coordinator and the honours co-ordinator and have an individual character, aimed at the specific interests of the honours student. In this way, 15 ECTS will be required by following the regular program at honours level.
- 15 ECTS are reserved for the honours thesis. The honours thesis can be seen as a mini-promotion, in which the student will make some of the essential steps of research. This includes: generating, testing and developing a research proposal, establish and implement its experiments, and report and

present the research results. The final product will be a research article or proposal in the form of a presentation and a honours thesis.

Both student and honours co-ordinator will maintain a record in which they administer the completed activities, so that the honours coordinator can finish all administrative work at the end of the education programme.

1.3 Contents

The Honours Program of Pharmaceutical Sciences will schematically look like this:

	Blocks 3 and 4, year 1	Year 2	Year 3
Inter-curricular	Introduction into the research groups	One Health (7,5 ECTS)	Pharmaceutical Biotechnology (7,5 ECTS)
			Honours Thesis (15 ECTS) Various teachers, preferably professors
Extra-curricular	Interdisciplinary activities from the honours academy (5-7.5 ECTS) Coordinator: Filipe Freire		
	Bigger, long-term projects (7.5-10 ECTS) Coordinator: Tina Vermonden		

Besides, the Pharmaceutical Sciences Honours student is free to follow extra courses from the CPS curriculum or to exchange non-mandatory courses for these CPS courses. Eligible courses are listed below:

- Pharmaceutical Biotechnology 7,5 EC
- One health (in ontwikkeling) 7,5 EC
- FA-CPS-211 neuro-immunopharmacology, introduction 7,5 EC
- FA-CPS-221 analytical methods, introduction 7,5 EC
- FA-CPS-212 Neuropharmacology 7,5 EC
- FA-CPS-213 Immunopharmacology 7,5 EC
- FA-CPS-222 Molecular en Cellular Techniques 7,5 EC
- FA-CPS-224 Analytical techniques 7,5 EC
- FA-CPS-301 Drug discovery 7,5 EC
- FA-CPS-302 Drug Development 7,5 EC

2. The structure and content of the Honours Program Pharmaceutical Sciences

2.1 Structure

The honours students are central in the honours program and have the liberty to take their own initiative. The students will be guided by the honours coordinator and during their first year also by a HP mentor. The HP mentor is a senior student that will guide new HP students with the initiation of new projects.

The coordinator is also a member of the honours board, which is responsible for the selection of new honours students and for the approval and assessment of the honours projects.

New honours students will start in the second half of year 1 (blocks 3 and 4) in which they will get to meet the senior honours students after an introduction meeting. The first year will be spent attending planned honours meetings and seminars and meeting the research groups. Every new HP student will be assigned to a senior student who will guide the new student through the start-up phase.

At the beginning of the second year the student will start one or more individual- or group-projects. Both the creation of the project as well as finding a supervisor and execution of the project will be the responsibility of the student.

Every year there will be ten meetings, of which half will be update meetings, in which honours students can present their progress in their projects, and the other half will be thematic events, in which a group of students will dive into a theme of choice. This can be in the form of a debate evening, a mini-symposium or an excursion. Again, the initiative is completely in the hands of the student. These meetings will take place mostly during the evenings. On top of that there will be room for social activities to get to know each other and strengthen the honours spirit.

The HP coordinator will help students finding a supervisor and will also act as confidant for the student. Every student has a budget to fund its honours activities. The quality of the program is controlled by the HP board. The board consists of the director of education, a HP student and the former and current HP coordinators.

3. Application, admission and progression

The rules for the HP are set in the Opleidings Examen Reglement, het OER 2014-2015 (artikel 3.8.5).

During the first year (block 3) a new group of students will start the honours programme.

3.1 The application procedure

The HP board, which is also the admission committee, will invite the students that, according to their study results, belong to the top 10%. Students that were suggested by their tutor or student network will also be contacted. Other students that believe that they also belong to the top 10% will also explicitly be invited to apply. The application should contain the following pieces, preferably in one document:

- A letter of motivation (which includes any planned holiday's)
- A résumé
- A self reflection from the portfolio
- A letter of reference from a tutor or mentor
- Grades, with the grade average
- One or two educational products of choice, such as a presentation or paper

Students will have to apply before the end of February after which the intake interviews will start with the members of the HP board. A message about admission will follow in March.

For application and further information students can contact dr. Tina Vermonden (T.Vermonden@uu.nl)

3.2 Progression into the 2nd and 3rd year of HP

Every year will end with signing off of the HP ECTS (as judged by the HP board) and every year the HP student will reapply to the program. The HP will stop at the end of the third year. If the requirements are met, the honours certificate will be given during the bachelor ceremony.

Students will be removed from the program after a year if they:

- have not re-applied for the program
- completed more than one course with more than one attempt
- do not have a grade average of a 7.5
- have not actively participated in extra-curricular activities

The HP board will decide about removal from the program and will take into account any special personal circumstances that were notified to the board by the students as soon as reasonably possible.

In the next paragraphs, the Honours Program Pharmaceutical Sciences will be described in more detail.

4. Honours courses

The honours students will have the option to exchange some of the courses within the regular curriculum by honours-level courses. The course options consist of CPS courses, but also multi-disciplinary honours-level courses such as "One Health" and "Pharmaceutical Biotechnology". These courses will be taught in English.

Besides, there will be an option to add an (extra) advanced component to some of the courses in the regular program. The teacher of each individual course will decide whether this honours assignment will be individual or group work, which can also depend on the number of students that is interested. For each course the honours assignment will correspond to workload of 40 hours (1,5 ECTS).

A honours student that wishes to make an honours assignment in one of the courses in which the student is enrolled will first contact the lecturer, not later than half way through the course, but preferably before the start of the course. The lecturer will describe an assignment along the lines indicated on the next page. If the student chooses to accept the assignment, or designs an alternative one in cooperation with the teacher, the student will start and hand the assignment in not later than on the day of the final exam.

The honours assignment will be evaluated with a grade. This grade, however, will not add to the grade of the regular course in which the assignment was made. The final grade of the regular course will be determined similar as for regular students. However, if the assignment is completed and accepted by the lecturer, the course will be assigned with an honours label.

After completion of the assignment, both the assignment and the final evaluation form will be electronically delivered by the lecturer to the honours coordinator, with a cc to the student and director of education.

5. Honours thesis

5.1 Action plan

1. At the end of the first year and after having become acquainted with the different research groups, the student will choose a research group and will be assigned a main supervisor (senior staff member). During the second year the student will attend the research meetings and interview researchers of the chosen research group, so that subsequently the student can make a considered choice on the thesis' subject.
2. A contract containing information about the examiner and agreements on the work and activities will be composed together with the main supervisor. It is not necessary for the examiner to be involved in the daily supervision. Both the supervisor and the examiner are permanent staff members of the UU or the examiner is a postdoctoral associate at a company involved with the thesis. The contract will be signed and handed in at Studiepunt Pharmaceutical Sciences and the honours coordinator (t.vermonden@uu.nl).
3. In the beginning of the third year, the student will write a research proposal according to the **open competition of NWO-CW** (the application form can be obtained through the honours coordinator).
4. In November/December the research proposal will be defended orally. This will take place in the presence of the main supervisor, the examiner, the honours coordinator and the other honours students.
5. Later in the third year, possibly in period 4, the student will be given ten weeks to carry out the research project. In the meantime the student will be able to prepare the for research project, for example by doing a pilot or literature study.
6. Based on the results of the research project the student will write a scientific article and a detailed report for internal use. (The scientific article does not necessarily need to be submitted to a professional journal for publication.)
7. The honours thesis will be defended in front of a panel of professors in the presence of the honours coordinator and all honours students. The defence will consist of a 15 minute-presentation followed by a discussion based on the presentation and the written report. The student will set the date of the defence far in advance in corporation with his/her supervisor.
8. The final assessment of the honours thesis will be signed by both the supervisor and examiner and will be sent to Studiepunt Pharmaceutical Sciences and the honours coordinator (t.vermonden@uu.nl).

6. The Honours Academy (interdisciplinary activities)

The Honours Academy is formed by all honours students of the beta faculty. The Honours Academy is an interdisciplinary community of honours students from the departments of physics and astronomy, maths, informatics, biology, chemistry and pharmaceutical sciences.

The Interdisciplinary Honours Program is coordinated by Dr. Filipe Freire (f.freire@uu.nl). The coordinator of the Honours Programme on Pharmaceutical Sciences is responsible for informing him on the participating students. The administration of fulfilment of the requirements regarding attendance and active participation of each student is managed by Dr. Freire.

The activities of the Honours Academy consist of interdisciplinary symposia, workshops and excursions abroad. Subjects that are addressed fall outside the regular curriculum. All activities take place in English.

Each year an excursion to one of many Europe's leading institutes is organized. For each student only one excursion abroad is subsidised due to budgetary reasons. It is up to the student to deliberate with the teachers of whom he/she will be missing classes the week the excursion takes place.

At the beginning of the academic year the exact program of the Honours Academy is still unknown. This is because all activities are organised by the students themselves. In addition the honours students are responsible for keeping a website (www.uu.nl/sciencehonours) with all the latest information.

7. Long-term projects

The honours student will spend at least 210 hours (7.5 ECTS) on a long-term projects. These projects will be supervised by a tutor/supervisor and can be done both individually or in a group.

Before the honours student starts an activity, he/she needs to fill in an application form in order to receive approval from the board. For each activity the honours student should at least have a project plan and an evident final product. The project is then credited with ECTS by the examiner.

Examples of additional activities are short research projects, writing articles, preparing readings and lectures, review books and articles, organise congresses and seminars and attend PhD and master (post-graduate) courses. Furthermore other interesting projects may be offered to the honours students as many professors also work in industry, management or hospital.

All students are expected to attend UU and UIPS seminars. Summaries of these seminars should be collected in a portfolio (1/2 A4 for each seminar; 1 ECTS for 5 seminars; maximum of 5 ECTS in total). Approximately once every two months the honours students organize a HP meeting. In addition at the end of each academic year a closing event is organized. All activities are in English.

8. Contact Information

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Appendix 1

The lecturers will be asked to disclose the following information in the description of their assignment:

Teacher(s)	
Course, block, year	
Content description	
Mode of the assignment (self-study, individual or in a group, preliminary meetings, option for feedback half-way through, discussion, written report..)	
Intended learning objectives	
Criteria on which the student will be judged	The student can propose its own criteria when he/she desires to practice with certain academic or personal skills
Name/names student(s) and student number(s)	

Extra instructions for the teacher(s)

- The assignment will consist of advanced educational materials for honours students: teaching materials and assignment, offered for self-study. The requirement goes further than what can be expected of the average Pharmaceutical Sciences student. The assignment will discuss a topic that does not match the normal curriculum in the same manner, not even further along in the study. There is no room for the topic in the normal curriculum.
- Given the capacities of Honours students, the assignment for example can contain a difficult mathematical component or can combine all the information that is provided separately during the course in a synthesis project.
- The students can be asked, through a somehow open assignment, to structure their own work and to fulfil it from a creative angle.
- Also see the memo "Advanced honours assignments in a course", Hanne ten Berge, 18 juni 2013.