



## Honors Program Manual – Physics and Astronomy 2018-2019

This manual describes the content and organization of the Honors program of the Bachelor's program in Physics and Astronomy at Utrecht University (UU). The intended readers are:

- The honors students,
- 1<sup>st</sup> year students who would like to join the Honors Program
- Lecturers involved with the Honors Program

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# I. General Objectives and Scope

## General Objectives of the Honors Program

At Utrecht University (UU) the Honors Programs are being developed at the level of the different faculties and departments. The following objectives of the Utrecht honors education are mentioned in the policy memorandum "Honors Colleges at the UU" (16 May 2012, M. Bok, A Koster and R. van der Vaart):

- Provide the best students with extra challenges
- Provide a better starting position for further education and the labor market
- Be a growth center for excellent teachers, researchers and academic professionals
- Be an experimental space for education, so that new ideas can penetrate existing education
- Strengthen the position of UU as a leading research university, which can attract talent (teachers and students) from the Netherlands and abroad

As soon as the honors program has been successfully completed, a separate certificate will be issued on which this achievement is stated.

## Size of the Physics and Astronomy Honors Program

The regular Bachelor's degree in Physics and Astronomy is 180 EC (points according to the European Credit Transfer System)<sup>1</sup>. The Physics and Astronomy Honors Program comprises 45 EC: 15 EC extracurricular and 30 EC within the bachelor.

- 7.5 extracurricular EC are awarded on the basis of successful participation in the various interdisciplinary honors activities, including the Science Honors Academy.
- 7.5 extracurricular EC are awarded by participating in Trends in de Fysica (5-7 lab visits and group literature reading).
- Between 0 and 15 EC can be awarded for courses taken at the UU-wide Descartes College.
- A maximum 30 EC are awarded for completing the bachelor thesis (BONZ) of the third year at honors level. This means that the student has to provide more input and perform more research than what would typically be required.

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<sup>1</sup> 1 EC corresponds to 28 hours of study time, including contact hours.

## II. Admission and Transfer to subsequent years

The rules of the Honors Program are laid down in the Course Examination Regulations (OER 2018-2019 - article 3.9).

Entry to the Honors Program is possible in study year 1, before period 4.

Admission to the Honors Program and transfer to it is based on a selection of a student by the honors coordinators. The student can show his or her interest at any time.

### Admission to the Honors Program

- At any time in year 1 (before period 4), the student can apply for admission to the Honors Program by sending a short motivation letter to the respective coordinator.
- Students who are in the top 10% of their class or have an average grade of 7.5 after period 2 are approached to apply for a place in the Honors Program during period 3.
- Students can also be contacted to apply based on the tutor's recommendation.
- The honors coordinators decide upon the admission of the student to the Honors Program.

### Transfer to years 2 and 3 within the Honors Program

Students who still meet the requirements of the Honors Program after the end of academic year 1 are invited for the subsequent part program of the Honors Program.

Students can be removed from the Honors Program after an academic year if they:

- have not obtained more than one subject in the relevant academic year, or
- have not achieved an average grade of at least 7.0, or
- have not actively participated in the (extra-) curricular activities.

The education director decides on the removal, following consultation with the Honors coordinator, and in his/her opinion includes any special personal circumstances that the student has reported to him as soon as can be reasonably expected.

### **Individual conversation**

Students have a personal conversation with one or both the honors coordinators every six months regarding the student's current progress as well as regarding the topics that the student will pay extra attention in the coming six months.

### III. Science Honours Academy

All honors students from the Science Faculty together form the Science Honors Academy. This is the interdisciplinary community of honors students from the departments of Biology, Pharmacy, Computing and Information Science, Physics and Astronomy, Chemistry and Mathematics.

The Science Honors Academy is coordinated by dr. M. Löffler ([M.loffler@uu.nl](mailto:M.loffler@uu.nl)). The coordinator of the Honors Program of Physics and Astronomy inform dr. Löffler about which students are participants. There is a minimum obligation of active participation that must be agreed with dr. Löffler. See also: <http://sciencehonours.sites.uu.nl/>

The activities consist of interdisciplinary symposia, projects, workshops and excursions. The topics that are covered are outside the regular curriculum. The language of instruction is English.

Every year an educational trip abroad is organized. Participation in one such trip during the bachelor's program is compulsory. Only one trip abroad per student is subsidized by the Honors Academy. The student must consult with the coordinators of the courses the education of which he/she will miss during the trip's week. The dean will indicate in a letter that he/she will support this trip.

At the beginning of the academic year, the program of the Science Honors Academy is not yet fixed, since it is the students who organize the activities themselves. For and by the participants of the Science Honors Academy, a website with up-to-date information is kept.

## IV. Study year 1

The honours programme within Physics and Astronomy starts in Period 4 of Year 1 with an introductory meeting where the planning for the lab visits (Trends in de Fysica) is done. Students may also already start with the interdisciplinary programme of the Science Honours Academy.

## V. Study Year 2

In addition to the student's participation in the Science Honors Academy, academic year 2 of the Honors Program consists of active participation in the course Trends in de Fysica, which is only open to Physics and Astronomy Honours students. The course consists of a series of 5-7 lab visits to lab facilities both in Utrecht and at physics departments at other Dutch universities. The schedule of the lab visits will be planned in discussion between the Honours coordinator and the students.

Each lab visit consists of

- A preparatory meeting where all students read an introductory scientific paper about the type of experiments done in the lab that will be visited. Two students present the paper to the rest of the group, who all actively participate in the discussion of the paper.
- A guided tour at the lab facility by a member of staff
- A wrap-up meeting, where all students read a more advanced scientific paper about the results of the experiments done in the lab. Two students (different from the ones presenting the introductory paper) present the paper to the rest of the group, who all actively participate in the discussion of the paper.

## VI. Study Year 3

In Year 3, the students conduct a Bachelor thesis project at Honours level, with a maximum of 30 EC (depending on the number of courses taken at the Descartes College, see below).

## VII. Following courses with the Descartes College

Students can follow courses offered by the Descartes College. Successful completion of one or two of these courses means that the number of EC for the BONZ thesis at Honours level is reduced to 22.5 EC or 15 EC.

## VIII. Distribution of ECTS of the Physics and Astronomy Honors Program

**Tabel 1: ECTS distribution**

Honors Program part	Description	ECTS	
Interdisciplinary activities Science Honors Academy (SHA)	Symposia, workshops and excursions for 2 years plus interdisciplinary assignment	7,5	Extra-curricular
Trends in de Fysica (lab visits)	Performed at Honors Level	7,5	Major
Final research project (BONZ)	Performed at Honors Level	15-30	Major
Descartes College	Performed at Honours level	<15	Profileringruimte
	<b>Total</b>	<b>45</b>	

## IX. Contact Details

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- **Coordinators of the Honors program – Physics and Astronomy**

Erik van Sebille ([E.vanSebille@uu.nl](mailto:E.vanSebille@uu.nl))

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- **Coordinator of the honors interdisciplinary events (Science Honors Academy)**

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