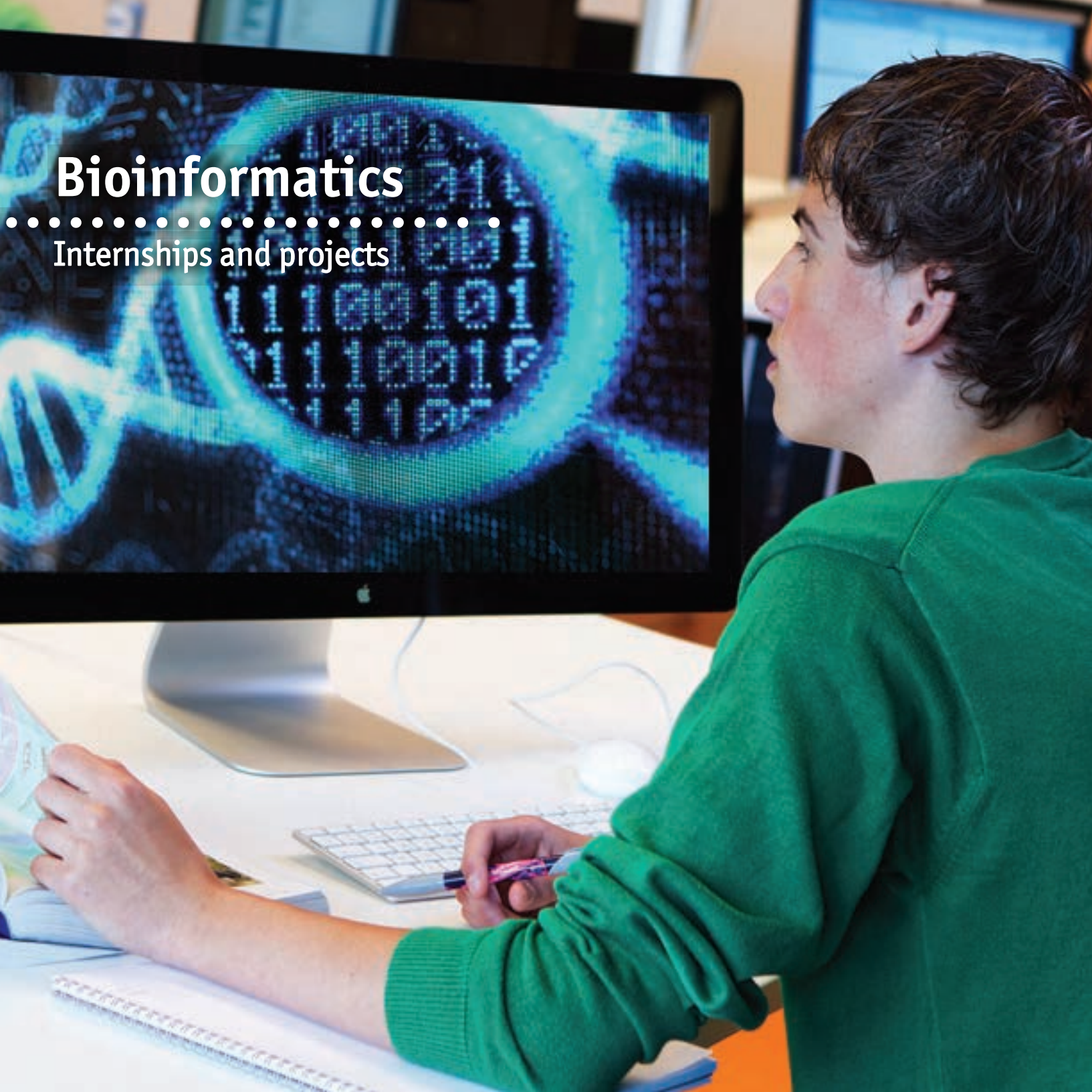


Bioinformatics

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Internships and projects



Working, learning & exploring together

Are you looking for internship students in the field of bioinformatics? We strive to continuously improve our bachelor program to stay connected to the continuously changing professional field. Completing practical assignments and internships play an important role in this. Do you work in an academic medical center, the pharmaceutical, biotechnology, food or plant breeding industry? Are there issues or projects with big-data and a biological component within your organization that your employees don't get around to? Then offer our students the opportunity to take a fresh look at this!

In the 3rd and 4th academic year of the Bioinformatics program, there are various possibilities to work with our students either individually or in groups. This can be for a short or longer period ranging from 5 weeks to a maximum of 40 weeks.

Group project Data Analysis

- **Study year:** 3
- **Description:** Practical assignment regarding the processing and analysis of data in the field of genomics, transcriptomics, proteomics or metabolomics. The practical assignment comes from an external client who works at a company or research institution.
- **Period:** Period 1 and 2 (week 33 until 5) or Period 3 and 4 (week 6 until 28)
- **Duration assignment:** Ca. 1 day a week for 20 weeks
- **Individual or group assignment:** Group of 3-5 students
- **Remuneration:** None
- **European Credits (EC):** 8

Individual internship minor

- **Study year:** 3
- **Description:** It is preferred that the internship contains an informatics as well as a biological component linked to a biological research question. During this assignment, the student will be confronted with all aspects of the professional field and will know how to handle these in a professional manner.
- **Period:** Anytime during the academic year
- **Duration assignment:** 20 weeks or 10 weeks
- **Individual or group assignment:** Individual
- **Remuneration:** Allowed
- **European Credits (EC):** 30 or 15

Group project Systems Biology

- **Study year:** 3
- **Description:** External group assignment related to Systems Biology. The group assignment is part of the Systems Biology minor.
- **Period:** Period 4 (week 17 until 28)
- **Duration assignment:** 6-7 weeks
- **Individual or group assignment:** Group of 3-5 students
- **Remuneration:** None
- **European Credits (EC):** 10

Group project Informatics

- **Study year:** 3
- **Description:** External group assignment in application development.
- **Period:** Period 4 (week 17 until 28)
- **Duration assignment:** 6-7 weeks
- **Individual or group assignment:** Group of 3-5 students
- **Remuneration:** None
- **European Credits (EC):** 10

Individual graduate internship

- **Study year:** 4
- **Description:** During the graduate internship the student works on their graduation assignment under the supervision of an HBO or WO-certified professional. The graduation assignment must contain an informatics and a biological component linked to a biological research question. During this assignment the student will be confronted with all aspects of the professional field and will know how to handle these in a professional manner. The graduate internship cannot be completed at the same organization or company as the short-term internship.
- **Period:** Anytime during the academic year as well as the summer holiday (entire calendar year)
- **Duration assignment:** 40 weeks
- **Individual or group assignment:** Individual
- **Remuneration:** Allowed
- **European Credits (EC):** 59

Short-term individual internship

- **Study year:** 3
- **Description:** The student independently works on a short-term bioinformatics project at an organization or company. It is preferred that the internship assignment contains a computer science component and is part of a biological study and/or business process. This assignment cannot be carried out at the same organization or company as the student's graduate internship. The assignment may be carried out part-time under the condition that the student is present at the organization or company of its internship for 1 full day per week (for 20 weeks). In consultation with the organization/company the student may partly work from home.
- **Period:** Anytime during the academic year
- **Duration assignment:** 25 days (5 weeks fulltime or parttime divided over a longer time period)
- **Individual or group assignment:** Individual
- **Remuneration:** None
- **European Credits (EC):** 8

'Impact on our R&D and workflow efficiency'

Research scientist Kris van der Gaag, Netherlands Forensic Institute (NFI) regularly works with graduate interns from the Bioinformatics program. "At the end of 2019, I obtained my PhD for the development, application and validation of the Massively Parallel Sequencing (MPS) research method in forensic investigation. This method can extract even more information from DNA than regular sequencing methods. At the NFI, we have been able to further develop the MPS software for case work with the help of bioinformatics students and we have also been able to make an enormous efficiency improvement in the regular workflow".

"A large part of the internship work of the Bioinformatics students at the NFI is centered on programming. Although some students are more certain about their programming skills than others, the basic knowledge of the students I have experienced is always up to par.

The biological component in bioinformatics provides added value because the students already have a background in our field. I like working with students from Leiden University of Applied Sciences because they work well independently and are generally quite practical. The guidance that students need manifests itself mainly on adopting the right professional attitude. How do you work well together? How should you communicate with each other? How do you ensure that you fit within the company culture? In short, learning to work in a professional organization. Exactly what an internship is intended for".

Opportunities?

Do you have an interesting internship or graduation assignment for one of our students within your company or organization? Please send an e-mail to our internship coordinator:

stage.BI@hsleiden.nl

More information about the Bioinformatics bachelor program can be found on our website: www.hsleiden.nl/bio-informatica-bachelor

