

Projects, Internship and Professional Assignments

Applied Biology



Working with Applied Biology students from HAS University of Applied Sciences

HAS University of Applied Sciences is one of the Netherlands' leading higher education training and expertise centres for the agricultural, food and green development sectors, with campuses in 's-Hertogenbosch and Venlo.

Apply our experience and expertise to resolve your business problem

At HAS University of Applied Sciences, we have a strong marketing ethic and close business ties. For years, our experience and expertise have helped resolve dilemmas in organisations across the sectors we serve.

Does your company have a burning question that needs solving within a pre-set timeframe? HAS undergraduates can help!

Win-win

We aim to give our students as much practical experience in their field as possible, and a real taste of the business in which they aim to work. Working on your project helps the students to gain additional hands-on experience while at the same time sharing their recently acquired skills and knowledge of the latest insight in the sector.

1½ years' practical internship

From the start of their training HAS students work on practical assignments through various excursions and company visits. In their third year, students go on 2 longer internships totalling 30 to 40 weeks. Either or both of these internships takes place outside of the Netherlands. In the fourth year HAS students graduate after submitting a professional assignment which they work on for 20 weeks.

The professional assignment involves a team of students, supervised by teaching staff and advisers working on a specific issue or problem for an organisation. By the time they graduate, our students will have spent around 1½ years in the field.

Practical passion for their chosen field

At the HAS University of Applied Sciences, 3,800 full-time students follow 16 courses. Our small-scale university is characterised by the practical passion of our students and staff for their profession. It is this passion, combined with the valuable practical skills and talents acquired and developed at HAS, that enables our students to tackle real-life problems.

We pride ourselves on how we train and educate our students in the fundamental principles of:

- Creating value
- Sustainability
- Entrepreneurship
- Internationalisation
- Talent-based learning



Courses at Den Bosch campus

- Animal Husbandry & Animal Care
- Applied Biology
- Business Administration & Agri-foodbusiness
- Environmental Innovation
- Food Innovation
- Food Technology
- Geo Media & Design
- Horticulture & Arable Farming
- ✦ Horticulture & Business Management
- ✦ International Food & Agribusiness
- Spatial and Environmental Planning

Courses at Venlo campus

- Applied Biology
- Business Administration & Agri-foodbusiness
- ✦ Business Management in Agriculture & Food
- Food Innovation
- Healthy Living

Applied Biology

Applied Biology is the first Dutch Bachelor course that focuses on the organism and population levels of plants, animals, ecology and food. From their first year, students are trained for roles in fundamental and applied research and consultancy. In their final year, they specialise in their chosen field of plants, animals, ecology or food. Our students go on to a career in a variety of professions, for example in applied research or consultancy, as a junior breeder, biological control consultant, animal nutritionist, quality manager – nutrition, animal welfare researcher or ecology consultant. They work for companies, research institutes, universities and governmental organisations, such as the water boards and provincial authorities.

The Applied Biology curriculum focuses on acquiring and applying knowledge in practice. Weeks of practicals, guest speakers, field trips, internships, projects and company assignments safeguard the link with the profession in practice. Exchange of knowledge between the HAS

University of Applied Science, the student and the profession is a key aspect of the Applied Biology study programme. The programme tutors all have PhDs and are specialists in applied research in a variety of disciplines.

Year	Term 1	Term 2
1	Introduction: Ecology, Adaptation, Life Cycle, Animal Behaviour & Animal Health, Communication, Chemistry, Maths, Excel, GIS, Statistics, Research Skills	BioXperience
2	including: Microbiology, Tissue Culture, Animal Breeding, Plant Breeding, Biotechnology, Modelling & GIS, Ecohydrology, Aquatic Ecology Year Project: Research & Consultancy Skills, Statistics, Economics and English	
3	Research Internship in the Netherlands	Research Internship Abroad
4	Specialisation: Applied Animal Sciences, Applied Plant Research, High Tech Agrosystems, Food, Applied Ecology	Professional Assignment



External projects:

- 1st year EcoXperience: a monitoring project in groups lasting 20 weeks (1 day a week)
- 2nd year A project over the whole year in which groups of students carry out qualitative and quantitative research as trainees in a company (1 day a week)
- 3rd year 2 x 20 weeks of individual research internships, one of which must take place outside of the Netherlands
- 4th year An in-depth professional assignment of 30 weeks in groups

BioXperience

In their first year, Applied Biology students work on a real-life project under the supervision of lecturers from the university called the 'BioXperience'. The BioXperience focuses on monitoring and surveying nature in companies, research institutes, universities or governmental institutions.

What can you expect from an EcoXperience project?

The aim of an BioXperience project is for students to gain experience in surveying nature. Students collect data, for example on plants, animals, nature or the food sector, and write a report. Students, working for you on an assignment during the BioXperience period, will approach you for an interview. This will include details of the organisation you work for and your role within it as well as the field you are involved in. You may agree with the students what it is you would like monitoring. You are also invited to attend the students' poster presentations and you will receive a final report containing their findings. BioXperience starts in February and ends in July each year.



What will your organisation get from an BioXperience project?

Organisations can expect a student with a positive and motivated attitude. Your student will also have an inquisitive mind towards both your organisation and the sector in which you operate and will be indispensable. Some of our mature students already have considerable work experience before they join the course. As far as the other students are concerned, what they lack in experience they more than make up for in enthusiasm and energy. All our students benefit from the latest expertise in Applied Biology and may even bring you new insights and tips.

Prerequisites for EcoXperience

- Students are given a specific monitoring/ observation assignment
- They have the opportunity to interview the client on-site
- The client gives the students a guided tour, so that they can familiarise themselves with the business
- Students have access to the area and/or the objects being researched
- The client is available for the students via email or phone once or twice during the EcoXperience
- The client receives a final report containing the students' findings



Year Project

During the second year, student work on real life project for a real life client. During this project students learn to carry out research in one of the specialist areas of Plants, Animals, Ecology or Food. The project covers all the phases of research: from formulating a problem to presenting a report.



The Year Projects are carried out in collaboration with institutions or companies at the HAS and on-site. The university lecturers are responsible supervising the project educationally and in terms of content. As a client, you will also be involved in the monitoring the content of the work being carried out. The students conduct research for you and will also report to you. You are also invited to attend the students' presentations and you will receive a final report containing their findings. The Year Project starts in September and ends in July.

Prerequisites for Research Internships

- Students are given a specific assignment
- Students have the opportunity to interview the client on site to get a clear picture of the problem
- The client provides the students with written background information
- Students have access to the area and/or research objects
- The client is available for the students via email or phone 3 or 4 times during the course of the project
- The client receives a final report containing the findings of the students and will discuss their feedback with the students



Research Internship

The BioXperience and the Year Project are designed to give students a broad introduction to a company and the sector. The research internship, on the other hand, focuses on deepening the students' knowledge. In their third year, students actively apply the theo-retical knowledge of Applied Biology, gained within the first two years, in practice during 2 individual research internships.

What can you expect from a research student?
The two research internships each last 12-20 weeks. One of them must take place abroad. Research internships form an important part of the skills the students will later bring to their chosen profession and provide them with a unique opportunity for personal growth. During the internship period, students are required to carry out one or more in-depth degree-level assignments independently. In addition, they will gain a clear view of the different aspects of your company. Students are required to write a detailed report on the work they do.

What will your organisation get from the internship?
Whilst working on the project, the intern is also available for part of the time, to carry out day-to-day activities within the department where the internship is taking place, provided these are suitable for the academic level of an undergraduate. The focus, however, is on working on assignments, such as:

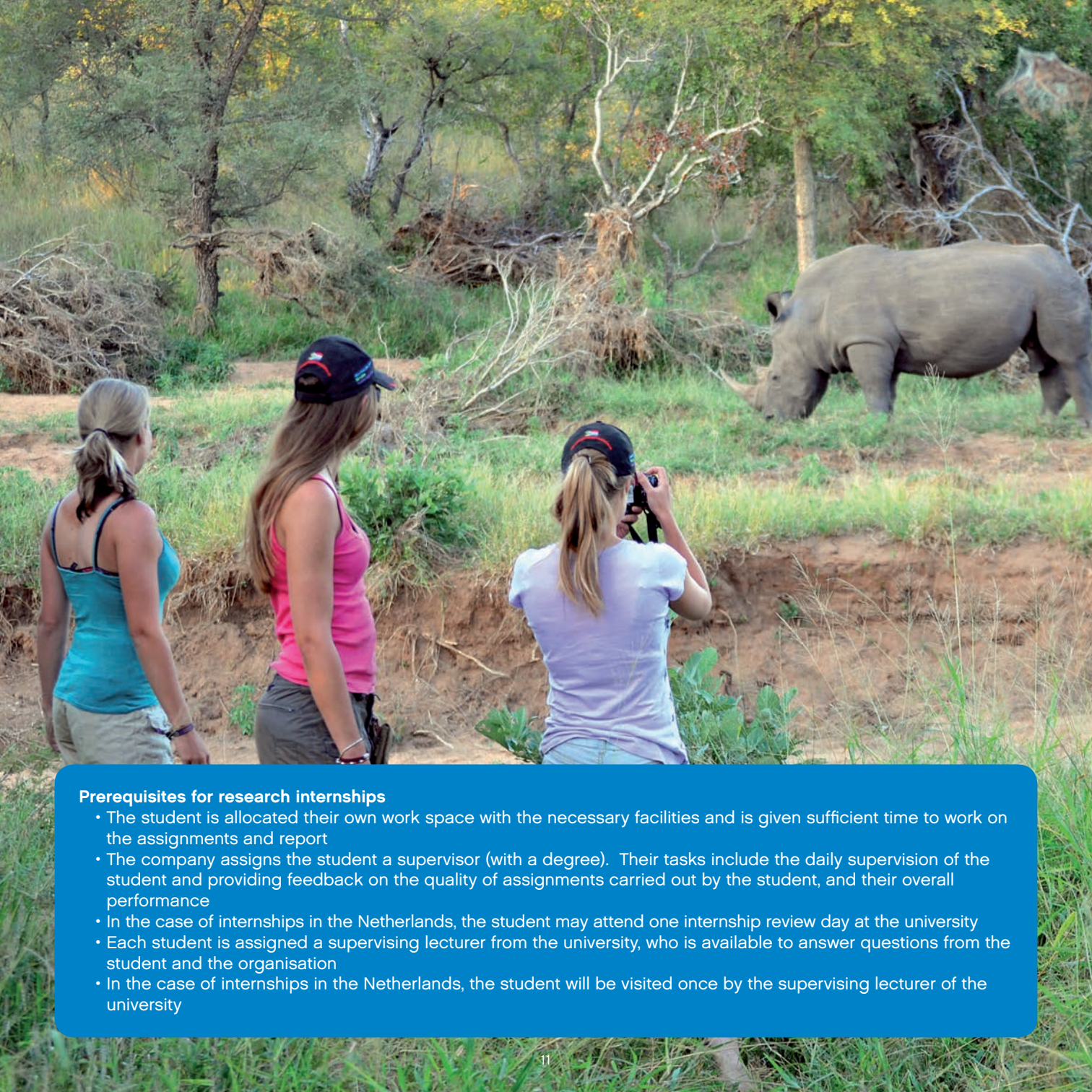
- Writing a research proposal
- Conditing individual experiments
- Analysing (big) data sets
- Writing a report including recommendations

Students are only allowed carry out a research internship, once they have successfully completed a significant part of their studies. Organisations offering research internships can expect a student with a positive and motivated attitude, eager to be an active member of the team and able to pull

their weight, thanks to other experience they have acquired in the field of Applied Biology, for example through project work.

The student and their supervising lecturer draw up an internship plan, including learning objectives before coming to a formal agreement with the company.

Supervision
During their internship students have a company supervisor and a supervising lecturer from the university, who, if possible, teaches in the same field as the internship. The latter acts as the student's coach during the preparation phase leading up to the internship and has regular contact with the student during their time with you. The supervising lecturer plays a minor role during the actual internship, but is always available to answer queries from both the student and the host company. The company supervisor is the student's contact person during the intern-ship and ensures students have ample opportunity to familiarise themselves with the business. There is a skype meeting around the middle of the internship. He assesses the student's reports and the internship process. The content of the reports is intended for assessment only. They will not be used for any other purpose. Therefore also projects bound by confidentiality provisions can be used. The company supervisor must be a graduate and is expected to assess the internship. This grade forms part of the student's final mark given by the lecturer.



- Prerequisites for research internships**
- The student is allocated their own work space with the necessary facilities and is given sufficient time to work on the assignments and report
 - The company assigns the student a supervisor (with a degree). Their tasks include the daily supervision of the student and providing feedback on the quality of assignments carried out by the student, and their overall performance
 - In the case of internships in the Netherlands, the student may attend one internship review day at the university
 - Each student is assigned a supervising lecturer from the university, who is available to answer questions from the student and the organisation
 - In the case of internships in the Netherlands, the student will be visited once by the supervising lecturer of the university

Professional Assignment

Do you need research to be carried out? Or are you looking for advice on a specific issue? A professional assignment could be the answer. Students at the HAS University of Applied Sciences graduate after completing a professional assignment. This assignment has a different structure to a internship and is related to the specialist domain chosen by students, who carry out the assignment as a team under the supervision of a project leader from the university or an employee of HAS Training & Consultancy.

HAS Training & Consultancy

Each year businesses and other organisations approach the HAS University of Applied Sciences with more than a thousand queries of all sizes and topics, including nutrition, agribusiness, the environment, green development, crops and animal production. The scope and complexity of these queries vary from a internship of a couple of weeks to extensive research, and from a market analysis, to the development of an innovative technological application. The majority of the assignments are carried out under the auspices of the HAS Training & Consultancy.

What can you expect from final year Applied Biology students?

Final year students are able to demonstrate that they are ready for the employment market in professional surroundings. With 40-weeks internship experience, they operate as young professionals within an assignment team. You can expect an independent, decisive attitude. The students are assessed on their expertise, professionalism and performance within the team. The assignment approach, goals and results are laid down in a contract before the project starts. HAS University of Applied Sciences organises, coordinates and is responsible for the realisation of this contract. We also guarantee the confidentiality of

the assignment, the information discovered and the results. The members of the assignment team are obliged to sign a confidentiality agreement.

What will your organisation get from the assignment?

As a client, you can expect results of the assignment to be based on all the necessary professional input in terms of expertise and time. Moreover, by choosing to work with tomorrow's professionals, you benefit from excellent value for money. HAS University has excellent research facilities, which are at the student's disposal during the professional assignment period.

Supervision

During the assignments the students are professionally supervised by experts. These consultants and lecturers are chosen for their knowledge of the sector and their focus on achieving results. Each team of final year students is supervised by a project manager (a lecturer or consultant from the university). Together with the students they analyse the problem and come up with potential solutions. The project manager is the first point of contact for you as the client and is responsible for the overall performance of the team. The project manager also assesses both the students' performance and their results.



Prerequisites for professional assignments

- The assignment should be suitable to the students level in terms of quality, so that the student gets the opportunity to gain the right amount of theoretical and practical knowledge
- For assignments based on-site, a suitable working environment should be provided
- We enter into contractual results-based commitment within the scope of the assignment, for this the students must be given the space and support to apply their skills and knowledge to your business
- Due to other study commitments related to competence development, students are only available to work on the assignment for 1 day a week during the first 10 weeks. The other 20 weeks the student will be working fulltime on the professional assignment

Discover how Applied Biology students can help your organisation

Interested?

When working together with business, we always strive towards creating a win-win situation. If you're curious to find out if our Applied Biology students could do something to help your company and if you're able to offer them a great opportunity to learn, then please contact us.

Cooperation possibilities

- Are you able to offer an internship placement?
- Do you have a current research question or defined problem that our students may be able to take on in the form of a professional assignment?
- Are willing to open your doors for excursions or company visits?
- Would you be willing to give a guest lecture?
- Are interested in the BioXperience or the Year Project

The Applied Biology study programme is taught at both our locations: in 's-Hertogenbosch and Venlo. Here are the details of who to contact for more information:

's-Hertogenbosch

Carly Verhagen
T +31 (0)88 890 3632
E C.Verhagen@has.nl

Venlo

Ryanne Wijnhoven
T +31 (0)88 890 3078
E ry.wijnhoven@has.nl

Professional Assignment

For more information about the Professional Assignments carried out by our 4th year students, please contact HAS Training and Consultancy. We would be happy to visit you to discuss the various options. We can then assess the level of the issue you want to address and advise you on the best approach.

HAS Training and Consultancy

T +31 (0)88 900 3637
E askennistransfer@has.nl



Contact details

HAS University of Applied Sciences
PO Box 90108
5200 MA 's-Hertogenbosch
The Netherlands
T +31 (0)88 890 3600
E has@has.nl
www.has.nl/en

Visit us at

The HAS 's-Hertogenbosch campus
Onderwijsboulevard 221
5223 DE 's-Hertogenbosch
The Netherlands

The HAS Venlo campus

Spoorstraat 62
5911 KJ Venlo
The Netherlands





Password:
Analytical

*Applying
analytical
skills
in practice*

September 2019

has
university
of applied sciences