

Hochschule Weihenstephan-Triesdorf University of Applied Sciences

Horticulture – production, commerce, services (Bachelor's)

AT A GLANCE

Academic qualification	Bachelor of Science (B.Sc.)
Duration of studies	7 semesters
Language of instruction	German (proof of proficiency is required)
Location	Weihenstephan
Programme start date	Winter semester
Admission restrictions	No

COURSE CONTENT

Course content of the Horticulture programme

In the core programme (first to third semester) you will study **introduction to Natural Science**. Knowledge of mathematics and physics is essential, for example if you want to calculate the size of a heating system, and you also need a good understanding of chemistry, e.g. regarding the miscibility of liquid fertilisers. From the first semester onwards, you also gain insights into the **horticultural sectors**: Arboretum, vegetable gardening, fruit production, perennials nursery and ornamental plant cultivation.

From the fourth semester, you can pursue your individual interests and career goals. There are two specialisation options for you to choose from:

1. Production Horticulture

Are you interested in a career working with plants and/or healthy fruit and vegetables, plant nutrition, sustainable plant protection, cultivation etc. that is more than just a desk job? Do you want to work in cultivated areas and horticultural production or manufacturing companies?

If so, then the 'Production Horticulture' specialisation is the right choice for you!

2. Commerce and Services in Horticulture

Are you interested in management, marketing or retail and enthusiastic about tasteful horticultural products? Would you like to become a global player or regional specialist, source the best products in your role as quality manager or harness your talent for sales in the commercial and service sector?

If so, then the 'Commerce and Services in Horticulture' specialisation is the right choice for you!

Within these specialisation options you can choose from a variety of modules according to your individual preferences. The specialisation section of the course is supplemented by the practical training semester (sixth semester).



COURSE STRUCTURE

Course structure in the Horticulture programme

The compulsory modules specified in the Study and Examination Regulations (SPO) must be attended by all students. In addition, a specified minimum number of required elective modules must be completed that allow students to deepen their industry expertise and skills according to their personal interests and goals.

1st semester

Botany I
Physical and agrometeorological basics
Chemical basics
Bio- and economic mathematics
Technical basics
Basics of plant production

2nd semester

Botany II
Basics of Experimentation
Operation and market
Basics of scientific communication
Soil science
Basics of fruit growing and nursery production

3rd semester

Plant Protection I
Marketing and commercial management
Technology in Horticulture

Basics of plant nutrition
Basics of digitalisation
Basics of ornamental plants and vegetables

4th semester

Specialisation in 'Production Horticulture'

Compulsory modules 'Pflanzenschutz II' and 'Betriebslehre Produktion', one compulsory module of choice and three subject-specific required elective modules.

Compulsory modules of choice:

Nursery crops
Vegetables from protected cultivation
Production methods in fruit growing
Ornamental plant cultures

Specialisation in 'Commerce and Services'

Compulsory modules 'Pflanzenschutz II' and 'Betriebslehre Produktion', one compulsory module of choice and three subject-specific required elective modules.

Compulsory modules of choice:

Herbaceous perennials
Object greening

5th semester:

Specialisation in 'Production Horticulture'

Compulsory module 'Düngestrategien und Kultursubstrate', one compulsory module of choice and four subject-specific required elective modules

Compulsory modules of choice:

Special Nursery Science
Vegetable Growing in the Open
Special Fruit Growing
Special Ornamental Plant Cultivation

Specialisation in 'Commerce and Services'

Compulsory module 'Düngestrategien und Kultursubstrate', one compulsory module of choice and four subject-specific required elective modules

Compulsory modules of choice:

Arboriculture
Garden Design
Logistics and Supply Chain
Storage and Preparation of Horticultural Products
Quality Management

6th semester

Practical training semester

7th semester

Four subject-specific required elective modules and the bachelor's thesis

Subject-specific required elective modules

Additional subject-specific required elective modules to follow. This list will be updated at the start of the semester.

Vocational and occupational pedagogy (in horticulture)
Business and enterprise development
Experimental work
Cemetery horticulture
Fruit and vegetable technology
Herbs, spices and mushrooms
Human Resources and Labour Economics
Production management
Special aspects of plant nutrition
Special plant propagation: plant in vitro cultures and seed production
Special plant protection
Greenhouse technology
Advice and public relations
Horticultural plant breeding and basics of plant biotechnology
Design and layout
Basics of business management
Ecological Horticulture and Environmental Protection
Sustainability in Horticulture
Tropical Horticulture
Process Engineering Outdoor

Courses in English

Project Work in Horticulture Research

You will work on a subarea of a current research project and produce an English-language report (scope of study and the ECTS points attainable are agreed on an individual basis).

Courses in English

Sustainability in Horticulture and Food Technology (summer semester)

Technical English for Horticulturists (winter semester)

English modules [from other degree programmes at HSWT](#)

CAREER

Career prospects for graduates

There is more demand than ever before for our 'Horticulture – Production, Commerce, Services' graduates to fill management positions. Potential employers are:

- Producer companies in all horticultural sectors (vegetable gardening, ornamental plant cultivation, fruit production, tree nurseries, grave-care gardening and perennials nurseries)
- Trade organisations, garden centres and marketing organisations
- Private and public consultancy organisations
- Teaching and testing laboratories, research institutes
- Companies in the food industry and companies dealing in fruit and vegetables
- Companies in the supplier industry (fertiliser, soils, packaging)

What do our graduates do?



"The degree programme was very broad with a wide range of options to choose from to tailor the course content to your own individual preferences. This meant we didn't just learn about the different crops like ornamental plants, fruit and vegetable gardening and tree nursery, but everything in between as well. The practical degree course was an excellent

basis for my advanced master's degree focussed on scientific projects – for me it was the ideal combination."

Markus Breier, Traunstein District Office (Public Sector)



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Sarah Manzer, PhD student at the biocentre of the University of Würzburg

DUAL (WORK-STUDY) PROGRAMMES

Horticulture programme with intensive practical work

Are you considering a practical alternative to study or can't you decide whether you wish to start vocational training or a study programme? Would you like to increase the percentage of practical work in your study programme and gradually integrate into a company? If so, our work-study programmes are perfect for you!

Work-study programme with vocational training ('Verbundstudium')

It only takes about 4.5 years to gain the academic qualification of Bachelor of Science and a vocational qualification as a horticulturist with a specialism in production horticulture.

How does the work-study programme in Production Horticulture work?

One difference between the single Horticulture bachelors' programme and a combined study programme is that the latter is preceded by a 15-month training element. You start your vocational training e.g. on 1 July and switch to the study programme with the usual classes in the winter semester of the following year. Further training periods take place in blocks during semester breaks and as part of the practical placement semester. Moreover, you must complete subject-specific industry-wide vocational training courses as in conventional vocational training. A regional branch of the vocational school can be attended during vocational training periods with a company.

Possible subject areas

You can choose the following subject areas for your vocational training:

Tree nursery

Cemetery horticulture

Vegetable cultivation

Fruit production

Perennial nursery

Ornamental plant horticulture

Work-study programme with intensive practical work ('mit vertiefter Praxis')

You can apply during your study course and enrol on a course with intensive practical work with our cooperation partners. This requires you to complete a practical session lasting at least 10 months during the semester break and the practical placement semester. Most students will also complete their bachelors' dissertation while at the partner company.

How does the work-study programme in Horticultural Commerce work?

You apply for a conventional rather than work-study horticultural study programme with us. In the second semester, you can opt for a study programme with intensive practical work.

Following a brief introduction and explanation at a special event during the study programme, you can apply for any posts offered at our cooperation companies. You then spend any breaks and the practical semester in your chosen company in a relationship governed by a training agreement. You can also complete your bachelors' dissertation in the company.

Your remuneration and holiday entitlement are based on a comparable training occupation and are dependent on your respective agreement.

Our degree programme ambassadors

When you are choosing a degree programme, it makes sense to speak to students to get an idea of what it is actually like to do the course. There are some questions that are best answered by the students themselves. That's why degree programme ambassadors Katharina Weigl and Felix Prell are here for you. Please feel free to get in touch with them and ask any questions you have.



I'm Katharina Weigl and I study Horticulture at HSWT. The great thing about this degree course is the combination of theory and practice, since most modules offer an internship. That means you don't spend all your time in the lecture theatre, you also get to spend time out in the field, in the greenhouse or in the lab doing experiments. It's this diversity that I really like about the horticulture course. Living in Freising has some great benefits too – it's got good motorway and public transport connections, plus it's not far from Munich and close to nature. The surrounding woodland and the trial garden on the campus itself are both lovely. If you have any questions about the course or you'd like to experience student life on campus, feel free to send me an email: katharina.weigl@student.hswt.de



My name is Felix Prell and after leaving secondary school it was my dream to do a work-study course. At the time I became aware of how important parks and gardens are for such a lot of people, and that's what made me decide to enrol on the horticulture course at HSWT. The best thing is the large and diverse range of modules that you can choose to study from the fourth semester onwards, such as occupational education, process engineering, perennial botany and marketing. The practical training semester also provided an excellent opportunity to apply the knowledge I'd learned and prepare for my future career. The university has an amazing family atmosphere – another reason why I'm studying horticulture. Interested? If you have any questions, I'd be happy to answer them for you: felix.prell@student.hswt.de