

# Developing Applied Curricula in Horticulture & Related Fields

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Zoom Conference on **1 July 2022** in frame of the African-Bavarian Alliance for Applied Life Sciences

08:00 – 10:00 Dakar

09:00 – 11:00 Tunis

10:00 – 12:00 Berlin & Pretoria

11:00 – 13:00 Addis Ababa

# Meeting Agenda

Time	Agenda Item
08:00 – 08:15 (Dakar) 09:00 – 09:15 (Tunis) 10:00 – 10:15 (Berlin & Pretoria) 11:00 – 11:15 (Addis Ababa)	<b>Introduction</b> <b>General Information about the study programme Horticulture – Production, Commerce, Services</b>
08:15 – 08:35 (Dakar) 09:15 – 09:35 (Tunis) 10:15 – 10:35 (Berlin & Pretoria) 11:15 – 11:35 (Addis Ababa)	<b>Practice-Oriented Teaching in Horticulture &amp; Related Fields</b>
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## The meeting will be held via Zoom:

<https://hswt.zoom.us/j/98062545775>

Meeting ID: 980 6254 5775

Password: 018390

Please note: In order to participate at the virtual conference, you need a stable internet connection as well as a device with microphone and webcam.

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## Horticulture - Production, Commerce, Services

- Goals and Objectives
  - Knowledgeable experts, proficient leaders and responsible citizens
  - Conveying appreciation for an academic attitude
  - Use of scientific knowledge to solve real world problems
- Labour Market Considerations
  - Study is geared towards employability
  - Theoretical knowledge and practical skills
  - Wide range of very diverse job opportunities in the horticultural sector
- Course Content
  - Focus on the whole horticultural value chain
  - Provision of a wide and solid basis of general (horticultural) knowledge
  - Ample possibilities for specialisation and practical experiences



## Horticulture - Production, Commerce, Services

- Foundational semesters (1<sup>st</sup> to 3<sup>rd</sup>)
  - Compulsory classes
  - Basics in horticultural production systems
  - Basics in science, business and technology
- Profile semesters (4<sup>th</sup>, 5<sup>th</sup> and 7<sup>th</sup>)
  - Concentration either on Production Management or Services and Commerce
  - Mainly elective courses
  - Wide variety of topics related to the horticultural sector
- Practical semester (6<sup>th</sup>)
  - At least 22 weeks of practical work outside of university
  - Designing and implementing a small project useful for the receiving organization



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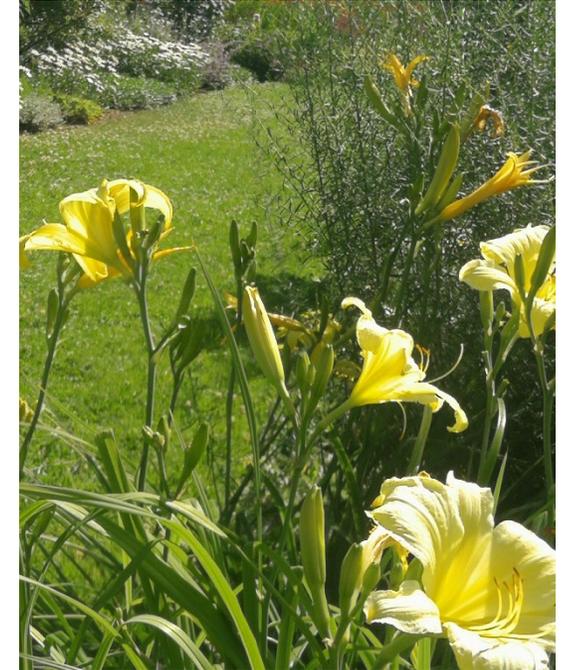
## Practice-Oriented Teaching in Horticulture & Related Fields

- What does Practice-Oriented Teaching mean?
  - Practical sessions as integral parts of modules
  - Linking theoretical knowledge and practical application
  - Providing hands on experience
- How is it integrated in teaching?
  - Practice sessions in fields, gardens and greenhouses
  - Training sessions in laboratories
  - On site student projects
  - Management games and negotiation simulation (WTO)
  - Inverted Classroom course design
  - Invited speakers in class
  - Joint projects with companies (“junior consulting”)
  - Field Trips
  - Student jobs in research projects



## Practice-Oriented Teaching in Horticulture & Related Fields

- What are the challenges?
  - Organization of courses (schedule, class-size, commitment)
  - Costs for infrastructure
  - Personnel required for production and care
  - Additional supervision due to smaller classes
  - Acquisition of partner-enterprises
  - Motivating guest-lecturers
  
- What are the benefits?
  - Developing competencies rather than acquiring knowledge
  - Involvement of students in classes
  - Motivation for and attractiveness of courses and program
  - Higher employability, contacts for employment (both ways)
  - Strengthening connections to the industry
  - Part of HSWT lifestyle and common ground

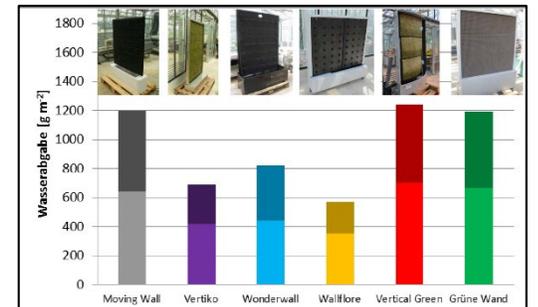


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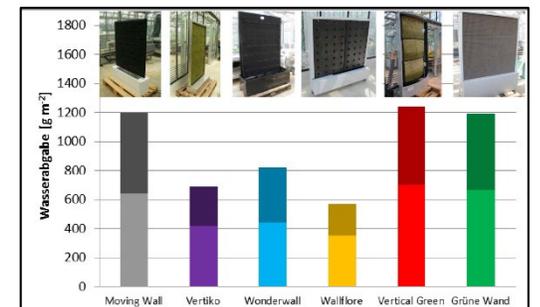
## Practice Semester – Why, How, What?

- Why is the practice semester so important?
  - Gain an insight into working conditions in the horticultural sector
  - Learn and acquire practical skills and do manual work
  - Contribute engineering knowledge to the receiving organization
- How is the practice semester organized?
  - 22 two weeks of work experience outside of university
  - Only in approved businesses or organizations
  - Integration into the day-to-day work activities like a regular employee
- What is expected from the students?
  - Ability to self-organize place of employment and payment
  - Committed involvement in the work processes of the receiving organization
  - Implementation of a project in coordination with business and university
  - Submission of a written report followed by an oral presentation



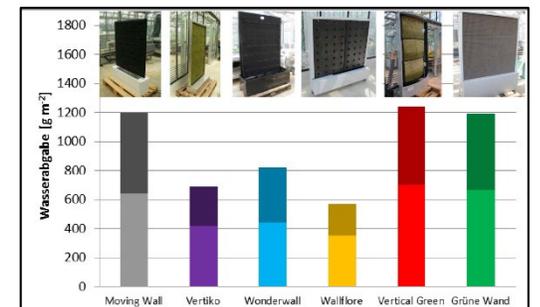
## Practice Semester – Benefits

- Benefits from the perspective of the university
  - Maintaining and intensifying contacts with businesses and organizations
  - Getting a feel for current trends and challenges in the industry
  - Presenting the university as an institution of high quality academic education
- Benefits from the perspective of the receiving organisation
  - Presenting the business as an attractive employer
  - Taking advantage of ideas and knowledge the student might bring in
  - Comparatively low labour costs for, in general, highly motivated interns
- Benefits from the perspective of the students
  - Gaining practical knowledge and experiences
  - Deepening the knowledge of their field of study
  - Developing and strengthening their study focus
  - Getting fresh ideas about what to work on in their bachelor thesis
  - Securing a place of employment for the time after graduation



## Practice Semester – Some Challenges

- The right receiving organization
- Interesting (high) income vs. interesting (challenging) task
- A good idea, sufficient means and freedom (time) for the project
- Adequate support by professors and university staff
- Conflicts due to unfamiliar hierarchies and behaviours
- Harsh working conditions or boring and monotonous work
- Difficulties with organizational matters and bureaucracies
- Culture and language barriers when internship is done abroad



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# The Concept of Work-Study Programmes



Academic curriculum in **combination** with **vocational training** and experiences in the industry



Extremely **popular** in Germany (among students and employers) because of **practical focus**

# Work-Study Programmes at HSWT – 2 Models

1

## Academic study combined with vocational training

Study phases and parallel vocational training (4.5 years)



2

## Academic study with intensive in-company training

Study phases alternate with practical phases in a company + thesis in company (3.5 years)



# Academic Study Combined With Vocational Training

15 months



+



1. Semester



2. Semester



3. Semester



4. Semester



5. Semester



6. Semester

Practice semester

+

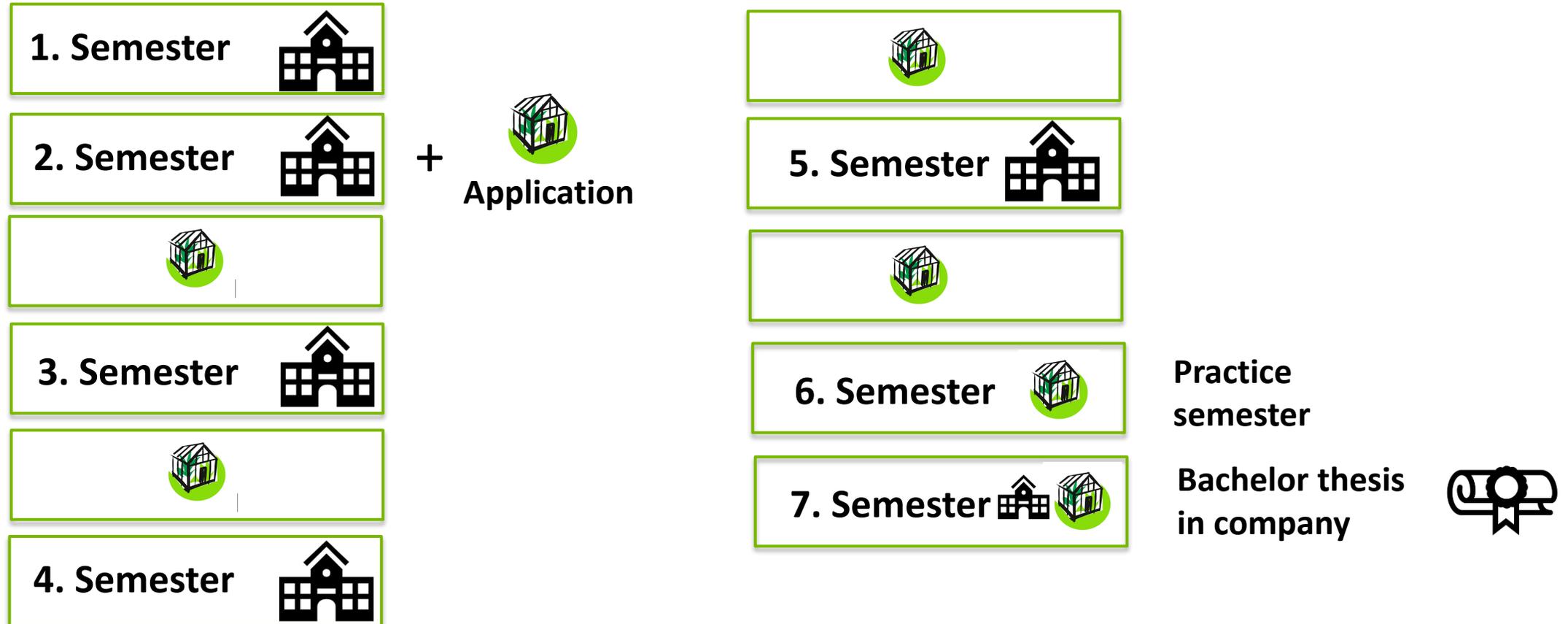


7. Semester



Bachelor thesis

# Academic Study With Intensive In-Company Training



## Example: A Student's Voice



**Ellen Redderberg (24)**  
**Work-Study Programme Agriculture**

I see **two advantages** in the work-study model of agriculture: On the one hand, the opportunity to **gain practical experience** in addition to the course of study. On the other hand, one can obtain a **recognised degree (vocational training) earlier** than in the regular study programme.

# Work-Study Programmes at HSWT – Benefits and Challenges



Benefits and challenges are similar to those in the practice semester. In addition to the aspects already mentioned

- High workload for the students
- Less freedom in the design of the study process
- Limited possibilities for integrating vocational training and university teaching contents (in model 1)
- Specialization comes too early for many students (especially in model 2)
- Few businesses in horticulture are big enough to provide continuous payment (particular feature of model 2)



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**Thanks very much!**