Audi Hungaria





The dual system of higher at Audi Hungaria: Subject: Dual Hands-on Training (Vehicle Engineering BSc)

Olívia Schubert, Dr. Barna Hanula 25.02.2016

1. Basic information



- ▶Partners: Széchenyi István University; Audi Hungaria Motor Kft.
- ▶Start: From September 2015
- ▶ Vehicle Engineering BSc; full-time course
- ▶5 students per academic year



Dual higher education training: special skills-based higher education training

- ▶ Accreditation of companies: institute (SZE), DTC (self-assessment; Committee of Visitors)
- ▶Open dual training system: students as well as the company may quit without any liabilities
- Students are entitled to remuneration for their work during the whole year and the whole training period



Dual Hands-on Training venues

- ► Audi Hungaria Motor Kft.: most of the practical skills will be mastered on site of the company in most of the training period
- ▶Teacher bases (e.g.: PTC)
- ▶Departments and laboratories run together by the institute of higher education and the company



Responsibilities of Audi Hungaria Motor Kft.:

- ▶ Employment contracts for students (student benefits)
- ▶ Ensuring (professional) working conditions for students
- ▶Supporting mentors and departmental sponsors (Pate); Supporting the education coordinator
- ▶Organizational and management tasks related to the dual training



1. Basic information

Advantages of the dual training for students:

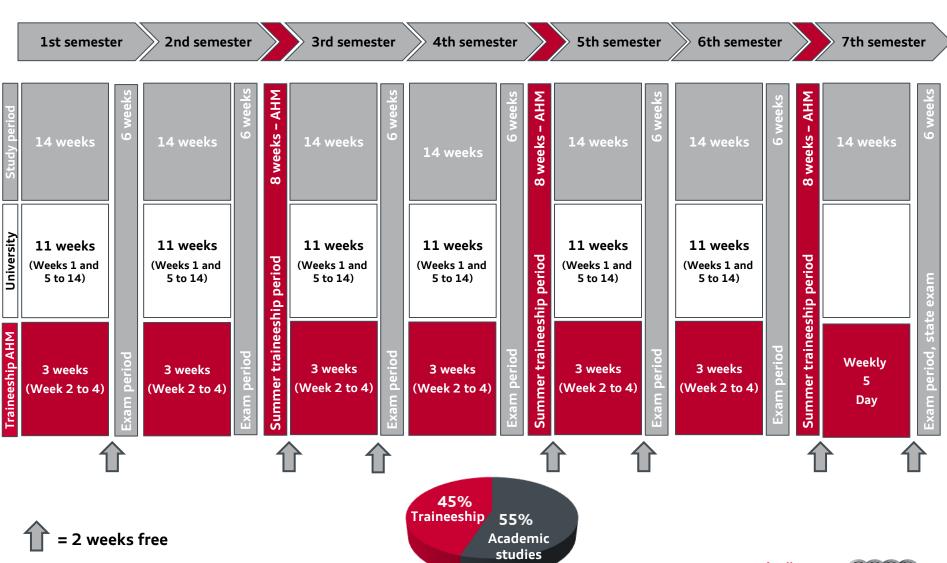
- Quality skills-based training to complement academic studies
- ► Mastering state-of-the-art professional skills in an international environment
- ► A complex knowledge of the professional areas of the vehicle industry (production, production technology, research and development)
- ► Regular performance evaluation
- Students are automatically involved in the supply program of Audi Hungaria
- ► Employment opportunities at Audi Hungaria after graduation
- ► Development of a project-centered attitude
- Strengthening professional commitment and motivation

Advantages of the dual training for Audi Hungaria:

- ► Social responsibility
- Students get better education than that offered by normal full-time or correspondence courses, both regarding content and quality
- ► This cooperation is suitable for **integrating students** into the corporate structure, culture and processes
- More motivated students, with a more positive attitude
- Contributes to ensuring professional supply
- ▶ Selection of the best students
- ► The risk is smaller than in the case of employing a new external colleague
- ► Benefits are exempt from contributions and taxes
- ► Less further training/retraining needed



2. Dual higher education training schedule



3. Curriculum – University subjects

55% Academic studies

Academic studies - University

1st semester Weeks 1 and 5 to 14 in the semester

2nd semester Weeks 1 and 5 to 14 in the semester

3rd semester Weeks 1 and 5 to 14 in the semester

4th semester Weeks 1 and 5 to 14 in the semester

5th semester Weeks 1 and 5 to 14 in the semester

6th semester Weeks 1 and 5 to 14 in the semester

7th semester

► General mechanics

- ▶ Machine structures
- ► Material Science
- ► Electrotechnique
- ▶ Engineering physics
- ► Technical chemistry
- ▶ Mathematics I
- ► Computer Science

▶ Mechanics I

- ▶ Thermaland Fluid Dynamics
- **►** Computer engineering
- ▶ Processing Technologies I
- ► Vehicle Structure Materials
- ▶ Mathematics II
- ► Computer science

► Mechanics II

- ▶ Occupational Safety
- ► Machine parts
- Processing technologies II
- ▶ Economics
- Sensors and Interferers
- ► Mathematics III

▶ Mechanics III

- ▶ Computer modeling
- ▶ Automatization in Engineering
- ► Thermal- and Fluid Dynamics of vehicles and Engines
- ► Law
- ▶ Environmental protection
- ▶ Vehicles
- ► Handling and Storage

▶ Mechanics IV

- ► Audi. the modern company
- ▶ Internal combustion engines I
- ► Vehicle structures I
- ► Vehicle electrics and electronics I
- ► Measurements on engines
- ▶ Development of racing engines I

▶Internal combustion enaines II

- ► Alternative vehicles
- ► Traffic safety/
- ► Vehicle structures II
- ▶ Vehicle electrics and electronics II
- ▶ Development of racing engines II
- **▶** Simulation
- ► Tribology

▶ Thesis

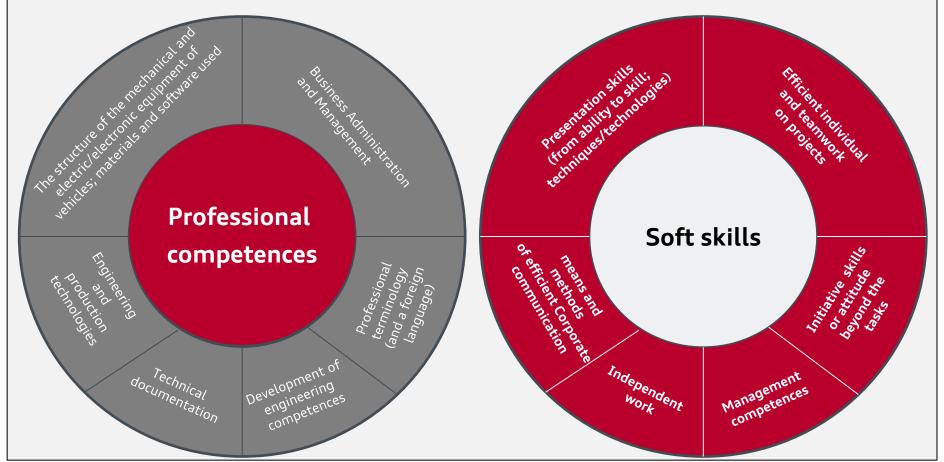




4. Curriculum: Dual Hands-on Training – Competences

"It is a substantial criterion of the corporate **training plan** that it should be built on the curriculum of the institute of higher education, in order to ensure the gradual development of the knowledge, skills and competences of the students from one semester to the next."

(source: DTC: The evaluation criteria of the dual higher education training)





5. Curriculum – Dual Hands-on Training

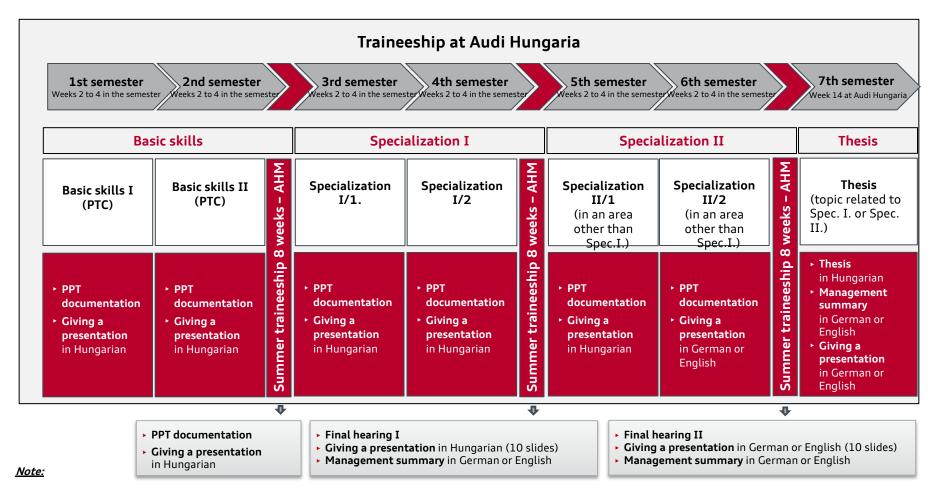
45% Traineeship

55% Academic studies

Traineeship at Audi Hungaria 7th semester 2nd semester 3rd semester 4th semester 5th semester 6th semester 1st semester Weeks 2 to 4 in the semester Weeks 2 to 4 in the semeste Weeks 2 to 4 in the semester Weeks 2 to 4 in the semeste Weeks 2 to 4 in the semester Weeks 2 to 4 in the semeste Week 14 at Audi Hungaria. **Basic skills** Specialization I Specialization II Thesis AHM - AHM AHM Specialization Specialization Specialization **Specialization** Thesis Basic skills II Basic skills I I/1 **I/2** II/1 **II/2** (topic related (PTC) (PTC) weeks weeks weeks to Spec. I. or (in an area (in an area Spec. II.) other than other than Spec.I.) Spec.I.) œ ∞ Summer traineeship Summer traineeship **Summer traineeship** ► Individual task ► Individual task ► Manual ► Individual task ► Individual task ► Machine related to the related to the processing related to the related to the processing given aiven technologies given given (Processing of department department department department (Processing of metal and metal and plastic) plastic) ► Project task ► Project task ► Project task ► Project task Getting to know the Company (Week 2) Individual task related to the Individual task related to the given department given department PET engine (1 week) Project task Project task PET vehicle (1 week) Trainings in the Profiraum Trainings in the Profiraum Introduction to work at the department (4 weeks)



6. Performance evaluation of the students at Audi Hungaria



- > Students are evaluated at the end of each study period, based on a presentation held (by each student) at a WS (the last two hearings are held in foreign languages) WS Participants:
 - ▶ AHM: mentor; departmental sponsor; experts participating in the training (e.g. PTC teacher); G/SH, G/SK
 - ▶ Representative of SZE (Department Representative; teachers of the given semester)
 - Student (other students may listen to each other's hearings as observers)



7. Supporting functions – Definition

Mentor



MENTORING refers to the activity of an experienced person (mentor) who transfers their knowledge and competences to a less experienced person (mentoree=student) in order to support the professional and personal development of the student within the Company.

Departmental sponsor (Pate)



PATRONAGE introduction to the world of labor, tailored to the individual (professional, social, organizational responsibilities). An experienced person (departmental sponsor) transfers their knowledge and competences to a less experienced person (patronee=student) in order to make it easier for the student to fit in (to the given department) and support the professional and personal development of the student within the given department of Audi Hungaria.

Training coordinator



The head of the Department of Educational and Scientific Cooperation names a contact person who shall provide information on the processes and requirements in the academic year of the dual training. The Training Coordinator communicates with the students and the university on an ongoing basis throughout the whole training period.



