

## Summer Semester - Lectures in English Language

### PLEASE NOTE:

- The lectures are listed according to the faculty/study program that offers them. If you fulfill the prerequisites you can take any course from any faculty/study program.
- If you take courses from different programs and semesters, there might be conflicts in the time table. The time table, however, will only be announced shortly before the lecture period starts.
- The list is provisional and subject to change.
- The **red numbers** refer to our Campus Management System LSF and allow you to find detailed course descriptions, see <https://www.lsf.hs-weingarten.de>.
- "hrs/week" = hours per week per semester, 1 hour = 45 minutes.
- With the exception of "Technology Management and Optimization", the lectures offered in the frame of Master programs are also open for advanced Bachelor students.

---

## ELECTRICAL ENGINEERING AND INFORMATION TECHNOLOGY (BACHELOR PROGRAM) - ENGLISH TAUGHT STUDY PROGRAM

---

### First Semester

**4233 Electrical Engineering 1: Basics – Analysis of Electric Networks** (Jobke)

4 hrs/week    5 ECTS credits

**288 Mathematics 1: Analysis 1 with exercises** (Rose)

4 hrs/week    5 ECTS credits

**3000 Mathematics 2: Linear Algebra with exercises** (Rose)

4 hrs/week    5 ECTS credits

**4341 Programming 1** (Zeller, Drotleff)

4 hrs/week    5 ECTS credits

### Electrical Engineering Practical

**5891 Basic lab Electrical Engineering 1: Basic Circuits** (Jobke)

2 hrs/week    3 ECTS credits

*Module together with: Basic Practical Course Electrical Engineering 2: Implementation & Verification (2<sup>nd</sup> semester) but possible to take as individual course*

**1402 Physics 1 Mechanics** (Doderer)

4 hrs/week    5 ECTS credits

## Third Semester

**4240 Electrical Engineering 3: Circuit analysis in the time and frequency domains** (Pfeil)

4 hrs/week 5 ECTS credits

**Metrology 2: Advanced** Module: 5 ECTS credits

**5139 Metrology 2** (Pfeil)

2 hrs/week 2 ECTS credits

**1816 Electronics, Practical Training: Linear Metrology** (Reusch)

2 hrs/week 2 ECTS credits

**4238 Mathematics 3: Analysis 2 with Exercises** (Rose)

4 hrs/week 5 ECTS credits

**1809 Computer Technology / Practical Training** (Jobke)

2 hrs/week 2 ECTS

*Module together with: 1438 Digital Technology Practical Training (2<sup>nd</sup> semester) – 3 ECTS but possible to take as individual course*

**1815 Electronics** (Ludescher)

4 hrs/week 5 ECTS credits

**Computer-Aided Circuit Design 1** Module: 5 ECTS

**7077 Basis Practical Training Engineering 3: Programming of uC** (Pfeil)

2 hrs/week 2 ECTS credits

**1911 Circuit Design Practical Training** (Ludescher)

2 hrs/week 2 ECTS credits

---

## **E-MOBILITY AND GREEN ENERGY (BACHELOR PROGRAM) - ENGLISH TAUGHT STUDY PROGRAM **(NEW)****

---

### First Semester

**288 Mathematics 1: Analysis 1 with exercises** (Rose)

4 hrs/week 5 ECTS credits

**1402 Physics 1 Mechanics** (Doderer)

4 hrs/week 5 ECTS credits

**4341 Programming 1** (Zeller, Drotleff)

4 hrs/week 5 ECTS credits

**1850 Digital Technology** (Brümmer)

4 hrs/week 5 ECTS credits

**3000 Mathematics 2: Linear Algebra with exercises** (Rose)

4 hrs/week 5 ECTS credits

**4233 Electrical Engineering 1: Basics – Analysis of Electric Networks** (Jobke)

4 hrs/week 5 ECTS credits

## Electrical Engineering Practical

### **5891 Basic lab Electrical Engineering 1: Basic Circuits** (Jobke)

2 hrs/week 3 ECTS credits

*Module together with: Basic Practical Course Electr. Eng. 2: Implementation & Verification (2<sup>nd</sup> semester) but possible to take as individual course*

---

## ELECTRICAL ENGINEERING AND EMBEDDED SYSTEMS (MASTER PROGRAM) - ENGLISH TAUGHT STUDY PROGRAM

---

### **1856 System Analysis and Simulation with LabView for Master** (Georgi, Hohl)

4 hrs/week 5 ECTS credits

### **3008 Artificial Intelligence for Master** (Ertel)

4 hrs/week 5 ECTS credits

### **3059 Lab on Artificial Intelligence for Master** (Ertel - *not obligatory for the lecture but highly recommended*)

2 hrs/week 2 ECTS credits

### **3244 SW- and HW-Design** (Siggelkow, Weberl)

4 hrs/week 5 ECTS credits

### **3311 Robotics** (Köberle, Wöllhaf)

4 hrs/week 5 ECTS credits

### **4874 Embedded Computing Lab** (Brümmer)

4 hrs/week 2 ECTS credits

Module together with 7193 Embedded Project in SS, 5 ECTS credits

### **5812 Robot Learning** (Ertel)

4 hrs/week 5 ECTS credits

### **6897 Direct Digital Control**

4hrs/ week 5 ECTS credits

### **7110 Wireless Communication** (Fechter)

4 hrs/week 5 ECTS credits

### **7183 Signal Processing 2 and Lab** (Schulter)

4hrs/ week 5 ECTS

---

## MECHATRONICS (MASTER PROGRAM) – ENGLISH TAUGHT STUDY PROGRAM

---

### **1856 System Analysis and Simulation with LabView for Master** (Georgi, Hohl)

4 hrs/week 5 ECTS credits

### **2171 Lab on Process Interface Equipment** (Ruf)

2 hrs/week 3 ECTS credits

### **2172 Lab on Robotics, Practical Training** (Wöllhaf)

2 hrs/week 3 ECTS credits

**3008 Artificial Intelligence for Master** (Ertel)

4 hrs/week 5 ECTS credits

**3059 Lab on Artificial Intelligence for Master** (Ertel - not obligatory for the lecture but highly recommended)

2 hrs/week 2 ECTS credits

**3311 Robotics** (Köberle, Wöllhaf)

4 hrs/week 5 ECTS credits

**4443 Automation**

4 hrs/week 5 ECTS credits

**5812 Robot Learning** (Ertel)

4 hrs/week 5 ECTS credits

**7421 Implementation of Close Loop Digital Control Systems (DDC)** (Altmann)

4 hrs/week 5 ECTS credits

**7455 Autonomous mobile robots for master** (Ertel, Stähle)

4 hrs/week 5 ECTS credits

**7553 Robocup Software architecture project** (Ertel, Stähle)

4 hrs/week 5 ECTS credits

---

**TECHNOLOGY MANAGEMENT AND OPTIMIZATION (MASTER PROGRAM)** *Lectures offered in the frame of the TM&O Master program are open for Master students only*

---

**1397 Integration of Mechatronic systems** (Smets)\*

3 hrs/week 3 ECTS credits

**1856 System Analysis and Simulation with LabView for Master** (Georgi, Hohl)

4 hrs/week 5 ECTS credits

**Sales and Business Development**

**6461 Customer Relation Management and Optimized Distribution** (Jäckle)

2 hrs/week 2 ECTS credits

**Production Optimization 2**

**6462 Product Optimization using Design of Experiments** (Pufall)\*

2 hrs/week 3 ECTS credits

**6463 Production Technology and Simulation of production/ CAD and CAD Tools** (Baumgart)\*

2 hrs/week 3 ECTS credits

**Process- and Cost Optimization**

**6459 Production Management and Optimization** (Schmidthöfer)\*

4 hrs/week 4 ECTS credits

**6465 Value-Added Process Design** (Smets)

2 hrs/week 2 ECTS credits

\*in Engl. if there are students of ESC Troyes

---

**INTERNATIONAL ACADEMY: INNOVATION MANAGEMENT AND NEW TECHNOLOGIES - ENGLISH TAUGHT PROGRAM  
(1 YEAR) ON BACHELOR LEVEL**

---

**1251 International Financial Reporting (IFRS)** (Dühnfort)

2 hrs/week 3 ECTS credits

**1473 Systems Engineering (Practical Training)** (Pufall)

2hrs/week 2 ECTS credits

**3966 Energy Engineering and New Energy Production** (Ziegler)

2 hrs/week 3 ECTS credits

**3967 Quality Management** (Wernicke)

2 hrs/week 2 ECTS credits

**3968 Change Management** (Hohl)

2 hrs/week 3 ECTS credits

**3971 Creative Problem Solving** (Rudolph)

2 hrs/week 3 ECTS credits

**4156 Innovation Management** (Ermark)

2 hrs/week 3 ECTS credits

**4474 New Technologies and Trends (Excursions)** (Philippi-Beck)

2 hrs/week 3 ECTS credits

Excursions to companies in the region – exact dates not yet available

**4475 Systems Engineering** (Pufall)

2hrs/week 3 ECTS credits

**7184 Seminar: B2B Sales Management** (Niersbach)

2 hrs/week 3 ECTS credits

---

**BACHELOR LEVEL - Lectures in English language in various study fields**

---

**1825 Operating Systems** (Eggendorfer) (Applied Computer Science – AI)

4hrs/week 5 ECTS credits

**7435 Software Security** (Eggendorfer) (Applied Computer Science – AI)

4hrs/week 5 ECTS credits

**4359 Software Security** (Eggendorfer) (Applied Computer Science – AI) – *to be clarified*

4hrs/week 5 ECTS credits

**6598 International Comparison of Health Care Systems** (Kern) (Health Economics GO)  
2 hrs/week 2 ECTS credits

**7090 Autonomous mobile robots** (Stähle) (AI)  
4 hrs/week 5 ECTS credits

**7214 Motion Design** (Lauterbach) (MD) – optional in English  
8 hrs/week 10 ECTS credits

**8965 Computer Aided Design CAD** (Baumgart) (Technology Management – TM)  
2 hrs/week 2 ECTS credits

---

### **MASTER LEVEL - Lectures in English language in various study fields**

---

**5812 Robot Learning** (Ertel) (Computer Science - IN)  
4 hrs/week 5 ECTS credits

**6279 Computer Graphics for Master** (Scherzer) (Computer Science - IN)  
4hrs/week 5 ECTS credits

**6768 Game development for Master** (Scherzer) (Computer Science - IN)  
4hrs/week 5 ECTS credits

**7532 Shader Programming** (Scherzer) (Computer Science – IN)  
4 hrs/ week 5 ECTS credits

**3939 Computational Methods in Engineering** (Kaufmann) (Product Dev. in Mech. Engineering - PEM)  
2 hrs/week 3 ECTS credits credits

---

### **LANGUAGE LECTURES AND INTERCULTURAL SEMINARS (CLIC)**

---

#### **German as a foreign language = Deutsch als Fremdsprache (DaF)**

**4382 DAF - Deutsch als Fremdsprache A1 +**  
4 hrs/week 4 ECTS credits  
Attention: The course starts with an intensive program from March 11 – 15, 2019

**4634 DAF - Deutsch als Fremdsprache A2**  
4 hrs/week 4 ECTS credits  
Attention: The course starts with an intensive program from March 11 – 15, 2019

**4630 DAF - Deutsch als Fremdsprache B1 +**  
Attention: The course starts with an intensive program from March 11 – 15, 2019  
4 hrs/week 4 ECTS credits

**4631 DAF - Deutsch als Fremdsprache B2**

Attention: The course starts with an intensive program from March 11 – 15, 2019

4 hrs/week      4 ECTS credits

**4632 DAF - Deutsch als Fremdsprache C1**

4 hrs/week      2 ECTS credits

**4656 Support Course for DaF B1**

1hr/ week      no credits - directly before regular German course

**7574 Support Course for DaF B2**

1hr/ week      no credits - directly before regular German course

*Other tutorials or support courses will take place upon request – please ask proactively!*

**7382 Deutsch C1 für ausländische Studierende in den deutschen Studiengängen**

**5144 DaF – Presentation and Documentation / Präsentation und Dokumentation**

2 hrs/week      2 ECTS credits

**English**

**Several Professional English 1, B2 courses by study program e.g.**

**6849 AI3 Professional English 1, B2**

2 hrs/week      2 ECTS credits

**Several Professional English 2, B2 courses by study program e.g.**

**7140 AI4 Professional English 2, B2**

2 hrs/week      2 ECTS credits

**3995 General English Fluency Advanced C1**

2 hrs/week      2 ECTS credits

**7380 Effective Business Communication Skills**

2 hrs/week      2 ECTS credits

**7569 English for Specific Purposes: Leading with Emotional Intelligence**

2 hrs/week      ?? ECTS credits

**7377 English for Specific Purposes: Focus on Mech. and Automotive Engineering)**

2 hrs/week      2 ECTS credits

**7377 Technical English – Inch by Inch**

2 hrs/week      2 ECTS credits

**Seminars on intercultural and other topics**

**4656 Intercultural Sensitization (Steinlein)**

1.5 days      1 ECTS credit

**1479 Intercultural Management (Hohl)**

2 hrs/week      2 ECTS credits

**5202 Intercultural Management** (Brown)

Block seminar 2 ECTS credits

4.-5.05. and 09.06.2018)

**7143 Intercultural Competence** (de Silva)

2 hrs/week 2 ECTS credits

**7502 Intercultural Communications - Talking effectively to the English-speaking world** (Ironsides)

Block seminar: 2 ECTS credits

**5149 Working in International Scientific Project Teams** (Mallon-Gerland)

1.5 days 1 ECTS credit

**898 English Negotiating** (Rudolph)

2 x 1.5 days 3 ECTS credits

**55 Project Management** (Gerland)

2 x 1.5 days 2 ECTS credits

**3971 Creative Problem Solving** (Rudolph)

2 hrs/week 3 ECTS credits

**7356 Professional and Academic Writing** (Mulder)

2 hrs/ week 2 ECTS credits

**6392 The key to a successful job application** (Ironsides)

2 hrs/week 2 ECTS credits

**Other language courses at various levels**

Arabic, French, Italian, Spanish, Brazilian Portuguese, Russian, (2-3 hours/week, 2-3 ECTS credits)