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 (Elser)
4 hrs/week  5 ECTS credits

**3000** Mathematics 2: Linear Algebra with Exercises (Elser)
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 Circuit (Jobke)
2 hrs/week  3 ECTS credits
*Module together with: Basic Practical Course Electrical Engineering 2: Implementation & Verification (2nd semester) but possible to take as individual course*

**6804** Tutorial analysis of electrical network (Jobke)
2 hrs/week  No ECTS credits

**1402** Physics Mechanics/ Physics 1 (Doderer)
4 hrs/week  5 ECTS credits
5951  Physics 1 Exercises (Baumgarten)
2 hrs/week  NO credits

1850  Digital Technology (Bonenberger [normally Prof. Sigelkow])
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/ Analog Design (Reusch)
2 hrs/week  2 ECTS credits
Module together with: xxxx Digital Design

1809  Computer Technology / Practical Training (Jobke)
2 hrs/week  2 ECTS
Module together with: 1438 Digital Technology Practical Training (2nd semester) – 3 ECTS but possible to take as individual course

1815  Electronics (Ruf)
4 hrs/week  5 ECTS credits

Computer-Aided Circuit Design 1 Module: 5 ECTS
7077  Basis Practical Training Engineering 3: Programming of uC (Ludescher)
2 hrs/week  2 ECTS credits

1911  Circuit Design Practical Training (Ludescher)
2 hrs/week  2 ECTS credits

Robotics Module: 5 ECTS credits
5761  Robotics (Köberle/ Wöllhaf)
4 hrs/week

5768  Robotics Lab (Glönkler/ Lanzinger)
4 hrs/week

Fourth Semester

4651  Power Electronics (Farkas)
4 hrs/week  5 ECTS credits

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

First Semester

288  Mathematics 1: Analysis 1 with exercises (Elser)
4 hrs/week  5 ECTS credits

7805  Physics Mechanics/ Physics 1 (Klemt)
4 hrs/week 5 ECTS credits

4341 Programming 1 (Drotleff)
4 hrs/week 5 ECTS credits

1850 Digital Technology (Bonenberger (normally Prof. Siggelkow))
4 hrs/week 5 ECTS credits

3000 Mathematics 2: Linear Algebra with exercises (Elser)
4 hrs/week 5 ECTS credits

4233 Electrical Engineering 1: Basics – Analysis of Electric Networks (Jobke)
4 hrs/week 5 ECTS credits

6804 Tutorial analysis of electrical network (Jobke)
2 hrs/week NO 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 (2nd semester) but possible to take as individual course

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)

1815 Electronics (Ruf)
4 hrs/week 5 ECTS credits

Computer-Aided Circuit Design 1 Module: 5 ECTS
7077 Basis Practical Training Engineering 3: Programming of uC (Ludescher)
4 hrs/week 2 ECTS credits
1911 Circuit Design Practical Training (Ludescher)
4 hrs/week 3 ECTS credits

7295 CAD Design (Solid Works) (Reick)
2 hrs/week 3 ECTS credits
Part of Design Module (Sem 2 and 3) 6 SWS in total, consisting of
- 6334, Digital Technology, Practical Training (2SWS, EM2)
- xxxxxx

7087 Automotive Engineering (Reick)
4 hrs/week 5 ECTS credits

Robotics, Module: 5 ECTS credits
5761 Robotics (Köberle/ Wöllhaf)
4 hrs/week  
**5768 Robotics Lab** (Glönkler/ Lanzinger)  
4 hrs/week

**Fourth Semester**

4 hrs/week  
**4651 Power Electronics** (Farkas)  
4 hrs/week  5 ECTS credits

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**PHYSICAL ENGINEERING AND INFORMATION TECHNOLOGY (BACHELOR PROGRAM) - ENGLISH TAUGHT STUDY PROGRAM (NEW SS2019)**

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288  **Mathematics 1: Analysis 1 with exercises** (Elser)  
4 hrs/week  5 ECTS credits

3000  **Mathematics 2: Linear Algebra with exercises** (Elser)  
4 hrs/week  5 ECTS credits

7805  **Physics Mechanics/ Physics 1** (Klemt)  
4 hrs/week  5 ECTS credits

4233  **Electrical Engineering 1: Basics – Analysis of Electric Networks** (Jobke)  
4 hrs/week  5 ECTS credits

**Computer Science**, Module: 5 ECTS  
198  **Basic Principles of Computer Science** (Eberhardt)  
4 hrs/week  2,5 ECTS credits  
1420  **Computer Science Exercices** (Eberhardt)  
4 hrs/week  2,5 ECTS credits

7786  **Chemistry** (Kolacyak)  
4 hrs/week  5 ECTS credits

3000  **Mathematics 2: Linear Algebra with exercises** (Elser)  
4 hrs/week  5 ECTS credits

7805  **Physics Mechanics/ Physics 1** (Klemt)  
4 hrs/week  5 ECTS credits

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

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**Advanced Control Systems/ Digital Control**, Module: 5 ECTS  
1706  **Digital Control** (Berger)  
2 hrs/week  
4876  **Digital Control Lab** (Berger)  
2 hrs/week  
1856  **System Analysis and Simulation with LabView for Master** (Georgi/ Hohl)
2354 **Engineering Mechanics** (Stetter, Winkler)  
6 hrs/week  6 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 **Circuit and Systems 2 - SW- and HW- Design** (Siggelkow) – does not take place in SS 2019, will take place exceptionally in WS 2019/ 2020  
4 hrs/week  5 ECTS credits

3311 **Robotics** (Wöllhaf)  
4 hrs/week  5 ECTS credits

Embedded Computing, Module: 5 ECTS

4874 **Embedded Computing Lab** (Brümmer)  
2 hrs/week  2 ECTS credits

7193 **Embedded Project** (Brümmer)  
3 hrs/week  2 ECTS credits

5812 **Robot Learning** (Ertel)  
4 hrs/week  5 ECTS credits

6807 **Processes and Automation in Photovoltaics** (Fath)  
4 hrs/week  5 ECTS

7183 **Signal Processing 2 and Lab** (Schulter)  
4 hrs/week  5 ECTS

7421 **Implementation of Closed Loop Digital Control Systems (DDC)** (Altmann)  
4 hrs/week  5 ECTS credits

7455 **Advanced software development for Autonomous Mobile Robots** (Ertel, Stähle)  
4 hrs/week  5 ECTS credits

7553 **Robocup Software architecture project** (Ertel, Stähle)  
4 hrs/week  5 ECTS credits

7781 **Computer Vision** (Elser)  
4 hrs/week  5 ECTS credits

7790 **Nearfield Communication** (Pfeil)  
4 hrs/week  5 ECTS credits
MECHATRONICS (MASTER PROGRAM) – ENGLISH TAUGHT STUDY PROGRAM

1397 Integration of Mechatronic Systems (Paczynski)
4 hrs/week 5 ECTS credits

1856 System Analysis and Simulation with LabView for Master (Georgi)
4 hrs/week 5 ECTS credits

1905 Process Interface Equipment (Ruf) — does not take place in SS 2019
4 hrs/week 3 ECTS credits

2171 Lab on Process Interface Equipment (Ruf)
2 hrs/week 3 ECTS credits

2172 Lab on Robotics (Wöllhaf)
2 hrs/week 3 ECTS credits

2354 Engineering Mechanics (Stetter, Winkler)
6 hrs/week 6 ECTS credits
— does normally not take place in SS

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 (Wöllhaf)
4 hrs/week 5 ECTS credits

Embedded Computing, Module: 5 ECTS
4874 Embedded Computing Lab (Brümmer)
2 hrs/week 2 ECTS credits
7882 Embedded Project (Elser) = same as 7192 with Prof. Brümmer
3 hrs/week 2 ECTS credits

Advanced Control Systems/ Digital Control, Module: 5 ECTS
1706 Digital Control (Berger)
2 hrs/week
4876 Digital Control Lab (Berger)
2 hrs/week

5812 Robot Learning (Ertel)
4 hrs/week 5 ECTS credits

6807 Processes and Automation in Photovoltaics (Fath) — replaces 4443 Automation in SS 2019
4 hrs/week 5 ECTS

7421 Implementation of Close Loop Digital Control Systems (DDC) (Altmann)
4 hrs/week  5 ECTS credits

**7455**  Advanced software development for Autonomous Mobile Robots (Ertel, Stähle)
4 hrs/week  5 ECTS credits

**7553**  Robocup Software architecture project (Ertel, Stähle)
4 hrs/week  5 ECTS credits

**7781**  Computer Vision (Elser)
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 (Paczynski)*
3 hrs/week  3 ECTS credits

**1856**  System Analysis and Simulation with LabView for Master (Georgi)
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, Klett)*
2 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 Accounting/ International Financial Reporting (IFRS) (Dühnfort)
2 hrs/week  3 ECTS credits

**3966**  Energy Engineering and New Energy Production (Ziegler)
2 hrs/week  3 ECTS credits
3967  Quality Management (Nuoffer-Wagner)
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) (Klett)
2 hrs/week  3 ECTS credits
Excursions to companies in the region – exact dates not yet available

4475  Systems Engineering (Pufall)
2 hrs/week  3 ECTS credits

1473  Systems Engineering (Practical Training) (Pufall)
2 hrs/week  2 ECTS credits

7184  Seminar: B2B Sales Management (Niersbach)
2 hrs/week  3 ECTS credits

4305  Strategic Management (Willax)
2 hrs/week  3 ECTS credits

BACHELOR LEVEL - Lectures in English language in various study fields

1825  Operating Systems (Eggendorfer) (Applied Computer Science – AI)
4 hrs/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 (Ertel, 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

4911  Topics in Corporate Finance (Neff) (Technology Management – TM, Business Management – BM)
2 hrs/week  3 ECTS credits
### MASTER LEVEL - Lectures in English language in various study fields

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Instructor</th>
<th>Faculty</th>
<th>Credits</th>
<th>Hours per week</th>
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<td>3939</td>
<td>Computational Methods in Engineering</td>
<td>Kaufmann</td>
<td>Product Dev. in Mech. Engineering</td>
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<td>7671</td>
<td>Advanced Controlling</td>
<td>Neff</td>
<td>Business Administration and Entrepreneurship</td>
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### LANGUAGE LECTURES AND INTERCULTURAL SEMINARS (CLIC)

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

<table>
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<tr>
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<th>Credits</th>
<th>Hours per week</th>
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<td>4382</td>
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<td><strong>Attention:</strong> The course starts with an intensive program from March 11 – 15, 2019</td>
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<td>4634</td>
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</table>
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 C1.1
3 hrs/week   2 ECTS credits
Attention: No intensive course! Starts on March 20 with regular weekly courses; you need to do the test, and if you have are indeed C1 you could still participate in the B2 Intensive Course as a refresher and then start your C1 course on March 20

6308  DAF – Tutorial Course A1
1 hr/week   no credits - directly before regular German course?

6309  DAF – Tutorial Course A2
1 hr/week   no credits - directly before regular German course?

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. 6873, 3318, 6873, 6848
2 hrs/week   2 ECTS credits

Several Professional English 1, B2 courses by study program e.g. 7753, 7486, 7378, 7456, 7487, 7488
4 hrs/week   5 ECTS credits

Several Professional English 2, B2 courses by study program e.g. 7137, 7142, 7367, AI4 Professional English 2, B2
2 hrs/week   2 ECTS credits

3995  Advanced Communication Skills C1 (Nakashima)
2 hrs/week   2 ECTS credits

7569  English for Specific Purposes: Leading with Emotional Intelligence (Hopkins)
2 hrs/week   2 ECTS credits

7377  English for Specific Purposes: Focus on Mech. and Automotive Engineering (Matter)
2 hrs/week   2 ECTS credits

7389  Technical English – Inch by Inch (Nakashima)
2 hrs/week   2 ECTS credits

7396  English for Specific Purposes: English for Psychology (Corjescu)
2 hrs/week   2 ECTS credits
7807  **English for Specific Purposes: English Robotics** (Mulder)
2 hrs/week  2 ECTS credits

**Seminars on intercultural and other topics**

4656  **Intercultural Sensitization** (Ronssin and students)
Block seminar  1 ECTS credit
Dates: 05.04. 16:00-19:15h; 06.04. 09:00-17:15h

1479  **Intercultural Management** (Hohl)
2 hrs/week  2 ECTS credits

7502  **Intercultural Communications - Talking effectively to the English-speaking world** (Ironside)
Block seminar  2 ECTS credits
Dates: 29./30.03. 16:00-19:15/ 09:00-16:00; 05./06.04. 16:00-19:15/ 09:00-16:00

7806  **Intercultural Competence for Professional English** (Mallon-Gerland; daSilva)
Block seminar  2 ECTS credits
Dates: 30.03., 06.04., 13.04.2019 – 09:00-17:00

5149  **Working in International Scientific Project Teams** (Mallon-Gerland)
Block Seminar  1 ECTS credit
Dates: 22./23.03 16:00-19:15/ 09:00-16:00

3971  **Creative Problem Solving** (Rudolph)
Block seminar  3 ECTS credits
Dates: 20.03./ 27.03./ 03.04./ 10.04./ 17.04./ 24.04.2019

6392  **The key to a successful job application; CV Writing and Interview Techniques** (Ironside)
Block seminar  Exercise NO ECTS credits
Date:  27.04. 09:00-16:00

7772  **Intercultural Communication in the region where Arabic is spoken – Arabic** (Meghenem)
Block Seminar  2 ECTS credits
Dates: 04./ 18.05.2019, 09:00 – 16:00

**Other language courses at various levels are offered**

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