

## Winter 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.

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## ELECTRICAL ENGINEERING AND INFORMATION TECHNOLOGY (BACHELOR PROGRAM)

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### Second semester

**1396 Mathematics 3: Analysis 2 with Exercises** (Fechter)

4 hrs/week 5 ECTS credits

**4912 Module Physics 2: Electrodynamics** (Doderer)

4 hrs/week 5 ECTS credits

**Module Metrology 1**, 5 ECTS credits

**2117 Metrology 1** (Pfeil)

2 hrs/week

**2121 Metrology, Practical Training** (Pfeil)

2 hrs/week Total 5 ECTS credits

**7079 Basic Practical Course - Electric Eng. 2 - Implementation and verification** (Pfeil)

2 hrs/week 2 ECTS credits

5 ECTS together with 5891 Basic Practical Electrical Engineering 1: Basic Circuits: Module Electrical Engineering Practical (offered in WS in German and in SS in English)

**6048 Object-Oriented Programming** (Zeller)

4 hrs/week 5 ECTS credits

**1438 Digital Technology, Practical Training** (Brümmer)

2 hrs/week 2 ECTS credits

5 ECTS together with 1809 Computer Technology, Practical Training: Module Digital Practical (offered in WS in German and in SS in English)

**3947 Computer Technology** (*Jobke?*)

4 hrs/week 5 ECTS credits

**Fourth semester**

**1910 Computer-Aided Circuit Design 2: Circuit Design** – (Siggelkow)

4 hrs/week 5 ECTS credits

**2168 Communication Technology** (Fechter)

4 hrs/week 5 ECTS credits

**4651 Power Electronics** (Farkas)

4 hrs/week 5 ECTS credits

**1501 Communication technology Module 1: Internet** (Fechter)

4 hrs/week 5 ECTS credits

**5298 Automation Module 1: Power Train Engineering** (Farkas)

4 hrs/week 5 ECTS credits

=5298 Electric Drives (EM4)

Automation Module 2, Module: 5 ECTS credits

**1494 Real Time Programming** (Pfeil)

4 hrs/week

**1904 Real Time Programming Lab** (Weissensbühler)

4 hrs/week 5 ECTS credits

**4367 Intro to PSPICE/MATLAB with emphasis on communications circuits** (Klotzbücher)

4 hrs/week 5 ECTS credits

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**E-MOBILITY AND GREEN ENERGY (BACHELOR PROGRAM) – ENGLISH TAUGHT STUDY PROGRAM (AS OF SS 2018)**

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**Second Semester**

**1396 Mathematics 3: Analysis 2 with Exercises** (Fechter)

4 hrs/week 5 ECTS credits

**4912 Module Physics 2: Electrodynamics** (Doderer)

4 hrs/week 5 ECTS credits

**Module Metrology 1 - 5 ECTS credits**

**2117 Metrology 1** (Pfeil)

2 hrs/week

**2121 Metrology, Practical Training** (Pfeil)

2 hrs/week Total 5 ECTS credits

**7079 Basic Practical Course - Electric Eng. 2 - Implementation and verification** (Pfeil)

2 hrs/week 2 ECTS credits

5 ECTS together with 5891 Basic Practical Electrical Engineering 1: Basic Circuits: Module Electrical Engineering Practical (offered in WS in German and in SS in English)

**Design - Module: 5 ECTS credits**

**1438 Digital Design, Digital Technology Practical** (Brümmer)

2 hrs/week 2 ECTS credits

Module together with xx Machinery Design and xx Analog Design: Electronics Practical offered in SS in English

**1421 Materials Science** (Reick)

4 hrs/week 5 ECTS credits

**7086 Machinery Design** (Reick)

4 hrs/week 5 ECTS credits

#### **Fourth Semester**

**2152 Digital Signal Processing** (Siggelkow)

4 hrs/week 5 ECTS credits

**1910 Computer-Aided Circuit Design 2: Circuit Design -** (Siggelkow)

4 hrs/week 5 ECTS credits

**4651 Power Electronics** (Farkas)

4 hrs/week 5 ECTS credits

**5298 Electric Drives** (Farkas)

4 hrs/week 5 ECTS credits

=5298 Power Train Engineering (EI4)

#### **PHYSICAL ENGINEERING AND INFORMATION TECHNOLOGY (BACHELOR PROGRAM) - ENGLISH TAUGHT STUDY PROGRAM (NEW AS OF SS 2019)**

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#### **Second Semester**

**1396 (Analysis 2) Differential Equations and Vector Analysis** (Fechter)

4 hrs/week 5 ECTS credits

**1418 (Physics 2) Electrodynamics** (Klemt)

4 hrs/week 5 ECTS credits

**1408 Materials** (Kolacyak)  
4 hrs/week 5 ECTS credits

**Design 1 - Module: 5 ECTS credits**

**7957 CAD** (Reick)

2 hrs/week

**2166 Technical Mechanics** (Pfeffer)

2 hrs/week

**Electronics TE 1 - Module: 5 ECTS credits**

**6052 Electronics TE 1** (Schmid)

2 hrs/week

**2218 Practical Electrical Engineering/ Electronics** (Schmid/ Sieber)

2 hrs/week

**Software Development - Module: 5 ECTS credits**

**6053 Software Development** (Eberhardt)

2 hrs/week

**6054 Practical Software Development** (Eberhardt/ Herzer)

2 hrs/week

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**ELECTRICAL ENGINEERING AND EMBEDDED SYSTEMS - EMM (MASTER PROGRAM)**

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

4 hrs/week 5 ECTS credits

**Module Advanced Mathematics for Engineers**

**1876 Advanced Mathematics for Engineers 1** (Ertel)

4 hrs/week 5 ECTS credits

**6894 Advanced Mathematics for Engineers 1 - Lab** (Ertel)

4 hrs/week 5 ECTS credits

**1895 Simulation of Mechatronic Systems** (Wöllhaf)

4 hrs/week 5 ECTS credits

**2233 Electrical Drives** (Paczynski)

4 hrs/week 5 ECTS credits

**2236 Engineering Design and Materials** (Niedermeier)

6 hrs/week 6 ECTS credits

**2354 Engineering Mechanics** (Stetter)

6 hrs/week 6 ECTS credits

**3124 Embedded Computing** (Brümmer)

4 hrs/week 2 ECTS credits?  
Part of Module Embedded Computing

**4441 Power Electronics** (Farkas)  
4hrs/week 5 ECTS credits

**6895 Circuit & Systems 1 - System-on-Chip** (Pfeil)  
4 hrs/week 5 ECTS credits

**6896 Signal Processing 1 + Signalprocessing 1 Lab** (Schulter)  
4 hrs/week 5 ECTS credits

**7110 Wireless Communication** (Fechter)  
4 hrs/week 5 ECTS credits

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

**Module Embedded Control** - in total 5 ECTS

**7118 Embedded Control Seminar** (Berger)  
2 hrs/week

**7453 Embedded Control Lab** (Berger)  
2 hrs/week

**7455 Advanced Software Dev. for 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

**7945 Lidar and Radar Systems** (Elser)  
4 hrs/week 5 ECTS credits

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## MECHATRONICS - MM (MASTER PROGRAM)

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**1856 System Analysis and Simulation with LabVIEW for Master** (Georgi, Hohl)  
4 hrs/week 5 ECTS credits

**Module Advanced Mathematics for Engineers**

**1876 Advanced Mathematics for Engineers 1** (Ertel)  
4 hrs/week 5 ECTS credits

**6894 Advanced Mathematics for Engineers 1 - Lab** (Ertel)  
4 hrs/week 5 ECTS credits

**1905 Process Interface Equipment** (Ruf)

4 hrs/week 5 ECTS credits  
8 ECTS together with Lab on Process Interface Equipment offered in SS

**1895 Simulation of Mechatronic Systems (Wöllhaf)**

4 hrs/week 5 ECTS credits

**2233 Electrical Drives (Paczynski)**

4 hrs/week 5 ECTS credits

**2236 Engineering Design and Materials (Niedermeier)**

6 hrs/week 6 ECTS credits

**2354 Engineering Mechanics (Stetter)**

6 hrs/week 6 ECTS credits

**3124 Embedded Computing (Brümmer)**

4 hrs/week 5 ECTS credits

**4441 Power Electronics (Farkas)**

4hrs/week 5 ECTS credits

**6807 Processes and Automation in Photovoltaics (Niedermeier, Fath)**

4 hrs/week 5 ECTS credits

**6895 Circuit & Systems 1 - System-on-Chip (Pfeil)**

4 hrs/week 5 ECTS credits

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

4 hrs/week 5 ECTS credits

**7455 Advanced Software Dev. for 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

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**! TECHNOLOGY MANAGEMENT AND OPTIMIZATION (MASTER PROGRAM)**

*Lectures offered in the frame of the TM&O Master program are **open for Master students only***

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

4 hrs/week 5 ECTS credits

**Module Production Optimization 1**

**6345 Production System Optimization (Pufall)\***

2 hrs/week 3 ECTS credits

**6346 Modern Production Engineering Tools (Pufall)\***

2 hrs/week 2 ECTS credits

This module consists of 6345, 6346 and 6911 (German), in LSF it is mentioned "one exam only". Mr. Pufall will grant ECTS for each part of the module and also partially grade the exam.

### **Module Product Optimization 1**

**6343 Development Methodology (TMO Research & Development)** (Philippi-Beck)\*

4 hrs/week 3 ECTS credits

**6344 Technology & Innovation Management** (Ermak)\*

2 hrs/ week 2 ECTS credits

### **Business Management**

**6620 Management systems** (Philippi-Beck)\*

2 hrs/week 2 ECTS credits

**6900 Management Accounting and Reporting** (Philippi-Beck)\*

4 hrs/week 4 ECTS credits

Part of Module 8: Management Systems, Management Accounting and Reporting

**6466 Operations Research** (T. Harth)\*

2 hrs/week 2 ECTS credits

**6920 TM01 System analysis and Technical Specification** (Gerland)\*

1 hrs/week 1 ECTS credits

\* in Engl. if there are students of Y Schools (ESC Troyes)

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

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**1479 Intercultural Management** (Hohl)

2 hrs/week 2 ECTS credits

### **International Companies/ International Management 6 ECTS**

**3586 International Companies** (Fuchs)

2 hrs/week 4 ECTS credits (CAN but does not have to be taken in combination with 3910)

**3910 International Management = 4305 Strategic Management** (Willax)

2 hrs/week 2 ECTS credits

**3585 International Marketing** (Niersbach)

2 hrs/week 3 ECTS credits (marked case study)

**4355 Simulating and Optimising the value network** (Hagen, Giesa)

Attention: Block seminar first week/weekend of Jan before lectures officially start!

2 hrs/week 3 ECTS credits

**4356 Business Start-Up and Entrepreneurship** (Rundel)

2 hrs/week 3 ECTS credits (business plan)

**4462/ 1472 Business Game** (Philippi-Beck, Felber, Klett)  
Block Seminar 2 ECTS credits

**4473 Practical Project: Investment Case** (Duehnfort)  
2 hrs/week 3 ECTS credits

**4910 International Conduct of Negotiation and Moderation** (Hohl, Hock)  
Block Seminar 2 ECTS credits

**6919 Seminar: Research project - Guiding students through a research paper** (Pufall)  
2 hrs/week 3 ECTS credits

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

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

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**6598 International Comparison of health care systems** (Kern - Health Economics)  
2 hrs/week 2 ECTS

**3058 Artificial Intelligence Lab** (Ertel - Computer Science) - in English if > 3 intl. participants  
4 hrs/week 3 ECTS credits

**1825 Operating Systems** (Eggendorfer - Applied Computer Science)  
4 hrs/week 4 ECTS

**4305 Strategic Management** (Willax - Business Management)  
2 hrs/week 3 ECTS

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

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**3008 Artificial Intelligence for Master** (Ertel - Computer Science)  
4 hrs/week 5 ECTS credits

**3058 Artificial Intelligence Lab** (Ertel - Computer Science) - in English if > 3 intl. participants  
4 hrs/week 3 ECTS credits

**3227 Advanced Computer Graphics** (Scherzer- Computer Science)  
8 hrs/week 10 ECTS credits

**1895 Simulation of Mechatronic Systems** (Wöllhaf)  
4 hrs/week 5 ECTS credits



**3219 Modern Database Technologies** (Hulin - Computer Science)  
Blended-Learning-Course with Presence Phases 5 ECTS credits

**6896 Signal Processing 1 + Signalprocessing 1 Lab** (Schulter - IN)  
4 hrs/week 5 ECTS credits

**7435 Software Security** (Eggendorfer, Inan - Computer Science)  
Blended-Learning-Course with Presence Phases 5 ECTS credits

**7536 Advanced Controlling** (Neff - BWU)  
4 hrs/week 5 ECTS credits

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## LANGUAGE LECTURES AND INTERCULTURAL SEMINARS (CLIC)

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

**4382 DaF A1**

Attention: The course starts with a two-week intensive course September 21, 2020 and will be continued on Wednesdays from 9:45 – 13:00 throughout the semester  
4 hrs/week 4 ECTS credits

**4634 DaF A2,**

Attention: The course starts with a two-week intensive course September 21, 2020 and will be continued on Wednesdays from 9:45 – 13:00 throughout the semester  
4 hrs/week 4 ECTS credits

**4630 DaF B1,**

Attention: The course starts with a two-week intensive course September 21, 2020 and will be continued on Wednesdays from 9:45 – 13:00 throughout the semester  
4 hrs/week 4 ECTS credits

**4631 DaF B2,**

Attention: The course starts with a two-week intensive course September 21, 2020 and will be continued on Wednesdays from 9:45 – 13:00 throughout the semester  
4 hrs/week 4 ECTS credits

**4632 DaF C1**

4 hrs/week 2 ECTS credits (starts in the first semester week: Oct.5, 2020)

+ Tutorial Courses – to be announced shortly before semester start

## English

(courses in Professional English are obligatory in most study programs at a certain point in time, that's why so many are on offer)

**7753**                      **Professional English 1, B2 (AI, PE)**  
2x2 hrs/ week    5 credits

**6873, 6848, 3318,**      **Professional English 1, B2**  
2 hrs/week      2 ECTS credits

**7367, 7142, 7137**      **Professional English 2, B2**  
2 hrs/week      2 ECTS credits

**4408**                      **Improve your speaking skills B2**  
2 hrs/ week      2 ECTS credits

**898**      **English Negotiating** (Rudolph)  
Blockseminar, 3 ECTS credits

Different courses "English for Specific Purposes" such as:

**55**      **English for Specific Purposes: Project Management** (Conner)  
Blockseminar

**7396**      **English for Psychology** (Marquard)  
2 hrs/week      2 ECTS credits

Several further offers to be published shortly before semester start. You can put any of the courses as a place holder in your Learning agreement if needed and change later.

## Seminars on Intercultural Sensitization and other topics

**4656**      **Intercultural Sensitization** (Ronssin + students)  
Block seminar: 1 ECTS credit

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

**7143**      **Intercultural Competence** (Rudolph)  
2 hrs/week      2 ECTS credits

**7806**      **Intercultural Competence for Professional English** (da Silva)  
Block seminar: 2 ECTS credits

**7634**      **International Politics and business** (Mulder)  
Block seminar: Blended learning/ Online  
2 ECTS credits

**7397 Business and Communication with China (Mulder)**

Block seminar: Blended learning/ Online  
2 ECTS credits

Except for 4656, 1479, 7143 courses may vary per semester, courses with other content might be offered – to be published shortly before semester start

**Other language course offers at various levels**

Spanish, Italian, French, Brazilian-Portuguese, Arabic, Russian...to be decided shortly before semester start