Winter Semester - Lectures in English Language (To be updated)

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](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 (?)
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

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

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 M Machinery Design and M 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)

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)
Design 1 - Module: 5 ECTS credits

7957 CAD Practical Training (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

ELECTRICAL ENGINEERING AND EMBEDDED SYSTEMS - EMM (MASTER PROGRAM)

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)  
4 hrs/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)**

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)
4 hrs/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

! TECHNOLOGY MANAGEMENT AND OPTIMIZATION (MASTER PROGRAM)
Lectures offered in the frame of the TM&O Master program are open for Master students only
Held in English only if students of Y Schools attend!

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 (Ermark)*
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**  TMO1 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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**8034**  International communication - analyzing and resolving conflicts in international contexts (xxx)
2 hrs/week  3 ECTS credits

**xxxx**  Practical Sales Project Seminar (RAFI) (Fuss)
2 hrs/week  ECTS credits (compulsory if you take the whole program)

**xxxx**  Intercultural Challenges in Customer and Account Management (?)
2 hrs/week  3 ECTS credits

**xxxx**  Innovation and Virtual Leadership (?)
2 hrs/week  3 ECTS credits (marked case study)

**4355**  Simulating and Optimizing the value network (Hagen, Giesa)
Attention: Block seminar first week/weekend of Jan before lectures officially start!
2 hrs/week  3 ECTS credits

**4906**  Business Analysis and Valuation (?)
2 hrs/week  3 ECTS credits

3968  **Change Management** (Hohl)
Block Seminar  2 ECTS credits

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

3585  **International Marketing** (Niersbach)
Block Seminar  2 ECTS credits

6919  **Seminar: Academic writing** (Pufall?)
2 hrs/week  5 ECTS credits

8073  **International Project Management** (Collenberg)
2 hrs/week  3 ECTS credits

xxxx  **B2B Marketing and Sales Project Seminar (Coperion)** (Niersbach)
2 hrs/week  5 ECTS credits

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

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

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**

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 + Signal Processing 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

LANGUAGE LECTURES AND INTERCULTURAL SEMINARS (CLIC)

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

4382  DaF A1
Attention: The course starts with a two-week intensive course September 20, 2021* 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 20, 2021* 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 20, 2021* 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 20, 2021* 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.x )

+ Tutorial Courses – to be announced shortly before semester start

*to be confirmed
**English**

10210    Improve your speaking skills C1 (Wandinger)  
2 hrs/ week  2 ECTS credits (?)

10212    English for Specific Purposes: Focus on Mechanical and Automotive Engineering (Matter)  
2 hrs/ week  2 ECTS credits (?)

10188    English for Specific Purposes: Lost for Words? Effective and Essential Communication in our Professional Environment (Wandinger)  
2 hrs/week  2 ECTS credits (?)

10194    English for Specific Purposes: Student EQ Edge - Emotional Intelligence and Your Success (Hopkins)  
2 hrs/week  2 ECTS credits (?)

10197    English for Health Economics (Riviere)  
2 hrs/week  2 ECTS credits (?)

10857    English for Specific Purposes - The “Designing Your Life Bookclub” (Hopkins)  
2 hrs/week  2 ECTS credits (?)

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

10196    English Negotiating – Block Seminar (Rudolph)  
Block seminar, 3 ECTS credits, 31.10., 07.11., 21.11. 09:00 – 17:00 – C-building C004 (max. 40 students)

Some of the English course may vary but there is always quite a big choice available

**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

Others to be decided on shortly before semester start

**Other language course offers at various levels**

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