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.

ELECTRICAL ENGINEERING AND INFORMATION TECHNOLOGY (BACHELOR PROGRAM)

Second semester

1396 Mathematics 3: Analysis 2 with Exercises (Fechter)
4 hrs/week   5 ECTS credits

4912 Electrical Engineering/ Physics 2: Electrodynamics (Siggelkow)
4 hrs/week   5 ECTS credits

Module Metrology 1, Module: 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 Training Electrical Eng. 2 – Implementation and verification (Pfeil)
2 hrs/week   2 ECTS credits
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

6334 Digital Technology, Practical Training (Brümmer)

2 hrs/week   2 ECTS credits
Together with 1809 Computer Technology, Practial 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: (Introduction to) Power Train Engineering (Farkas)
4 hrs/week   5 ECTS credits

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

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

Second Semester

4912   Electrical Engineering/ Physics 2: Electrodynamics (Siggelkow)
4 hrs/week   5 ECTS credits

Module Metrology 1 - Module: 5 ECTS credits
2117   Measurement technology 1 (Pfeil)
2 hrs/week
2121   Measurement Practical Training (Pfeil)
2 hrs/week   Total 5 ECTS credits

1396   Mathematics 3: Analysis 2 with Exercises (Fechter)
4 hrs/week   5 ECTS credits

7079   Basic Practical Training Electrical Eng. 2 – Implementation and verification (Pfeil)
2 hrs/week   2 ECTS credits
Module 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
xx   Digital Design, Digital Technology Practical (x)
2 hrs/week   2 ECTS credits
Module together with xx Machinery Design and xx Analog Design: Electronics Practial offered in SS in English

1421   Materials Science (Reick)
4 hrs/week   5 ECTS credits

7086   Machine Construction (Reick)
4 hrs/week   5 ECTS credits

Fourth Semester

xx   Digital Signal Processing (x)
4 hrs/week   5 ECTS credits

xx   Computer Aided Circuit Design2 – Circuit Design (x)
4 hrs/week   5 ECTS credits

xx   Power Electronics (x)
4 hrs/week   5 ECTS credits

xx   Electric Power Trains (Reick)
4 hrs/week   5 ECTS credits

7086   Machine Construction (Reick)
4 hrs/week   5 ECTS credits

7086   Machine Construction (Reick)
4 hrs/week   5 ECTS credits

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

xxx   Analysis 2 – Differential Equations and Vector Analysis (x)
4 hrs/week   5 ECTS credits

xxx   Physics 2 - Electrodynamics (x)
4 hrs/week   5 ECTS credits

Design 1 - Module: 5 ECTS credits
xxx   CAD (x)
2 hrs/week
xxx   Technical Mechanics (x)
2 hrs/week

Electronics TE 1 - Module: 5 ECTS
xxx   Electronics TE 1 (x)
2 hrs/week
xxx   Practical Electrical Engineering (x)
2 hrs/week

Software Development - Module: 5 ECTS
xxx   Software Development (x)
2 hrs/week
xxx   Practical Software Development (x)
2 hrs/week

ELECTRICAL ENGINEERING AND EMBEDDED SYSTEMS (MASTER PROGRAM)

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

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

1905   Process Interface Equipment (Ruf)
4 hrs/week   5 ECTS credits

3124   Embedded Computing (Brümmer)
4 hrs/week   2 ECTS credits?
Part of Module Embedded Computing

6807   Processes and Automation in Photovoltaics (Fath, Niedermeier)
4 hrs/week   5 ECTS credits

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

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

6896   Signal Processing 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

3244   **Circuit & Systems 2 - Software (SW) and Hardware (HW) Design** (Siggelkow) –
exceptionally offered in this winter semester, normally only SS
4 hrs/week   5 ECTS credits

MECHATRONICS (MASTER PROGRAM)

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

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

4995   **Advanced Mathematics for Engineers, Exercises** (Ertel)
2 hrs/week   2 ECTS credits

1905   **Process Interface Equipment** (Ruf)
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

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

7455   **Autonomous mobile robots for master** (Ertel, Stähle)
4 hrs/week   5 ECTS credits

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Module Production Optimization 1

6345   Production System Optimization (Pufall)*

2 hrs/week   3 ECTS credits

6346   Modern Production Engineering Tools (Smets) *

2 hrs/week   2 ECTS credits

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

Module Product Optimization 1

6343   Development Methodology (TM & O 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 (Schelter)*

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 ESC Troyes

**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

3586   International Companies (Philippi-Beck)

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

3910　International Management (Philippi-Beck)
2 hrs/week　　2 ECTS credits　(If taken in combination with 3586 only <u>one</u> exam of 90 min necessary)

3585　International Marketing (Niersbach)
2 hrs/week　　3 ECTS credits (marked case study)

4355　Simulating and Optimizing the value network (Hagen, Giesa)
2 hrs/week　　3 ECTS credits

4356　Business Start-Up and Entrepreneurship (Philippi-Beck)
2 hrs/week　　3 ECTS credits (business plan)

4462/
1472　Business Game (Philippi-Beck, 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

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

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 Grapnics** (Scherzer- Computer Science)
8 hrs/week   10 ECTS credits

1876 **Mathematics for Engineers** (Ertel - Computer Science)
4 hrs/week   5 ECTS credits

4995 **Mathematics for Engineers - Exercises** (Ertel - Computer Science)
2 hrs/week   3 ECTS credits

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

7592 **Hardware Security** (Eggendorfer - Computer Science)
Blended-Learning-Course with Presence Phases   5 ECTS credits

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 in mid-September
4 hrs/week   4 ECTS credits

4634 **DaF A2**,
Attention: The course starts with a two-week intensive course in mid-September
4 hrs/week   4 ECTS credits

4630 **DaF B1**,
Attention: The course starts with a two-week intensive course in mid-September
4 hrs/week   4 ECTS credits

4631 **DaF B2**,
Attention: The course starts with a two-week intensive course in mid-September
4 hrs/week   4 ECTS credits

4632 DaF C1
4 hrs/week   ? ECTS credits

7629 DaF Deutsch für den Beruf
2 hrs/week   2 ECTS credits

7143 DaF Technisches Deutsch
2 hrs/week   2 ECTS credits

5144 DaF – Presentation and Documentation
2 hrs/week   2 ECTS credits

7573 DaF B1, Tutorial/ Support Course
1 hrs/week

7574 DaF B2, Tutorial/ Support Course
1 hrs/week

5144 DaF - Presentation and Documentation
2 hrs/ week   2 ECTS credits

English

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

7137, 7367, 7142, 7140   Professional English 2, B2
2 hrs/week   2 ECTS credits

7380 Effective Business Communication Skills B2
2 hrs/week   2 ECTS credits

4408 General English Fluency Upper-Intermediate B2
2 hrs/week   2 ECTS credits

7489 Technical English Inch by inch, B2
2 hrs/week   2 ECTS credits

3995 General English Fluency Advanced C1
2 hrs/week   2 ECTS credits

7489 Technical English Inch by inch, C1
2 hrs/week   2 ECTS credits

7377 English for Specific Purposes: Focus on Mechanical and Automotive Engineering
2 hrs/week   2 ECTS credits

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

55   **English for Specific Purposes: Project Management (Conner)**
Blockseminar   2 ECTS credits

6857   **English for Health Economics**
2 hrs/week   2 ECTS credits

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

7356   **Professional and academic Writing**
2 hrs/ week   2 ECTS credits

Seminars on Intercultural Sensitization and other topics

4656   **Intercultural Sensitization** (Steinlein)
Blockseminar   1 ECTS credit

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

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

7632   **Doing business and work in an English-speaking world - Reducing intercultural misunderstandings and overcoming culture shock** (Ironside)
Blockseminar   2 ECTS credits

7634   **International Politics and business** (Mulder)
Blockseminar: 1 full Saturday + Blended learning/ Online
         2 ECTS credits

7635   **Sun Tzu's Art of War and Business** (Mulder)
Blockseminar   2 ECTS credits

Other language course offers at various levels

Spanish, Italian, Arabic, Russian…