

CURRICULUM B.Eng. INDUSTRIAL ENGINEERING AND MANAGEMENT

myStudies, 180 ECTS

| Month | Model 1: Programme Start October | | | Model 2: Programme Start January | | | Model 3: Programme Start April | | | Model 4: Programme Start July | | | | | | | | | | | | | | |
|-------|---------------------------------------|--|---|---------------------------------------|--|---|---------------------------------------|--|---|---------------------------------------|--|---|----------------|--|--|--|--|--|--|--|--|--|--|--|
| | Courses | | | Courses | | | Courses | | | Courses | | | | | | | | | | | | | | |
| Oct | Scientific and Technical Fundamentals | Introduction to Robotics | Management Accounting | Semester Break | | | | | | | | | | | | | | | | | | | | |
| Nov | | | | | | | | | | | | | | | | | | | | | | | | |
| Dec | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan | Technical Drawing | Collaborative Work | International Marketing | Technical Drawing | Collaborative Work | International Marketing | Semester Break | | | | | | | | | | | | | | | | | |
| Feb | | | | | | | | | | | | | | | | | | | | | | | | |
| Mar | | | | | | | | | | | | | | | | | | | | | | | | |
| Apr | Mathematics II | Business 101 | Managerial Economics | Mathematics II | Business 101 | Managerial Economics | Mathematics II | Business 101 | Managerial Economics | Semester Break | | | | | | | | | | | | | | |
| May | | | | | | | | | | | | | | | | | | | | | | | | |
| Jun | | | | | | | | | | | | | | | | | | | | | | | | |
| Jul | Introduction to Academic Work | Introduction to the Internet of Things | Production Engineering | Introduction to Academic Work | Introduction to the Internet of Things | Production Engineering | Introduction to Academic Work | Introduction to the Internet of Things | Production Engineering | Introduction to Academic Work | Introduction to the Internet of Things | Production Engineering | | | | | | | | | | | | |
| Aug | | | | | | | | | | | | | | | | | | | | | | | | |
| Sep | | | | | | | | | | | | | Semester Break | | | | | | | | | | | |
| Oct | Entrepreneurship and Innovation | Supply Chain Management I | Intercultural and Ethical Decision-Making | Scientific and Technical Fundamentals | Introduction to Robotics | Management Accounting | Scientific and Technical Fundamentals | Introduction to Robotics | Management Accounting | Scientific and Technical Fundamentals | Introduction to Robotics | Management Accounting | | | | | | | | | | | | |
| Nov | | | | | | | | | | | | | | | | | | | | | | | | |
| Dec | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan | Electrical Engineering | Project: Design Thinking | Sensor Technology | Electrical Engineering | Project: Design Thinking | Sensor Technology | Technical Drawing | Collaborative Work | International Marketing | Technical Drawing | Collaborative Work | International Marketing | | | | | | | | | | | | |
| Feb | | | | | | | | | | | | | | | | | | | | | | | | |
| Mar | | | | | | | | | | | | | | | | | | | | | | | | |
| Apr | Mechatronic Systems | Automation Technology | Data Analytics and Big Data | Mechatronic Systems | Automation Technology | Data Analytics and Big Data | Mechatronic Systems | Automation Technology | Data Analytics and Big Data | Mathematics II | Business 101 | Managerial Economics | | | | | | | | | | | | |
| May | | | | | | | | | | | | | | | | | | | | | | | | |
| Jun | | | | | | | | | | | | | Semester Break | | | | | | | | | | | |
| Jul | Corporate Finance and Investment | Principles of Management | Corporate Finance and Investment | Principles of Management | Corporate Finance and Investment | Principles of Management | Corporate Finance and Investment | Principles of Management | Corporate Finance and Investment | Principles of Management | Corporate Finance and Investment | Principles of Management | | | | | | | | | | | | |
| Aug | | | | | | | | | | | | | | | | | | | | | | | | |
| Sep | | | | | | | | | | | | | Semester Break | | | | | | | | | | | |
| Oct | Digital Business Models | Agile Project Management | Project: Smart Product Solutions | Entrepreneurship and Innovation | Supply Chain Management I | Intercultural and Ethical Decision-Making | Entrepreneurship and Innovation | Supply Chain Management I | Intercultural and Ethical Decision-Making | Entrepreneurship and Innovation | Supply Chain Management I | Intercultural and Ethical Decision-Making | | | | | | | | | | | | |
| Nov | | | | | | | | | | | | | | | | | | | | | | | | |
| Dec | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan | Seminar: Human-Robot Interaction | Elective (online) | Elective (online) | Seminar: Human-Robot Interaction | Elective (online) | Elective (online) | Electrical Engineering | Project: Design Thinking | Sensor Technology | Electrical Engineering | Project: Design Thinking | Sensor Technology | | | | | | | | | | | | |
| Feb | | | | | | | | | | | | | | | | | | | | | | | | |
| Mar | | | | | | | | | | | | | | | | | | | | | | | | |
| Apr | Elective (online, 10 ECTS) | | Product Development in Industry 4.0 | Elective (online, 10 ECTS) | | Product Development in Industry 4.0 | Elective (online, 10 ECTS) | | Product Development in Industry 4.0 | Mechatronic Systems | Automation Technology | Data Analytics and Big Data | | | | | | | | | | | | |
| May | | | | | | | | | | | | | | | | | | | | | | | | |
| Jun | Semester Break | | | | | | | | | | | | | | | | | | | | | | | |
| Jul | Elective (online) | Elective (online) | Bachelor Thesis | Elective (online) | Elective (online) | Bachelor Thesis | Elective (online) | Elective (online) | Bachelor Thesis | Elective (online) | Elective (online) | Bachelor Thesis | | | | | | | | | | | | |
| Aug | | | | | | | | | | | | | | | | | | | | | | | | |
| Sep | | | | | | | | | | | | | Semester Break | | | | | | | | | | | |
| Oct | | | | Digital Business Models | Agile Project Management | Project: Smart Product Solutions | Digital Business Models | Agile Project Management | Project: Smart Product Solutions | Digital Business Models | Agile Project Management | Project: Smart Product Solutions | | | | | | | | | | | | |
| Nov | | | | | | | | | | | | | | | | | | | | | | | | |
| Dec | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan | | | | | | | Seminar: Human-Robot Interaction | Elective (online) | Elective (online) | Seminar: Human-Robot Interaction | Elective (online) | Elective (online) | | | | | | | | | | | | |
| Feb | | | | | | | | | | | | | | | | | | | | | | | | |
| Mar | | | | | | | | | | | | | | | | | | | | | | | | |
| Apr | | | | | | | Elective (online, 10 ECTS) | | Product Development in Industry 4.0 | | | | | | | | | | | | | | | |
| May | | | | | | | | | | | | | | | | | | | | | | | | |

| Elective A* | Elective B* | Elective C* |
|---|--|---|
| Applied Robotics Embedded Systems Project: Applied Robotics with Robotic Platforms Applied Sales Applied Sales I Applied Sales II Autonomous Driving Self-Driving Vehicles Seminar: Current Topics and Trends in Self-Driving Technology Control Engineering Signals and Systems Control Systems Engineering Introduction to Cognitive Robotics Digital Signal Processing Fundamentals of NLP and Computer Vision Microcontroller Digital and Information Technology Project: Microcontrollers and Logical Circuits Object-oriented Programming Object-oriented Programming with Java Data Structures and Java Class Library | Programming of Robotic Systems Programming with C/C++ Programming PLCs Service Robotics Mobile Robotics Soft Robotics Smart Devices Smart Devices I Smart Devices II Smart Factory Smart Factory I Smart Factory II Smart Mobility Smart Mobility I Smart Mobility II Smart Services Smart Services I Smart Services II | Practice Project: Industrial Engineering 4.0 (can only be done on campus) Project: Hackathon |
| Applied Robotics Embedded Systems Project: Applied Robotics with Robotic Platforms Applied Sales Applied Sales I Applied Sales II Autonomous Driving Self-Driving Vehicles Seminar: Current Topics and Trends in Self-Driving Technology Control Engineering Signals and Systems Control Systems Engineering Introduction to Cognitive Robotics Digital Signal Processing Fundamentals of NLP and Computer Vision Microcontroller Digital and Information Technology Project: Microcontrollers and Logical Circuits Object-oriented Programming Object-oriented Programming with Java Data Structures and Java Class Library | Programming of Robotic Systems Programming with C/C++ Programming PLCs Service Robotics Mobile Robotics Soft Robotics Smart Devices Smart Devices I Smart Devices II Smart Factory Smart Factory I Smart Factory II Smart Mobility Smart Mobility I Smart Mobility II Smart Services Smart Services I Smart Services II Internship** Studium Generale | |

| Module | Course Code | Course | ECTS | Type of Exam |
|---|-----------------|---|------|---|
| Scientific and Technical Fundamentals | DLBINGNAG01_E | Scientific and Technical Fundamentals | 5 | Exam |
| Introduction to Robotics | DLBROIRO1_E | Introduction to Robotics | 5 | Exam/Written Assessment: Written Assignment |
| Management Accounting | DLBMAE01 | Management Accounting | 5 | Exam/Written Assessment: Written Assignment |
| Technical Drawing | DLBROTD01_E | Technical Drawing | 5 | Exam |
| Collaborative Work | DLBSCWC01 | Collaborative Work | 5 | Oral Assignment |
| International Marketing | DLBDSIMB01 | International Marketing | 5 | Exam |
| Mathematics II | DLBSCM201 | Mathematics II | 5 | Exam |
| Business 101 | DLBBA01_E | Business 101 | 5 | Exam/Written Assessment: Written Assignment |
| Managerial Economics | DLBBWME01_E | Managerial Economics | 5 | Exam |
| Introduction to Academic Work | DLBCSIAW01 | Introduction to Academic Work | 5 | Basic Workbook |
| Introduction to the Internet of Things | DLBINGEIT01_E | Introduction to the Internet of Things | 5 | Exam |
| Production Engineering | DLBDEAR01 | Production Engineering | 5 | Exam |
| Entrepreneurship and Innovation | DLBBAEI01_E | Entrepreneurship and Innovation | 5 | Written Assignment |
| Supply Chain Management I | DLBDESCH01 | Supply Chain Management I | 5 | Exam |
| Intercultural and Ethical Decision-Making | DLBCSIDM01 | Intercultural and Ethical Decision-Making | 5 | Case Study |
| Electrical Engineering | DLBINGET01-01_E | Electrical Engineering | 5 | Exam |
| Project: Design Thinking | DLBINGDT01_E | Project: Design Thinking | 5 | Project Report |
| Sensor Technology | DLBROST01_E | Sensor Technology | 5 | Exam |
| Mechatronic Systems | DLBROMSV01_E | Mechatronic Systems | 5 | Exam |
| Automation Technology | DLBROEIRA02_E | Automation Technology | 5 | Exam |
| Data Analytics and Big Data | DLBINGDABD01_E | Data Analytics and Big Data | 5 | Case Study |
| Corporate Finance and Investment | DLBCFIE01 | Corporate Finance and Investment | 5 | Written Assignment |
| Principles of Management | DLBBAPM01_E | Principles of Management | 5 | Case Study |
| Product Development in Industry 4.0 | DLBINGPE01_E | Product Development in Industry 4.0 | 5 | Exam |
| Digital Business Models | DLBLODB01_E | Digital Business Models | 5 | Exam |
| Agile Project Management | DLBOSAPM01 | Agile Project Management | 5 | Project Report |
| Project: Smart Product Solutions | DLBIEPSP01 | Project: Smart Product Solutions | 5 | Oral Project Report |
| Seminar: Human-Robot Interaction | DLBROSHRI01_E | Seminar: Human-Robot Interaction | 5 | Research Essay |
| ELECTIVE A* | | e.g. Autonomous Driving | 10 | |
| ELECTIVE B* | | e.g. Practice Project: Industrial Engineering 4.0 | 10 | |
| ELECTIVE C* | | e.g. Control Engineering | 10 | |
| Bachelor Thesis | | Bachelor Thesis | 9 | Bachelor Thesis |
| | | Thesis Defense | 1 | Presentation: Colloquium |



Here you see the order in which you study your courses in presence depending on your personal study start in October, January, April or July. Each semester consists of two blocks. In each block, you attend classes on campus for usually three courses to deepen the content in direct exchange with your fellow students and lecturers. You have semester breaks in June and September. Attending the courses on campus is mandatory and will be verified due to Visa regulations (not valid for DACH students).

Each block concludes with a two-week exam preparation phase. You can defer those exams to a later date that you do not want to take during this period. This way, your exam phases are always spread evenly over the year. Exceptions to this are courses that count as admission requirements for other courses.

Attention: Attendance times may vary slightly depending on public holidays and the federal state holidays the campus is located in.

If you are studying Model 2, 3 or 4 you will have to start your Bachelor Thesis before completing your final courses.

* Electives: Choose one module from the Elective A, one module from the Elective B and one module from the Elective C. Every elective module can only be chosen once. ** The elective "Internship" is offered for the first time in October 2022.

Note: The Electives are only offered in distance learning (online).