



School of Medical Engineering and Applied Social Sciences

General Information

Choosing Courses

We recommend exchange students to choose courses only from **one** semester (# 1 or # 3) Of course, exchange students who speak German fluently may also participate in courses taught in German at Linz Campus – please contact the <u>International Office</u> for more information if you are interested in studying in German.

A full workload for regular students is 30 ECTS per semester. Due to timetable overlaps this is mostly not possible for exchange students. Incoming students are therefore expected to attend courses worth 20 ECTS.

Academic Calendar

Winter semester: October 1st to mid- February (Semesters 1, 3, 5) **Summer semester:** March 1st to mid- July (Semesters 2, 4, 6)

Examination Period: End of January to mid- February (winter semester)

End of June to mid- July (summer semester)

Breaks: Christmas (2 weeks); February (1 to 4 weeks); Easter (1 week); summer holidays in July/August/September (12 weeks).

Types of Classes

Lectures (VO, ILV)

While some subjects are presented as "traditional" lectures or lectures with practical elements, others are taught in the form of seminars, laboratory and practical classes. In many cases, both lecture and practical class are combined in the same semester.

Seminars, Laboratory and Practical Classes (SE, LB, UE)

These are classes in which students work on special topics, then present and discuss them within a relatively small group. In laboratory and practical classes students learn to apply their knowledge acquired in lectures and seminars.

Block Courses

In some cases – primarily in the case of seminars and laboratory classes – instruction does not take place weekly, but is instead delivered in blocks of more intensive instruction (e.g., one block every two weeks or even one block per term).

Excursions

Some courses occasionally include excursions, and attendance is generally obligatory. Any costs that arise for entrance fees, accommodation or other expenses are paid by the students.

Project Work (PT)

These are not theoretical projects but "real" work – with all the responsibilities that go along with it and have therefore proven popular with our exchange students in recent semesters. Students work on problems relevant to the particular company. They work in teams of 4-10 students and are supervised and guided by a faculty member. Most of the time the teams work on their own and at the end of the semester present their results to both their supervising faculty member and the company.

The main aim of these projects is to train the students in teamwork. Teamwork and team spirit are key elements of Linz Campus philosophy – students learn to work together rather than competing with one another.

Attendance Policy:

Please note, that there is a compulsory attendance in all types of classes except the lectures marked with "VO". You'll find this information within the "Course unit code". Compulsory attendance means that you have to be present in 100 % of the classes. Absence is only permitted in case of illness or other justifiable reason about which you have to inform the lecturer asap. In any case, at least 80 % of the classes have to be attended. Otherwise you will not be able to finish the course.

General Information

| Programme (department) | Course unit code | Course unit title | Course type | Semester (level) | Level | ECTS | Page | |
|---|-------------------|--|----------------------------------|------------------|--------|---------------|---------------|--|
| Medical Engineering (Master, Linz Campus) | | | | | | | | |
| MME.ma | AMI1IL | Advanced Medical Imaging and Diagnosis Systems I | Integrated course | 1 | Master | 5 | 3 | |
| MME.ma | AMT1IL | Advanced Materials | Integrated course | 1 | Master | 5 | 4 | |
| MME.ma | APR1UE | Applied Programming I | Practice- oriented session | 1 | Master | 2,5 | 5 | |
| MME.ma | BIM1IL | Bionic Implants I | Integrated course | 1 | Master | 2,5 | 6 | |
| MME.ma | CLB1IL | Cellular Biophysics | Integrated course | 1 | Master | 1 | 7 | |
| MME.ma | ECD1IL | Electronic Circuit Design | Integrated course | 1 | Master | 2,5 | 8 | |
| MME.ma | EMB1IL | Embedded Systems I | Integrated course | 1 | Master | 2,5 | 9 | |
| MME.ma | GER1IL | German Language I A1.1. | Integrated course | 1 | Master | 3 | 10 | |
| MME.ma | IPM3VO | International Product Management | Lecture | 3 | Master | 2 | 11 | |
| MME.ma | IPT1IL | Introduction to Programming-Tools | Integrated course | 1 | Master | 2,5 | 12 | |
| MME.ma | MAT1IL | Applied Mathematics I | Integrated course | 1 | Master | 4 | 13 | |
| MME.ma | MED1VO | Selected Topics in Medicine for Medical Engineers I | Lecture | 1 | Master | 1 | 14 | |
| MME.ma | MOC1IL | 3D Motion Capture and Analysis | Integrated course | 1 | Master | 2,5 | 15 | |
| MME.ma | MSI1IL | Musculoskeletal Systems Modeling and Simulation | Integrated course | 1 | Master | 2,5 | 16 | |
| MME.ma | PRJ3PT | Project: Scientific or Professional | Project | 3 | Master | 19 | 17 | |
| MME.ma | PYT1IL | Python | Integrated course | 1 | Master | 1 | 18 | |
| MME.ma | REG3IL | Regulatory Affairs | Integrated course | 3 | Master | 2,5 | 19 | |
| MME.ma | RUE3IL | Requirements and Usability Engineering | Integrated course | 3 | Master | 2,5 | 20 | |

Master's Degree Programme

| Programme (department) | Course unit code | Course unit title | Course type | Semester (level) | Level | ECTS | Page |
|---|------------------|--|-------------------|------------------|--------|------|------|
| Medical Engineering (Master, Linz Campus) | | | | | | | |
| MME.ma | SLC1IL | Applied Software Life Cycle Processes | Integrated course | 1 | Master | 2,5 | 21 |
| MME.ma | SYS3VO | Applied Systems Engineering | Lecture | 3 | Master | 4 | 22 |
| MME.ma | TIM1VO | Technological Innovation in Medicine I | Lecture | 1 | Master | 2,5 | 23 |

Advanced Medical Imaging and Diagnosis Systems I (AMI1IL)

| Degree course | MME.ma |
|-----------------------------------|--|
| Course title | Advanced Medical Imaging and Diagnosis Systems I |
| Course code | AMI1IL |
| Level | Master |
| Term | WS24/25 |
| Lecturer | Raimund Kleiser, Armin Hochreiner, Ilhana Tihak |
| Contact hours per week | 4 |
| ECTS credits | 5 |
| Course type | Integrated course |
| Examinations | written examination |
| Language of instruction | English |
| Places for international students | 3 |

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Prerequisites:

Advanced Materials (AMT1IL)

| Degree course | MME.ma |
|-----------------------------------|------------------------------|
| Course title | Advanced Materials |
| Course code | AMT1IL |
| Level | Master |
| Term | WS24/25 |
| Lecturer | Jaroslaw Jacak, Dmitry Sivun |
| Contact hours per week | 4 |
| ECTS credits | 5 |
| Course type | Integrated course |
| Examinations | oral or written examination |
| Language of instruction | English |
| Places for international students | 3 |

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Prerequisites:

Applied Programming I (APR1UE)

| Degree course | MME.ma |
|-----------------------------------|---------------------------|
| Course title | Applied Programming I |
| Course code | APR1UE |
| Level | Master |
| Term | WS24/25 |
| Lecturer | Robert Merwa |
| Contact hours per week | 2 |
| ECTS credits | 2,5 |
| Course type | Practice-oriented session |
| Examinations | continuous assessment |
| Language of instruction | English |
| Places for international students | 3 |

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Prerequisites:

Bionic Implants I (BIM1IL)

| Degree course | MME.ma |
|-----------------------------------|-----------------------|
| Course title | Bionic Implants I |
| Course code | BIM1IL |
| Level | Master |
| Term | WS24/25 |
| Lecturer | Thomas Haslwanter |
| Contact hours per week | 2 |
| ECTS credits | 2,5 |
| Course type | Integrated course |
| Examinations | continuous assessment |
| Language of instruction | English |
| Places for international students | 1 |

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Prerequisites:

Cellular Biophysics (CLB1IL)

| Degree course | MME.ma |
|-----------------------------------|-----------------------|
| Course title | Cellular Biophysics |
| Course code | CLB1IL |
| Level | Master |
| Term | WS24/25 |
| Lecturer | Birgit Plochberger |
| Contact hours per week | 1 |
| ECTS credits | 1 |
| Course type | Integrated course |
| Examinations | continuous assessment |
| Language of instruction | English |
| Places for international students | 1 |

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Prerequisites:

Electronic Circuit Design (ECD1IL)

| Degree course | MME.ma |
|-----------------------------------|-----------------------------|
| Course title | Electronic Circuit Design |
| Course code | ECD1IL |
| Level | Master |
| Term | WS24/25 |
| Lecturer | Armin Hochreiner |
| Contact hours per week 2 | |
| ECTS credits | 2,5 |
| Course type | Integrated course |
| Examinations | oral or written examination |
| Language of instruction | English |
| Places for international students | 2 |

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Prerequisites:

Embedded Systems I (EMB1IL)

| Degree course | MME.ma | |
|-----------------------------------|-----------------------------|--|
| Course title | Embedded Systems I | |
| Course code | EMB1IL | |
| Level | Master | |
| Term | WS24/25 | |
| Lecturer | Hubert Egger | |
| Contact hours per week | 2 | |
| ECTS credits | 2,5 | |
| Course type | Integrated course | |
| Examinations | oral or written examination | |
| Language of instruction | English | |
| Places for international students | 2 | |

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Prerequisites:

German Language I A1.1. (GER1IL)

| Degree course | MME.ma |
|-----------------------------------|-------------------------|
| Course title | German Language I A1.1. |
| Course code | GER1IL |
| Level | Master |
| Term | WS24/25 |
| Lecturer | Maria Rezner |
| Contact hours per week 2 | |
| ECTS credits | 3 |
| Course type | Integrated course |
| Examinations | continuous assessment |
| Language of instruction | English |
| Places for international students | 1 |

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Content:

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Prerequisites:

International Product Management (IPM3VO)

| Degree course | MME.ma | |
|-----------------------------------|----------------------------------|--|
| Course title | International Product Management | |
| Course code | IPM3VO | |
| Level | Master | |
| Term | WS24/25 | |
| Lecturer | Wolfgang Lienhart | |
| Contact hours per week 2 | | |
| ECTS credits | 2 | |
| Course type | Lecture | |
| Examinations | oral or written examination | |
| Language of instruction | English | |
| Places for international students | 1 | |

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Prerequisites:

Introduction to Programming-Tools (IPT1IL)

| Degree course | MME.ma | |
|-----------------------------------|---|--|
| Course title | Introduction to Programming-Tools | |
| Course code | IPT1IL | |
| Level | Master | |
| Term | WS24/25 | |
| Lecturer | Thomas Haslwanter, Robert Merwa, Andreas Schrempf | |
| Contact hours per week | eek 2 | |
| ECTS credits | 2,5 | |
| Course type | Integrated course | |
| Examinations | continuous assessment | |
| Language of instruction | English | |
| Places for international students | 1 | |

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Prerequisites:

Applied Mathematics I (MAT1IL)

| Degree course | MME.ma |
|-----------------------------------|-----------------------------|
| Course title | Applied Mathematics I |
| Course code | MAT1IL |
| Level | Master |
| Term | WS24/25 |
| Lecturer | Gerhard Höfer |
| Contact hours per week | 3 |
| ECTS credits | 4 |
| Course type | Integrated course |
| Examinations | oral or written examination |
| Language of instruction | English |
| Places for international students | 1 |

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Content:

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Prerequisites:

Selected Topics in Medicine for Medical Engineers I (MED1VO)

| Degree course | MME.ma | |
|-----------------------------------|---|--|
| Course title | Selected Topics in Medicine for Medical Engineers I | |
| Course code | MED1VO | |
| Level | Master | |
| Term | WS24/25 | |
| Lecturer | Anja Ruhdorfer | |
| Contact hours per week 1 | | |
| ECTS credits | 1 | |
| Course type | Lecture | |
| Examinations | oral examination | |
| Language of instruction | English | |
| Places for international students | 1 | |

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Prerequisites:

3D Motion Capture and Analysis (MOC1IL)

| Degree course | MME.ma | |
|-----------------------------------|--------------------------------|--|
| Course title | 3D Motion Capture and Analysis | |
| Course code | MOC1IL | |
| Level | Master | |
| Term | WS24/25 | |
| Lecturer | Thomas Haslwanter | |
| Contact hours per week | 2 | |
| ECTS credits | 2,5 | |
| Course type | Integrated course | |
| Examinations | oral or written examination | |
| Language of instruction | English | |
| Places for international students | 2 | |

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Content:

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Prerequisites:

Musculoskeletal Systems Modeling and Simulation (MSI1IL)

| Degree course | MME.ma | |
|-----------------------------------|---|--|
| Course title | Musculoskeletal Systems Modeling and Simulation | |
| Course code | MSI1IL | |
| Level | Master | |
| Term | WS24/25 | |
| Lecturer | Andreas Schrempf | |
| Contact hours per week 2 | | |
| ECTS credits | 2,5 | |
| Course type | Integrated course | |
| Examinations | oral or written examination | |
| Language of instruction | English | |
| Places for international students | 1 | |

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Prerequisites:

Project: Scientific or Professional (PRJ3PT)

| Degree course | MME.ma |
|-----------------------------------|-------------------------------------|
| Course title | Project: Scientific or Professional |
| Course code | PRJ3PT |
| Level | Master |
| Term | WS24/25 |
| Lecturer | |
| Contact hours per week | 0,5 |
| ECTS credits | 19 |
| Course type | Project |
| Examinations | written examination |
| Language of instruction | English |
| Places for international students | 26 |

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Prerequisites:

Python (PYT1IL)

| Degree course | MME.ma | |
|-----------------------------------|-----------------------|--|
| Course title | Python | |
| Course code | PYT1IL | |
| Level | Master | |
| Term | WS24/25 | |
| Lecturer | Florian Weber | |
| Contact hours per week | 1 | |
| ECTS credits | 1 | |
| Course type | Integrated course | |
| Examinations | continuous assessment | |
| Language of instruction | English | |
| Places for international students | 1 | |

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Prerequisites:

Regulatory Affairs (REG3IL)

| Degree course MME.ma | | |
|-----------------------------------|--|--|
| Course title | Regulatory Affairs | |
| Course code | REG3IL | |
| Level | Master | |
| Term | WS24/25 | |
| Lecturer | Wolfgang Ecker, Reinhard Berger, Elisabeth Mertl, Martin Renhardt, Michael Ring | |
| Contact hours per week | 2 | |
| ECTS credits 2,5 | | |
| Course type | Integrated course | |
| Examinations | oral or written examination | |
| Language of instruction | English | |
| Places for international students | 1 | |

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Prerequisites:

Requirements and Usability Engineering (RUE3IL)

| Degree course | MME.ma |
|-----------------------------------|--|
| Course title | Requirements and Usability Engineering |
| Course code | RUE3IL |
| Level | Master |
| Term | WS24/25 |
| Lecturer | Jay M. Kapellusch |
| Contact hours per week | 2 |
| ECTS credits | 2,5 |
| Course type | Integrated course |
| Examinations | oral or written examination |
| Language of instruction | English |
| Places for international students | 1 |

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Prerequisites:

Applied Software Life Cycle Processes (SLC1IL)

| Degree course | MME.ma |
|-----------------------------------|---------------------------------------|
| Course title | Applied Software Life Cycle Processes |
| Course code | SLC1IL |
| Level | Master |
| Term | WS24/25 |
| Lecturer | Andreas Böhler |
| Contact hours per week | 2 |
| ECTS credits | 2,5 |
| Course type | Integrated course |
| Examinations | oral or written examination |
| Language of instruction | English |
| Places for international students | 1 |

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Prerequisites:

Applied Systems Engineering (SYS3VO)

| Degree course | MME.ma |
|-----------------------------------|-----------------------------|
| Course title | Applied Systems Engineering |
| Course code | SYS3VO |
| Level | Master |
| Term | WS24/25 |
| Lecturer | Hubert Egger |
| Contact hours per week | 3 |
| ECTS credits | 4 |
| Course type | Lecture |
| Examinations | oral or written examination |
| Language of instruction | English |
| Places for international students | 1 |

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Prerequisites:

Technological Innovation in Medicine I (TIM1VO)

| Degree course | MME.ma |
|-----------------------------------|--|
| Course title | Technological Innovation in Medicine I |
| Course code | TIM1VO |
| Level | Master |
| Term | WS24/25 |
| Lecturer | Kristian O'Connor |
| Contact hours per week | 2 |
| ECTS credits | 2,5 |
| Course type | Lecture |
| Examinations | written examination |
| Language of instruction | English |
| Places for international students | 1 |

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Prerequisites: