

## MSc program in Construction Information Technology Engineering

| English Name  | Code          | Credit                   | Lecture | Seminar | Laboratory | Consultation | Day | M/E/**** | Semester**** |
|---|---------------|--------------------------|---------|---------|------------|--------------|-----|----------|--------------|
| <b>Core Subjects</b>                                    |               |                          |         |         |            |              |     |          |              |
| Numerical Methods                                       | BMEEOAFMB51   | 4                        |         |         | 2          |              |     | E        | 1            |
| Construction Information Technology Mathematics         | BMETE90MX33   | 3                        | 2       |         |            |              |     | E        | 1            |
| Building Information Modelling                          | BMEEOFTMB51   | 3                        | 2       |         |            |              |     | M        | 1            |
| Decision Support Methods                                | BMEEPEKMB51   | 2                        | 2       |         |            |              |     | M        | 1            |
| Construction Information Technology Engineering Project | BMEEODHMB5P   | 6                        |         |         |            | 2            |     | M        | 1            |
| BIM Modelling and Design                                | BMEEOFTMB52   | 5                        |         |         | 4          |              |     | E        | 2            |
| Civil Engineering Automation, Modelling                 | BMEEOHSMB51   | 5                        | 1       | 2       |            |              |     | E        | 2            |
| Construction Information Technology Programming         | BMEVIAUM__B51 | 6                        | 1       | 4       |            |              |     | M        | 2            |
| Complex Construction IT project                         | BMEEODHMB5K   | 6                        |         |         |            | 2            |     | M        | 2            |
| Argumentation, Negotiation, Presentation                | BMEGT41MB51   | 3                        | 2       |         |            |              |     | M        | 3            |
| Technology Assessment                                   | BMEGT41MB52   | 2                        | 2       |         |            |              |     | M        | 3            |
| *** Diploma Project                                     | BMEEODHMB-D   | 20                       |         |         |            | 1            |     | M        | 3            |
| <b>Obligatory and recommended Elective Subjects</b>     |               |                          |         |         |            |              |     |          |              |
| 1 <sup>st</sup> Obligatory Elective Subject*            |               | 8                        | 2       | 4       |            |              |     | E        | 1            |
| 2 <sup>nd</sup> Obligatory Elective Subject*            |               | 4                        | 1       | 2       |            |              |     | M        | 1            |
| 1 <sup>st</sup> Recommended Elective Subject*           |               | 4                        | 2       | 1       |            |              |     | M        | 2            |
| 2 <sup>nd</sup> Recommended Elective Subject*           |               | 4                        | 2       | 1       |            |              |     | M        | 2            |
| Optional subjects                                       | BMEEO         | 5                        |         |         |            |              |     | M        | 3            |
|   |               | 1 <sup>st</sup> semester | 30      | 9       | 6          | 2            | 2   | 0        |              |
|   |               | 2 <sup>nd</sup> semester | 30      | 6       | 8          | 4            | 2   | 0        |              |
|   |               | 3 <sup>rd</sup> semester | 30      | 4       | 0          | 0            | 1   | 0        |              |
|   |               | Σ                        | 90      | 19      | 14         | 6            | 5   | 0        |              |

### \*Students with a BSc degree in Civil Engineering or Architecture (Student Group I.)

| <b>Obligatory Elective Subjects (at least 12 credits to complete)</b> |               |   |   |   |   |  |  |   |   |
|---|---------------|---|---|---|---|--|--|---|---|
| Programming   | BMEVIHIA061   | 8 | 2 | 4 |   |  |  | E | 1 |
| Database Systems  | BMEEOFTMB-1   | 4 | 1 | 2 |   |  |  | M | 1 |
| <b>Recommended Elective Subjects (at least 8 credits to complete)</b> |               |   |   |   |   |  |  |   |   |
| Structural Dynamics   | BMEEOTMMN-1   | 4 | 2 | 1 |   |  |  | M | 2 |
| Stability of Structures   | BMEEOHSMT-2   | 4 | 2 | 1 |   |  |  | E | 2 |
| FEM for Engineers   | BMEEOTMMB-2   | 4 | 1 | 2 |   |  |  | M | 2 |
| Numerical Methods in Geotechnics                                      | BMEEOGMMB61   | 4 | 1 |   | 1 |  |  | M | 2 |
| Automated Survey Systems  | BMEEOAFMB61   | 4 | 1 | 2 |   |  |  | M | 2 |
| Electrical Systems in Buildings                                       | BMEVIVEM__B61 | 4 | 2 |   |   |  |  | E | 2 |
| HVAC Basics   | BMEGEÉEM__B61 | 4 | 2 |   |   |  |  | M | 2 |

### \*Students with a BSc degree in Mechanical Engineering/ Energy Engineering/ Mechatronics Engineering/ Electrical Engineering/ Computer Science (Student Group II.)

| <b>Obligatory Elective Subjects (at least 12 credits to complete)</b> |               |   |   |   |  |  |  |   |   |
|---|---------------|---|---|---|--|--|--|---|---|
| Building Constructions  | BMEEOEMMB-1   | 8 | 2 | 4 |  |  |  | M | 1 |
| Finite Element Modelling  | BMEEOTMMB-1   | 4 | 1 | 2 |  |  |  | E | 1 |
| <b>Recommended Elective Subjects (at least 8 credits to complete)</b> |               |   |   |   |  |  |  |   |   |
| Construction Management   | BMEEPEKMB61   | 4 | 2 | 1 |  |  |  | M | 2 |
| Civil Engineering Structures and Modelling                            | BMEEOHSMB61   | 4 | 2 | 1 |  |  |  | M | 2 |
| Constructions of Buildings and Structures                             | BMEEOEMMB61   | 4 | 2 | 1 |  |  |  | M | 2 |
| Modelling of Hydrosystems   | BMEEOVVMV-1   | 4 | 2 | 1 |  |  |  | M | 2 |
| Electrical Systems in Buildings                                       | BMEVIVEM__B61 | 4 | 2 |   |  |  |  | M | 2 |
| HVAC Basics   | BMEGEÉEM__B61 | 4 | 2 |   |  |  |  | M | 2 |

### Optional Subjects

|    |  |              |   |  |  |  |    |   |   |
|----|--|--------------|---|--|--|--|----|---|---|
| ** | Optional subject - internship (at company) | BMEEODHMOV02 | 5 |  |  |  | 20 | M | 3 |
|----|--|--------------|---|--|--|--|----|---|---|

\*The committee of the MSc program divides the students into groups according to their previous BSc studies in order to unify the output competences that are acquired with the completion of the master's program

\*\*Any subject from other MSc programs of the University can be chosen.

\*\*\*Taking the Diploma project subject is only possible if the student accomplished 33 credits from the mutual Core Subjects, 12 credits from the subjects of their own Student Group and at least 51 credits as a sum of the above mentioned two types of subjects.

\*\*\*\* The listed numbers of the semesters present the suggested schedule according to the curriculum.

\*\*\*\*\*Midterm grade/ Exam