

**Master's degree program in Mechatronic Systems - In English
as of 2020/2021 academic year**

CURRICULUM

ECTS subject code **T MEHSe №**

- **T** – type of course: **B** for BEng, **M** for MEng;
- **MEHSe** - “Mechatronic Systems”- In English;
- **№** - subsequent number of the subject;

Lectures (L), tutorials (Tut), labs (Lab), Self-Study (SS);

Exam (E), continuous assessment (CA), semester project (SP), semester assignment (course work) (SA).

| № | Subject | Semester load | | | | | | Assessment | | | | ECTS subject code | ECTS credits |
|---|---------|---------------|-----|-----|------------|----|-------|------------|----|----|----|-------------------|--------------|
| | | L | Tut | Lab | Aud. Total | SS | Total | E | CA | SP | SA | | |

SEMESTER I

| | | | | | | | | | | | | | |
|--------------|--|------------|----------|------------|------------|------------|------------|----------|----------|----------|----------|------------------|-----------|
| 1 | Computer Integrated Design | 30 | 0 | 30 | 60 | 90 | 150 | 1 | | 1 | | MMEHSe 01 | 5 |
| 2 | Dynamics in Mechatronic Systems | 30 | 0 | 30 | 60 | 90 | 150 | 1 | | | | MMEHSe 02 | 5 |
| 3 | Information Systems in Mechatronics and Robotics | 30 | 0 | 30 | 60 | 60 | 120 | 1 | | | 1 | MMEHSe 03 | 4 |
| 4 | Micro Mechatronics | 30 | 0 | 30 | 60 | 60 | 120 | 1 | | | 1 | MMEHSe 04 | 4 |
| 5 | Optional subject ** (List - 1) | 30 | 0 | 15 | 45 | 75 | 120 | | 1 | | | MMEHSe 05 | 4 |
| 6 | Optional subject ** (List - 2) | 30 | 0 | 15 | 45 | 75 | 120 | | 1 | | 1 | MMEHSe 06 | 4 |
| 7 | Optional subject ** (List - 3) | 30 | 0 | 15 | 45 | 75 | 120 | | 1 | | | MMEHSe 07 | 4 |
| Total | | 210 | 0 | 165 | 375 | 525 | 900 | 4 | 3 | 1 | 3 | | 30 |

| № | Subject | Semester load | | | | | | Assessment | | | | ECTS subject code | ECTS credits |
|---|---------|---------------|-----|-----|------------|----|-------|------------|----|----|----|-------------------|--------------|
| | | L | Tut | Lab | Aud. Total | SS | Total | E | CA | SP | SA | | |

SEMESTER II

| | | | | | | | | | | | | | |
|--------------|---|------------|----------|-----------|------------|------------|------------|-------------------------|----------|----------|----------|----------|-----------|
| 8 | Intelligent Systems in Mechatronics | 30 | 0 | 15 | 45 | 45 | 90 | 1 | | | 1 | MMEHSe08 | 3 |
| 9 | Management of Mechatronic Systems and Industrial Networks | 30 | 0 | 15 | 45 | 45 | 90 | 1 | | | | MMEHSe09 | 3 |
| 10 | Optional subject ** (List - 4) | 30 | 0 | 15 | 45 | 45 | 90 | | 1 | 1 | | MMEHSe10 | 3 |
| 11 | Optional subject ** (List - 5) | 30 | 0 | 15 | 45 | 45 | 90 | | 1 | 1 | | MMEHSe11 | 3 |
| 12 | Optional subject ** (List - 6) | 30 | 0 | 15 | 45 | 45 | 90 | | 1 | | 1 | MMEHSe12 | 3 |
| 13 | Diploma project | | | | | 450 | 450 | Diploma project defense | | | | MMEHSe13 | 15 |
| Total | | 150 | 0 | 75 | 225 | 675 | 900 | 2 | 3 | 2 | 2 | | 30 |

Notes:

The list of optional subjects are annually updated and approved by the Faculty Council of Mechanical Engineering Faculty.

Subjects MMEHSe5.1, MMEHSe6.1, MMEHSe7.1, MMEHSe10.1, MMEHSe11.1 and MMEHSe12.1 form Master Program - “**Mechatronic Systems in Discrete Production Engineering**”.

Subjects MMEHSe5.2, MMEHSe6.2, MMEHSe7.2, MMEHSe10.2, MMEHSe11.2 and MMEHSe12.2 form Master Program - “**Optical, Micromechanical and Measuring Devices**”.

LIST OF OPTIONAL SUBJECTS

| List - 1 MMEHSE05 (ECTS Credits - 4) | | Code |
|--------------------------------------|--|------------|
| 1 | Process Control and Manufacturing Automation | MMEHSE05.1 |
| 2 | Measuring Systems I | MMEHSE05.2 |

| List - 2 MMEHSE06 (ECTS Credits - 4) | | Code |
|--------------------------------------|-----------------------------|------------|
| 1 | Assembly Automation | MMEHSE06.1 |
| 2 | Optical and Laser Technique | MMEHSE06.2 |

| List - 3 MMEHSE07 (ECTS Credits - 4) | | Code |
|--------------------------------------|---|------------|
| 1 | Mechatronic Systems Implementation in Discrete Production Engineering | MMEHSE07.1 |
| 2 | Micromechanical Technique | MMEHSE07.2 |

| List - 4 MMEHSE10 (ECTS Credits - 3) | | Code |
|---|--|-------------------|
| 1 | Motion Control in Mechatronic Systems | MMEHSE10.1 |
| 2 | Precision and Reliability of Mechatronic Systems | MMEHSE10.2 |

| List - 5 MMEHSE11 (ECTS Credits - 3) | | Code |
|---|-----------------------------------|-------------------|
| 1 | Computer Integrated Manufacturing | MMEHSE11.1 |
| 2 | Measuring Systems II | MMEHSE11.2 |

| List - 6 MMEHSE12 (ECTS Credits - 3) | | Code |
|---|-------------------------|-------------------|
| 1 | Non Destructive Control | MMEHSE12.1 |
| 2 | Composite Materials | MMEHSE12.2 |

LIST OF FACULTATIVE SUBJECTS

| № | Subject | Semester load | | | | | | Assessment | | | | ECTS code | ECTS credits |
|---|---------|---------------|-----|-----|----|----|-------|------------|--------|----|--------|-----------|--------------|
| | | L | Tut | Lab | AT | SS | Total | E | C A | SP | S A | | |

SEMESTER I

| | | | | | | | | | | | | | |
|---|------------------------------|----|---|----|----|----|-----|--|---|--|--|----------------|---|
| 1 | Product Lifecycle Management | 30 | 0 | 30 | 60 | 60 | 120 | | 1 | | | FaMMEHSe 01 | 4 |
|---|------------------------------|----|---|----|----|----|-----|--|---|--|--|----------------|---|

SEMESTER II

| | | | | | | | | | | | | | |
|---|---------------------------------|----|---|----|----|----|-----|--|---|--|--|----------------|---|
| 2 | Management Systems in Logistics | 30 | 0 | 30 | 60 | 60 | 120 | | 1 | | | FaMMEHSe 02 | 4 |
|---|---------------------------------|----|---|----|----|----|-----|--|---|--|--|----------------|---|