

# Curriculum

| Modules / Courses                                 | Semester Credit Units   ECTS-Credits |                |                |               |
|---|--------------------------------------|----------------|----------------|---------------|
| <b>CORE AREA MECHATRONICS</b>                     | <b>1</b>                             | <b>2</b>       | <b>3</b>       | <b>4</b>      |
| Higher Mathematics                                | 3   4                                | 3   4          |                |               |
| Control Engineering                               | 3   4                                | 2   3          |                |               |
| Sensors & Actuators                               | 4   5                                |                |                |               |
| Simulation & Optimization                         | 2   3                                |                |                |               |
| Robotics  |                                      | 4   6          |                |               |
| Computational Fluid Dynamics                      |                                      |                | 2   3          |               |
| Process Management & Logistics                    |                                      |                | 2   2          |               |
| <b>PROJECTS &amp; TECHNICAL CASE STUDIES</b>      | <b>1</b>                             | <b>2</b>       | <b>3</b>       | <b>4</b>      |
| Project I   |                                      | 2   5          |                |               |
| Project II  |                                      |                | 4   10         |               |
| <b>MAJOR ELECTRICAL ENGINEERING</b>               | <b>1</b>                             | <b>2</b>       | <b>3</b>       | <b>4</b>      |
| Electrodynamics                                   | 4   6                                |                |                |               |
| Measurement Methods                               | 3   4                                |                |                |               |
| Drive Systems                                     |                                      | 3   4          |                |               |
| Embedded Computing                                |                                      | 3   4          |                |               |
| Simulation  |                                      |                | 5   7          |               |
| Industrial Electronics                            |                                      |                | 2   3          |               |
| <b>MAJOR MECHANICAL ENGINEERING</b>               | <b>1</b>                             | <b>2</b>       | <b>3</b>       | <b>4</b>      |
| Higher Mechanics                                  | 4   6                                |                |                |               |
| Material Sciences                                 | 3   4                                |                |                |               |
| Hydraulics & Pneumatics                           |                                      | 3   4          |                |               |
| Machine Dynamics                                  |                                      | 3   4          |                |               |
| Simulation  |                                      |                | 5   7          |               |
| Handling Technology                               |                                      |                | 2   3          |               |
| <b>MANAGEMENT &amp; KEY COMPETENCIES</b>          | <b>1</b>                             | <b>2</b>       | <b>3</b>       | <b>4</b>      |
| Strategic Management & Marketing                  | 1   1                                | 1   1          |                |               |
| Communication & Sales Techniques                  | 1   1                                |                |                |               |
| Innovation & Technology Management                |                                      | 1   1          |                |               |
| Business Planning                                 |                                      |                | 1   1          |               |
| Leadership Development                            |                                      |                | 1   1          |               |
| Career Coaching                                   |                                      |                |                | 1   1         |
| <b>MASTER THESIS / ACADEMIC WRITING / R&amp;D</b> | <b>1</b>                             | <b>2</b>       | <b>3</b>       | <b>4</b>      |
| Current Research Areas                            | 1   2                                | 1   2          | 1   2          |               |
| Academic Writing                                  |                                      |                | 1   1          |               |
| Master Thesis & Seminar                           |                                      |                |                | 2   29        |
| <b>SEMESTER CREDIT UNITS   ECTS-CREDITS</b>       | <b>22   30</b>                       | <b>20   30</b> | <b>19   30</b> | <b>3   30</b> |