

Domain **SYSTEMS ENGINEERING**  
 Program Name **CYBER PHYSICAL SYSTEMS**  
 Study Level **RESEARCH MASTERS**

**CURRICULA** Valid for the Academic Year **2023-2024**

| COURSE CODE AND TITLE                               | Year I   |          |          |          |           | Year II  |          |          |          |           | Methods of Assessment |   |   | No. of Hours/Discipline |             |            |            | ECTS/Sem   |             | Discipline  |      |    |
|---|----------|----------|----------|----------|-----------|----------|----------|----------|----------|-----------|-----------------------|---|---|-------------------------|-------------|------------|------------|------------|-------------|-------------|------|----|
|   | SEM 1    |          | 14 weeks |          |           | SEM 2    |          | 14 weeks |          |           | E                     | C | V | Total                   | C           | Apl        | Indiv. St. | 1          | 2           | cat         | type |    |
|   | C        | S        | L        | P        | Pr/Ce     | C        | S        | L        | P        | Pr/Ce     |                       |   |   |                         |             |            |            |            |             |             |      |    |
| 13.00 Dependability of Cyber-Physical Systems       | 2        | 0        | 1        | 0        | 0         |          |          |          |          |           | Gr                    |   |   | 100                     | 28          | 14         | 58         | 4.0        |             | DA          | DI   |    |
| 14.00 Reinforcement Learning                        | 2        | 0        | 1        | 0        | 0         |          |          |          |          |           | Gr                    |   |   | 100                     | 28          | 14         | 58         | 4.0        |             | DS          | DI   |    |
| 15.00 Human-Robot Interaction                       | 2        | 0        | 1        | 0        | 0         |          |          |          |          |           | Gr                    |   |   | 100                     | 28          | 14         | 58         | 4.0        |             | DA          | DI   |    |
| 16.10 Emerging Control Systems for Industry 5.0     | 2        | 0        | 1        | 0        | 0         |          |          |          |          |           | Gr                    |   |   | 100                     | 28          | 14         | 58         | 4.0        |             | DA          | DO   |    |
| 16.20 IoT for Home Automation                       | 2        | 0        | 1        | 0        | 0         |          |          |          |          |           | Gr                    |   |   | 100                     | 28          | 14         | 58         | 4.0        |             | DA          | DO   |    |
| 17.00 Ethics and Academic Integrity                 | 1        | 0        | 0        | 0        | 0         |          |          |          |          |           | Gr                    |   |   | 50                      | 14          | 0          | 36         | 2.0        |             | DC          | DI   |    |
| 18.00 Project Cyber-Physical Systems 3              | 0        | 0        | 0        | 2        | 0         |          |          |          |          |           | Gr                    |   |   | 100                     | 0           | 28         | 72         | 4.0        |             | DS          | DO   |    |
| 19.00 Research Cyber-Physical Systems 3             | 0        | 0        | 0        | 0        | 13        |          |          |          |          |           | A/R                   |   |   | 200                     | 0           | 182        | 18         | 8.0        |             | DS          | DI   |    |
| 20.00 Research Practice                             |          |          |          |          |           | 0        | 0        | 0        | 0        | 14        |                       |   |   | A/R                     |             |            |            |            |             | 10.0        | DS   | DI |
| 21.00 Field Specific Research for the Master Thesis |          |          |          |          |           | 0        | 0        | 0        | 0        | 7         |                       |   |   | A/R                     |             |            |            |            |             | 10.0        | DS   | DI |
| 22.00 Master Thesis Elaboration                     |          |          |          |          |           | 0        | 0        | 0        | 7        | 0         |                       |   |   | A/R                     |             |            |            |            |             | 10.0        | DS   | DI |
| 23.00 Master Thesis Defense                         |          |          |          |          |           | 0        | 0        | 0        | 0        | 0         |                       |   |   | Gr                      |             |            |            |            |             | 10.0        | DS   | DI |
| <b>TOTAL AN</b>                                     | <b>9</b> | <b>0</b> | <b>4</b> | <b>2</b> | <b>13</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>7</b> | <b>14</b> | sem1                  | 5 | 1 | 1                       | <b>1500</b> | <b>126</b> | <b>658</b> | <b>716</b> | <b>30.0</b> | <b>30.0</b> |      |    |
|   |          |          |          |          |           |          |          |          |          |           | sem2                  | 0 | 0 | 3                       |             |            |            |            |             | <b>+ 10</b> |      |    |

|   |   |   |   |   |   |   |   |   |   |   |     |  |  |     |    |    |    |     |  |     |      |      |
|---|---|---|---|---|---|---|---|---|---|---|-----|--|--|-----|----|----|----|-----|--|-----|------|------|
| 100.00 Technology Transfer and Innovation   | 2 | 0 | 1 | 0 | 0 |   |   |   |   |   | Gr  |  |  | 125 | 28 | 14 | 83 | 5.0 |  | DC  | DFac |      |
| 204.00 Didactics of the Field and Development in Didactics Specialties (High School and Post High School Education) | 2 | 1 | 0 | 0 | 0 |   |   |   |   |   | Gr  |  |  | 125 | 28 | 14 | 83 | 5.0 |  | DC  | DFac |      |
| 205.10 School Organization Management   | 1 | 2 | 0 | 0 | 0 |   |   |   |   |   | Gr  |  |  | 125 | 14 | 28 | 83 | 5.0 |  | DC  | DFac |      |
| 205.20 Metacognitive Education  | 1 | 2 | 0 | 0 | 0 |   |   |   |   |   | Gr  |  |  | 125 | 14 | 28 | 83 | 5.0 |  | DC  | DFac |      |
| 205.30 Intercultural Education  | 1 | 2 | 0 | 0 | 0 |   |   |   |   |   | Gr  |  |  | 125 | 14 | 28 | 83 | 5.0 |  | DC  | DFac |      |
| 303.00 Volunteering 3   | 0 | 1 | 0 | 0 | 0 |   |   |   |   |   | A/R |  |  | 50  | 0  | 14 | 36 | 2.0 |  | DC  | DFac |      |
| 206.00 Teaching Practice (in Secondary School and Tertiary Education)   |   |   |   |   |   | 0 | 0 | 0 | 0 | 3 |     |  |  | Gr  |    |    |    |     |  | 5.0 | DC   | DFac |
| 207.00 Graduation exam - Level II   |   |   |   |   |   | 0 | 0 | 0 | 0 | 0 |     |  |  | Gr  |    |    |    |     |  | 5.0 | DC   | DFac |
| 304.00 Volunteering 4   |   |   |   |   |   | 0 | 1 | 0 | 0 | 0 |     |  |  | A/R |    |    |    |     |  | 2.0 | DC   | DFac |

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|----------|---|---|-------|---|---|---|---|------|---|---|------|---|---|---|------------|----|-----|-----|------|-----|--|
| TOTAL AN | 5 | 4 | 1     | 0 | 0 | 0 | 1 | 0    | 0 | 3 | sem1 | 3 | 0 | 1 | <b>725</b> | 70 | 126 | 529 | 17.0 | 7.0 |  |
|          |   |   | 10.00 |   |   |   |   | 1.00 |   |   | sem2 | 0 | 1 | 1 |            |    |     |     |      | + 5 |  |

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