

## Structural Engineering MSc, University of Pécs, Faculty of Engineering and Information Technology

| General Studies in Engineering                          | subject code | 18        | 1. semester | 2. semester | 3. semester | Prerequisites                                |
|---|--------------|-----------|-------------|-------------|-------------|--|
| Advanced Mathematics                                    |              | 4         | 2 2 0 E 4   |             |             |  |
| Numerical Methods                                       |              | 3         | 2 0 0 E 3   |             |             |  |
| Database Systems  |              | 2         | 2 0 0 m 2   |             |             |  |
| Advanced Mechanics                                      |              | 5         | 2 2 0 E 5   |             |             |  |
| Building Physics and Chemistry                          |              | 2         | 2 0 0 m 2   |             |             |  |
| Mathematical Modelling of FEM                           |              | 2         |             | 2 0 0 m 2   |             | Advanced Mechanics                           |
| <b>Professional Studies in Engineering (compulsory)</b> |              | <b>21</b> |             |             |             |  |
| Theoretical Basis of Structural Design                  |              | 2         | 1 1 0 m 2   |             |             |  |
| Advanced Structural Analysis                            |              | 4         | 2 2 0 E 4   |             |             |  |
| Advanced Structural Dynamics                            |              | 2         | 1 1 0 m 2   |             |             |  |
| Interaction between Soil and Structure                  |              | 2         | 2 0 0 m 2   |             |             |  |
| Advanced Architectural Design                           |              | 2         |             | 2 0 0 m 2   |             |  |
| Theory of Structural Stability                          |              | 3         |             | 2 1 0 E 3   |             | Adv. Struct. Analysis, Adv. Struct. Dinamics |
| Geotechnical Design                                     |              | 4         |             | 2 1 0 E 4   |             |  |
| Building Materials                                      |              | 2         |             | 2 0 0 m 2   |             |  |
| <b>Professional Studies in Engineering (elective)</b>   |              | <b>18</b> |             |             |             |  |
| Strengthening of Structures                             |              |           | 2 0 0 m 3   |             |             |  |
| Surface Structures                                      |              |           |             | 2 1 0 E 4   |             | Advanced Structural Analysis                 |
| Structural Optimization                                 |              |           |             | 2 1 0 E 4   |             | Numerical Methods, Adv. Str. Analysis        |
| Numerical Modelling in Geotechnics                      |              |           |             | 2 0 0 m 3   |             | Numerical Methods                            |
| Case Studies in Geotechnics                             |              |           |             | 2 0 0 m 2   |             |  |
| Prestressed Concrete Structures                         |              |           |             | 2 0 0 m 2   |             | Advanced Structural Analysis                 |
| <b>General Studies in Economics and Humanities</b>      |              | <b>8</b>  |             |             |             |  |
| Decision Support Systems                                |              | 2         |             | 2 0 0 m 2   |             |  |
| Engineering Practice in teh EU 2.                       |              | 2         |             |             | 2 0 0 m 2   |  |
| Engineering Ethics and Attitude                         |              | 4         |             |             | 2 2 0 m 4   |  |
| <b>Elective courses</b>                                 |              | <b>5</b>  |             |             |             |  |
| Advanced Design of Bridges                              |              | 2         |             |             | 2 2 0 m 2   | Adv. Struct. Analysis, Adv. Struct. Dinamics |
| Seismic Design  |              | 3         |             |             | 2 0 0 m 3   | Adv. Struct. Analysis, Adv. Struct. Dinamics |
| <b>Diploma work</b>                                     |              | <b>20</b> |             |             |             |  |
| Diploma work  |              | 20        |             |             | 0 16 0 s 20 |  |
| <b>Total analisys of full program</b>                   |              | <b>90</b> |             |             |             |  |
| Number of Credits                                       |              |           | 29          | 30          | 31          |  |
| Number od Study Hours/week (all)                        |              |           | 26          | 26          | 28          |  |
| Number of Study Hours/week (lectures)                   |              |           | 18          | 22          | 8           |  |
| Number of Study Hours/week (practical lessons)          |              |           | 8           | 4           | 20          |  |
| Number of Study Hours/week (for project)                |              |           | 0           | 0           | 0           |  |