



**MECHANICAL ENGINEERING PhD Program (on BSc)**

| <b>REMEDIAL COURSES</b>         |             |  |            |             |
|---------------------------------|-------------|--|------------|-------------|
| <b>Dept.</b>                    | <b>Code</b> | <b>Course Name</b>                           | <b>CR.</b> | <b>ECTS</b> |
| ME                              | 211         | Thermodynamics I                             | NC         |             |
| ME                              | 241         | Statics                                      | NC         |             |
| ME                              | 244         | Dynamics                                     | NC         |             |
| ME                              | 246         | Strength of Materials                        | NC         |             |
| ME                              | 264         | Materials Science for Mechanical Engineering | NC         |             |
| ME                              | 324         | Heat Transfer                                | NC         |             |
| ME                              | 331         | Fluid Mechanics                              | NC         |             |
| ME                              | 343         | Machine Elements I                           | NC         |             |
| ME                              | 352         | System Dynamics and Control                  | NC         |             |
| ME                              | 445         | Mechanical Vibrations                        | NC         |             |
| MATH                            | 241         | Differential Equations                       | NC         |             |
| <b>PROGRAM COURSES</b>          |             |  |            |             |
| <b>Dept.</b>                    | <b>Code</b> | <b>Course Name</b>                           | <b>CR.</b> | <b>ECTS</b> |
| ME                              | 501         | Engineering Analysis I                       | 3          | 10          |
| ME                              | 502         | Engineering Analysis II                      | 3          | 10          |
|                                 |             | Departmental Elective I                      | 3          | 10          |
|                                 |             | Departmental Elective II                     | 3          | 10          |
|                                 |             | Departmental Elective III                    | 3          | 10          |
|                                 |             | Departmental Elective IV                     | 3          | 10          |
|                                 |             | Departmental Elective V                      | 3          | 10          |
|                                 |             | Area Elective I                              | 3          | 10          |
|                                 |             | Area Elective II                             | 3          | 10          |
|                                 |             | Area Elective III                            | 3          | 10          |
|                                 |             | Area Elective IV                             | 3          | 10          |
|                                 |             | Area Elective V                              | 3          | 10          |
|                                 |             | Area Elective VI                             | 3          | 10          |
|                                 |             | Area Elective VII                            | 3          | 10          |
| ME                              | 690         | PhD Seminar                                  | NC         | 2           |
| ME                              | 691         | Independent Study for Qualifying Exam        | NC         | 30          |
| ME                              | 700         | PhD Dissertation                             | NC         | 150         |
|                                 |             | <b>TOTAL</b>                                 | <b>42</b>  | <b>322</b>  |
| <b>EXTRA/NON-DEGREE COURSES</b> |             |  |            |             |
| <b>Dept.</b>                    | <b>Code</b> | <b>Course Name</b>                           | <b>CR.</b> | <b>ECTS</b> |
|                                 |             | Extra/Non-degree                             | NC         |             |

| <b>Course Group</b>       | <b>Description</b>   |
|---------------------------|--|
| Departmental Elective I-V | Mechanical Engineering courses under the GSNAS                     |
| Area Elective I           | PHYS 514, ESYE 501.  |
| Area Elective II-VII      | All GSNAS courses in the elective pool offered by all departments. |
| Extra/Non-degree          | Optional non-credit (NC) courses that are not part of the program. |
| Remedial Courses          | Undergraduate level courses offered by department.                 |