



COMPUTER ENGINEERING PhD Program (on BSc)

| REMEDIAL COURSES | | | | |
|---------------------------------|-------------|---------------------------------------|------------|-------------|
| Dept. | Code | Course Name | CR. | ECTS |
| CSE | 211 | Data Structures | NC | |
| CSE | 221 | Principles of Logic Design | NC | |
| CSE | 224 | Introduction to Digital Systems | NC | |
| CSE | 232 | Systems Programming | NC | |
| CSE | 354 | Automata Theory and Formal Languages | NC | |
| | 351 | Programming Languages | | |
| MATH | 154 | Discrete Mathematics | NC | |
| PROGRAM COURSES | | | | |
| Dept. | Code | Course Name | CR. | ECTS |
| | | Area Elective I | 3 | 10 |
| CSE | 6xx | Departmental Elective I | 3 | 10 |
| CSE | 5/6xx | Departmental Elective II | 3 | 10 |
| CSE | 5/6xx | Departmental Elective III | 3 | 10 |
| CSE | 5/6xx | Departmental Elective IV | 3 | 10 |
| CSE | 5/6xx | Departmental Elective V | 3 | 10 |
| CSE | 5/6xx | Departmental Elective VI | 3 | 10 |
| CSE | 5/6xx | Departmental Elective VII | 3 | 10 |
| CSE | 5/6xx | Departmental Elective VIII | 3 | 10 |
| CSE | 5/6xx | Departmental Elective IX | 3 | 10 |
| | 6xx | Free Elective I | 3 | 10 |
| | | Free Elective II | 3 | 10 |
| | | Free Elective III | 3 | 10 |
| | | Free Elective IV | 3 | 10 |
| CSE | 590 | Research Seminar | NC | 2 |
| CSE | 691 | Independent Study for Qualifying Exam | NC | 30 |
| CSE | 700 | PhD Dissertation | NC | 150 |
| | | TOTAL | 42 | 322 |
| EXTRA/NON-DEGREE COURSES | | | | |
| Dept. | Code | Course Name | CR. | ECTS |
| | | Extra/Non-degree | NC | |

| Course Group | Description |
|-----------------------------|--|
| Area Elective I | PHYS 514, ESYE 501, BTEC 550, MSN 501, DATS 502 |
| Departmental Elective I | CSE 6XX, Computer Engineering courses under the GSNAS. |
| Departmental Elective II-IX | Computer Engineering courses under the GSNAS. |
| Free Elective I | 6XX, by approval of advisor and CSE department. |
| Free Elective II-V | Unrestricted, by approval of advisor and CSE department. |
| Extra/Non-degree | Optional non-credit (NC) courses that are not part of the program. |
| Remedial Courses | Undergraduate level courses offered by department. |