

| Course Name | Course Code | semester | T + P | Credit | ECTS |
|--------------------|-------------|----------|-------|--------|------|
| System Programming | | 6 | 3 + 0 | 3 | 5 |

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| Prerequisite Courses | None |
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| Language of Course | Turkish |
| Course class | compulsory |
| Coordinator of Course | |
| Instructor | |
| Course Assistant | |
| Objective of Course | It is aimed to develop programming techniques by using procedure concept and parameter communication techniques. |
| Course Learning Output | Loader, linker, micro programming, single and dual pass symbolic translators design skill |
| Course Contents | Design and implementation of various system software. Relations between machine architecture and system software. Introduction to Windows, Unix operating systems. |

| Weeks | Topics |
|-------|---|
| 1 | Introduction to UNIX Systems |
| 2 | Unix File Systems |
| 3 | Text Editors and Command Interpreter Operators |
| 4 | Regular Expressions and Unix Window System |
| 5 | Unix Interpreter Environments and Script Concept |
| 6 | Script Programming - I |
| 7 | Script Programming - II |
| 8 | MIDTERM |
| 9 | Program Development Tools (gcc, make, gdb) and Other Tools (sed, awk) |
| 10 | File Management - I (open, creat, read, write, lseek) |
| 11 | File Management - II (chmod, chdir, link, fcntl, ioctl) |
| 12 | Process Management - I (fork, exec, wait) |
| 13 | Process Management - I (fork, exec, wait) |
| 14 | Basic Unix System Administration |
| 15 | FINAL EXAM |

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| General Sufficiency |
| In evaluations, it is important for students to understand the main points of this lesson and use it in engineering applications. |
| References |
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| Assessment |
| Midterm exam: 40%, Final exam: 60%; Project or homework evaluations can be made at the beginning of the semester. |