**OSTIM TECHNICAL UNIVERSITY**
**FACULTY OF ECONOMICS AND ADMINISTRATIVE SCIENCES**
**MANAGEMENT INFORMATION SYSTEMS DEPARTMENT**
**COURSE SYLLABUS FORM**

| MIS XXX Unix Tools | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Course Name** | **Course Code** | **Period** | **Hours** | **Application** | **Laboratory** | **Credit** | **ECTS** |
| Unix Tools | MIS 231 | 6 | 3 | 0 | 0 | 3 | 3 |

| | |
|---|---|
| **Language of Instruction** | English |
| **Course Status** | Elective |
| **Course Level** | Bachelor |
| **Learning and Teaching Techniques of the Course** | Lecture, Question-Answer, Problem Solving |

| Course Objective |
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| This course aims to provide information about UNIX/Linux shell programming tools. The course introduces the UNIX operating system in a broad framework  and introduces the  tools that these systems provide to users and programmers. |

| Learning Outcomes |
|---|
| Students who are successful in this course;<br><br>1. Identify Unix/Linux content and services,<br>2. Awill be able to explain the concept of source software development,<br>3. Will be able to use Unix/Linux basic commands,<br>4. Can list administrator duties and responsibilities on Linuxsystems. |

| Course Outline |
| --- |
| This course is an undergraduate course in Computer Science on the UNIX/Linux operating system. While the course provides a broad overview of the operating system, the main topics that the course focuses on are Bash programming and system administration. Students will learn practically how to program and use commands and scripts in the operating system and will become familiar with the UNIX environment. The course requires knowledge of modern operating systems and practical skill in the basics of programming as a prerequisite. Students will be asked to submit a script programming project to develop appropriate technical coding skills as part of the term project. |

| Weeks | Topics | Preparation Studies |
| --- | --- | --- |
| | **Weekly Topics and Related Preparation Studies** | |
| 1 | History of UNIX/Linux and Introduction to the Command Line Interface | − Presentations and Lecture Notes |
| 2 | File System and Commands | − Presentations and Lecture Notes |
| 3 | Bash Shell | − Presentations and Lecture Notes |
| 4 | Script Programming | − Presentations and Lecture Notes |
| 5 | Regular Emoticons | − Presentations and Lecture Notes |
| 6 | Flowing Editor: sed | − Presentations and Lecture Notes |
| 7 | Awk Programming Language | − Presentations and Lecture Notes |
| 8 | **MIDTERM EXAM** | |
| 9 | Text Processing | − Presentations and Lecture Notes |
| 10 | System Management | − Presentations and Lecture Notes |
| 11 | Advanced Scripting Programming | − Presentations and Lecture Notes |
| 12 | Commands and Scripts | − Presentations and Lecture Notes |
| 13 | Python Programming Language, Part I | − Presentations and Lecture Notes |
| 14 | Python Programming Language, Part II | − Presentations and Lecture Notes |
| 15 | **FINAL EXAM** | |

| Textbook(s)/References/Materials: |
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| **Textbook:** Richard R. Rosinski, Rachel Klee, Douglas A. Host, Kenneth H. Rosen (2002), UNIX: The Complete Reference: McGraw Hill LLC, second edition. |
| **Supplementary References:** Syed Mansoor Sarwar, Khaled H. Al-Saqabi (2002), LINUX & UNIX Programming Tools: A Primer for Software Developers, Pearson. |
| **Other Materials:**<br>https://www.unixedu.ru/<br>http://www.ee.surrey.ac.uk/Teaching/Unix/unixintro.html |

| Assessment | | |
|---|---|---|
| **Studies** | **Number** | **Contribution margin (%)** |
| Attendance | | |
| Lab | | |
| Class participation and performance | | |
| Field Study | | |
| Course-Specific Internship (if any) | | |
| Quizzes / Studio / Critical | | |
| Homework | | |
| Presentation | | |
| Projects | 1 | 20 |
| Report | | |
| Seminar | | |
| **Midterm Exam/Midterm Jury** | **1** | **30** |
| **General Exam / Final Jury** | **1** | **50** |
| **Total** | | **100** |
| **Success Grade Contribution of Semester Studies** | | **50** |
| **Success Grade Contribution of End of Term** | | **50** |
| **Total** | | **100** |

| ECTS / Workload Table | | | |
|---|---|---|---|
| **Activities** | **Number** | **Duration (Hours)** | **Total Workload** |
| **Course hours (Including the exam week): 16 x total course hours)** | 16 | 4 | 64 |
| Laboratory | | | |
| Application | | | |
| Course-Specific Internship (if any) | | | |
| Field Study | | | |
| **Study Time Out of Class** | 16 | 1 | 16 |
| Presentation / Seminar Preparation | | | |
| Projects | 5 | 1 | 5 |
| Reports | | | |
| Homework | 15 | 1 | 15 |
| Quizzes / Studio Review | | | |
| **Preparation Time for Midterm Exams / Midterm Jury** | 1 | 10 | 10 |
| **Preparation Period for the Final Exam / General Jury** | 1 | 10 | 10 |
| **Total Workload** | | **(120/30 = 4)** | **120** |

| Course' Contribution Level to Learning Outcomes | | | | | | |
|---|---|---|---|---|---|---|
| **Nu** | **Learning Outcomes** | **Contribution Level** | | | | |
| | | **1** | **2** | **3** | **4** | **5** |
| **LO1** | Learn the requirements for mobile app development. | | | | | X |
| **LO2** | To be able to design mobile applications focused on user interface and user experience. | | | | | X |
| **LO3** | To be able to improve databases and network connections of mobile applications. | | | | | X |
| **LO4** | Ability to bring mobile applications to online stores. | | | | | X |

| Nu | Program Competencies | Learning Outcomes | | | | Total Effect (1-5) |
|---|---|---|---|---|---|---|
| | | LO1 | LO2 | LO3 | LO4 | |
| 1 | Recognize and distinguish the basic concepts such as data, information, and knowledge in the field of Management Information Systems and know the processes to be followed for data acquisition, storage, updating, and security. | | | | | |
| 2 | Develop and manage databases suitable for collecting, storing, and updating data. | | | | | |
| 3 | As a result of his/her ability to think algorithmically, easily find solutions to the problems concerning the basic business functions. | | | | | |
| 4 | Learn programming logic, have information about current programming languages. | | | x | | 2 |
| 5 | Be able to use up-to-date programming languages. | | | x | | 2 |
| 6 | Be able to take part in teamwork or lead a team using knowledge of project management processes. | | | | | |
| 7 | Know ethical and legal rules, use professional field knowledge within the scope of ethical and legal rules. | | | | | |
| 8 | Have knowledge in the fundamental areas of business administration namely management and organization, production, finance, marketing, numerical methods, accounting, etc., and have the knowledge and skills to work in-depth in at least one of them. | | | | | |
| 9 | Be able to solve the problems encountered in the field of internet programming by designing web applications. | | | | | |
| 10 | Develop and manage logistics and supply chain management activities | | | | | |
| 11 | Adapt his/her theoretical knowledge and the experience he/she will gain through practice at the departments of businesses such as information technologies, R&D, and management to real life. | x | x | x | x | 5 |
| 12 | Be able to develop strategies that will provide a competitive advantage with his/her advanced knowledge of management strategies and management functions. | | | | | |

**Relationship Between Course Learning Outcomes and Program Competencies (Department of Management Information Systems)**

| | | | | | | |
|---|---|---|---|---|---|---|
| **13** | Develop a business idea, commercialize the business idea, and design and manage his/her own venture using entrepreneurial knowledge. | | | | | |
| **14** | By using English effectively, they can follow, read, write, speak and communicate universal information in the field of management information systems in a foreign language with professional competence. | | | | | |
| **Total Effect** | | | | | | |

| Policies and Procedures |
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| **Web page:**  https://www.ostimteknik.edu.tr/management-information-systems-english-1241/915 |
| **Exams:** The exams aim at assessing various dimensions of learning: knowledge of concepts and theories and the ability to apply this knowledge to real-world phenomena, through analyzing the situation, distinguishing problems, and suggesting solutions. The written exams can be of two types, ie. open-ended questions, which can also be in the form of problems or multiple-choice questions. |
| **Assignments:** Quizzes and Homework (Assignments) might be applicable. Scientific Research Ethics Rules are very important while preparing assignments. The students should be careful about citing any material used from outside sources and reference them appropriately. |
| **Missed exams:** Any student missing an exam needs to bring an official medical report to be able to take a make-up exam. |
| **Projects:** A group project with teamwork is welcome. |
| **Attendance:** Attendance requirements are announced at the beginning of the term. Students are usually expected to attend at least 70% of the classes during each term. |
| **Objections:**  If the student observes a material error in his/her grade, he/she has the right to place an objection to the Faculty or the Department. The claim is examined and the student is notified about its outcome. |