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|  | **HASAN KALYONCU UNIVERSITY**  **Faculty of Engineering**  **Course Description Form** |

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| **COURSE:** Engineering Ethics | | | | |
| **CODE:** FE201 | **SEMESTER:** FALL | | | |
| **LANGUAGE:** ENGLISH | **TYPE:** COMPULSORY | | | |
| **PRE-REQUISITES:**  **CO-REQUISITES:** | **THEORY** | **PRACTICAL** | **CREDIT** | **ECTS** |
| **WEEKLY HOURS:** | 2 | 0 | 2 | 2 |

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| **CONTENT OF THE COURSE:**  Ethics values, The relationship between the concepts of ethics and morality, Behaving in accordance with ethical principles, Professional and ethical responsibility awareness, Engineering ethics, Principles of national and international institutions on engineering ethics, Engineering ethics assessments, Engineering ethics codes, Legal consequences of engineering solutions. |

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| **OBJECTIVE OF THE COURSE:**  - Engineering Ethics and Moral  - Engineering Analysis and Design,  - Making Ethical Decisions in Engineering Design |

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| **WEEKLY SCHEDULE** | |
| **Week** | **Topics** |
| 1 | Ethics values |
| 2 | The relationship between the concepts of ethics and morality |
| 3 | Behaving in accordance with ethical principles |
| 4 | Professional and ethical responsibility awareness |
| 5 | Engineering ethics |
| 6 | Principles of national and international institutions on engineering ethics |
| 7 | Case studies |
| 8 | MIDTERM |
| 9 | Engineering ethics assessments |
| 10 | Engineering ethics assessments |
| 11 | Engineering ethics codes |
| 12 | Legal consequences of engineering solutions |
| 13 | Case studies |
| 14 | Case studies |

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| **TEXTBOOK:**  Engineering Ethics, Charles B. Fleddermann, Pearson,2014.  **REFERENCE BOOKS:** |

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| **EVALUATION SYSTEM:** | | |
| **IN-TERM STUDIES** | **QUANTITY** | **PERCENTAGE (%)** |
| Midterm Exam | 0 | 0 |
| Homework | 0 | 0 |
| Project | 1 | 50 |
| Quiz | 0 | 0 |
| Final Exam | 1 | 50 |
| **TOTAL** |  |  |
| CONTRIBUTION OF INTERM STUDIES TO OVERALL GRADE | 1 | 50 |
| CONTRIBUTION OF FINAL EXAMINATION TO OVERALL GRADE | 1 | 50 |
| **TOTAL** |  | 100 |

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| **COURSE CATEGORY:** | **PERCENTAGE (%)** |
| Mathematics and Basic Sciences | %0 |
| Engineering | %20 |
| Engineering Design | %0 |
| Social Sciences | %80 |

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| **TABLE OF ECTS / WORKLOAD:** | | | |
| **Activities** | **QUANTITY** | **Duration**  **(Hour)** | **Total**  **Workload** |
| Course Duration | 13 | 2 | 26 |
| Hours for off-the-classroom study (Pre-study, practice) | 6 | 2 | 12 |
| Mid-term | 0 | 0 | 0 |
| Final examination | 1 | 4 | 4 |
| Labworks | 0 | 0 | 0 |
| Project | 0 | 12 | 12 |
| **Total Work Load** |  |  | **54** |
| **Total Work Load / 30** |  |  | **1.8** |
| **ECTS Credit of the Course** |  |  | **2** |

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| **INSTRUCTOR(S):** | Dr. Öğr. Üyesi Kadir Sercan Bayram |
| **FORM PREPARATION DATE:** | 28.6.2021 |

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|  | **PO1** | **PO2** | **PO3** | **PO4** | **PO5** | **PO6** | **PO7** | **PO8** | **PO9** | **PO10** | **PO11** |
| **LO1** | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 3 | 0 | 2 |
| **LO2** | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 3 | 0 | 1 |
| **LO3** | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 3 | 0 | 2 |
| **LO4** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **LO5** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **LO6** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **LO7** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **LO8** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **LO9** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  | PO: Program Outcomes | LO: Learning Outcomes  Values: 0: None | 1: Low | 2: Medium | 3: High | | | | | | | | | | |

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| **LEARNING OUTCOMES OF THE COURSE:** | **PROGRAM OUTCOMES:** |
| LO1: Evaluation with Engineering Ethics Concepts,  LO2: Make ethical decisions in engineering design projects,  LO3: Thinks morally | **PO1:** Adequate knowledge in mathematics, science and engineering subjects pertaining to the relevant discipline; ability to use theoretical and applied knowledge in these areas in complex engineering problems.  **PO2:** Ability to identify, formulate, and solve complex engineering problems; ability to select and apply proper analysis and modeling methods for this purpose.  **PO3:** Ability to design a complex system, process, device or product under realistic constraints and conditions, in such a way as to meet the desired result; ability to apply modern design methods for this purpose.  **PO4:** Ability to devise, select, and use modern techniques and tools needed for analyzing and solving complex problems encountered in engineering practice; ability to employ information technologies effectively.  **PO5:** Ability to design and conduct experiments, gather data, analyze and interpret results for investigating complex engineering problems or discipline specific research questions.  **PO6:** Ability to work efficiently in intra-disciplinary and multi-disciplinary teams; ability to work individually.  **PO7:** Ability to communicate effectively in Turkish, both orally and in writing; knowledge of a minimum of one foreign language; ability to write effective reports and comprehend written reports, prepare design and production reports, make effective presentations, and give and receive clear and intelligible instructions.  **PO8:** Recognition of the need for lifelong learning; ability to access information, to follow developments in science and technology, and to continue to educate him/herself.  **PO9:** Consciousness to behave according to ethical principles and professional and ethical responsibility; knowledge on standards used in engineering practice.  **PO10:** Knowledge about business life practices such as project management, risk management, and change management; awareness in entrepreneurship, innovation; knowledge about sustainable development.  **PO11:** Knowledge about the global and social effects of engineering practices on health, environment, and safety, and contemporary issues of the century reflected into the field of engineering; awareness of the legal consequences of engineering solutions. |