# Alanya Alaaddin Keykubat University | Rafet Kayış Faculty of Engineering **Department of Genetics and Bioengineering**

| Syllabus        |  |  |  |  |  |  |  |
|-----------------|--|--|--|--|--|--|--|
| Code/Name       | GBM 111 / ENGINEERING ETHICS   |  |  |  |  |  |  |
| Type            | Required   |  |  |  |  |  |  |
| Credit/ECTS     | 2/2  |  |  |  |  |  |  |
| Hour per Week   | 1 (1+0+0)  |  |  |  |  |  |  |
| Level/Year      | Undergraduate/1  |  |  |  |  |  |  |
| Semester        | Fall   |  |  |  |  |  |  |
| Classroom       | D306   |  |  |  |  |  |  |
| Content         | Origin, meaning, historical development of the word ethics; Ethical Theories and Types of Ethics, Universal and individual freedom dimensions of Ethics; Discussion of Rights and Freedom, crime and punishment and professional ethics; Ethical decision-making processes; Discussion of the concept of engineering and the principles of engineering ethics. Evaluation of professional responsibility and professional risks, discussion of engineering ethics with practical applications.   |  |  |  |  |  |  |
| Prerequisites   | <u>-</u>   |  |  |  |  |  |  |
| Textbooks       | A set of ethics case studies from physics research, with an activity and discussion guide for courses and seminars in science ethics, Kanchan Dewal Schinzinger,R. Martin,M. W. (2000), Introduction to engineering ethics, Boston: McGraw Hill, İTÜ MERKEZ KÜTÜPHANE, TA157 .S35 2000, p.260  Doug Lennick & Fred Kiel, Moral Intelligence (Etik Zekâ, İş Performansının Arttırılması ve Liderlik Başarısı), Soyak Yayınları, 2005  Secondary  Bilimsel araştırmada etik ve sorunları, Türkiye Bilimler Akademisi, Ankara, 2002 Cevizci, A. (2002), Etiğe Giriş, Felsefe Dizisi 20.Kitap,Paradigma Yayınları, İstanbul, ISBN 975-7819-26-3 Frankena, William K, Etik, İmge Kitabevi, Ankara 2007 Prof.Dr. Ali Günay, Etik Ders Notları, İTÜ Maden Fakültesi Onbaşıoğlu, S. U., (2003), Mühendislik Etiği, Doğa Yayıncılık, İstanbul, ISBN 973-97305-6-1 Haynes, Felicity Eğitimde Etik, Ayrıntı Yayınları, İstanbul, "The ethical school" kitabından çeviren Semra Kunt Akbaş, ISBN 975-539-351-X, 2002 Kant,I. (2003), Ethica; Etik Üzerine Dersler, Pencere Yayınları, "Eine Vorlesung über Ethik" kitabından çeviren Oğuz Özügül, ISBN 975-8460-54-4 Prof.Dr. Yüksel Örgün (2012) Mühendislik Etiği Ders Notu, İTÜ Maden Fak |  |  |  |  |  |  |
| Objectives      | Zekai Şen, Mühendislikte Felsefe, Mantık, Bilim ve Etik, Su Vakfı Yayınları  • To ensure that students understand the ethical rules that must be followed in   |  |  |  |  |  |  |
|                 | <ul> <li>studies carried out in engineering.</li> <li>To ensure that students understand the universal ethical rules regarding the publication of information obtained from scientific studies.</li> <li>To ensure that students understand that they must carefully obtain the necessary work permits for their studies.</li> </ul>   |  |  |  |  |  |  |
| Course Outcomes | In this course you will be able to: CO1 The student fully learns the basic principles of biochemistry and its biochemical importance, the functions and structures of molecules in metabolism. CO2 The student knows the interaction of biological molecules with each other. CO3 It provides the ability to apply knowledge in biochemistry field to bioengineering problems. CO4 Gaining the ability to use databases and current topics in biochemistry   |  |  |  |  |  |  |

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#### **Weekly Schedule of Topics**

| WCCK | ly schedule of Topics                                       |
|------|---|
| W    | Topic   |
| 1    | Introduction to Ethics                                      |
| 2    | Conflicts of Interest                                       |
| 3    | Data Acquisition  |
| 4    | Educational Concerns  |
| 5    | Health and Safety   |
| 6    | Research with Human Subjects                                |
| 7    | Issues of Bias  |
| 8    | Midterm exam  |
| 9    | Mentoring   |
| 10   | Publication Practices                                       |
| 11   | Responsible Conduct of Research and Participation           |
| 12   | Engineering and Engineering Ethics                          |
| 13   | Principles of engineering ethics                            |
| 14   | Professional Responsibility and employer authority          |
| 15   | Professional Associations and Abet Engineering Ethics Codes |
| 16   | Final exam  |
|      | ·   |

### **Professional Contribution**

### **Contribution to Program Outcomes\***

|     | P01 | PO2 | P03 | PO4 | P05 | P06 | P07 | P08 | P09 | PO10 | PO11 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|
| CO1 | 2   | 2   | 2   | 2   | 2   | 2   | 5   | 2   | 2   | 2    | 5    |
| CO2 | 2   | 2   | 2   | 2   | 2   | 2   | 5   | 2   | 2   | 2    | 5    |
| CO3 | 2   | 2   | 2   | 2   | 2   | 2   | 5   | 2   | 2   | 2    | 5    |
| C04 | 2   | 2   | 2   | 2   | 2   | 2   | 5   | 2   | 2   | 2    | 5    |

<sup>\*</sup> Contribution Level | 0: None | 1: Very Low | 2: Low | 3: Medium | 4: High | 5: Very High

| Special<br>Conditions   | Students work in groups for the presentations.  |  |  |  |
|---|---|--|--|--|
| <b>Requirements</b> Basic knowledge of biology and Basic Computer Knowledge |   |  |  |  |
| Course Policy   | <ul> <li>Be in the class on time.</li> <li>English should always be used to communicate with one another.</li> <li>At least 80% attendance is required, otherwise, a grade of <b>DZ</b> will be assigned.</li> <li>You must be present in class for the presentations, otherwise you will not be graded.</li> </ul> |  |  |  |
| Cheating &<br>Plagiarism  | <ul> <li>Copying or letting someone copy your work on exams, assignments, or reports is cheating.</li> <li>Cutting and pasting text, figures, and tables from web sources or any other electronic source is plagiarism.</li> </ul>  |  |  |  |

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| The consequence of academic dishonesty is to receive a grade of FF for the cours |                     |      |  |  |  |
|--|---------------------|------|--|--|--|
| Evaluation   | Class participation | 20%  |  |  |  |
|  | Midterm             | 40%  |  |  |  |
|  | Final Exam          | 40%  |  |  |  |
|  | Total               | 100% |  |  |  |

#### Instructor

| Name/Surname | Özgür Öztürk | Email        | ozgur.ozturk@alanya.edu.tr                                       |
|--------------|--------------|--------------|--|
| Room         | 300          | Office Hours | Tuesday 14:30-15:15 and<br>Wednesday 10:30-11:15/15:30-<br>16:15 |

Prepared by Özgür Öztürk on July 9th, 2024.