**COURSE IDENTIFICATION FORM**

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| Course Unit Title and Code: SM-6020 Experimental practices in laboratory animals | Programme Title: Fisheries Doctorate |
| Semester | The Methods of Education (ECTS) |  |
| Theoretical | Practice | Lab. | Project Work | Other | Total | ECTS |
|  | 2 | 2 | - |  |  | 4 | 6 |
| Language of Course Unit  | Turkish |
| Type of Course Unit (Compulsory/Elective) | Elective |
| Preconditions | None |
| Name of Lecturer | Assoc. Dr. Engin ŞEKER |
| Class | Doctorate |
| Objectives of Course Unit | In this course the students will learn feeding, care, production, manipulation basic practices on laboratory animals. In addition it is aimed for having conscious about ethical subjects in experimental researches. |
| Teaching Techniques  | Theoretical narration and practice |
| Course Unit Contents | Anatomical and physological traits of experimental animals, defining suitable animal species for experiment, anaesthesia,injection methods, autopsy, taking blood and tissue from animals,euthanasia and theoretical and practice of techniques. In addition,practicing ethical principles, watching for national and international rules to follow |
| Recommended or Required Reading | Aydın C, Karahan S. Laboratuvar hayvanlarının biyolojisi, yetiştirme ve barındırılması. Türkçe Çeviri Editörü: İde T. Laboratuvar Hayvanları Biliminin Temel İlkeleri. Ankara: Medipres, (2003)[Prof.Dr. Nuh Zafer Cantürk, Prof.Dr. İskender Saye](http://www.izmirtip.com.tr/detayliaramasonuc.aspx?yazar=Prof.Dr.%20Nuh%20Zafer%20Cant%C3%BCrk,%20Prof.Dr.%20%C4%B0skender%20Saye) Cerrahi Araştırma - Araştırma Planlama, Değerlendirme ve Sunum, [Nobel Tıp Kitabevi](http://www.izmirtip.com.tr/detayliaramasonuc.aspx?yayinevi=Nobel%20T%C4%B1p%20Kitabevi), (2005)[Mehmet BAYRAMİÇLİ](http://www.izmirtip.com.tr/detayliaramasonuc.aspx?yazar=Mehmet%20BAYRAM%C4%B0%C3%87L%C4%B0)  Deneysel Mikrocerrahi (Temel Araştırma, Doku ve Organ Nakli Modelleri), (2005). |
| Learning Outcomes | 1.Explains the significance of using experimental animals in experiments and selecting animals2.Learn care, feding, production and manipulation of laboratory animals3. Practices anaesthesia,injection methods, autopsy, taking blood and tissue from animals,euthanasia techniques on laboratory animals. 4. Defines universal rules about reliability in experiments, standardization and ethic of using animals |
| Weekly Detailed Course Contents | 1. General Laboratory safety and occupational health
2. The basics of ethical rules of experimental animals
3. Anatomy of experimental animals
4. Physiology of experimental animals
5. Feeding of laboratory animals
6. Diseases of experimental animals
7. Mid-term exam
8. Holding technique in laboratory animals
9. Holding technique in fish
10. Medicine practice in experimental animals
11. Anaesthesia and euthanasia in experimental animals
12. Taking blood and sample
13. Power analysis
14. Final exam
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| The contribution to Career Training of Course Unit | Mathematic and Basic Science | Vocational Education | General Education |
|  |  | 6 |  |
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### RELATIONSHIPS BETWEEN LEARNING OUTCOMES OF COURSE UNIT AND PROGRAMME OUTCOMES OF FISHERIES ENGINEER

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|  | 1. PROGRAMME OUTCOMES OF FISHERIES ENGINEER
 | Contribution Level1 Low2: Medium 3: High |
| 1 | Deepens and improves the information based on university education up to expertise level in Fishing and Seafood Processing Technology.  | 3 |
| 2 | Collects, assesses and publishes data related to their expertise area, cares public, scientific, cultural and ethical values during data collection. | 3 |
| 3 | Solves problems by using problem-solving and suitable methods, establishes cause and effect relationships in the process in his/her expertise. | 2 |
| 4 | Develops a positive attitude towards lifelong learning.  | 2 |
| 5 | Ability for independent study in their area of expertise. | 3 |
| 6 | Obtaining and using literature in their area of expertise. | 1 |
| 7 | Written, verbal and visual convey of their studies and developments in their area of expertise. | 1 |
| 8 | Comprehends interaction of expertise area in relation to interdisciplinary relationships.  | 2 |

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| Learning Outcomes of Course Unit | Programme Outcomes |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 1 | 3 |  | 3 | 2 |  |  |  |  |
| 2 | 3 |  | 3 | 3 |  |  |  | 3 |
| 3 | 3 | 2 | 3 | 3 |  |  |  | 1 |
| 4 | 3 | 3 |  | 3 |  |  | 2 | 2 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total PO | 12 | 5 | 9 | 11 | 0 | 0 | 2 | 6 |
| Total/12 | %100 | %42 | %75 | %92 | %0 | %0 | %17 | %50 |
| Contribute level | 3 | 2 | 3 | 3 | 0 | 0 | 1 | 2 |

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| Assoc. Dr. Engin ŞEKER | 12.02.2024 |