**Name of the Course :** ABE201- Ethics and Quality System in Forensic Sciences

**Medium of the Course :** Turkish

**Aim of the Objective :** In the course on Ethics and Quality Systems in Forensic Sciences at the master's level, students will acquire knowledge of the TS EN ISO 17025: 2017 Standard, which enhances the service quality of forensic laboratories, through understanding ethical concepts in forensic sciences. The Ethics and Quality Systems in Forensic Sciences course aims to increase awareness of ethical principles emerging in the field of forensic sciences and to teach the indispensability of quality management and standardization in forensic laboratories. The course targets providing support to areas analyzing forensic evidence in terms of the management requirements, technical requirements, and the application of these standards to forensic science laboratories.

**Level of the Course :** Master’s Degree

**Type/ Content of the Course :** Compulsory/In the mandatory course on Ethics and Quality Systems in Forensic Sciences, students will be provided with general information on the responsibilities of professionals working in forensic laboratories, ethical and moral concepts, and the standards required to ensure quality assurance. They will also be informed about the TS EN ISO/IEC 17025: 2017 Standard, which enhances the service quality of forensic science laboratories

**Credit of the Course :** 3

**Term / Weekly Hour :** Spring/3

**Name(s)/Surname(s) of Instructors :** Dr.Lec. Ayşen TEZEL

**Contect Number of Insts. :** 0312 464 7575, 0 538 375 60 18

**Program Coordinator :** Prof.Dr. Gökhan İbrahim ÖĞÜNÇ

**Prerequisites :** None

**Teaching Methods :** Seminar, discussion, presentation, article

**Resources :**

1. **Social, Legal, and Ethical Implications of Genetic Testing**, Chapter 8: **Assessing Genetic Risks: Implications for Health and Social Policy**. Washington, DC: National Academies Press (US); 1994, ISBN-10: 0-309-04798-6.
2. **Higher Education Institutions Scientific Research and Publication Ethics Regulation**, available at: <https://www.yok.gov.tr/Documents/Mevzuat/yuksekogretim-kurumlari-bilimsel-arastirma-ve-yayin-etigi-yönergesi.pdf>
3. **Ethical Issues in Education**, edited by Zerrin Ayvaz Reis, part of the “100 Books for the 100th Anniversary of the Republic” project, Istanbul University-Cerrahpaşa IUC Press, October 2023.
4. **Forensic Sciences and Ethics in the Age of Scientific Intelligence**, Andric S.D., Ivanovic A.B., November 2023, Belgrade, University of Criminalistics and Police Studies. Montenegro Police Administration.
5. **AI and Ethics**, Singh V., Shah B., International Journal of Scientific Research in Engineering and Management (IJSREM), Volume 8, Issue 8(3), 2024, ISSN: 2582-3930.
6. **Anadolu University Guide to Research Ethics**, Eskişehir 2018, available at: <https://www.anadolu.edu.tr/uploads/anadolu/ckfinder/web/files/4-bilim-etigi-kılavuzu.pdf>
7. **Ethical Publication of Research on Genetics and Genomics of Biological Material: Guidelines and Recommendations**, D’Amato M.E., Bodner M., Butler J.M., et al., Forensic Science International: Genetics, Volume 48, Article 102299, 2020.
8. **Legal and Ethical Considerations in the Use of DNA Fingerprinting**, Tiwari P., Journal of Scientific Research and Reports, Volume 30, Issue 3, 2024, Pages 236-242, ISSN: 2320-0227.
9. **TS EN ISO/IEC 17025:2017 Standard**
10. **TS EN ISO/IEC 17043:2013 Standard**

**WEEKLY TOPICS**

|  |  |
| --- | --- |
| **Weeks** | **Units** |
| **1** | **Morality, ethics and scientific moral concepts, ethical theories** |
| **2** | **Ethical principles, codes of ethics in forensic sciences** |
| **3** | **Data privacy and ethical problems encountered in forensic sciences** |
| **4** | **Forensic science law** |
| **5** | **Artificial intelligence and ethics** |
| **6** | **Ethical issues in scientific research** |
| **7** | ***Midterm*** |
| **8** | **Standard, Standardization, Accreditation and Quality Management System concepts-1** |
| **9** | **Standard, Standardization, Accreditation and Quality Management System concepts-2** |
| **10** | **Structure and Basic Features of TS EN ISO/IEC 17025:2017 Standard** |
| **11** | **TS EN ISO / IEC 17025: 2017 Standard Documentation System** |
| **12** | **TS EN ISO/IEC 17025: Technical and Management Conditions of 2017 Standard-1** |
| **13** | **TS EN ISO/IEC 17025: Technical and Management Conditions of 2017 Standard-2** |
| **14** | **TS EN ISO-IEC 17043 2013 General conditions for conformity assessment and proficiency tests** |
| **15** | ***Final*** |

**EVALUATION SYSTEM**

|  |  |  |
| --- | --- | --- |
| **Semester Studies** | **Number** | **Contribution Margin %** |
| **Attandence** | 1 | 10 |
| **Quiz** | - | - |
| **Midterm** | 1 | 20 |
| **Practice** | - | - |
| **Project** | - | - |
| **Assignment / Presentation** | 1 | 20 |
| **Final** | 1 | 50 |
| **Total** | 4 | 100 |

**ECTS / WORKLOAD TABLE**

|  |  |  |  |
| --- | --- | --- | --- |
| **ACTIVITES** | **NUMBER** | **DURATION**  **(Hour)** | **Total workload (Hour)** |
| **Theoretical Course (+Practice)** | 14 | 3 | 42 |
| **Duration of Out-of-Class Study** | 14 | 3 | 42 |
| **Presentation/Seminar Preparation** | - | - | - |
| **Project** | - | - | - |
| **Assignments** | 1 | 45 | 45 |
| **Midterm**   1. **Exam** 2. **Individual Study For The Exam** | - | - | - |
| **Final**   1. **Exam** 2. **Individual Study For The Exam** | 1 | 40 | 40 |
| **Total workload (hours)** | 31 | 131 | 209 |
| **ECTS Credit of The Course (Total workload (hours) / 25)** |  |  | **8** |

**COURSE OUTCOMES**

|  |  |
| --- | --- |
| **No.** | **Explanation** |
| **O1** | Having knowledge about basic definitions and concepts related to ethics and system quality in national and international sources |
| **O2** | Having knowledge about ethics and law regarding a research |
| **O3** | Having knowledge about ethical theories regarding a research |
| **O4** | Having knowledge about Ethical Principles in Forensic Sciences |
| **O5** | Having knowledge about Ethics and Personal Data Protection in Forensic Sciences |
| **O6** | Having knowledge about Ethical Problems Encountered in Forensic Sciences |
| **O7** | Having knowledge about Standards, Standardization, Accreditation and Quality Management System |
| **O8** | Having information about the Structure and Basic Features of TS EN ISO/IEC 17025:2017 Standard |
| **O9** | Having knowledge about TS EN ISO/IEC 17025:2017 Standard Documentation System |
| **O10** | Having knowledge about the Management Conditions of TS EN ISO/IEC 17025:2017 Standard |
| **O11** | Having knowledge about the Technical Conditions of TS EN ISO/IEC 17025:2017 Standard |
| **O12** | Having information about the Application of TS EN ISO/IEC 17025:2017 Standard to Forensic Science Laboratories |
| **O13** | To have knowledge about the general conditions for TS EN ISO-IEC 17043:2013 Conformity assessment and proficiency tests |

**PROGRAM QUALIFICATIONS**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | |
| **No.** | **Explanation** | **Contribution Level of the Course** | | | | | |
| **0** | **1** | **2** | **3** | **4** | **5** |
| **P1** | To have a understanding of forensic science ethics and protection of personal data |  |  |  |  |  | X |
| **P2** | To have a knowledge of the principles and techniques of scientific research. |  |  |  |  |  | X |
| **P3** | To reach proficiency about the effects of forensic sciences on ensuring the rule of law. |  |  |  |  | X |  |
| **P4** | To have theoretical and practical knowledge in the fields of Forensic Science Investigation. |  |  |  |  | X |  |
| **P5** | To recognise the importance of using forensic science methods in criminal investigations. |  |  |  | X |  |  |
| **P6** | To have command of crime scene investigation techniques and forensic photography principles. | X |  |  |  |  |  |
| **P7** | To understand the importance of crime scene investigation process in criminal investigations |  | X |  |  |  |  |
| **P8** | To apply the developments in the fields of positive science to the fields of criminalistics. |  |  |  |  | X |  |
| **P9** | To know and apply the hierarchy of forensic sciences, which are multidisciplinary and interdisciplinary, and their relations with each other. |  |  |  | X |  |  |
| **P10** | To have basic theoretical and practical knowledge in at least one of the fields of criminalistics. |  |  |  | X |  |  |
| **P11** | To be able to relate the results of reports prepared by forensic science laboratories to the criminal investigation by reasoning. |  |  | X |  |  |  |
| **P12** | To recognise the legal responsibilities of the expert witness and to internalise the ethical rules. |  |  |  | X |  |  |

**CONTRIBUTION OF COURSE LEARNING OUTCOMES TO PROGRAM PROFICIENCY**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **All** | **P1** | **P2** | **P3** | **P4** | **P5** | **P6** | **P7** | **P8** | **P9** | **P10** | **P11** | **P12** |
| **O1** | **5** | **5** | **4** | **4** | **3** | **0** | **1** | **4** | **3** | **3** | **2** | **4** |
| **O2** | **5** | **5** | **4** | **4** | **3** | **0** | **1** | **4** | **3** | **3** | **2** | **4** |
| **O3** | **5** | **5** | **4** | **4** | **3** | **0** | **1** | **4** | **3** | **3** | **2** | **4** |
| **O4** | **5** | **5** | **4** | **4** | **3** | **0** | **1** | **4** | **3** | **3** | **2** | **4** |
| **O5** | **5** | **5** | **4** | **4** | **3** | **0** | **1** | **4** | **3** | **3** | **2** | **4** |
| **O6** | **5** | **5** | **4** | **4** | **3** | **0** | **1** | **4** | **3** | **3** | **2** | **4** |
| **O7** | **5** | **5** | **4** | **4** | **3** | **0** | **1** | **4** | **3** | **3** | **2** | **4** |
| **O8** | **5** | **5** | **4** | **4** | **3** | **0** | **1** | **4** | **3** | **3** | **2** | **4** |
| **O9** | **5** | **5** | **4** | **4** | **3** | **0** | **1** | **4** | **3** | **3** | **2** | **4** |
| **O10** | **5** | **5** | **4** | **4** | **3** | **0** | **1** | **4** | **3** | **3** | **2** | **4** |
| **O11** | **5** | **5** | **4** | **4** | **3** | **0** | **1** | **4** | **3** | **3** | **2** | **4** |
| **O12** | **5** | **5** | **4** | **4** | **3** | **0** | **1** | **4** | **3** | **3** | **2** | **4** |
| **O13** | **5** | **5** | **4** | **4** | **3** | **0** | **1** | **4** | **3** | **3** | **2** | **4** |

**0- None 1- Very Low 2- Low 3- Moderate 4- High 5- Very High**

Dr.Lec. Ayşen TEZEL

**.../…/2024**

**Prof.Dr. Gökhan İbrahim ÖĞÜNÇ**

**Director of the Institute of Forensic Sciences**