 **ESOGU INSTITUTE OF HEALTH SCIENCES**

**…………………………. DEPARTMENT**

**COURSE INFORMATION FORM**

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| **COURSE CODE:** | **520111103** | | **DEPARTMENT:** PUBLIC HEALTH DEPARTMENT, BIOSTATISTICS DEPARTMENT, MEDICAL HISTORY AND ETHICS DEPARTMENT | | | |
| **COURSE NAME:** **RESEARCH METHODS AND PUBLICATION ETHICS** | | | | | | |
| **Teaching the Course**  **ELEMENTS**  Prof. Dr. Selma METİNTAŞ | | COURSE LANGUAGE  Turkish: **X**  English: | | **Course Category** | | |
| Technical | Medical | Other(……) |
| Prof. Dr. Nilüfer DEMİRSOY  Prof. Dr. Ertuğrul ÇOLAK | |  | |  | **X** |  |
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**COURSE LEVEL**

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| **SCIENTIFIC PREPARATION** | **DEGREE** | **DOCTORATE** | **SPECIALIZED FIELD COURSE** |
|  | **X** | **X** |  |

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| **SEMESTER** | **WEEKLY CLASS HOURS** | | |  | | |
| **Theoretical** | **APPLICATION** | **Laboratory** | **Credit** | **ECTS** | **COURSE TYPE** |
| Spring **X**  Autumn **X** | 3 | 0 | 0 | 3 | 7.5 | COMPULSORY ELECTIVE  **X** |

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| **EVALUATION CRITERIA** | | | |
| **MIDTERM EXAM** | **Type of activity** | **Number** | **Percentage (%)** |
| Midterm Exam | **1** | **30** |
| Midterm Exam |  | **30** |
| Homework |  |  |
| Project |  |  |
| Oral examination |  |  |
| Other (………) |  |  |
| **Final Exam** | | **40** |
| **RECOMMENDED PREREQUIREMENTS (IF ANY)** | - | | |
| **BRIEF CONTENT OF THE COURSE** | This course includes research planning, topic selection, literature review, scientific writing critique, scientific research project preparation, sample selection, data analysis, reporting, ethical and legal responsibilities of the author in research products, scientific publication ethics, basic principles, violations and authorship rights issues. | | |
| **COURSE OBJECTIVES** | This course aims to explain the methods of scientific research planning, implementation, and data analysis within the framework of the principles of publication ethics, as well as the methods of writing scientific articles and theses, and to implement the practices by being aware of ethical and legal responsibilities and intellectual property rights at all stages. | | |
| **CONTRIBUTION OF THE COURSE TO PROVIDING VOCATIONAL EDUCATION** | Conducting and publishing research using research methods within the framework of scientific publication ethics. | | |
| **COURSE LEARNING OUTCOMES** |  | | |
| **BASIC TEXTBOOK** | ÖZDAMAR, K. (2013). Modern Scientific Research Methods. Eskişehir: Nisan Bookstore.  GULER, C., AKIN, L. (2015). Public Health - Basic Information. Ankara: Hacettepe University Publications.  Resnik, D. (2004). Scientific Ethics. Ayrıntı Publications, Istanbul. | | |
| **AUXILIARY RESOURCES** | Allibang, S. (2016). Research Methods: Simple, Short, and Straightforward Way Of Learning Methods of Research.  Bonita, R., Beaglehole, R., Kjellström, T (2006). Basic Epidemiology. WHO.  Cevizci, A. (2012). Introduction to Ethics. Paradigma Publications, Istanbul. | | |
| **TOOLS AND EQUIPMENT REQUIRED IN THE COURSE** |  | | |

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| **WEEKLY COURSE PLAN** | |
| **WEEK** | **TOPICS COVERED** |
| 1 | The Importance of Research in the Field of Health and Data Sources Used in the Field of Health |
| 2 | Measures in Health Research: Rate, Ratio, Proportion, Relative Risk, Relative Relative Risk, Attributable Risk, Preventability Rate, etc. |
| 3 | Research Methods: Descriptive Studies and Analytical Studies: Prevalence Studies, Qualitative Studies, Ecological Studies, Cross-Sectional Studies, Case-Control Studies, Cohort Studies |
| 4 | Experimental and Methodological Research: Controlled Studies, Randomized Controlled Trials, Experimental Research Designs, Validity-Reliability Studies, Predictive Value and Importance |
| 5 | Evidence-Based Medicine in Health Research and Critical Reading of National and International Literature |
| 6 | Error in Scientific Research (Random Error, Confounding, Systematic Error) and Control of Errors (Randomization and Blinding) Normal Distribution, Sampling Distribution, Central Limit Theorem, Formulation of Hypotheses |
| 7 | Power Analysis and Sample Size Calculations, Power Analysis Applications and Sampling Methods (Probabilistic and Non-Probabilistic) in PASS, NCSS, STATA and SAS programs |
| 8 | Hypothesis Tests |
| 9 | Entry of Research Data into Package Programs (SPSS, STATA, SAS, MINITAB, SIGMASTAT, MEDCALC), Data Editing Procedures, Hypothesis Testing Applications |
| 10 | Introduction to ENDNote Program and Applications |
| 11 | What is Ethics? Ethical Principles and Approaches |
| 12 | Standards of Ethical Conduct in Science |
| 13 | **Midterm Exam -** Author's Ethical and Legal Responsibilities in Research Products |
| 14 | Intellectual Property Rights: Legal and Ethical |
| 15 | Publication Ethics and Authorship Issues: Cope Standards |
| 16 | **Final Exam** |

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| **CONTRIBUTION OF COURSE LEARNING OUTCOMES TO PROGRAM LEARNING OUTCOMES** | | **Contribution Level** | | |
| **NO** | **COURSE OUTCOMES** | **1**  **Little** | **2**  **Middle** | **3**  **High** |
| LO 1 | Ability to Gather Information on Health Sciences and Apply the Information Obtained |  |  | **X** |
| LO 2 | Scientific Inquiry and Hypothesis Generation Skills |  |  | **X** |
| LO 3 | Literature Review and Evaluation Skills |  |  | **X** |
| LO 4 | Ability to Design and Conduct Experiments, Analyze and Evaluate Data |  |  | **X** |
| LO 5 | Ability to Identify and Appropriately Use Experimental Tools and Equipment |  | **X** |  |
| LO 6 | Ability to Work in Interdisciplinary Teams |  |  | **X** |
| LO 7 | Ability to Recognize, Formulate and Solve Medical Problems |  |  | **X** |
| LO 8 | Ability to Use Computers Effectively in Research and Data Analysis |  |  | **X** |
| LO 9 | Ability to Understand the Contribution of Experimental Studies to National and International Science |  |  | **X** |
| LO 10 | Effective Written and Verbal Communication/Presentation Skills |  |  | **X** |
| LO 11 | Ability to Understand and Apply Professional and Ethical Responsibility |  |  | **X** |
| LO 12 | Ability to Understand and Apply the Importance of Lifelong Learning |  | **X** |  |

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| **Course Instructors Signature**  Prof. Dr. Selma METİNTAŞ  Prof. Dr. Nilüfer DEMİRSOY  Prof. Dr. Ertuğrul ÇOLAK | **History**  20.12.2016 |