



AYDIN ADNAN MENDERES UNIVERSITY
GRADUATE SCHOOL OF HEALTH SCIENCES
HISTOLOGY AND EMBRYOLOGY
HISTOLOGY AND EMBRYOLOGY (MEDICAL)
HISTOLOGY AND EMBRYOLOGY (MEDICAL) MASTER'S WITHOUT THESIS
COURSE INFORMATION FORM

| | | | | | | | | | |
|--|---|--------------|-------------|--------------------------------|---|----------|---|------------|---|
| Course Title | Reproductive Biology and Assisted Reproduction Techniques | | | | | | | | |
| Course Code | THE523 | Course Level | | Second Cycle (Master's Degree) | | | | | |
| ECTS Credit | 6 | Workload | 150 (Hours) | Theory | 2 | Practice | 0 | Laboratory | 0 |
| Objectives of the Course | learning the Development of oocyte and sperm, structural properties, fertilization and laboratory methods used in assisted reproduction | | | | | | | | |
| Course Content | learning the assisted reproductive techniques and gametogenesis | | | | | | | | |
| Work Placement | N/A | | | | | | | | |
| Planned Learning Activities and Teaching Methods | Explanation (Presentation), Discussion, Case Study, Individual Study | | | | | | | | |
| Name of Lecturer(s) | Lec. Erkan GÜMÜŞ | | | | | | | | |

| Assessment Methods and Criteria | | |
|---------------------------------|----------|----------------|
| Method | Quantity | Percentage (%) |
| Midterm Examination | 1 | 40 |
| Final Examination | 1 | 60 |

| Recommended or Required Reading | |
|---------------------------------|-----------------------------|
| 1 | Langman Medikal Embriyoloji |

| Week | Weekly Detailed Course Contents | |
|------|---------------------------------|---|
| 1 | Theoretical | Female genital system and oogenesis |
| 2 | Theoretical | Male genital system and spermatogenesis |
| 3 | Theoretical | Fertilization, cleavage and implantation |
| 4 | Theoretical | Quality control in IVF laboratory |
| 5 | Theoretical | Infertility and its causes |
| 6 | Theoretical | Tests used in male infertility and sperm preparation protocols I |
| 7 | Theoretical | Tests used in male infertility and sperm preparation protocols II |
| 8 | Intermediate Exam | midterm exam |
| 9 | Theoretical | Oocyte collection word and oocyte morphology |
| 10 | Theoretical | Classical in vitro fertilization |
| 11 | Theoretical | Embryo selection criteria |
| 12 | Theoretical | Embryo transfer |
| 13 | Theoretical | Factors affecting implantation |
| 14 | Theoretical | Cryopreservation and micromanulation techniques |
| 15 | Theoretical | artical discussion |
| 16 | Final Exam | final exam |

| Workload Calculation | | | | |
|----------------------|----------|-------------|---------------------------------------|----------------|
| Activity | Quantity | Preparation | Duration | Total Workload |
| Lecture - Theory | 14 | 3 | 2 | 70 |
| Assignment | 10 | 0 | 3 | 30 |
| Reading | 8 | 0 | 1 | 8 |
| Individual Work | 14 | 0 | 3 | 42 |
| | | | Total Workload (Hours) | 150 |
| | | | [Total Workload (Hours) / 25*] = ECTS | 6 |

*25 hour workload is accepted as 1 ECTS

| Learning Outcomes | |
|-------------------|---|
| 1 | To be able to explain gametogenesis |
| 2 | To know and apply the quality control in IVF laboratory |



| | |
|---|---|
| 3 | To be able to define and apply the tests used in male infertility and sperm preparation protocols |
| 4 | To be able to define and apply oocyte collection procedure and oocyte morphology imaging techniques |
| 5 | Defining embryo selection criteria |
| 6 | To explain the factors affecting embryo transfer and implantation |

Programme Outcomes (Histology and Embryology (Medical) Master's Without Thesis)

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|---|---|
| 1 | To have detailed information about cell structure and function at microscopic level |
| 2 | To have theoretical and practical knowledge about experimental methods used in histology |
| 3 | To know the ethical rules for publishing and presenting a scientific study |
| 4 | To have sufficient knowledge about the laboratory methods used in fertilization and assisted reproduction |
| 5 | to have enough knowledge about the general characteristics of human embryology |

Contribution of Learning Outcomes to Programme Outcomes 1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High

| | L1 | L2 | L3 | L4 | L5 | L6 |
|----|----|----|----|----|----|----|
| P1 | 4 | 3 | 4 | 3 | 4 | 3 |
| P2 | 3 | 4 | 3 | 4 | 3 | 4 |
| P3 | 3 | 4 | 3 | 4 | 4 | 4 |
| P4 | 3 | 4 | 4 | 3 | 4 | 4 |
| P5 | 4 | 4 | 3 | 4 | 3 | 4 |

