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| --- |
| **Master Degree** |
| **Code** | **Lesson Name** | **ECTS** | **T+U+L** | **C/E** | **Language** |
| **Autumn Term** |
| 521903201 | [FINE STRUCTURE OF THE TISSUES](#DERS521901201) | 7,5 | 3+0+0 | ELECTIVE | TURKISH |
| 521903202 | [HISTOGENESIS](#DERS521901202) | 7,5 | 3+0+0 | ELECTIVE | TURKISH |
| 521903203 | [CELL ULTRASTRUCTURE](#DERS521901203) | 7,5 | 3+0+0 | COMPULSORY | TURKISH |
| 521903204 | [IN VIVO EMBRYOGENESIS](#DERS521901204) | 7,5 | 3+0+0 | COMPULSORY | TURKISH |
| 521903205 | [DEVELOPMENT AND HISTOLOGICAL STRUCTURES OF BASIC TISSUES](#DERS521901205) | 7,5 | 2+0+0 | ELECTIVE | TURKISH |
| 521903206 | [MAIN EQUIPMENTS OF HISTOLOGY AND EMBRYOLOGY LABORATORY](#DERS521901206) | 7,5 | 2+2+0 | ELECTIVE | TURKISH |
| 521901700 | COURSE OF PROVINCE | 5 | 3+0+0 | COMPULSORY | TURKISH |
|  |  |  |  |  |
| **Spring Term** |
| 521904201 | [IN VITRO FERTILIZATION](#DERS521902201) | 7,5 | 2+1+0 | ELECTIVE | TURKISH |
| 521904203 | [EXAMINATION METHODS OF CELLS AND TISSUES IN HISTOLOGY AND THEIR APPLICATIONS](#DERS521902203) | 7,5 | 2+2+0 | COMPULSORY | TURKISH |
| 521904204 | [THE BEGINNING OF HUMAN DEVELOPMENT: FIRST, SECOND AND THIRD WEEK](#DERS521902204)S | 7,5 | 3+0+0 | COMPULSORY | TURKISH |
| 521904205 | [THE FETAL PERIOD: FROM NINTH WEEK TO BIRTH](#DERS521902205) | 7,5 | 3+0+0 | ELECTIVE | TURKISH |
| 521904206 | [MICROSCOPIC EVALUATION AND MORPHOMETRIC ANALYSIS OF TISSUES](#DERS521902206) IN HISTOLOGY | 7,5 | 1+3+0 | ELECTIVE | TURKISH |
| 521901700 | COURSE OF PROVINCE | 5 | 3+0+0 | COMPULSORY | TURKISH |
|  |  |  |  |  |
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** ESOGÜ INSTITUTE OF HEALTH SCIENCE**

**DEPARTMENT OF HISTOLOGY AND EMBRYOLOGY**

**COURSE INFORMATION FORM**

|  |  |  |  |
| --- | --- | --- | --- |
| **COURSE CODE:** | **521903201** | **DEPARTMENT:** | HISTOLOGY AND EMBRYOLOGY |
| **COURSE NAME:** | FINE STRUCTURE OF THE TISSUES  |
| **INSTRUCTOR NAME** | **COURSE LANGUAGE** | **COURSE CATEGORY** |
| Ass. Prof. Dr. Dilek BURUKOĞLU DÖNMEZ | **Turkish** | **English** | **Technical** | **Medical** | **Other** |
| **X** |  |  | **X** |  |

**COURSE LEVEL**

|  |  |  |  |
| --- | --- | --- | --- |
| **PROPAEDEUTIC** | **MASTER OF SCIENCE** | **DOCTORATE** | **COURSE OF PROVINCE** |
|  | **X** |  |  |

|  |  |  |
| --- | --- | --- |
| **SEMESTER** | **WEEKLY COURSE PERIOD** | **COURSE OF** |
| **Autumn** | **Spring** | **Theoretic** | **Practice** | **Laboratory** | **Credit** | **ECTS** | **Type** |
| **X** |  | 3 | 0 | 0 | 3 | 7,5 | Compulsory: |
| Elective: **X** |

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| **ASSESMENT CRITERIA** |
| **MID-TERM EXAM** | **Activity** | **Quantity** | **Percentage (%)** |
| 1st Mid-Term | 1 | 50 |
| 2nd Mid-Term |  |  |
| Quiz |  |  |
| Homework |  |  |
| Project |  |  |
| Oral Exam |  |  |
| Other (………) |  |  |
| **FINAL EXAM** | Quiz |  |  |
| Homework |  |  |
| Project |  |  |
| Oral Exam | 1 | 50 |
| Other (………) |  |  |
| **MAKE-UP EXAM** | Oral | Written | Oral and Written | Multiple Choice |
|  | **X** |  |  |
| **PREREQUISITE(S)** |  |
| **COURSE CONTENT** | Despite its complexity, the human body is composed of only 4 basic tissues; epithelial, connective, muscular and nervous tissues. |
| **COURSE AIMS** | To teach the ultra-structural characteristics of the four basic tissues. |
| **COURSE OBJECTIVES** | To provide better understanding of human body and applying it in clinical situations by teaching the general properties of the tissues in detail. |
| **TEXTBOOK(S)** | Histology-A Text and Atlas, M. H. Ross and W. Pawlina, Seventh Edition, Wolters Kluwer, USA, 2016. |
| **REFERENCES** |  |

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| **COURSE SYLLABUS** |
| **WEEK** | **DATE** | **SUBJECTS/TOPICS** |
| 1 |  | Introduction to the ultrastructure of tissues |
| 2 |  | Ultra structural features of covering epithelium |
| 3 |  | Ultra structural features of glandular epithelium |
| 4 |  | Seminar 1 |
| 5 |  | Ultra structural features of connective tissue cells |
| 6 |  | Ultra structural features of extracellular matrix in connective tissue |
| 7 |  | **Mid-Term Exam** |
| 8 |  | Ultra structural features of cartilaginous tissue |
| 9 |  | Ultra structural features of osseous tissue |
| 10 |  | Ultra structural features of adipose tissue |
| 11 |  | Seminar 2 |
| 12 |  | Ultra structural features of blood tissue |
| 13 |  | Ultra structural features of muscular tissue |
| 14 |  | Ultra structural features of nervous tissue |
| 15 |  | Clinical significance of ultrastructure  |
| 16 |  | **Final Exam** |

**PROGRAM QUTCOMES**

Up skills of Course: Please choose never (1), few (2) or many (3) regarding your course

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NO** |  | **1** | **2** | **3** |
| 1 | Gather as well as apply knowledge of health sciences |  | **X** |  |
| 2 | Ask scientific questions and form hypothesis |  | **X** |  |
| 3 | Search and interpret scientific literature |  | **X** |  |
| 4 | Design and conduct experiments as well as analyze and interpret the data | **X** |  |  |
| 5 | Learn how to use the experimental equipment effectively |  | **X** |  |
| 6 | Function on multi-disciplinary teams |  | **X** |  |
| 7 | Identify, formulate, and solve medical problems | **X** |  |  |
| 8 | Use computer effectively both in conducting the experiments and analyzing the data |  | **X** |  |
| 9 | Understand the impact of experimental solutions on national and international sciences |  | **X** |  |
| 10 | Use effective written and oral communication/presentation skills |  | **X** |  |
| 11 | Get an understanding of professional and ethical responsibility |  | **X** |  |
| 12 | Get a recognition of the need for, and an ability to engage in lifelong learning |  | **X** |  |
| 13 | Get a recognition of basic concepts in medical education |  | **X** |  |
| 14 | Get a skill of approach to ethical problems by focusing on basic concepts |  |  | **X** |

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| **Instructor Name****Ass. Prof. Dr. Dilek BURUKOĞLU DÖNMEZ****Sign** | **Date****06.03.2018** |

** ESOGÜ INSTITUTE OF HEALTH SCIENCE**

**DEPARTMENT OF HISTOLOGY AND EMBRYOLOGY**

**COURSE INFORMATION FORM**

|  |  |  |  |
| --- | --- | --- | --- |
| **COURSE CODE:** | **521903202** | **DEPARTMENT:** | HISTOLOGY AND EMBRYOLOGY |
| **COURSE NAME:** | HISTOGENESIS |
| **INSTRUCTOR NAME** | **COURSE LANGUAGE** | **COURSE CATEGORY** |
| Ass. Prof. Dr. Dilek BURUKOĞLU DÖNMEZ | **Turkish** | **English** | **Technical** | **Medical** | **Other** |
| **X** |  |  | **X** |  |

**COURSE LEVEL**

|  |  |  |  |
| --- | --- | --- | --- |
| **PROPAEDEUTIC** | **MASTER OF SCIENCE** | **DOCTORATE** | **COURSE OF PROVINCE** |
|  | **X** |  |  |

|  |  |  |
| --- | --- | --- |
| **SEMESTER** | **WEEKLY COURSE PERIOD** | **COURSE OF** |
| **Autumn** | **Spring** | **Theoretic** | **Practice** | **Laboratory** | **Credit** | **ECTS** | **Type** |
| **X** |  | 3 | 0 | 0 | 3 | 7,5 | Compulsory: |
| Elective: **X** |

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| **ASSESMENT CRITERIA** |
| **MID-TERM EXAM** | **Activity** | **Quantity** | **Percentage (%)** |
| 1st Mid-Term | 1 | 50 |
| 2nd Mid-Term |  |  |
| Quiz |  |  |
| Homework |  |  |
| Project |  |  |
| Oral Exam |  |  |
| Other (………) |  |  |
| **FINAL EXAM** | Quiz |  |  |
| Homework |  |  |
| Project |  |  |
| Oral Exam | 1 | 50 |
| Other (………) |  |  |
| **MAKE-UP EXAM** | Oral | Written | Oral and Written | Multiple Choice |
|  | **X** |  |  |
| **PREREQUISITE(S)** |  |
| **COURSE CONTENT** | In the early developing embryo during the gastrulation phase, a trilaminar embryonic disc forms. This disc consists of endoderm, mesoderm and ectoderm, which give rise to all the tissues and organs of the body. |
| **COURSE AIMS** | To teach the endodermal, mesodermal and ectodermal derivatives. |
| **COURSE OBJECTIVES** | Understanding of the intrauterine development of tissues and organs of human body and using it in practice.  |
| **TEXTBOOK(S)** | Langman’s Medical Embryology, T. W. Sadler, Thirteenth Edition, Wolters Kluwer, USA, 2015. |
| **REFERENCES** | Histology-A Text and Atlas, M. H. Ross and W. Pawlina, Seventh Edition, Wolters Kluwer, USA, 2016. |

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| **COURSE SYLLABUS** |
| **WEEK** | **DATE** | **SUBJECTS/TOPICS** |
| 1 |  | The description and mechanisms of histogenesis |
| 2 |  | Developmental stages of embryonic tissues |
| 3 |  | Gastrulation and its significance  |
| 4 |  | Seminar 1 |
| 5 |  | Development of the ectodermal layer |
| 6 |  | Development of the neuroectoderm |
| 7 |  | **Mid-Term Exam** |
| 8 |  | Derivatives of the ectodermal layer |
| 9 |  | Development of the mesodermal layer |
| 10 |  | Derivatives of the mesodermal layer |
| 11 |  | Seminar 2 |
| 12 |  | Development of the endodermal layer |
| 13 |  | Derivatives of the endodermal layer |
| 14 |  | Comparison of derivatives of the trilaminar germ layer |
| 15 |  | Clinical information |
| 16 |  | **Final Exam** |

**PROGRAM QUTCOMES**

Up skills of Course: Please choose never (1), few (2) or many (3) regarding your course

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NO** |  | **1** | **2** | **3** |
| 1 | Gather as well as apply knowledge of health sciences |  | **X** |  |
| 2 | Ask scientific questions and form hypothesis |  | **X** |  |
| 3 | Search and interpret scientific literature |  | **X** |  |
| 4 | Design and conduct experiments as well as analyze and interpret the data | **X** |  |  |
| 5 | Learn how to use the experimental equipment effectively |  | **X** |  |
| 6 | Function on multi-disciplinary teams |  | **X** |  |
| 7 | Identify, formulate, and solve medical problems | **X** |  |  |
| 8 | Use computer effectively both in conducting the experiments and analyzing the data |  | **X** |  |
| 9 | Understand the impact of experimental solutions on national and international sciences |  | **X** |  |
| 10 | Use effective written and oral communication/presentation skills |  | **X** |  |
| 11 | Get an understanding of professional and ethical responsibility |  | **X** |  |
| 12 | Get a recognition of the need for, and an ability to engage in lifelong learning |  | **X** |  |
| 13 | Get a recognition of basic concepts in medical education |  | **X** |  |
| 14 | Get a skill of approach to ethical problems by focusing on basic concepts |  |  | **X** |

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| **Instructor Name****Ass. Prof. Dr. Dilek BURUKOĞLU DÖNMEZ****Sign** | **Date****06.03.2018** |

** ESOGÜ INSTITUTE OF HEALTH SCIENCE**

**DEPARTMENT OF HISTOLOGY AND EMBRYOLOGY**

**COURSE INFORMATION FORM**

|  |  |  |  |
| --- | --- | --- | --- |
| **COURSE CODE:** | **521903203** | **DEPARTMENT:** | HISTOLOGY AND EMBRYOLOGY |
| **COURSE NAME:** | CELL ULTRASTRUCTURE |
| **INSTRUCTOR NAME** | **COURSE LANGUAGE** | **COURSE CATEGORY** |
| Ass. Prof. Dr. Dilek BURUKOĞLU DÖNMEZ | **Turkish** | **English** | **Technical** | **Medical** | **Other** |
| **X** |  |  | **X** |  |

**COURSE LEVEL**

|  |  |  |  |
| --- | --- | --- | --- |
| **PROPAEDEUTIC** | **MASTER OF SCIENCE** | **DOCTORATE** | **COURSE OF PROVINCE** |
|  | **X** |  |  |

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| --- | --- | --- |
| **SEMESTER** | **WEEKLY COURSE PERIOD** | **COURSE OF** |
| **Autumn** | **Spring** | **Theoretic** | **Practice** | **Laboratory** | **Credit** | **ECTS** | **Type** |
| **X** |  | 3 | 0 | 0 | 3 | 7,5 | Compulsory: **X** |
| Elective: |

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| --- |
| **ASSESMENT CRITERIA** |
| **MID-TERM EXAM** | **Activity** | **Quantity** | **Percentage (%)** |
| 1st Mid-Term | 1 | 50 |
| 2nd Mid-Term |  |  |
| Quiz |  |  |
| Homework |  |  |
| Project |  |  |
| Oral Exam |  |  |
| Other (………) |  |  |
| **FINAL EXAM** | Quiz |  |  |
| Homework |  |  |
| Project |  |  |
| Oral Exam | 1 | 50 |
| Other (………) |  |  |
| **MAKE-UP EXAM** | Oral | Written | Oral and Written | Multiple Choice |
|  | **X** |  |  |
| **PREREQUISITE(S)** |  |
| **COURSE CONTENT** | Teaching of cellular elements at the ultra-structural level  |
| **COURSE AIMS** | Interpretation of different cells by comparing of fine structures |
| **COURSE OBJECTIVES** | Understanding of the relation between morphology and function by interpretation of TEM-SEM micrographs |
| **TEXTBOOK(S)** | Histology-A Text and Atlas, M. H. Ross and W. Pawlina, Seventh Edition, Wolters Kluwer, USA, 2016. |
| **REFERENCES** |  |

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| **COURSE SYLLABUS** |
| **WEEK** | **DATE** | **SUBJECTS/TOPICS** |
| 1 |  | General properties of cells  |
| 2 |  | Properties and structure of cell membrane |
| 3 |  | Nucleus |
| 4 |  | Granular endoplasmic reticulum |
| 5 |  | Agranular endoplasmic reticulum |
| 6 |  | Mitochondrion |
| 7 |  | **Mid-Term Exam** |
| 8 |  | Other organelles |
| 9 |  | Intercellular junctions |
| 10 |  | Apical and basal membrane properties of the cell |
| 11 |  | Devices for evaluation of cellular ultrastructure |
| 12 |  | Technical properties of TEM |
| 13 |  | Technical properties of SEM  |
| 14 |  | Tissue processing methods for TEM  |
| 15 |  | Tissue processing methods for SEM |
| 16 |  | **Final Exam** |

**PROGRAM QUTCOMES**

Up skills of Course: Please choose never (1), few (2) or many (3) regarding your course

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NO** |  | **1** | **2** | **3** |
| 1 | Gather as well as apply knowledge of health sciences | **X** |  |  |
| 2 | Ask scientific questions and form hypothesis |  | **X** |  |
| 3 | Search and interpret scientific literature | **X** |  |  |
| 4 | Design and conduct experiments as well as analyze and interpret the data |  |  | **X** |
| 5 | Learn how to use the experimental equipment effectively |  | **X** |  |
| 6 | Function on multi-disciplinary teams |  | **X** |  |
| 7 | Identify, formulate, and solve medical problems |  | **X** |  |
| 8 | Use computer effectively both in conducting the experiments and analyzing the data | **X** |  |  |
| 9 | Understand the impact of experimental solutions on national and international sciences |  |  | **X** |
| 10 | Use effective written and oral communication/presentation skills |  | **X** |  |
| 11 | Get an understanding of professional and ethical responsibility |  |  | **X** |
| 12 | Get a recognition of the need for, and an ability to engage in lifelong learning |  |  | **X** |
| 13 | Get a recognition of basic concepts in medical education |  | **X** |  |
| 14 | Get a skill of approach to ethical problems by focusing on basic concepts |  |  | **X** |

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| **Instructor Name****Ass. Prof. Dr. Dilek BURUKOĞLU DÖNMEZ****Sign** | **Date****06.03.2018** |

** ESOGÜ INSTITUTE OF HEALTH SCIENCE**

**DEPARTMENT OF HISTOLOGY AND EMBRYOLOGY**

**COURSE INFORMATION FORM**

|  |  |  |  |
| --- | --- | --- | --- |
| **COURSE CODE:** | **521903204** | **DEPARTMENT:** | HISTOLOGY AND EMBRYOLOGY |
| **COURSE NAME:** | IN VIVO EMBRYOGENESIS |
| **INSTRUCTOR NAME** | **COURSE LANGUAGE** | **COURSE CATEGORY** |
| Prof. Dr. Varol ŞAHİNTÜRK | **Turkish** | **English** | **Technical** | **Medical** | **Other** |
| **X** |  |  | **X** |  |

**COURSE LEVEL**

|  |  |  |  |
| --- | --- | --- | --- |
| **PROPAEDEUTIC** | **MASTER OF SCIENCE** | **DOCTORATE** | **COURSE OF PROVINCE** |
|  | **X** |  |  |

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| --- | --- | --- |
| **SEMESTER** | **WEEKLY COURSE PERIOD** | **COURSE OF** |
| **Autumn** | **Spring** | **Theoretic** | **Practice** | **Laboratory** | **Credit** | **ECTS** | **Type** |
| **X** |  | 3 | 0 | 0 | 3 | 7,5 | Compulsory: **X** |
| Elective: |

|  |
| --- |
| **ASSESMENT CRITERIA** |
| **MID-TERM EXAM** | **Activity** | **Quantity** | **Percentage (%)** |
| 1st Mid-Term | 1 | 50 |
| 2nd Mid-Term |  |  |
| Quiz |  |  |
| Homework |  |  |
| Project |  |  |
| Oral Exam |  |  |
| Other (………) |  |  |
| **FINAL EXAM** | Quiz |  |  |
| Homework |  |  |
| Project |  |  |
| Oral Exam | 1 | 50 |
| Other (………) |  |  |
| **MAKE-UP EXAM** | Oral | Written | Oral and Written | Multiple Choice |
|  | **X** |  |  |
| **PREREQUISITE(S)** |  |
| **COURSE CONTENT** | Early period of human development |
| **COURSE AIMS** | Learning of basic events and mechanisms of human reproduction |
| **COURSE OBJECTIVES** | Comprehension of basic human developmental events and establish relations between them |
| **TEXTBOOK(S)** | Langman’s Medical Embryology, T. W. Sadler, Thirteenth Edition, Wolters Kluwer, USA, 2015. |
| **REFERENCES** |  |

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| **COURSE SYLLABUS** |
| **WEEK** | **DATE** | **SUBJECTS/TOPICS** |
| 1 |  | Historical progress of embryology |
| 2 |  | Stages and influencing factors of spermatogenesis  |
| 3 |  | Stages and influencing factors of oogenesis |
| 4 |  | Functions and effects of sexual hormones in male and female bodies |
| 5 |  | Factors and events that influence fertilization |
| 6 |  | In vivo fertilization |
| 7 |  | **Mid-Term Exam** |
| 8 |  | Basic principles of in vitro fertilization |
| 9 |  | Implantation and its mechanisms |
| 10 |  | Terminology in embryology |
| 11 |  | Events and influencing factors of the development in first week  |
| 12 |  | Events and influencing factors of the development in second week |
| 13 |  | Events and influencing factors of the development in third week |
| 14 |  | Some actual problems in embryology without solutions |
| 15 |  | Film projection |
| 16 |  | **Final Exam** |

**PROGRAM QUTCOMES**

Up skills of Course: Please choose never (1), few (2) or many (3) regarding your course

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NO** |  | **1** | **2** | **3** |
| 1 | Gather as well as apply knowledge of health sciences |  | **X** |  |
| 2 | Ask scientific questions and form hypothesis |  | **X** |  |
| 3 | Search and interpret scientific literature |  | **X** |  |
| 4 | Design and conduct experiments as well as analyze and interpret the data |  | **X** |  |
| 5 | Learn how to use the experimental equipment effectively | **X** |  |  |
| 6 | Function on multi-disciplinary teams |  | **X** |  |
| 7 | Identify, formulate, and solve medical problems |  | **X** |  |
| 8 | Use computer effectively both in conducting the experiments and analyzing the data | **X** |  |  |
| 9 | Understand the impact of experimental solutions on national and international sciences |  | **X** |  |
| 10 | Use effective written and oral communication/presentation skills |  | **X** |  |
| 11 | Get an understanding of professional and ethical responsibility |  |  | **X** |
| 12 | Get a recognition of the need for, and an ability to engage in lifelong learning |  | **X** |  |
| 13 | Get a recognition of basic concepts in medical education |  |  | **X** |
| 14 | Get a skill of approach to ethical problems by focusing on basic concepts |  |  | **X** |

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| --- | --- |
| **Instructor Name****Prof. Dr. Varol ŞAHİNTÜRK****Sign** | **Date****06.03.2018** |

** ESOGÜ INSTITUTE OF HEALTH SCIENCE**

**DEPARTMENT OF HISTOLOGY AND EMBRYOLOGY**

**COURSE INFORMATION FORM**

|  |  |  |  |
| --- | --- | --- | --- |
| **COURSE CODE:** | **521903205** | **DEPARTMENT:** | HISTOLOGY AND EMBRYOLOGY |
| **COURSE NAME:** | DEVELOPMENT AND HISTOLOGICAL STRUCTURES OF BASIC TISSUES  |
| **INSTRUCTOR NAME** | **COURSE LANGUAGE** | **COURSE CATEGORY** |
| Prof. Dr. Varol ŞAHİNTÜRK | **Turkish** | **English** | **Technical** | **Medical** | **Other** |
| **X** |  |  | **X** |  |

**COURSE LEVEL**

|  |  |  |  |
| --- | --- | --- | --- |
| **PROPAEDEUTIC** | **MASTER OF SCIENCE** | **DOCTORATE** | **COURSE OF PROVINCE** |
|  | **X** |  |  |

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| --- | --- | --- |
| **SEMESTER** | **WEEKLY COURSE PERIOD** | **COURSE OF** |
| **Autumn** | **Spring** | **Theoretic** | **Practice** | **Laboratory** | **Credit** | **ECTS** | **Type** |
| **X** |  | 2 | 0 | 0 | 2 | 7,5 | Compulsory: |
| Elective: **X** |

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| --- |
| **ASSESMENT CRITERIA** |
| **MID-TERM EXAM** | **Activity** | **Quantity** | **Percentage (%)** |
| 1st Mid-Term | 1 | 50 |
| 2nd Mid-Term |  |  |
| Quiz |  |  |
| Homework |  |  |
| Project |  |  |
| Oral Exam |  |  |
| Other (………) |  |  |
| **FINAL EXAM** | Quiz |  |  |
| Homework |  |  |
| Project |  |  |
| Oral Exam | 1 | 50 |
| Other (………) |  |  |
| **MAKE-UP EXAM** | Oral | Written | Oral and Written | Multiple Choice |
|  | **X** |  |  |
| **PREREQUISITE(S)** |  |
| **COURSE CONTENT** | Developmental and differentiation aspects of the human basic tissues. |
| **COURSE AIMS** | Teaching of the developmental and differentiation aspects of the humans basic tissues |
| **COURSE OBJECTIVES** | Comprehension of humans basic tissues and establish a relation between their developmental and differentiation aspects |
| **TEXTBOOK(S)** | Langman’s Medical Embryology, T. W. Sadler, Thirteenth Edition, Wolters Kluwer, USA, 2015. |
| **REFERENCES** | Histology-A Text and Atlas, M. H. Ross and W. Pawlina, Seventh Edition, Wolters Kluwer, USA, 2016. |

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| **COURSE SYLLABUS** |
| **WEEK** | **DATE** | **SUBJECTS/TOPICS** |
| 1 |  | General cell structure and key differences between cells |
| 2 |  | Tissue: definition and its components |
| 3 |  | Cell migration and differentiation |
| 4 |  | Development and differentiation of covering epithelium |
| 5 |  | Development and differentiation of glandular epithelium |
| 6 |  | Development and differentiation of connective tissue cells and fibers |
| 7 |  | **Mid-Term Exam** |
| 8 |  | Types of connective tissue |
| 9 |  | Hematopoiesis |
| 10 |  | Basic histological features of blood |
| 11 |  | Development and differentiation of adipose tissue |
| 12 |  | Development and differentiation of cartilage  |
| 13 |  | Development and differentiation of bone |
| 14 |  | Development and differentiation of muscular tissue |
| 15 |  | Development and differentiation of nervous tissue |
| 16 |  | **Final Exam** |

**PROGRAM QUTCOMES**

Up skills of Course: Please choose never (1), few (2) or many (3) regarding your course

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NO** |  | **1** | **2** | **3** |
| 1 | Gather as well as apply knowledge of health sciences |  | **X** |  |
| 2 | Ask scientific questions and form hypothesis |  | **X** |  |
| 3 | Search and interpret scientific literature |  | **X** |  |
| 4 | Design and conduct experiments as well as analyze and interpret the data | **X** |  |  |
| 5 | Learn how to use the experimental equipment effectively | **X** |  |  |
| 6 | Function on multi-disciplinary teams |  | **X** |  |
| 7 | Identify, formulate, and solve medical problems |  | **X** |  |
| 8 | Use computer effectively both in conducting the experiments and analyzing the data | **X** |  |  |
| 9 | Understand the impact of experimental solutions on national and international sciences |  | **X** |  |
| 10 | Use effective written and oral communication/presentation skills |  | **X** |  |
| 11 | Get an understanding of professional and ethical responsibility | **X** |  |  |
| 12 | Get a recognition of the need for, and an ability to engage in lifelong learning |  |  | **X** |
| 13 | Get a recognition of basic concepts in medical education |  |  | **X** |
| 14 | Get a skill of approach to ethical problems by focusing on basic concepts |  |  | **X** |

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| **Instructor Name****Prof. Dr. Varol ŞAHİNTÜRK****Sign** | **Date****06.03.2018** |

** ESOGÜ INSTITUTE OF HEALTH SCIENCE**

**DEPARTMENT OF HISTOLOGY AND EMBRYOLOGY**

**COURSE INFORMATION FORM**

|  |  |  |  |
| --- | --- | --- | --- |
| **COURSE CODE:** | **521903206** | **DEPARTMENT:** | HISTOLOGY AND EMBRYOLOGY |
| **COURSE NAME:** | MAIN EQUIPMENTS OF HISTOLOGY AND EMBRYOLOGY LABORATORIES |
| **INSTRUCTOR NAME** | **COURSE LANGUAGE** | **COURSE CATEGORY** |
| Prof. Dr. Varol ŞAHİNTÜRK | **Turkish** | **English** | **Technical** | **Medical** | **Other** |
| **X** |  |  | **X** |  |

**COURSE LEVEL**

|  |  |  |  |
| --- | --- | --- | --- |
| **PROPAEDEUTIC** | **MASTER OF SCIENCE** | **DOCTORATE** | **COURSE OF PROVINCE** |
|  | **X** |  |  |

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| --- | --- | --- |
| **SEMESTER** | **WEEKLY COURSE PERIOD** | **COURSE OF** |
| **Autumn** | **Spring** | **Theoretic** | **Practice** | **Laboratory** | **Credit** | **ECTS** | **Type** |
| **X** |  | 2 | 2 | 0 | 3 | 7,5 | Compulsory: |
| Elective: **X** |

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| --- |
| **ASSESMENT CRITERIA** |
| **MID-TERM EXAM** | **Activity** | **Quantity** | **Percentage (%)** |
| 1st Mid-Term | 1 | 50 |
| 2nd Mid-Term |  |  |
| Quiz |  |  |
| Homework |  |  |
| Project |  |  |
| Oral Exam |  |  |
| Other (………) |  |  |
| **FINAL EXAM** | Quiz |  |  |
| Homework |  |  |
| Project |  |  |
| Oral Exam | 1 | 50 |
| Other (………) |  |  |
| **MAKE-UP EXAM** | Oral | Written | Oral and Written | Multiple Choice |
|  | **X** |  |  |
| **PREREQUISITE(S)** |  |
| **COURSE CONTENT** | Equipment of histology and embryology laboratory |
| **COURSE AIMS** | Learning of functional principles and practice of laboratory equipment  |
| **COURSE OBJECTIVES** | Accurate and convenient usage of the laboratory equipment  |
| **TEXTBOOK(S)** | Histology-A Text and Atlas, M. H. Ross and W. Pawlina, Seventh Edition, Wolters Kluwer, USA, 2016. |
| **REFERENCES** |  |

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| --- |
| **COURSE SYLLABUS** |
| **WEEK** | **DATE** | **SUBJECTS/TOPICS** |
| 1 |  | General properties of histology and embryology laboratory |
| 2 |  | A general view to the equipment |
| 3 |  | Tissue processing protocols |
| 4 |  | Automatic and manual tissue processing  |
| 5 |  | Microtomy 1 |
| 6 |  | Microtomy 2  |
| 7 |  | **Mid-Term Exam** |
| 8 |  | Cryostat sectioning  |
| 9 |  | Histochemistry methods |
| 10 |  | Staining practice 1 |
| 11 |  | Staining practice 2 |
| 12 |  | Staining practice 3 |
| 13 |  | Photo microscopy 1 |
| 14 |  | Photo microscopy 2 |
| 15 |  | Photo microscopy 3 |
| 16 |  | **Final Exam** |

**PROGRAM QUTCOMES**

Up skills of Course: Please choose never (1), few (2) or many (3) regarding your course

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NO** |  | **1** | **2** | **3** |
| 1 | Gather as well as apply knowledge of health sciences | **X** |  |  |
| 2 | Ask scientific questions and form hypothesis | **X** |  |  |
| 3 | Search and interpret scientific literature | **X** |  |  |
| 4 | Design and conduct experiments as well as analyze and interpret the data |  | **X** |  |
| 5 | Learn how to use the experimental equipment effectively |  |  | **X** |
| 6 | Function on multi-disciplinary teams |  | **X** |  |
| 7 | Identify, formulate, and solve medical problems |  | **X** |  |
| 8 | Use computer effectively both in conducting the experiments and analyzing the data |  |  | **X** |
| 9 | Understand the impact of experimental solutions on national and international sciences |  | **X** |  |
| 10 | Use effective written and oral communication/presentation skills |  | **X** |  |
| 11 | Get an understanding of professional and ethical responsibility |  |  | **X** |
| 12 | Get a recognition of the need for, and an ability to engage in lifelong learning |  | **X** |  |
| 13 | Get a recognition of basic concepts in medical education |  | **X** |  |
| 14 | Get a skill of approach to ethical problems by focusing on basic concepts |  | **X** |  |

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| **Instructor Name****Prof. Dr. Varol ŞAHİNTÜRK****Sign** | **Date****06.03.2018** |

** ESOGÜ INSTITUTE OF HEALTH SCIENCE**

**DEPARTMENT OF HISTOLOGY AND EMBRYOLOGY**

**COURSE INFORMATION FORM**

|  |  |  |  |
| --- | --- | --- | --- |
| **COURSE CODE:** | **521904201** | **DEPARTMENT:** | HISTOLOGY AND EMBRYOLOGY |
| **COURSE NAME:** | IN VITRO FERTILIZATION |
| **INSTRUCTOR NAME** | **COURSE LANGUAGE** | **COURSE CATEGORY** |
| Prof. Dr. Varol ŞAHİNTÜRK | **Turkish** | **English** | **Technical** | **Medical** | **Other** |
| **X** |  |  | **X** |  |

**COURSE LEVEL**

|  |  |  |  |
| --- | --- | --- | --- |
| **PROPAEDEUTIC** | **MASTER OF SCIENCE** | **DOCTORATE** | **COURSE OF PROVINCE** |
|  | **X** |  |  |

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| --- | --- | --- |
| **SEMESTER** | **WEEKLY COURSE PERIOD** | **COURSE OF** |
| **Autumn** | **Spring** | **Theoretic** | **Practice** | **Laboratory** | **Credit** | **ECTS** | **Type** |
|  | **X** | 2 | 1 | 0 | 2,5 | 7,5 | Compulsory: |
| Elective: **X** |

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| --- |
| **ASSESMENT CRITERIA** |
| **MID-TERM EXAM** | **Activity** | **Quantity** | **Percentage (%)** |
| 1st Mid-Term | 1 | 50 |
| 2nd Mid-Term |  |  |
| Quiz |  |  |
| Homework |  |  |
| Project |  |  |
| Oral Exam |  |  |
| Other (………) |  |  |
| **FINAL EXAM** | Quiz |  |  |
| Homework |  |  |
| Project |  |  |
| Oral Exam | 1 | 50 |
| Other (………) |  |  |
| **MAKE-UP EXAM** | Oral | Written | Oral and Written | Multiple Choice |
|  | **X** |  |  |
| **PREREQUISITE(S)** |  |
| **COURSE CONTENT** | Assisted reproductive techniques |
| **COURSE AIMS** | Teaching of assisted reproductive techniques |
| **COURSE OBJECTIVES** | Comprehension of assisted reproductive techniques |
| **TEXTBOOK(S)** | İnfertil olgulara klinik yaklaşım ve IVF laboratuar uygulamaları, Editör: Hikmet Hassa, ESOGÜ yayınları no: 087, Eskişehir, 2003. |
| **REFERENCES** | Langman’s Medical Embryology, T. W. Sadler, Thirteenth Edition, Wolters Kluwer, USA, 2015. |

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| **COURSE SYLLABUS** |
| **WEEK** | **DATE** | **SUBJECTS/TOPICS** |
| 1 |  | Introduction to assisted reproductive techniques |
| 2 |  | Reproductive problems in males |
| 3 |  | Reproductive problems in females |
| 4 |  | Applications for females |
| 5 |  | Applications for males |
| 6 |  | Semen analysis and preparation |
| 7 |  | **Mid-Term Exam** |
| 8 |  | Artificial insemination |
| 9 |  | Laboratory equipment |
| 10 |  | Oocyte pick up and classification |
| 11 |  | Classical IVF |
| 12 |  | Micromanipulation and ICSI |
| 13 |  | Embryo transfer |
| 14 |  | Donation of reproductive cells and organs |
| 15 |  | Ethical approaches and problems |
| 16 |  | **Final Exam** |

**PROGRAM QUTCOMES**

Up skills of Course: Please choose never (1), few (2) or many (3) regarding your course

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NO** |  | **1** | **2** | **3** |
| 1 | Gather as well as apply knowledge of health sciences |  | **X** |  |
| 2 | Ask scientific questions and form hypothesis |  | **X** |  |
| 3 | Search and interpret scientific literature |  | **X** |  |
| 4 | Design and conduct experiments as well as analyze and interpret the data |  | **X** |  |
| 5 | Learn how to use the experimental equipment effectively |  |  | **X** |
| 6 | Function on multi-disciplinary teams |  |  | **X** |
| 7 | Identify, formulate, and solve medical problems |  |  | **X** |
| 8 | Use computer effectively both in conducting the experiments and analyzing the data | **X** |  |  |
| 9 | Understand the impact of experimental solutions on national and international sciences |  | **X** |  |
| 10 | Use effective written and oral communication/presentation skills |  | **X** |  |
| 11 | Get an understanding of professional and ethical responsibility |  |  | **X** |
| 12 | Get a recognition of the need for, and an ability to engage in lifelong learning |  |  | **X** |
| 13 | Get a recognition of basic concepts in medical education |  |  | **X** |
| 14 | Get a skill of approach to ethical problems by focusing on basic concepts |  |  | **X** |

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| --- | --- |
| **Instructor Name****Prof. Dr. Varol ŞAHİNTÜRK****Sign** | **Date****06.03.2018** |

** ESOGÜ INSTITUTE OF HEALTH SCIENCE**

**DEPARTMENT OF HISTOLOGY AND EMBRYOLOGY**

**COURSE INFORMATION FORM**

|  |  |  |  |
| --- | --- | --- | --- |
| **COURSE CODE:** | **521904203** | **DEPARTMENT:** | HISTOLOGY AND EMBRYOLOGY |
| **COURSE NAME:** | EXAMINATION METHODS OF CELLS AND TISSUES IN HISTOLOGY AND THEIR APPLICATIONS  |
| **INSTRUCTOR NAME** | **COURSE LANGUAGE** | **COURSE CATEGORY** |
| Prof. Dr. Varol ŞAHİNTÜRK | **Turkish** | **English** | **Technical** | **Medical** | **Other** |
| **X** |  |  | **X** |  |

**COURSE LEVEL**

|  |  |  |  |
| --- | --- | --- | --- |
| **PROPAEDEUTIC** | **MASTER OF SCIENCE** | **DOCTORATE** | **COURSE OF PROVINCE** |
|  | **X** |  |  |

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| --- | --- | --- |
| **SEMESTER** | **WEEKLY COURSE PERIOD** | **COURSE OF** |
| **Autumn** | **Spring** | **Theoretic** | **Practice** | **Laboratory** | **Credit** | **ECTS** | **Type** |
|  | **X** | 2 | 2 | 0 | 3 | 7,5 | Compulsory: **X** |
| Elective: |

|  |
| --- |
| **ASSESMENT CRITERIA** |
| **MID-TERM EXAM** | **Activity** | **Quantity** | **Percentage (%)** |
| 1st Mid-Term | 1 | 50 |
| 2nd Mid-Term |  |  |
| Quiz |  |  |
| Homework |  |  |
| Project |  |  |
| Oral Exam |  |  |
| Other (………) |  |  |
| **FINAL EXAM** | Quiz |  |  |
| Homework |  |  |
| Project |  |  |
| Oral Exam | 1 | 50 |
| Other (………) |  |  |
| **MAKE-UP EXAM** | Oral | Written | Oral and Written | Multiple Choice |
|  | **X** |  |  |
| **PREREQUISITE(S)** |  |
| **COURSE CONTENT** | Basic histological techniques and methods |
| **COURSE AIMS** | Teaching of basic histological techniques and methods |
| **COURSE OBJECTIVES** | Getting to use basic histological techniques and methods |
| **TEXTBOOK(S)** | Histolojik boyama teknikleri, Ramazan Demir, Palme Yayınevi, 2001. |
| **REFERENCES** | Histology-A Text and Atlas, M. H. Ross and W. Pawlina, Seventh Edition, Wolters Kluwer, USA, 2016. |

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| **COURSE SYLLABUS** |
| **WEEK** | **DATE** | **SUBJECTS/TOPICS** |
| 1 |  | Fixation and fixatives |
| 2 |  | Histological dyestuffs |
| 3 |  | Common tissue preparation techniques |
| 4 |  | Preparation of tissue slides for light microscopic examination |
| 5 |  | Methods for cell and tissue examination |
| 6 |  | Principles of choose for histological methods |
| 7 |  | **Mid-Term Exam** |
| 8 |  | Hematoxyline & eosin staining technique |
| 9 |  | Periodic acid-Schiff (PAS) technique |
| 10 |  | Masson’s trichrome technique |
| 11 |  | Fixatives-choose, preparation and use |
| 12 |  | Tissue processing and embedding |
| 13 |  | Tissue sectioning and staining |
| 14 |  | Smear preparation and staining |
| 15 |  | Preparation of tissue sections for fluorescence microscopy |
| 16 |  | **Final Exam** |

**PROGRAM QUTCOMES**

Up skills of Course: Please choose never (1), few (2) or many (3) regarding your course

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NO** |  | **1** | **2** | **3** |
| 1 | Gather as well as apply knowledge of health sciences |  | **X** |  |
| 2 | Ask scientific questions and form hypothesis |  | **X** |  |
| 3 | Search and interpret scientific literature |  | **X** |  |
| 4 | Design and conduct experiments as well as analyze and interpret the data |  | **X** |  |
| 5 | Learn how to use the experimental equipment effectively |  |  | **X** |
| 6 | Function on multi-disciplinary teams |  |  | **X** |
| 7 | Identify, formulate, and solve medical problems |  |  | **X** |
| 8 | Use computer effectively both in conducting the experiments and analyzing the data | **X** |  |  |
| 9 | Understand the impact of experimental solutions on national and international sciences |  |  | **X** |
| 10 | Use effective written and oral communication/presentation skills |  | **X** |  |
| 11 | Get an understanding of professional and ethical responsibility |  | **X** |  |
| 12 | Get a recognition of the need for, and an ability to engage in lifelong learning |  |  | **X** |
| 13 | Get a recognition of basic concepts in medical education |  |  | **X** |
| 14 | Get a skill of approach to ethical problems by focusing on basic concepts |  | **X** |  |

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| --- | --- |
| **Instructor Name****Prof. Dr. Varol ŞAHİNTÜRK****Sign** | **Date****06.03.2018** |

** ESOGÜ INSTITUTE OF HEALTH SCIENCE**

**DEPARTMENT OF HISTOLOGY AND EMBRYOLOGY**

**COURSE INFORMATION FORM**

|  |  |  |  |
| --- | --- | --- | --- |
| **COURSE CODE:** | **521904204** | **DEPARTMENT:** | HISTOLOGY AND EMBRYOLOGY |
| **COURSE NAME:** | THE BEGINNING OF HUMAN DEVELOPMENT: FIRST, SECOND AND THIRD WEEKS  |
| **INSTRUCTOR NAME** | **COURSE LANGUAGE** | **COURSE CATEGORY** |
| Ass. Prof. Dr. Dilek BURUKOĞLU DÖNMEZ | **Turkish** | **English** | **Technical** | **Medical** | **Other** |
| **X** |  |  | **X** |  |

**COURSE LEVEL**

|  |  |  |  |
| --- | --- | --- | --- |
| **PROPAEDEUTIC** | **MASTER OF SCIENCE** | **DOCTORATE** | **COURSE OF PROVINCE** |
|  | **X** |  |  |

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| --- | --- | --- |
| **SEMESTER** | **WEEKLY COURSE PERIOD** | **COURSE OF** |
| **Autumn** | **Spring** | **Theoretic** | **Practice** | **Laboratory** | **Credit** | **ECTS** | **Type** |
|  | **X** | 3 | 0 | 0 | 3 | 7,5 | Compulsory: **X** |
| Elective: |

|  |
| --- |
| **ASSESMENT CRITERIA** |
| **MID-TERM EXAM** | **Activity** | **Quantity** | **Percentage (%)** |
| 1st Mid-Term | 1 | 50 |
| 2nd Mid-Term |  |  |
| Quiz |  |  |
| Homework |  |  |
| Project |  |  |
| Oral Exam |  |  |
| Other (………) |  |  |
| **FINAL EXAM** | Quiz |  |  |
| Homework |  |  |
| Project |  |  |
| Oral Exam | 1 | 50 |
| Other (………) |  |  |
| **MAKE-UP EXAM** | Oral | Written | Oral and Written | Multiple Choice |
|  | **X** |  |  |
| **PREREQUISITE(S)** |  |
| **COURSE CONTENT** | Human development begins at fertilization, the process during which a male gamete or oocyte to form a single cell called a zygote. Embryonic disc gives rise to the germ layers that form all the tissues and organs of the embryo. Gastrulation is the process by which the bilaminar embryonic disc is converted into a trilaminar embryonic disc. |
| **COURSE AIMS** | To teach human development: first week, second week, third week  |
| **COURSE OBJECTIVES** | Understand the beginning of human development; first, second and third weekUnderstand the basis of embryology. This information will be used in clinical practice |
| **TEXTBOOK(S)** | Langman’s Medical Embryology, T. W. Sadler, Thirteenth Edition, Wolters Kluwer, USA, 2015. |
| **REFERENCES** | Embriyoloji ve doğum defektlerinin temelleri, Before we are born. Moore KL, Persaud T.V.N. Çeviri edit.; Müftüoğlu, S., Atilla, P., Kaymaz, F., Güneş Tıp Kitabevleri, 7.baskı, 2009. |

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| **COURSE SYLLABUS** |
| **WEEK** | **DATE** | **SUBJECTS/TOPICS** |
| 1 |  | The beginning of human development:: the first week |
| 2 |  | Gametogenesis |
| 3 |  | Fertilization |
| 4 |  | Blastocyst formation |
| 5 |  | The formation of the bilaminary embryonic disc:second week |
| 6 |  | Completion of implantation |
| 7 |  | **Mid-Term Exam** |
| 8 |  | Development of the chorionic sac |
| 9 |  | Formation of germ layers and differentiation to the tissues and organs |
| 10 |  | Gastrulation |
| 11 |  | Neurulation |
| 12 |  | Development of somites |
| 13 |  | Development of chorionic villi |
| 14 |  | Development of placenta |
| 15 |  | Clinical information |
| 16 |  | **Final Exam** |

**PROGRAM QUTCOMES**

Up skills of Course: Please choose never (1), few (2) or many (3) regarding your course

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NO** |  | **1** | **2** | **3** |
| 1 | Gather as well as apply knowledge of health sciences |  | **X** |  |
| 2 | Ask scientific questions and form hypothesis |  | **X** |  |
| 3 | Search and interpret scientific literature |  |  | **X** |
| 4 | Design and conduct experiments as well as analyze and interpret the data | **X** |  |  |
| 5 | Learn how to use the experimental equipment effectively | **X** |  |  |
| 6 | Function on multi-disciplinary teams | **X** |  |  |
| 7 | Identify, formulate, and solve medical problems | **X** |  |  |
| 8 | Use computer effectively both in conducting the experiments and analyzing the data | **X** |  |  |
| 9 | Understand the impact of experimental solutions on national and international sciences |  | **X** |  |
| 10 | Use effective written and oral communication/presentation skills |  | **X** |  |
| 11 | Get an understanding of professional and ethical responsibility |  |  | **X** |
| 12 | Get a recognition of the need for, and an ability to engage in lifelong learning |  | **X** |  |
| 13 | Get a recognition of basic concepts in medical education |  |  |  |
| 14 | Get a skill of approach to ethical problems by focusing on basic concepts |  |  |  |

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| --- | --- |
| **Instructor Name****Ass. Prof. Dr. Dilek BURUKOĞLU DÖNMEZ****Sign** | **Date****06.03.2018** |

** ESOGÜ INSTITUTE OF HEALTH SCIENCE**

**DEPARTMENT OF HISTOLOGY AND EMBRYOLOGY**

**COURSE INFORMATION FORM**

|  |  |  |  |
| --- | --- | --- | --- |
| **COURSE CODE:** | **521904205** | **DEPARTMENT:** | HISTOLOGY AND EMBRYOLOGY |
| **COURSE NAME:** | THE FETAL PERIOD: FROM NINTH WEEK TO BIRTH  |
| **INSTRUCTOR NAME** | **COURSE LANGUAGE** | **COURSE CATEGORY** |
| Ass. Prof. Dr. Dilek BURUKOĞLU DÖNMEZ | **Turkish** | **English** | **Technical** | **Medical** | **Other** |
| **X** |  |  | **X** |  |

**COURSE LEVEL**

|  |  |  |  |
| --- | --- | --- | --- |
| **PROPAEDEUTIC** | **MASTER OF SCIENCE** | **DOCTORATE** | **COURSE OF PROVINCE** |
|  | **X** |  |  |

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| --- | --- | --- |
| **SEMESTER** | **WEEKLY COURSE PERIOD** | **COURSE OF** |
| **Autumn** | **Spring** | **Theoretic** | **Practice** | **Laboratory** | **Credit** | **ECTS** | **Type** |
|  | **X** | 3 | 0 | 0 | 3 | 7,5 | Compulsory: |
| Elective: **X** |

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| --- |
| **ASSESMENT CRITERIA** |
| **MID-TERM EXAM** | **Activity** | **Quantity** | **Percentage (%)** |
| 1st Mid-Term | 1 | 50 |
| 2nd Mid-Term |  |  |
| Quiz |  |  |
| Homework |  |  |
| Project |  |  |
| Oral Exam |  |  |
| Other (………) |  |  |
| **FINAL EXAM** | Quiz |  |  |
| Homework |  |  |
| Project |  |  |
| Oral Exam | 1 | 50 |
| Other (………) |  |  |
| **MAKE-UP EXAM** | Oral | Written | Oral and Written | Multiple Choice |
|  | **X** |  |  |
| **PREREQUISITE(S)** |  |
| **COURSE CONTENT** | Features of the fetal period |
| **COURSE AIMS** | Teaching of what is fetus, estimation of fetal age, highlights of the fetal period, expected date of delivery, factors influencing fetal growth |
| **COURSE OBJECTIVES** | Describing of the highlight of the fetal period, the external features of the fetus, the factors influencing fetal growth, the events occurring in the fetal period and a better understanding of foundations of embryology  |
| **TEXTBOOK(S)** | Langman’s Medical Embryology, T. W. Sadler, Thirteenth Edition, Wolters Kluwer, USA, 2015. |
| **REFERENCES** | Embriyoloji ve doğum defektlerinin temelleri, Before we are born. Moore KL, Persaud T.V.N. Çeviri edit.; Müftüoğlu, S., Atilla, P., Kaymaz, F., Güneş Tıp Kitabevleri, 7.baskı, 2009. |

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| **COURSE SYLLABUS** |
| **WEEK** | **DATE** | **SUBJECTS/TOPICS** |
| 1 |  | What is fetus? |
| 2 |  | Introduction to the fetal period |
| 3 |  | Development of fetus |
| 4 |  | Estimation of fetal age |
| 5 |  | External features of the fetus and measures |
| 6 |  | Seminar 1 |
| 7 |  | **Mid-Term Exam** |
| 8 |  | Highlights of the fetal period |
| 9 |  | Expected date of delivery |
| 10 |  | Factors influencing fetal growth |
| 11 |  | Seminar 2 |
| 12 |  | Procedures for assessing fetal status |
| 13 |  | Summary of fetal period |
| 14 |  | Clinically oriented problems |
| 15 |  | Film projection |
| 16 |  | **Final Exam** |

**PROGRAM QUTCOMES**

Up skills of Course: Please choose never (1), few (2) or many (3) regarding your course

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NO** |  | **1** | **2** | **3** |
| 1 | Gather as well as apply knowledge of health sciences |  | **X** |  |
| 2 | Ask scientific questions and form hypothesis |  | **X** |  |
| 3 | Search and interpret scientific literature |  | **X** |  |
| 4 | Design and conduct experiments as well as analyze and interpret the data | **X** |  |  |
| 5 | Learn how to use the experimental equipment effectively |  | **X** |  |
| 6 | Function on multi-disciplinary teams |  | **X** |  |
| 7 | Identify, formulate, and solve medical problems | **X** |  |  |
| 8 | Use computer effectively both in conducting the experiments and analyzing the data |  | **X** |  |
| 9 | Understand the impact of experimental solutions on national and international sciences |  | **X** |  |
| 10 | Use effective written and oral communication/presentation skills |  | **X** |  |
| 11 | Get an understanding of professional and ethical responsibility |  | **X** |  |
| 12 | Get a recognition of the need for, and an ability to engage in lifelong learning |  | **X** |  |
| 13 | Get a recognition of basic concepts in medical education |  | **X** |  |
| 14 | Get a skill of approach to ethical problems by focusing on basic concepts |  |  | **X** |

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| **Instructor Name****Ass. Prof. Dr. Dilek BURUKOĞLU DÖNMEZ****Sign** | **Date****06.03.2018** |

** ESOGÜ INSTITUTE OF HEALTH SCIENCE**

**DEPARTMENT OF HISTOLOGY AND EMBRYOLOGY**

**COURSE INFORMATION FORM**

|  |  |  |  |
| --- | --- | --- | --- |
| **COURSE CODE:** | **521904206** | **DEPARTMENT:** | HISTOLOGY AND EMBRYOLOGY |
| **COURSE NAME:** | MICROSCOPIC EVALUATION AND MORPHOMETRIC ANALYSIS OF THE TISSUES IN HISTOLOGY |
| **INSTRUCTOR NAME** | **COURSE LANGUAGE** | **COURSE CATEGORY** |
| Prof. Dr. Varol ŞAHİNTÜRK | **Turkish** | **English** | **Technical** | **Medical** | **Other** |
| **X** |  |  | **X** |  |

**COURSE LEVEL**

|  |  |  |  |
| --- | --- | --- | --- |
| **PROPAEDEUTIC** | **MASTER OF SCIENCE** | **DOCTORATE** | **COURSE OF PROVINCE** |
|  | **X** |  |  |

|  |  |  |
| --- | --- | --- |
| **SEMESTER** | **WEEKLY COURSE PERIOD** | **COURSE OF** |
| **Autumn** | **Spring** | **Theoretic** | **Practice** | **Laboratory** | **Credit** | **ECTS** | **Type** |
|  | **X** | 1 | 3 | 0 | 2,5 | 7,5 | Compulsory: |
| Elective: **X** |

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| **ASSESMENT CRITERIA** |
| **MID-TERM EXAM** | **Activity** | **Quantity** | **Percentage (%)** |
| 1st Mid-Term | 1 | 50 |
| 2nd Mid-Term |  |  |
| Quiz |  |  |
| Homework |  |  |
| Project |  |  |
| Oral Exam |  |  |
| Other (………) |  |  |
| **FINAL EXAM** | Quiz |  |  |
| Homework |  |  |
| Project |  |  |
| Oral Exam | 1 | 50 |
| Other (………) |  |  |
| **MAKE-UP EXAM** | Oral | Written | Oral and Written | Multiple Choice |
|  | **X** |  |  |
| **PREREQUISITE(S)** |  |
| **COURSE CONTENT** | Details in microscopic examination and morphometric analysis in histology  |
| **COURSE AIMS** | Evaluation and morphometric analysis of tissues using a light microscope in histology |
| **COURSE OBJECTIVES** | Microscopic evaluation and morphometric analysis application of tissues for researchers in histology |
| **TEXTBOOK(S)** | Histolojik boyama teknikleri, Ramazan Demir, Palme Yayınevi, 2001. |
| **REFERENCES** | Histology-A Text and Atlas, M. H. Ross and W. Pawlina, Seventh Edition, Wolters Kluwer, USA, 2016. |

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| **COURSE SYLLABUS** |
| **WEEK** | **DATE** | **SUBJECTS/TOPICS** |
| 1 |  | Introduction and practice of basic equipment-automatic tissue processing machine |
| 2 |  | Introduction and practice of basic equipment-automatic slide staining machine |
| 3 |  | Preliminary studies of tissues for microscopical evaluation-slide preparation |
| 4 |  | Preliminary studies of tissues for microscopical evaluation –staining of tissue sections |
| 5 |  | Principles of tissue examination -fixation  |
| 6 |  | Principles of tissue examination –dehydration, clearing and embedding |
| 7 |  | **Mid-Term Exam** |
| 8 |  | Tissue and cell examination using common histological stains-H&E |
| 9 |  | Tissue examination using specific histologic stains-Mallory-Azan |
| 10 |  | Tissue examination using specific histologic stains-Masson trichrom |
| 11 |  | Tissue examination using specific histologic stains-Verhoeff |
| 12 |  | Tissue examination using specific histologic stains-Silver impregnation |
| 13 |  | Image capturing for morphometric analysis |
| 14 |  | Morphometric measurements-distance |
| 15 |  | Morphometric measurements-field |
| 16 |  | **Final Exam** |

**PROGRAM QUTCOMES**

Up skills of Course: Please choose never (1), few (2) or many (3) regarding your course

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NO** |  | **1** | **2** | **3** |
| 1 | Gather as well as apply knowledge of health sciences |  |  | **X** |
| 2 | Ask scientific questions and form hypothesis |  |  | **X** |
| 3 | Search and interpret scientific literature |  | **X** |  |
| 4 | Design and conduct experiments as well as analyze and interpret the data |  |  | **X** |
| 5 | Learn how to use the experimental equipment effectively |  |  | **X** |
| 6 | Function on multi-disciplinary teams |  | **X** |  |
| 7 | Identify, formulate, and solve medical problems |  |  | **X** |
| 8 | Use computer effectively both in conducting the experiments and analyzing the data |  |  | **X** |
| 9 | Understand the impact of experimental solutions on national and international sciences |  |  | **X** |
| 10 | Use effective written and oral communication/presentation skills |  |  | **X** |
| 11 | Get an understanding of professional and ethical responsibility |  |  | **X** |
| 12 | Get a recognition of the need for, and an ability to engage in lifelong learning |  |  | **X** |
| 13 | Get a recognition of basic concepts in medical education |  | **X** |  |
| 14 | Get a skill of approach to ethical problems by focusing on basic concepts |  | **X** |  |

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| **Instructor Name****Prof. Dr. Varol ŞAHİNTÜRK****Sign** | **Date****06.03.2018** |