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| **Clinical Education Program****Phase 2 / Year 5****EVIDENCE BASED MEDICINE COURSE** |
| **Coordinators of Program**Prof. Pınar AY |
| **Coordinator of Year 5** Prof. Ela Erdem Eralp |
| **Vice Coordinator of Assessment**Prof. Hasan R. Yananlı |  | **Vice Coordinator of Student Affairs**Assist. Prof. Can Erzik |
| **Chief Coordinator of Clinical Education**Prof. Dilek İnce Günal |
| **Co-Coordinator of Medical Education Program Evaluation and Development Commission** **(Undergraduate Program)** Prof. Harika Alpay |
| **Vice Deans**Prof. Hasan R. Yananlı Prof. A. Altuğ Çinçin |
| **Dean**Prof. Ümit S. Şehirli |

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| **MÜTF KLİNİK EĞİTİM PROGRAMI / MUSM CLINICAL EDUCATION PROGRAM** |
| **EĞİTİM ÇIKTILARI / YETERLİKLER****A. Hekimlik Uygulamaları: Nitelikli hasta bakımı ve toplum yönelimli sağlık hizmeti sunma**1. Temel klinik beceriler
2. Hasta ve hastalık sürecinin organizasyonu ve yönetimi
3. Sağlık bakımı sürecinin organizasyonu ve yönetimi
4. Sağlığın korunması ve iyileştirilmesi

**B. Tıbbi Bilgi ve Kanıta Dayalı Tıp**1. Bilgiye ulaşma ve yönetme
2. Bilgilerin entegrasyonu, eleştirel düşünme ve kanıta dayalı karar verme
3. Bilimsel yöntemler, araştırma becerileri

**C. Profesyonel Davranışlar ve Değerler**1. İletişim becerileri ve hasta / hasta yakınları ile etkin iletişim
2. Kişilerarası ilişkiler ve ekip çalışması
3. Etik ve mesleki değerler, sorumluluklar
4. İnsani, toplumsal ve kültürel değerler ve sorumluluklar
5. Reflektif uygulama ve sürekli gelişim
6. Sağlık sistemleri, yönetim ve toplum yönelimli hekimlik
7. Eğitim ve danışmanlık
 | **LEARNING OUTOMES / COMPETENCIES****A. Clinical Care: Qualified patient care and community oriented health care**1. Basic clinical skills
2. The organization and management of the patient and the patient care
3. The organization and the management of health care delivery services / system
4. Health promotion and disease prevention
5. **Medical Knowledge and Evidence-Based Medicine**
6. Appropriate information retrieval and management skills
7. The integration of knowledge, critical thinking and evidence-based decision making
8. Scientific methods and basic research skills
9. **Professional Attitudes and Values**
10. Communication skills and effective communication with patients / patient relatives
11. Interpersonal relationships and team working
12. Ethical and professional values, responsibilities
13. Individual, social and cultural values and responsibilities
14. Reflective practice and continuing development
15. Healthcare delivery systems, management and community oriented healthcare
16. Education and counseling
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| **FAZ-2 ÖĞRENİM HEDEFLERİ*** Biyomedikal, klinik, sosyal/beşeri bilgileri entegre ederek klinik problemleri / durumları çözümleme, klinik karar verme ve değerlendirme yeterliklerini geliştirme
* Gerçek klinik ortamlarda yapılan uygulamalarla temel hekimlik uygulamalarında yeterlik kazanma
* Sağlık ve hastalık süreçlerinde profesyonelliğe (mesleki, bireysel, toplumsal) yönelik değerleri gözetme, bu yönde gerekli yeterlikleri kazanma
* Reflektif düşünme ve uygulamada yeterlik kazanma, sürekli bireysel / mesleki gelişime açık olma
 | **PHASE-2 LEARNING OBJECTIVES*** Developing clinical problem solving, clinical reasoning and evaluation competencies by integrating biomedical, clinical, social and humanities knowledge,
* Competency acquisition in basic clinical skills by applications in real clinical settings.
* Taking care of the professional values in health and disease processes (professional, individual, societal) and acquisition necessary related skills
* Acquisition competency in reflective thinking and practicing, being open to continuous individual / professional development.
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| **FAZ-2 PROGRAMLARI / PHASES – 2 PROGRAMS**Klinik Eğitime Uyum (2 Hafta) / Orientation to Clinical Education (2 Week)Dahili Hastalıklar Bloğu (12 Hafta) / Internal Medicine Block (12 Week)Kas-İskelet Sağlığı ve Hastalıkları (6 Hafta) / Musculoskeletal Sys. Health and Related Disorders(6 Week)Sinir-Ruh Sağlığı ve Hastalıkları (6 Hafta) / Neuropsychiatry (6 Week)Duyu Sistemleri (Dermatoloji, Göz, KBB) Sağlığı ve Hastalıkları (6 Hafta) / Sensory System (Dermatology, Ophthalmology, ENT) Health and Related Disorders (6 Week)Yaşam Boyu Sağlık Bloğu (12 Hafta) / Health Across Lifespan Block (12 Week)Cerrahi Hastalıklar ve Girişimsel Uygulamalar Bloğu (9 Hafta) / Surgical Diseases and Invasive Applications Block (9 Week)Üreme Sağlığı Bloğu (8 Hafta) /Reproductive Health Block (8 Week) Seçmeliler (12 Hafta) / Electives (12 Week)Profesyonelliğe Yönelik Gelişim ve Danışmanlık Programı (2 yıllık dikey program) / Professionalism and Counseling Program (2 year longitudinal / vertical program) |
| **KANITA DAYALI TIP (2 HAFTA) / EVIDENCE BASED MEDICINE (2 WEEK)** |
| **KOORDİNATÖR ANABİLİM / BİLİM DALLARI (COORDINATOR DEPARTMENTS)**Halk Sağlığı / Public Health |
| **STAJ PROGRAMI ÖĞRENİM HEDEFLERİ**Kursun sonunda öğrenciler:1. kanıta dayalı tıp felsefesi hakkında bilgi sahibi olmalı,
2. kanıtlara ulaşma ve eleştirel olarak değerlendirme konusunda bilgi ve beceriler edinmeli,
3. farklı araştırma türlerinden elde edilen kanıtların hiyerarşisini tanımlayabilmeli,
4. farklı araştırma türlerinden elde edilen ölçütleri hesaplayabilmeli ve tartışabilmeli,
5. nedensellik ile ilgili kriterleri tanımlayabilmeli,
6. araştırmalarda kullanılan yöntemler hakkında bilgi edinmeli ve RKÇ'leri eleştirel olarak değerlendirmek için gerekli becerileri kazanmalı,
7. zarar araştırmalarında kullanılan yöntemler hakkında bilgi sahibi olmalı ve gözlemsel çalışmaları eleştirel olarak değerlendirme becerisi kazanmalı,
8. geçerlilik ve güvenilirlik çalışmaları hakkında bilgi sahibi olmalı ve bu tip araştırmaları eleştirel olarak değerlendirmek için gerekli becerileri kazanmalı,
9. sistematik derlemeler hakkında bilgi edinmeli ve meta-analizleri eleştirel olarak değerlendirmek için gerekli becerileri kazanmalı,
10. yaşam tablosu ve sağkalım analizlerinde kullanılan kavramları tanımlayabilmeli,
11. tedavi seçimlerini yaparken prognozla ilgili kanıtları değerlendirebilmeli ve prognozla ilgili kanıtları kullanma becerisi kazanabilmeli,
12. bias ve rastgele hata hakkında bilgi sahibi olmalı,
13. güven aralıklarını değerlendirebilmeli,
14. Ho ve H1 hipotezlerini formüle edebilmeli, tip 1 ve 2 hataları tanımlayabilmeli, p değerini yorumlayabilmeli.
 | **LEARNING OBJECTIVES of CLERKSHIP PROGRAM**At the end of the course the students will:1. gain knowledge concerning the philosophy of evidence based medicine,
2. acquire knowledge and skills about accessing and critically evaluating the evidence,
3. be able to define the hierarchy of evidence obtained from different study types,
4. be able to calculate and discuss the measures derived from different study types,
5. define the criteria about causality,
6. gain knowledge concerning the method used in trails and acquire skills for critically appraising RCTs,
7. gain knowledge concerning the method used in studies of harm and acquire skills for critically appraising observational studies,
8. gain knowledge about the validity and reliability studies and acquire skills for critically appraising validation studies,
9. gain knowledge about systematic reviews and acquire skills for critically appraising meta-analysis,
10. be able to define the concepts used in life table and survival analysis,
11. be able to evaluate the evidence concerning prognosis and gain skills concerning the use of evidence about prognosis while making treatment choices,
12. gain knowledge about bias and random error,
13. be able to evaluate confidence intervals,
14. be able to formulate the Ho and H1 hypothesis, define type 1 and 2 errors, power and interpret the p value.
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| **KANITA DAYALI TIP DEĞERLENDİRME SİSTEMİ / ASSESSMENT and EVALUTION SYSTEM of EVIDENCE BASED MEDICINE** |
| **ÖLÇME-DEĞERLENDİRME SİSTEMİ**Kurs sonu testi (%60) ve katılım (%40)  | **ASSESSMENT SYSTEM**Post course test (60%) and participation (40%)  |
| **OKUMA/ÇALIŞMA MATERYALLERİ (READING/STUDYING MATERIALS)**1. Guyatt G. Evidence based medicine. Chicago, USA, AMA Press, 2002.
2. Topuzoğlu, A, Ay P. Kanıta Dayalı Tıp, Klinik Epidemiyolojik Çalışmaların Eleştirel Değerlendirilmesi, Ege Yayınları, İstanbul, 2007.
3. Sackett DL, Straus SE, Richardson WS, Rosenberg W, Haynes B. Evidence based medicine-how to practice and teach EBM. Edinburg, England, Churchill Livingstone, 2019.
4. Schulz KF, Grimes DA. The Lancet handbook of essential concepts in clinical research. Edinburgh: Elsiever limited, 2006
5. McGovern D, Summerskill W, Valori R, Levi M, McManus R. Evidence based medicine in general practice. Oxford, England, BIOS Scientific Publishers, 2001.
6. Aksakoğlu G. Sağlıkta araştırma teknikleri ve analiz yöntemleri. İzmir: Dokuz Eylül Üniversitesi Rektörlük Matbaası, 2001.
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| **GROUP 4**  **Pınar Ay & Seyhan Hıdıroğlu****1st Week****(3rd October – 7th October 2022)** |
|  | **3rd October 2022****MONDAY** | **4th October 2022** **TUESDAY** | **5th October 2022** **WEDNESDAY** | **6th October 2022** **THURSDAY** | **7th October 2022** **FRIDAY** |
| 09.30-10:00 | Introduction & Orientation | Free Study Time; Critical appraisal of the research articles | Brief summary and validity assessment of RCTs | Free Study Time; Critical appraisal of the research articles | Brief summary and validity assessment of cohort studies |
| 10.00-11.30 | Lecture; EBM philosophy | Brief summary and validity assessment of RCTs | Critical appraisal of the articles and solving the clinical scenario II |
| 11.40-12.30 | Lecture; Hierarchy of evidence, types of epidemiologic studies | Critical appraisal of the articles and solving the clinical scenario I | Introduction of Clinical Scenario III; Formulation of a focused clinical question |
| 13.40-14.30 | Introduction of Clinical Scenario I; Formulation of a focused clinical question | Introduction of Clinical Scenario II; Formulation of a focused clinicalquestion | Literature search |
| 14.40-15.30 | Literature search | Literature search | REFLECTION |

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| **GROUP 4****Pınar Ay & Seyhan Hıdıroğlu****2nd Week****(10th October – 14th October 2022)**  |
|  | **10th October 2022** **MONDAY** | **11th October 2022** **TUESDAY** | **12th October 2022** **WEDNESDAY** | **13th October 2022** **THURSDAY** | **14th October 2022** **FRIDAY** |
| 09.30-10.30 | Brief summary and validity assessment of case-control studies | Free Study Time for Critical Reading and Evaluating the Research articles | Brief summary and validity assessment of meta-analysis | Free Study Time for Critical Reading and Evaluating the Research articles | EXAM |
| 10.40-11.30 | Critical appraisal of the articles and solving the clinical scenario III | Critical appraisal of the articles and solving the clinical scenario IV |
| 11.40-12.30 | Introduction of Clinical Scenario IV; Formulation of a focused clinical question | Solving Exercise I; Brief summary and validity assessment of screening tests | REFLECTION |
| 13.40-14.30 | Exercise I; validity of screening tests | Review; Questions & Answers  | FREE TIME |
| 14.40-15.30 | Literature search | Review; Questions & Answers  |

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| **GROUP 1****Pınar Ay & Emel Lüleci****1st Week****(28th November – 2nd December 2022)** |
|  | **28th November 2022****MONDAY** | **29th November 2022****TUESDAY** | **30th November 2022****WEDNESDAY** | **1st December 2022****THURSDAY** | **2nd December 2022****FRIDAY** |
| 09.30-10:00 | Introduction & Orientation | Free Study Time; Critical appraisal of the research articles | Brief summary and validity assessment of RCTs | Free Study Time; Critical appraisal of the research articles | Brief summary and validity assessment of cohort studies |
| 10.00-11.30 | Lecture; EBM philosophy | Brief summary and validity assessment of RCTs | Critical appraisal of the articles and solving the clinical scenario II |
| 11.40-12.30 | Lecture; Hierarchy of evidence, types of epidemiologic studies | Critical appraisal of the articles and solving the clinical scenario I | Introduction of Clinical Scenario III; Formulation of a focused clinical question |
| 13.40-14.30 | Introduction of Clinical Scenario I; Formulation of a focused clinical question | Introduction of Clinical Scenario II; Formulation of a focused clinicalquestion | Literature search |
| 14.40-15.30 | Literature search | Literature search | REFLECTION |

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| **GROUP 1****Pınar Ay & Emel Lüleci****2nd Week****(5th December – 9th December 2022)** |
|  | **5th December 2022****MONDAY** | **6th December 2022****TUESDAY** | **7th December 2022****WEDNESDAY** | **8th December 2022****THURSDAY** | **9th December 2022****FRIDAY** |
| 09.30-10.30 | Brief summary and validity assessment of case-control studies | Free Study Time for Critical Reading and Evaluating the Research articles | Brief summary and validity assessment of meta-analysis | Free Study Time for Critical Reading and Evaluating the Research articles | EXAM |
| 10.40-11.30 | Critical appraisal of the articles and solving the clinical scenario III | Critical appraisal of the articles and solving the clinical scenario IV |
| 11.40-12.30 | Introduction of Clinical Scenario IV; Formulation of a focused clinical question | Solving Exercise I; Brief summary and validity assessment of screening tests | REFLECTION |
| 13.40-14.30 | Exercise I; validity of screening tests | Review; Questions & Answers  | FREE TIME |
| 14.40-15.30 | Literature search | Review; Questions & Answers  |

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| **GROUP 2****AHMET TOPUZOĞLU & DİLŞAD SAVE & ALİCAN SARISALTIK****1st Week****(27th February – 3rd March 2023)** |
|  | **27th February 2023****MONDAY** | **28th March 2023****TUESDAY** | **1st March 2023****WEDNESDAY** | **2nd March 2023****THURSDAY** | **3rd March 2023****FRIDAY** |
| 09.30-10:00 | Introduction & Orientation | Free Study Time; Critical appraisal of the research articles | Brief summary and validity assessment of RCTs | Free Study Time; Critical appraisal of the research articles | Brief summary and validity assessment of cohort studies |
| 10.00-11.30 | Lecture; EBM philosophy | Brief summary and validity assessment of RCTs | Critical appraisal of the articles and solving the clinical scenario II |
| 11.40-12.30 | Lecture; Hierarchy of evidence, types of epidemiologic studies | Critical appraisal of the articles and solving the clinical scenario I | Introduction of Clinical Scenario III; Formulation of a focused clinical question |
| 13.40-14.30 | Introduction of Clinical Scenario I; Formulation of a focused clinical question | Introduction of Clinical Scenario II; Formulation of a focused clinicalquestion | Literature search |
| 14.40-15.30 | Literature search | Literature search | REFLECTION |
| **GROUP 2****AHMET TOPUZOĞLU & DİLŞAD SAVE & ALİCAN SARISALTIK** **2nd Week****(6th March – 10th March 2023)** |
|  | **6th March 2023****MONDAY** | **7th March 2023****TUESDAY** | **8th March 2023****WEDNESDAY** | **9th March 2023****THURSDAY** | **10th March 2023****FRIDAY** |
| 09.30-10.30 | Brief summary and validity assessment of case-control studies | Free Study Time for Critical Reading and Evaluating the Research articles | Brief summary and validity assessment of meta-analysis | Free Study Time for Critical Reading and Evaluating the Research articles | EXAM |
| 10.40-11.30 | Critical appraisal of the articles and solving the clinical scenario III | Critical appraisal of the articles and solving the clinical scenario IV |
| 11.40-12.30 | Introduction of Clinical Scenario IV; Formulation of a focused clinical question | Solving Exercise I; Brief summary and validity assessment of screening tests | REFLECTION |
| 13.40-14.30 | Exercise I; validity of screening tests | Review; Questions & Answers  | FREE TIME |
| 14.40-15.30 | Literature search | Review; Questions & Answers  |

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| **GROUP 3****AHMET TOPUZOĞLU & NİLÜFER ÖZAYDIN****1st Week****(27th March – 31st March 2023)** |
|  | **27th March 2023****MONDAY** | **28th March 2023****TUESDAY** | **29th March 2023****WEDNESDAY** | **30th March2023****THURSDAY** | **31st March 2023****FRIDAY** |
| 09.30-10:00 | Introduction & Orientation | Free Study Time; Critical appraisal of the research articles | Brief summary and validity assessment of RCTs | Free Study Time; Critical appraisal of the research articles | Brief summary and validity assessment of cohort studies |
| 10.00-11.30 | Lecture; EBM philosophy | Brief summary and validity assessment of RCTs | Critical appraisal of the articles and solving the clinical scenario II |
| 11.40-12.30 | Lecture; Hierarchy of evidence, types of epidemiologic studies | Critical appraisal of the articles and solving the clinical scenario I | Introduction of Clinical Scenario III; Formulation of a focused clinical question |
| 13.40-14.30 | Introduction of Clinical Scenario I; Formulation of a focused clinical question | Introduction of Clinical Scenario II; Formulation of a focused clinicalquestion | Literature search |
| 14.40-15.30 | Literature search | Literature search | REFLECTION |
| **GROUP 3****AHMET TOPUZOĞLU & NİLÜFER ÖZAYDIN****2nd Week****(3rd April – 7th April 2023)** |
|  | **3rd April 2023****MONDAY** | **4th April 2023****TUESDAY** | **5th April 2023****WEDNESDAY** | **6th April 2023****THURSDAY** | **7th April 2023****FRIDAY** |
| 09.30-10.30 | Brief summary and validity assessment of case-control studies | Free Study Time for Critical Reading and Evaluating the Research articles | Brief summary and validity assessment of meta-analysis | Free Study Time for Critical Reading and Evaluating the Research articles | EXAM |
| 10.40-11.30 | Critical appraisal of the articles and solving the clinical scenario III | Critical appraisal of the articles and solving the clinical scenario IV |
| 11.40-12.30 | Introduction of Clinical Scenario IV; Formulation of a focused clinical question | Solving Exercise I; Brief summary and validity assessment of screening tests | REFLECTION |
| 13.40-14.30 | Exercise I; validity of screening tests | Review; Questions & Answers  | FREE TIME |
| 14.40-15.30 | Literature search | Review; Questions & Answers  |