| COURSE INFORMATION | | | | | |
|---|------------|-------------|------------------------------------|---------|------|
| Course Title | Code | Semester | Lecture+Practice+Labrotory Hour | Credits | ECTS |
| Internal Medicine (Clinical Clerkship) | MED 411 | Phase 4/7-8 | 89+164 | 10 | 10* |

^{*} ECTS credits are the university credits of the courses in Yeditepe University, Faculty of Medicine, Undergraduate Medical Education Program

| Prerequisites | The student that joins this course, should completed Phase 1, 2 and 3 |
|---------------|---|
| Prefequisites | courses of medical faculty. |

| Language of Instruction | English |
|--|---|
| Course Level | Second Cycle including First Cycle Degree (One Tier Programme) |
| Course Type | Compulsory |
| Course Coordinator | Özlem Haliloğlu |
| Fahrettin KELEŞTİMUR, MD Prof. Özlem HALİLOĞLU, MD Assoc. Prof. Cengiz PATA, MD Prof. Meltem ERGÜN, MD Prof. Elif BİRTAŞ ATEŞOĞLU, MD Prof. Figen ATALAY, MD Assoc. Prof Yaşar KÜÇÜKARDALI, MD Prof. Mehmet Akif Öztürk, MD Assisted Prof. Bala Başak ÖVEN, MD Prof. Serkan ÇELİK, MD Assoc. Prof Banu Musaffa SALEPÇİ, MD Prof. Seha AKDUMAN, MD, Gülçin KANTARCI, MD Prof. Abdullah ÖZKÖK, MD Prof. Müge BIÇAKÇIĞİL KALAYCI, MD Prof Refik DEMİRTUNÇ, MD Prof. Funda TÜRKMEN, MD Prof. | |
| Assistants | |
| Goals | Aim of this clerkship is to equip students with necessary knowledge, skills and attitudes required for an appropriate approach to healthy and sick adults, convey necessary knowledge on preventive healthcare measures. This clerkship also aimed to provide students with necessary knowledge, skills and attitudes required to achieve diagnosis and differential diagnosis of adults and to perform primary care prophylaxis and treatment, |

| Learning Outcomes At the end of this clerkship, the student should be able to: | Program Learning Outcomes | Teaching Methods | Assessment Methods |
|---|---------------------------------|---------------------|-----------------------|
| Knowledge | | | |
| Employs a patient-centered approach in patient management. | 1.1.2. | 1,2,3 | A,B,C |
| Describe and explain the presentation, pathophysiology, clinical and laboratory features of common acute, chronic and emergency clinical conditions which pose high risk for individuals or community health, and list differential diagnoses of common disorders | 1.1.3 | 1,2,3 | A,B,C |
| List required procedures and investigations for the diagnosis and follow-up of patients | 1.1.7. | 1,2,3 | A,B,C |
| Employs diagnostic procedures that are used frequently at the primary health care level. Selects tests that have evidence-based high efficacy at the primary health care level and interprets results | 1.1.7, 1.1.8 | 1,2,3 | A,B,C |
| Describe the management of common disorders | 1.1.11 | 1,2,3 | A,B,C |
| Skills | | | |
| Obtain an appropriate history of patients. Take detailed questioning intended to explicate reasons od complaints | 1.1.2, 1.1.4 | 1,2,3 | A,B,C |
| Perform proper physical examination | 1.1.5 | 1,2,3 | В,С |
| Use diagnostic methods (laboratory and imaging techniques, other invasive or non-invasive methods) correctly and cost-efficiently | 1.1.7,1.1.8 | 1,2,3 | A,B,C |
| Perform minor medical interventions and applications (blood collection, i.v. or i.m. injection, catheterization, capillary blood glucose testing, ECG, etc.) | 1.1.7,1.1.8 | 2,3 | С |
| Interpret clinical and laboratory data | 1.1.7, 1.1.8 | 1,2,3 | A,B,C |
| Refer patients to advanced healthcare units when indicated | 1.2.2, 1.1.9 | 1,2,3 | A,B,C |

| Manage common disorders and emergency cases | 1.1.9, 1.1.11 | 1,2,3 | A,B,C |
|--|-------------------------------------|-------|-------|
| Use written and online sources correctly and efficiently to access evidence-based information | 3.1.1, 3.1.2 | 1,2,3 | A,B,C |
| Attitudes | | | |
| Demonstrate interpersonal skills and professionalism in relations with patients, families and healthcare staff | 1.2.2, 1.2.3, | 2,3 | С |
| Show respect for patient rights, communicate appropriately with patient and families and provide clear and concise information about the patient's condition | 1.2.3, 1.2.4, 2.2.2, 2.5.2 | 2,3 | С |
| Communicate and collaborate effectively with colleagues, teaching staff and other members of the healthcare team | 1.2.1, 1.2.2 | 2,3 | С |

| Teaching Methods: | 1: Lecture, 2: Question-Answer, 3: Discussion |
|----------------------|--|
| Assessment Methods: | A: Knowledge-based Assessment B: Competency-based Assessment C: Performance-based Assessment |

| | COURSE CONTENT | | | |
|------|---|---|--|--|
| Week | Topics | Study Materials | | |
| 1 | Introductory Session (Introduction to Internal Medicine) | Materials for the course provided by the instructor | | |
| 1 | Lecture Taking History (2 hours) | Materials for the course provided by the instructor | | |
| 1 | Lecture Examination of the abdomen | Materials for the course provided by the instructor | | |
| 1 | Lecture Examination of Head and Neck | Materials for the course provided by the instructor | | |
| 1 | Lecture Examination of Respiratory System | Materials for the course provided by the instructor | | |
| 1 | Lecture Pulmonary Thromboembolism | Materials for the course provided by the instructor | | |

| 1 | Lecture Environmental Lung Diseases | Materials for the course provided by the instructor |
|---|---|---|
| 1 | Lecture Evidence Based Approach to Pneumonia (2 hours) | Materials for the course provided by the instructor |
| 1 | Lecture Examination Of Extremities (2 hours) | Materials for the course provided by the instructor |
| 1 | Lecture Approach to the Patient with Connective Tissue Diseases | Materials for the course provided by the instructor |
| 1 | Lecture Approach to Patient with Acute Arthritis (Mono-oligo and Polyarthritis) | Materials for the course provided by the instructor |
| 1 | Lecture Approach to Patient With Chronic Arthritis (2 hours) | Materials for the course provided by the instructor |
| 1 | Lecture Approach to Patient with Vasculitis | Materials for the course provided by the instructor |
| 1 | Case Discussion Rheumatology | Materials for the course provided by the instructor |
| 1 | Lecture Approach to Abdominal Pain | Materials for the course provided by the instructor |
| 1 | Lecture Approach To Patient with Diarrhea | Materials for the course provided by the instructor |
| 1 | Lecture Cushing's Syndrome | Materials for the course provided by the instructor |
| 1 | Lecture Male Gonadal Diseases | Materials for the course provided by the instructor |
| 2 | Lecture Acute Complications of Diabetes Mellitus | Materials for the course provided by the instructor |
| 2 | Lecture Chronic Complications of Diabetes Mellitus | Materials for the course provided by the instructor |
| 2 | Lecture Treatment of Diabetes Mellitus | Materials for the course provided by the instructor |
| 2 | Lecture Adrenal Insufficiency | Materials for the course provided by the instructor |
| 2 | Lecture Metabolic Bone Disease (2 hours) | Materials for the course provided by the instructor |
| 2 | Lecture Hyperparathyroidism | Materials for the course provided by the instructor |

| 2 | Lecture Metabolic Syndrome | Materials for the course provided by the instructor |
|---|---|---|
| 2 | Lecture Hyperthyroidism | Materials for the course provided by the instructor |
| 2 | Lecture Goiter and Thyroid Cancer | Materials for the course provided by the instructor |
| 2 | Lecture Hypothyroidism | Materials for the course provided by the instructor |
| 2 | Lecture Hypoparathyroidism | Materials for the course provided by the instructor |
| 2 | Lecture Management of Hyperlipidemia | Materials for the course provided by the instructor |
| 2 | Lecture Drug Interaction and Examples of Prescriptions (2 hours) | Materials for the course provided by the instructor |
| 2 | Case Discussion General Internal Medicine | Materials for the course provided by the instructor |
| 2 | Lecture Non-Cardiac Causes of Chest Pain (2 hours) | Materials for the course provided by the instructor |
| 2 | Lecture Acute Respiratory Distress Syndrome | Materials for the course provided by the instructor |
| 2 | Lecture Management of Elderly Patients | Materials for the course provided by the instructor |
| 3 | Lecture Fever Of Unknown Origin | Materials for the course provided by the instructor |
| 3 | Lecture Sepsis and Septic Shock | Materials for the course provided by the instructor |
| 3 | Lecture Tuberculosis | Materials for the course provided by the instructor |
| 3 | Case Discussion Chest Diseases | Materials for the course provided by the instructor |
| 3 | Lecture Nutritional Anemia and Interpretation of Peripheral Blood Smear (2 hours) | Materials for the course provided by the instructor |
| 3 | Lecture Acute and Chronic Leukemias (2 hours) | Materials for the course provided by the instructor |
| 3 | Lecture Bone Marrow Failure | Materials for the course provided by the instructor |
| 3 | Lecture Plasma Cell Dyscrasias | Materials for the course provided by the instructor |

| 3 | Lecture Diagnosis and Management of Hypercoagulapathy | Materials for the course provided by the instructor |
|---|---|---|
| 3 | Lecture Approach to the Patients with Lymphoproliferative Disorders Lymphomas | Materials for the course provided by the instructor |
| 3 | Lecture Evidence Based Approach to the Patient with Hypertensive Disorders | Materials for the course provided by the instructor |
| 3 | Lecture Hypertensive Disorders in Pregnancy | Materials for the course provided by the instructor |
| 3 | Lecture Evidence Based Approach to the Patient with Chronic Kidney Disease (2 hours) | Materials for the course provided by the instructor |
| 3 | Lecture Evidence-based Approach to the Patient with Acute Kidney Injury (2 hours) | Materials for the course provided by the instructor |
| 3 | Lecture Approach to the Patient with Electrolyte Disorders | Materials for the course provided by the instructor |
| 3 | Case Discussion Nephrology | Materials for the course provided by the instructor |
| 4 | Lecture Approach to the Patient with Acid-Base Disorders | Materials for the course provided by the instructor |
| 4 | Lecture Approach to the Patient with Glomerular Diseases | Materials for the course provided by the instructor |
| 4 | Lecture Ascites | Materials for the course provided by the instructor |
| 4 | Lecture Evidence Based Approach to the Patient Cirrhosis and Complications of Cirrhosis | Materials for the course provided by the instructor |
| 4 | Lecture Chronic Hepatitis | Materials for the course provided by the instructor |
| 4 | Case Discussion Gastroenterology | Materials for the course provided by the instructor |
| 4 | Lecture Liver Enzyme Disorder | Materials for the course provided by the instructor |
| 4 | Lecture Dysphagia | Materials for the course provided by the the instructor |
| 4 | Lecture Gastrointestinal Bleeding | Materials for the course provided by the instructor |
| 4 | Lecture Stem Cell Transplantation | Materials for the course provided by the instructor |
| 4 | Lecture Colorectal Cancer | Materials for the course provided by the instructor |

| 4 | Lecture Lung Cancer | Materials for the course provided by the instructor |
|------------|--|---|
| 4 | Lecture Breast Cancer | Materials for the course provided by the instructor |
| 4 | Lecture Oncologic Emergencies | Materials for the course provided by the instructor |
| 4 | Lecture Management of Cancer Pain | Materials for the course provided by the instructor |
| 4 | Lecture Principles of Chemotherapy and Complications | Materials for the course provided by the instructor |
| 4 | Lecture Immunotherapy and targeted Therapies in Oncology | Materials for the course provided by the instructor |
| 4 | Lecture Hereditary Cancers and Genetic Counselling in Cancer; Basic Principles | Materials for the course provided by the instructor |
| 5 | Lecture Evidence Based Screening and Early Diagnosis in Oncology | Materials for the course provided by the instructor |
| 5 | Lecture Approach to the Patient with Pulmonary System Symptoms and Signs | Materials for the course provided by the instructor |
| 5 | Lecture Chronic Obstructive Lung Disease and Corpulmonale | Materials for the course provided by the instructor |
| 5 | Lecture Asthma | Materials for the course provided by the instructor |
| 5 | Case Discussion Hematology | Materials for the course provided by the instructor |
| 5 | Case Discussion Endocrinology | Materials for the course provided by the instructor |
| 5 | Case Discussion Oncology | Materials for the course provided by the instructor |
| 5 | Case Discussion Chest Diseases | Materials for the course provided by the instructor |
| 5,7,8,9,10 | HAYDARPAŞA NUMUNE TRAINING AND RESEARCH HOSPITAL (HTRH) -Clinical Training | |

| NCC 2014 - Essential Medical Procedures | Performance |
|--|-------------|
| (National Core Curriculum) | Level |
| General and symptom-based history taking | 3 |

| Assessing mental status | 3 |
|---|---|
| Antropometric measurements | 4 |
| Head-Neck and ENT examination | 3 |
| Abdominal physical examination | 3 |
| Skin examination | 3 |
| General condition and vital signs assessment | 4 |
| Musculoskeletal system examination | 3 |
| Respiratory system examination | 3 |
| Cardiovascular system examination | 3 |
| Urologic examination | 2 |
| Preparing medical reports and notice | 2 |
| Preparing forensic report | 2 |
| Preparing epicrisis | 3 |
| Preparing patient file | 3 |
| Obtaining informed consent | 2 |
| Writing prescription | 2 |
| Reading and evaluating direct radiographs | 2 |
| Taking and evaluating ECG | 2 |
| Measuring blood glucose level with glucometry | 3 |
| Filling laboratory request form | 2 |
| Preparation and evaluation of peripheral blood smear | 2 |
| Performing full urine analysis (including microscopic examination) and evaluation | 2 |
| Interpretation of screening and diagnostic examination results | 2 |
| Rational drug use | 2 |
| Performing IM, IV, SC, ID injection | 2 |
| Urinary catheterization | 2 |
| Taking sample for culture | 3 |
| Nasogastric catheterization | 2 |
| Evaluating pulmonary function tests | 2 |
| Establishing IV line | 2 |
| Measuring blood pressure | 4 |
| Performing and assessing pulse oxymetry | 2 |
| Providing basic life support | 2 |
| Using and evaluating peak-flow meter | 2 |
| L | |

| | RECOMMENDED SOURCES |
|-------------------------|--|
| Textbook | Harrison's Principles of Internal Medicine Edited by Dan L. Longo, Anthony S. Fauci, Dennis L. Kasper, Stephen L. Hauser, J. Larry Jameson The Merck Manual of Diagnosis and Therapy. Edited by Porter RS, Kaplan JL Current Opinion in Internal Medicine. Edited by:H David Humes Cecil Medicine. Edited by Lee Goldman, MD and Andrew I. Schafer Handbook of Nephrology & Hypertension Edited by Christopher S. Wilcox, C Craig Tisher Netter's Gastroenterology. Edited by M Floch Yeditepe Üniversitesi Tıp Fakültesi İç Hastalıkları Semiyoloji Kitabı. Editör Prof Dr. Yaşar Küçükardalı |
| Additional Resources | INTERNET LINKS: ■ www.uptodate.com, ■ http://bestpractice.bmj.com/best-practice/evidence ■ http://www.medicinenet.com/script/main/hp.asp ■ www.accessmedicine.com |

| ASSESSMENT | | | |
|---|--|--|--|
| Question Types (Pencil-Paper Tests) | Proportion (ir Pencil-Paper Tests) | | |
| Multiple Choice Questions | 36% | | |
| Extended Matching Questions | 4% | | |
| Total | 40% | | |
| Other Assessment Methods and Tools | Proportion | | |
| Structured Oral Exam (OE) | 50% | | |
| Logbook & Direct Observation of Procedural Skills (DOPS) | | | |
| Evaluation of Case Presentation (With Checklist) | | | |
| Evaluation of Preparation Skills of Patient's File (With Checklist) | 10% | | |
| Global Evaluation of Student's Performance (With Checklist) | | | |
| Total | 60 % | | |
| Pass/Fail Decision | Proportion (in Pass/Fail Decision) | | |
| Pencil-Paper Tests | 40% | | |
| Other Assessment Methods and Tools | 60% | | |
| Total | 100 % | | |

MATERIAL SHARING

| Documents | Photocopy shareable. |
|-------------|----------------------|
| Assignments | Not Shareable |
| Exams | Not shareable |

COURSE CATEGORY Expertise/Field Courses

| COURSE'S CONTRIBUTION TO PROGRAM | | | | | | | | | |
|----------------------------------|---|---|---|--------------|---|---|--|--|--|
| | PODG.1. Basic Professional Competencies | | | Contribution | | | | | |
| | POD.1.1. Clinical Competencies | 1 | 2 | 3 | 4 | 5 | | | |
| PO.1.1.1. | values preventive health services, offers primary prevention (i.e. prevention of diseases for the protection of health), secondary prevention (i.e. early diagnosis and treatment) tertiary prevention (i.e. rehabilitation) and quaternary prevention (i.e. prevention of excessive and unnecessary diagnosis and treatment) services, provides consultancy on these issues. | | | | | х | | | |
| PO.1.1.2. | employs a patient-centered approach in patient management. | | | | | X | | | |
| PO.1.1.3. | recognizes most frequently occurring or significant clinical complaints, symptoms, signs, findings and their emergence mechanisms in clinical conditions. | | | | | X | | | |
| PO.1.1.4. | takes medical history from the applicant himself/herself or from the individual's companions. | | | | | X | | | |
| PO.1.1.5. | does general and focused physical and mental examination. | | | | | X | | | |
| PO.1.1.6. | interprets findings in medical history, physical and mental examination. | | | | | X | | | |
| PO.1.1.7. | employs diagnostic procedures that are used frequently at the primary health care level. | | | | X | | | | |
| PO.1.1.8. | selects tests that have evidence-based high efficacy at the primary health care level and interprets results. | | | | X | | | | |
| PO.1.1.9. | makes clinical decisions using evidence-based systematic data in health care service. | | | | | X | | | |
| PO.1.1.10. | performs medical interventional procedures that are used frequently at the primary health care level. | | | | | X | | | |
| PO.1.1.11. | manages healthy individuals and patients in the context of health care services. | | | | | X | | | |
| PO.1.1.12. | keeps medical records in health care provision and uses information systems to that aim. POD.1.2. Competencies related to Communication | | | | | X | | | |
| | POD.1.2. Competencies related to Communication | | | | | | | | |
| PO.1.2.1. | throughout his/her career, <i>communicates</i> effectively with health care beneficiaries, co-workers, accompanying persons, visitors, patient's relatives, care givers, colleagues, other individuals, organizations and institutions. | | | | | X | | | |
| PO.1.2.2. | collaborates as a team member with related organizations and institutions, with other professionals and health care workers, on issues related to health. | | | | | X | | | |
| PO.1.2.3. | recognizes the protection and privacy policy for health care beneficiaries, co-workers, accompanying persons and visitors. | | | | | X | | | |
| PO.1.2.4. | communicates with all stakeholders taking into consideration the socio-cultural diversity. | | | | | X | | | |
| | POD.1.3. Competencies Related to Leadership and Management | | | | | | | | |

| PO.1.3.1. | manages and leads within the health care team in | | | |
|------------|--|---|---|---|
| | primary health care organization. | | | |
| PO.1.3.2. | recognizes the principles of health management and | | | |
| | health sector economy, models of organization and | | | |
| PO.1.3.3. | financing of health care services. recognizes the resources in the health care service, the | | | |
| PU.1.3.3. | principles for cost-effective use. | | X | |
| | POD.1.4. Competencies related to Health Advocacy | | | |
| | 1 05121 II competencies related to realth Advocacy | | | |
| PO.1.4.1. | recognizes the health status of the individual and the | | | |
| | community and the factors affecting the health, | | | |
| | <i>implements</i> the necessary measures to prevent effects | | | |
| | of these factors on the health. | | | |
| PO.1.4.2. | recognizes and manages the health determinants | | | |
| | including conditions that prevent access to health care. | | | |
| | POD.1.5. Competencies related to Research | | | |
| PO.1.5.1. | develops, prepares and presents research projects | | | |
| . 0.1.3.1. | develops, prepares and presents research projects | | | |
| | POD.1.6. Competencies related to Health | | | |
| | Education and Counseling | | | |
| PO.1.6.1. | provides consultancy services and organizes health | | | |
| | education for the community to sustain and promote the | | | |
| | health of individual and community. | | | |
| | PODG.2. Professional Values and Perspectives | | | |
| | POD.2.1. Competencies related to Law and | | | |
| | Legal Regulations | | | |
| PO.2.1.1. | performs medical practices in accordance with the legal | | | X |
| | framework which regulates the primary health care | | | A |
| | service. | | | |
| | POD.2.2. Competencies Related to Ethical | | | |
| | Aspects of Medicine | | | |
| PO.2.2.1. | recognizes basic ethical principles completely, and | | | X |
| | distinguishes ethical and legal problems. | | | |
| PO.2.2.2. | pays importance to the rights of patient, patient's | | | X |
| | relatives and physicians, and provides services in this context. | | | |
| | POD.2.3. Competencies Related to Social | | | |
| | and Behavioral Sciences | | | |
| PO.2.3.1. | relates historical, anthropological and philosophical | | | |
| | evolution of medicine, with the current medical practice. | | | |
| PO.2.3.2. | recognizes the individual's behavior and attitudes and | | | |
| | factors that determine the social dynamics of the | | | |
| | community. | | | |
| | POD.2.4. Competencies Related to Social | | | |
| DO 2.4.1 | Awareness and Participation | | | |
| PO.2.4.1. | leads community with sense of responsibility, behavior and attitudes in consideration of individual behaviors | | | |
| | and social dynamics of the community, and if there is a | | | |
| | necessity, develops projects directed towards health | | | |
| | care services. | | | |
| | POD.2.5. Competencies Related to | | | |
| | Professional Attitudes and Behaviors | | | |
| PO.2.5.1. | displays a patient-centered and holistic | | | X |
| | (biopsychosocial) approach to patients and their | | | _ |
| | problems. | | | |
| PO.2.5.2. | respects patients, colleagues and all stakeholders in | | | X |
| | health care delivery. | | | |
| PO.2.5.3. | displays the proper behavior in case of disadvantaged | | | |
| DO 3 5 4 | groups and situations in the community. | | | |
| PO.2.5.4. | takes responsibility for the development of patient | | | |
| | safety and healthcare quality. | I | | |

| PO.2.5.5. | evaluates own performance as open to criticism, realizes the qualifications and limitations. | | | |
|-----------|--|--|---|---|
| | PODG.3. Professional Development and Self-Worth | | | |
| | PODG.3.1. Personal Development and Values | | | |
| PO.3.1.1. | embraces the importance of lifelong self-learning and implements . | | | X |
| PO.3.1.2. | embraces the importance of updating knowledge and skills; searches current advancements and improves own knowledge and skills. | | | X |
| PO.3.1.3. | uses English language at least at a level adequate to follow the international literature and to establish communication related to the profession. | | | |
| | POD.3.2. Competencies Related to Career Management | | | |
| PO.3.2.1. | recognizes and investigates postgraduate work domains and job opportunities. | | | |
| PO.3.2.2. | recognizes the application requirements to postgraduate work/job domains, and distinguishes and plans any requirement for further training and work experience. | | | |
| PO.3.2.3. | prepares a resume, and recognizes job interview methods. | | | |
| | POD.3.3. Competencies Related to Protection and Development of Own Physical and Mental Health | | | |
| PO.3.3.1. | implements the rules of healthy living. | | | X |
| PO.3.3.2. | displays appropriate behavior specific to work under stressful conditions. | | X | |
| PO.3.3.3. | uses self-motivation factors. | | | |

| Activities Qua | | Duration (Hour) | Total Workload (Hour) |
|--|----|--------------------|-----------------------------|
| Course Duration (9 weeks) | 45 | 5.5 | 247.5 |
| Hours for off-the-classroom study (Pre-study, practice, review/week) | 45 | 1 | 45 |
| Homework | - | - | - |
| Exam | 2 | 2 | 4 |
| Total Work Loa | d | | 296.5 |
| Total Work Load / 30 (h |) | | 9.88 |
| ECTS Credit of the Cours | e | | 10 |