

T.C.
ATILIM UNIVERSITY FACULTY OF MEDICINE
EDUCATION IN 2024-2025 ACADEMIC YEAR
ACADEMIC CALENDAR

Laboratory Lessons:

1. Histology of pituitary, pineal, thyroid, parathyroid, and adrenal gland (1 hour, Dr. Aykanat)
2. Thyroid and parathyroid (1 hour, Dr. Yurdakan Özyardımcı)
3. Clinical Skills: Measurement of blood glucose level (1 hour, Dr. Dursun & Dr. Sarıkaya)

COMMITTEE NAME	STARTING DATE	COMPLETION DATE
MED 301	18.09.2024	01.11.2024
MED 303	04.11.2024	13.12.2024
MED 305	16.12.2024	09.01.2025
MED 302		
MED 304		
MED 306		

COMMITTEE NAME						
	MED 301	MED 302	MED 303	MED 304	MED 305	MED 306
ANATOMY PRACTICAL EXAM DATE						
CLINICAL SKILLS EXAM DATE					9.01.2025	
COMMITTEE EXAM DATE					08.01.2025	

MED305 ENDOCRINE SYSTEM

PHASE III COORDINATOR	Prof. Dr. Yekbun ADIGÜZEL
CHAIR OF THE MED 305 COMMITTEE	Assoc. Prof. Dr. Nuriye Ezgi BEKTUR AYKANAT
MED 305 COMMITTEE DATE RANGE	16.12.2024 – 10.01.2025
ACADEMIC STAFF AT THE MED 305 COMMITTEE	Prof. Dr. Necla TÜLEK - Medical Microbiology Prof. Dr. Nedret KILIÇ - Medical Biochemistry Prof. Dr. Gamze YURDAKAN ÖZYARDIMCI - Pathology Assoc. Prof. Dr. Hale ÖKTEM- Anatomy Assoc. Prof. Dr. Nuriye Ezgi BEKTUR AYKANAT- Histology and Embryology Assoc. Prof. Dr. Muhammed Erkam SENCAR-Endocrinology Assoc. Prof. Dr. Ali Doğan DURSUN- Physiology Asst. Prof. Dr. Badegül SARIKAYA - Physiology Asst. Prof. Dr. Recep Ali BROHI- Anatomy Asst. Prof. Dr. Canan ÇİÇEK DEMİR-Endocrinology Inst. Dr. İbrahim Sinan BUĞUR-Pediatrics Asst. Prof. Dr. Sami EREN - Medical Pharmacology

ACADEMIC STAFF	THEORETICAL LECTURE TIME	PRACTICAL LECTURE TIME	INTERACTIVE EDUCATION TIME	TOTAL TIME
Anatomy	4	-	-	4
Histology and Embryology	5	1	-	6
Medical Microbiology	2	-	-	2
Medical Pharmacology	7	-	-	7
Medical Biochemistry	12	-	-	12
Medical Pathology	10	1	-	11
Physiology	10	1 (Clinical Skills)	-	11
Endocrinology	9	-	-	9
Pediatrics	3	-	-	3
Problem Based Learning	-	-	6	6
TOTAL	62	3	6	71

Advisor Visit	-
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CONTENT OF THE MED 305 COMMITTEE
Anatomy, histology and development of the pituitary gland, disorders of the pituitary gland, Pathophysiology of stress and adaptation. Anatomy, histology and development of the thyroid, parathyroid and suprarenal glands; Clinical anatomy; Thyroid hormones and their effect mechanisms, biochemistry of thyroid gland diseases; Congenital & functional abnormalities of the thyroid; Neoplasms of thyroid gland; Classification of hormones and their effecting mechanisms; Parathormone, vitamin D, calcitonin, calcium-phosphate homeostasis; Functional disorders of the parathyroid gland, Neoplasms of the parathyroid Hormones of adrenal cortex and their effects; Hormones of adrenal medulla and their effects; Biochemistry of diseases of adrenal gland; Physiology of adrenal gland; Disorders & neoplasms of the adrenal cortex and medulla; Multiple endocrine neoplasms; Biochemistry of gonadal hormone pathologies; Oral contraceptives; Endocrine functions of the pancreas; Regulation of blood glucose level; Control of food intake; Metabolism; Fat cells; Effect mechanism of hormones; Biochemistry of diabetes and obesity; Pharmacology of hormones; Drugs used in hypocalcemia and hypercalcemia; Insulin and oral antidiabetics; Glucocorticoids; ACTH and mineralocorticoids; Pathologies of hypophysis; Growth physiology; Endocrine pancreas: Diabetes mellitus, Endocrine pancreas: Neuroendocrine neoplasms, Amiloidosis; Biostatistical sampling and regression studies
MED 305 COMMITTEE AIM
To give information about the development, structure and functions of endocrine system, the etiopathogenesis, pathology, symptoms and findings of disorders related to this system and its prevention, diagnosis and the treatment principles; to provide basic medical skills for endocrine system

MED 305 COMMITTEE LEARNING OBJECTIVES

- 1) Describes the anatomical structures and their relation in endocrine system and recognizes them in cadavers and models.
- 2) Describes the mechanisms of hormones belonging to endocrine system, defines growth physiology and metabolism related factors.
- 3) Defines the structural properties of hormones and hormone receptors, biosynthesis and action mechanisms synthesized in different endocrine organs.
- 4) Defines the structural properties and functions of hypothalamic, pituitary, thyroid gland, adrenal cortex and medulla, adipose tissue and pancreas hormones.
- 5) Explains biochemical regulation of blood glucose and insulin.
- 6) Explains the key features and metabolic patterns of diabetes mellitus and hypoglycemia.
- 7) Describes the fine structure and development of endocrine organs.
- 8) Describes the relationship between the endocrine and nervous system, explains the physiological effects of hormones.
- 9) Defines the hormones effective on growth.
- 10) Defines the regulation of blood glucose level.
- 11) Explains the secretions of endocrine pancreas.
- 12) Describes the hormones of adrenal gland and their systemic effects.
- 13) Defines the hormones important in calcium phosphate metabolism and their effecting mechanisms.
- 14) Describes the effects of thyroid hormones on growth and metabolism.
- 15) Explains the hormones secreted from adipose tissue and their effects.
- 16) Recognizes the endocrine glands and the diseases/syndromes occurring in these regions.
- 17) Defines and distinguishes the pharmacology and pharmacokinetic properties of hormones.
- 18) Describes the developmental disorders of diabetes and diseases occurred in children.
- 19) States the association of diabetes with infectious diseases, and explain the mechanism.
- 20) Defines thyroid developmental disorders and functional diseases.
- 21) Defines thyroid tumors and explains their prognostic factors.
- 22) Defines parathyroid dysfunctions and tumors. Explain the effects of parathyroid dysfunctions on other endocrine organs and non-endocrine organ systems.
- 23) Defines the development mechanism and pathophysiology of diabetes, describes the effects of diabetes on tissues and organs.
- 24) Defines tumoral and nontumoral diseases developing in the pituitary.
- 25) Defines functional disorders of adrenal cortex and medulla and explains the characteristics of tumors.
- 26) Describe the pathophysiology of stress and adaptation

RECOMMENDED BOOKS

- 1) Atlas of human anatomy / |c Frank H. Netter, MD; consulting editors Carlos A. Machado; lead editor John T. Hansen, Brion Benninger, Jennifer Brueckner-Collins, Todd M. Hoagland, R. Shane Tubbs,2018
- 2) Gray's atlas of anatomy / Richard L. Drake, A. Wayne Vogl, Adam W. M. Mitchell, Richard M. Tibbitts, Paul E. Richardson,2020.
- 3) Harper's illustrated biochemistry / Victor W. Rodwell, David A. Bender, Kathleen M. Botham, Peter J. Kennelly, P. Anthony Weil,2018.
- 4) Textbook of biochemistry : with clinical correlations / edited by Thomas M. Devlin,2016
- 5) Histology : a text and atlas : A Text and Atlas: With Correlated Cell and Molecular Biology 8th Edition, 2019/ Michael H. Ross, PhD (deceased), Wojciech Pawlina, MD.

- 6) Guyton and Hall Textbook of Medical Physiology (Guyton Physiology), 14th Edition by John E. Hall PhD (Author), Michael E. Hall MD MSc. (Author), Elsevier, 2020.
- 7) Robbins and Cotran pathologic basis of disease / [edited by] Vinay Kumar, Abul K. Abbas, Jon C. Aster, 2018.
- 8) Understanding Pathophysiology First canadian Ed. 2018 by Elsevier Inc. Sue Huether; Kelly PowerKean; Mohamed ElHussein.
- 9) Pathophysiology of Diseases: An introduction in clinical medicine 8 ed. 2019 by McGraw-Hill Education; Lange Inc. Gary D. Hammer, MD, PhD Stephen J. McPhee, MD.
- 10) Pathophysiology: The biologic basis for diseases in adults and children 8th ed. 2019 by Elsevier Inc. Kathryn L. McCance, MS, PhD Sue E. Huether, MS, PhD Valentina L. Brashers, Neal S. Rote, PhD.
- 11) Rapid Review Pathology, Fifth Edition 2019 by Elsevier, Inc. Edward F. Goljan, MD
- 12) Williams Textbook of Endocrinology 13th Edition, Shlomo Melmed MBChB MACP, Kenneth S. Polonsky MD, P. Reed Larsen MD FRCP, Henry M. Kronenberg MD, Elsevier, 2015.
- 13) Greenspan's Basic and Clinical Endocrinology, 10th Edition, David G. Gardner, Dolores M. Shoback, McGraw Hill Medical Books, 2018.
- 14) Katzung's Basic and Clinical Pharmacology (Ed. Todd W. Vanderah), 16th Edition, McGraw Hill Lange, 2023.
- 15) Goodman and Gilman's The Pharmacological Basis of Therapeutics (Eds: L. Brunton, B. Knollmann), 14th Edition, McGraw Hill, 2022
- 16) The Developing Human: Clinically Oriented Embryology, 11th Edition by Keith L. Moore BA FIAC FRSM FAAA, T. V. N. Persaud FRCPATH (Lond.) FAAA, Mark G. Torchia MSc PhD, Saunders, 2019.
- 17) Langman's Medical Embryology 13th Edition by Ph.D. Sadler, T. W. (Author), Lippincott Williams & Wilkins, 2014.
- 18) Junqueira's Basic Histology: Text and Atlas, Fifteenth Edition 15th Edition by Anthony Mescher (Author), McGraw-Hill Education / Medical, 2018.
- 19) Physiology, 6th Edition by Linda S. Costanzo PhD, Elsevier, 2017.
- 20) Clinical Pathophysiology Made Ridiculously Simple™ Aarob Berkowitz 2007 By Medmaster Inc.
- 21) Rapid Review Pathology, Fifth Edition, 2019 By Elsevier, Inc. EDWARD F. GOLJAN, MD
- 22) Pathophysiology The Biologic Basis For Disease In Adults And Children, Kathryn L. Mccance, Sue E. Huether, Valentina L. Brashers, Neal S. Rote 8th Ed. 2017.
- 23) Mandell, Douglas, and Bennett's Principles and Practice of Infectious Diseases, 9th Edition, Bennett, JE, Dolin R, Blaser MJ. Elsevier, 2019

MED 305 COMMITTEE EXAM WEEK				
DATE	EXAM NAME		EXAM HOUR	
08.01.2025	MED 305 Committee Exam		13:30 - 17:20	
09.01.2025	MED 305 Clinical Skills Exam		13:30 – 16:20	
Teaching Methods and Techniques	<input checked="" type="checkbox"/> Lecture	<input type="checkbox"/> Case based learning	<input type="checkbox"/> Case discussion	<input type="checkbox"/> Student presentation
	<input type="checkbox"/> Role playing	<input checked="" type="checkbox"/> Problem based learning	<input type="checkbox"/> Project	<input type="checkbox"/> Homework
	<input checked="" type="checkbox"/> Laboratory practice	<input type="checkbox"/> Team based learning	<input checked="" type="checkbox"/> Self Learning	<input type="checkbox"/> Student Panel
	<input checked="" type="checkbox"/> Clinical Skill	<input type="checkbox"/> Flipped Class		
Evaluation Method	Theoretical Exam (90%), Clinical Skills (5%), Problem Based Learning (5%)			
Lesson Language	English			