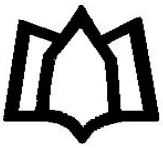
In the Name of God



Hamadan University of Medical Sciences and Health Services
Educational Deputy of the University
Center for Studies and Development of Medical Sciences Education

Theory/Practical Lesson Plan Form

Dear Colleagues,

As the teaching-learning process is one that requires careful planning to achieve its objectives, the preparation of a lesson plan at the beginning of the educational process (as a map and guide for instructors and students) is essential. It serves as one of the main tools for the educational activities of instructors. Therefore, we kindly ask all instructors to pay utmost attention to completing the lesson plan.

Course and Instructor Details (Completing all items in this section is essential)

Item	Details
Course Title	Genitourinary System Anatomy
Instructor(s)	Dr. Maryam Bahmanzadeh; Dr. Sepideh Gohari Taban
Course Coordinator	Dr. Maryam Bahmanzadeh
Department Head	Dr. Maryam Bahmanzadeh
Credits (Theory/Practical)	Theory: 0.85 credits; Practical: 0.25 credits
Student Major & Level	Doctor of Medicine (Professional)
Semester Offered	First Semester
Location	Faculty of Medicine

Theoretical Sessions (1–8)

Session	Topic	Behavioral Objectives (By the end of the session, students should be able to…)	Learning Domain	Teaching Method	Duration	Teaching Aids	Assessment Method
1	Introduction to the Structure of the Urinary System	1. Describe the position of the kidneys and their peritoneal coverings. 2. Name the anatomical structures inside the kidneys. 3. Name the kidney relations. 4. Explain the urine collection and excretion pathway. 5. Name the position, course, and important relations of the ureter. 6. Describe the sites of ureteral constrictions and their clinical importance.	Understanding; Knowledge	Lecture, explanatory Q&A, group discussion	120 min	Data projector, PowerPoint, whiteboard, anatomy websites	Initial: MCQ quiz; Formative: participation, questions/answers; Final: MCQ exam

		7. Describe the position, surfaces, and peritoneum of the bladder. 8. Name the bladder relations in both sexes. 9. Describe the urethral position in both sexes. 10. Explain the clinical anatomy of the urinary system.					
2	Structure of the Pelvic Girdle (Hip Bones)	1. Describe anatomical placement of hip bone. 2. Name parts of the hip bone. 3. Describe osseous features of hip bone parts. 4. Name features of sacrum and coccyx. 5. Explain pelvic bone articulation. 6. Name pelvic types and their general features. 7. Explain diameters, angles,	Knowledge; Understanding	Lecture, Q&A, group discussion	120 min	Data projector, PowerPoint, whiteboard, anatomy websites	Same as above

		axes, and pelvic planes. 8. Explain pelvic inlets and outlets. 9. Describe important pelvic ligament anatomy. 10. Mention sex differences in pelvis. 11. Name pelvic spaces connecting to adjacent areas.					
3	Structure of Muscles, Vessels, and Nerves of the Pelvis	1. Describe muscles of the lateral and posterior pelvic walls. 2. Name attachments, actions, and innervation. 3. Name pelvic diaphragm position and parts. 4. Name pelvic diaphragm muscle attachments, action, innervation. 5. Explain significance of levator	Knowledge; Understanding	Lecture, Q&A, group discussion	120 min	Same as above	Same as above

		ani. 6. Describe pelvic fasciae. 7. Identify internal iliac artery position. 8. Name its branches. 9. Name its relations. 10. Describe uterine artery position and relations. 11. Explain clinical significance of pelvic blood supply. 12. Describe pelvic venous drainage. 13. Describe lymphatic drainage. 14. Describe somatic and autonomic pelvic nerves. 15. Name cutaneous innervation. 16. Explain sympathetic/parasympathetic distribution.					

4	Structure of the Reproductive System	1. Name female internal genital structures. 2. Describe ovary surfaces, borders, position. 3. Name supporting ligaments of ovary/tube. 4. Identify uterus and tube parts. 5. Describe uterine supporting ligaments. 6. Describe vaginal structure. 7. Explain peritoneal reflections to uterus/vagina. 8. Explain pouch of Douglas and vesicouterine pouch. 9. Describe male internal reproductive organs. 10. Name male external genitalia. 11. Name scrotal layers and testicular	Knowledge; Understanding	Lecture, Q&A, group discussion	120 min	Same as above	Same as above

		coverings. 12. Describe epididymis position/parts. 13. Describe vas deferens course. 14. Explain seminal vesicle anatomy. 15. Name prostate parts. 16. Describe prostate relations.					
5	Structure of the Perineum	1. Name perineal layers. 2. Name superficial and deep perineal muscles. 3. Describe their actions. 4. Describe superficial/deep perineal spaces. 5. Name contents of superficial perineal space. 6. Name contents of deep perineal space. 7. Explain pudendal nerve anatomy. 8.	Knowledge; Understanding	Lecture, Q&A, group discussion	120 min	Same as above	Same as above

		Describe internal pudendal artery branches.					
6	Histological Structure of the Urinary System	1. Name histological structures of urinary organs. 2. Describe kidney histology. 3. Describe renal corpuscle parts. 4. Explain podocytes, filtration slits, poles. 5. Differentiate mesangial cells. 6. Describe nephron tubular structures. 7. Explain collecting duct histology. 8. Describe juxtaglomerular apparatus. 9. Explain kidney blood flow. 10. Describe bladder, pelvis, and ureter histology. 11. Describe male/femal	Knowledge; Understanding	Lecture, Q&A, group discussion	120 min	Same as above	Same as above

		e urethral histology.					
7	Histological Structure of the Reproductive System	1. Name male genital parts. 2. Describe testis histology. 3. Explain seminiferous tubule cell types and spermatogenesis stages. 4. Describe Leydig/myoid cells. 5. Explain epididymis histology. 6. Describe vas deferens histology. 7. Describe prostate histology. 8. Describe seminal vesicle histology. 9. Explain male urethra histology. 10. Describe ovarian cortex/medulla. 11. Explain follicular stages. 12. Differentiate corpus luteum/albicans. 13.	Knowledge; Understanding	Lecture, Q&A, group discussion	120 min	Same as above	Same as above

		Describe uterine tube histology. 14. Describe uterine layers. 15. Explain proliferative phase glands. 16. Explain gland morphology in menstrual phases. 17. Describe cervical histology. 18. Describe mammary gland structure. 19. Explain breast development.					
8	Embryology of the Urinary & Reproductive Systems	1. Describe pronephros, mesonephros, metanephros development. 2. Explain permanent kidney development. 3. Illustrate bladder/urethra development. 4. List urinary tract malformati	Understanding; Analysis	Lecture, Q&A, group discussion	120 min		

		ons & embryology. 5. Describe gonad and duct development in both sexes. 6. Explain accessory gland development. 7. Illustrate inguinal canal formation, testis/ovary descent. 8. List genital malformations & embryology.					

Practical Sessions (1–8)

Session	Topic	Behavioral Objectives	Learning Domain	Teaching Method	Duration	Teaching Aids	Assessment Method
1	Anatomy of the Urinary System	1. Show surfaces and borders of kidneys. 2. Identify cortex, medulla, and related structures. 3. Trace urine drainage pathway. 4. Identify	Application	Observation, demonstration, group Q&A	60 min	Models of kidneys/bladder; cadaver (renal/bladder regions); anatomy mannequins; posters; radiological images	Class activity, quiz, Q&A, attendance, assignments, checklist

		ureter, its constrictions, and path. 5. Show surfaces and parts of bladder. 6. Identify bladder relations and associated pouches.					
2	Anatomy of the Pelvic Girdle (Bones)	1. Identify surfaces and borders of pelvis. 2. Name three hip bone components. 3. Describe pelvic joints. 4. Demonstrate anatomical positioning of pelvis. 5. Show sacrum features. 6. Demonstrate pelvic diameters and measurement techniques.	Application	Observation, demonstration, group Q&A	60 min	Pelvic bone models (hip, sacrum, lumbar vertebrae); natural bones; mannequins; posters; radiological images	Same as above
3	Muscles, Vessels, and Nerves of the Pelvis	1. Identify pelvic wall muscles. 2. Identify pelvic diaphragm position and components. 3. Show sciatic foramina and formation. 4. Show lumbar plexus and sciatic nerve. 5. Show levator ani and perineal body.	Application	Observation, demonstration, group Q&A	60 min	Pelvic muscle models; cadaver; mannequins; posters; radiological images	Same as above

4	Male & Female Reproductive Anatomy	1. Identify male genital parts. 2. Show position/features of male sex glands. 3. Show spermatic cord contents. 4. Show male genital muscles. 5. Identify male urethral parts and sphincters. 6. Identify female genital parts. 7. Show ovary surfaces and ligaments. 8. Identify uterine tube parts. 9. Show uterine regions. 10. Identify peritoneal pouches. 11. Show female external genitalia.	Application	Observation, demonstration, group Q&A	60 min	Male/female reproductive system models; torso models; cadaver; mannequins; posters; radiological images	Same as above
5	Anatomy of the Perineum	1. Identify ischiorectal fossa and boundaries. 2. Identify pudendal nerve/artery. 3. Demonstrate pudendal nerve block on models. 4. Identify perineal muscles. 5. Show urogenital and anal triangles	Application	Observation, demonstration, group Q&A	60 min	Perineum models (male/female); cadaver; mannequins; posters; radiological images	Same as above

		on models/cadaver.					
6	Histology of the Urinary System	1. Identify microscopic structure of kidney, ureter, bladder. 2. Differentiate cortex and medulla. 3. Identify proximal/distal tubules. 4. Identify renal corpuscles, glomeruli, and cell types. 5. Differentiate medullary tubules. 6. Identify bladder tissue layers. 7. Identify epithelial cell types in bladder.	Application	Observation, demonstration, group Q&A; live microscope projection	60 min	Histology slides (kidney, ureter, bladder, urethra); microscopes; monitors; multi-headed microscope	Same as above plus drawing/labeling exercises
7	Histology of the Male Reproductive System	1. Identify microscopic structure of testis. 2. Recognize spermatogenic cell layers. 3. Identify corpora amylacea and glands in prostate slides. 4. Identify prostate capsule. 5. Identify seminiferous tubules. 6. Show testicular	Application	Observation, demonstration, group Q&A; live microscope projection	60 min	Slides of testis, prostate, epididymis, seminal vesicle, vas deferens, male urethra; microscopes; monitors	Same as above

		covering histology.					
8	Histology of the Female Reproductive System	1. Identify ovarian tissue parts. 2. Differentiate ovarian cortex/medulla. 3. Distinguish active from inactive ovary. 4. Identify follicles at various stages. 5. Identify corpus luteum/albicans. 6. Identify layers of uterine tube tissue. 7. Identify uterine tube cell types. 8. Identify uterine tissue parts. 9. Identify endocervix/exocervix. 10. Identify cervical glands.	Application	Observation, demonstration, group Q&A; live microscope projection	60 min	Slides of active/inactive ovary; uterus (secretory/menstrual phases); uterine tube; cervix; microscopes;	

Student Assessment – Theoretical Unit

Department: Anatomy, Histology & Embryology

Assessment Type	Session / Date	Assessment Tool	Weight (%)
Quiz	Session 3, Session 6	Written questions (multiple-choice and short-answer)	5%
Presentation of related topic	Session 5, Session 6	Quality of presentation, mastery of the subject, and ability to answer peers' questions	10%
Midterm Exam	Session 8	Written questions (multiple-choice)	40%
Final Exam	As per academic calendar	Written questions (multiple-choice, descriptive, and short-answer)	40%
Other Activities	Throughout course	Active class participation, responding to instructor's questions, enthusiasm for the subject, and follow-up on topics	5%
Total	—	—	**100%**

Student Assessment – Practical Unit

Department: Anatomy & Histology

Assessment Type	Session / Date	Assessment Tool	Score (out of 20)
Quiz	Weekly	Short-answer questions	1.5

Project Submission	End of semester	1. Evaluation of physical project on histology class slides drawing. 2. Completing 1.5 hours of review activities in the moulage & dissection hall (three 30-minute sessions).	Project: 0.5 Review: 1.5 (0.5 per 30 minutes)
Homework	Weekly	Responses to clinical questions in the anatomy section	0.5
Final Practical Exam	As per academic calendar	Practical end-of-term assessment	15
Other Activities	Throughout course	1. Active participation in class 2. Attendance 3. Weekly assignments	1
Total	—	—	**20**

References

1. **Gray's Anatomy**, Volume 2, Trunk Section, 2024 Edition
2. **Snell's Anatomy**, Volume 1, Trunk Section, 10th Edition
3. **Junqueira's Basic Histology**, 16th Edition, 2024
4. **Soleimani Rad, Histology**
5. **DiFiore's Atlas of Histology**