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 cannot achieve its objectives without planning, it is essential to develop a lesson plan at the beginning of the educational process (as a roadmap and guide for instructors and students). Therefore, it is requested that esteemed instructors exercise utmost care in completing the lesson plan.

Course and Instructor Details (All fields in this section must be completed)

- Course Title: Anatomy of the Head and Neck
- Instructors' Names: Dr. Zahra Gholami Mahmoudian, Dr. Mehdi Ramazani
- Course Coordinator's Name: Dr. Mehdi Ramazani
- Department Head's Name: Dr. Maryam Bahmanzadeh
- Type and Credit Hours Breakdown:
    - ✓ Theoretical: 1.5 credits
    - ✓ Practical: 0.5 credits
- Student's Field and Degree Level: Professional Doctorate in Medicine
- Academic Semester:
    - First Semester: ☐
    - Second Semester: ✓
- Teaching Location: Faculty of Medici

Session	Title (Topic)	Behavioral Objectives	Learning Domain	Teaching Method	Duration	Teaching Aids	Evaluation Method
1	Review and Evolution of the Intestinal Loop, Arches, Fissures, and Circular Dead Ends	1. Explain the formation and evolution of the intestinal loop. 2. Explain the formation and evolution of the circular arches. 3. Explain the formation and evolution of the circular fissures. 4. Explain the formation and evolution of circular dead ends. 5. Illustrate the gene cascade involved in this process. 6. Evaluate diseases and defects caused by non-expression of genes.	1. Comprehension 2. Comprehension 3. Comprehension 4. Comprehension 5. Analysis 6. Evaluation	Lecture, group discussion, diagram drawing, slide presentation	90 minutes	PowerPoint, whiteboard, research on various anatomy websites, anatomy atlases for better understanding	1. Student attendance 2. Active participation in class Q&A and readiness to respond 3. Participation in class quiz
2	Review of Head and Face Development and Congenital Anomalies in This Area	1. Explain the formation and evolution of the head and face region. 2. Illustrate the gene cascade involved in this process. 3. Evaluate diseases and anomalies caused by non-expression of genes.	1. Comprehension 2. Analysis 3. Evaluation	Lecture, group discussion, diagram drawing, slide presentation	90 minutes	PowerPoint, whiteboard, research on various anatomy websites, anatomy atlases for better understanding	1. Student attendance 2. Active participation in class Q&A and readiness to respond 3. Participation in class quiz
3	Familiarization with Different Parts of the Frontal, Ethmoid	1. Show how to position the frontal, ethmoid, and occipital bones. 2. Differentiate between the coronal and sagittal sutures.	1. Analysis 2. Comprehension 3. Comprehension	Lecture, group discussion, diagram drawing, slide	90 minutes	PowerPoint, whiteboard, research on various anatomy	1. Student attendance 2. Active participation in

	, and Occipital Bones	3. Distinguish the characteristics of each bone. 4. Classify and evaluate types of fractures related to these bones.	4. Synthesis and evaluation	presentation		websites, anatomy atlases for better understanding	class Q&A and readiness to respond 3. Participation in class quiz
4	Familiarization with Different Parts of the Sphenoid and Temporal Bones	1. Show how to position the sphenoid and temporal bones. 2. Differentiate the sutures. 3. Distinguish the characteristics of each bone. 4. Classify and evaluate types of fractures related to these bones.	1. Analysis 2. Comprehension 3. Comprehension 4. Synthesis and evaluation	Lecture, group discussion, diagram drawing, slide presentation	90 minutes	PowerPoint, whiteboard, research on various anatomy websites, anatomy atlases for better understanding	1. Student attendance 2. Active participation in class Q&A and readiness to respond 3. Participation in class quiz
5	Familiarization with Different Parts of the Temporal Bones (Continued), Mandible, and Parietal	1. Show how to position the temporal, mandible, and parietal bones. 2. Differentiate the sutures. 3. Distinguish the characteristics of each bone. 4. Classify and evaluate types of fractures related to these bones.	1. Analysis 2. Comprehension 3. Comprehension 4. Synthesis and evaluation	Lecture, group discussion, diagram drawing, slide presentation	90 minutes	PowerPoint, whiteboard, research on various anatomy websites, anatomy atlases for better understanding	1. Student attendance 2. Active participation in class Q&A and readiness to respond 3. Participation in class quiz
6	Familiarization with Different Parts of the Facial Bones	1. Show how to position the facial bones including: nasal, lacrimal, maxilla, palatine, vomer, and inf. nasal concha. 2. Differentiate the	1. Analysis 2. Comprehension 3. Comprehension	Lecture, group discussion, diagram drawing, slide	90 minutes	PowerPoint, whiteboard, research on various anatomy	1. Student attendance 2. Active participation in

	Including: Nasal, Lacrimal, Maxilla, Palatine, Vomer, Inf. Nasal Concha, and Changes in the Mandible in the Elderly	sutures. 3. Distinguish the characteristics of each facial bone. 4. Classify and evaluate types of fractures related to these bones. 5. Evaluate changes in the mandible with age.	4. Synthesis and evaluation 5. Evaluation	presentation		websites, anatomy atlases for better understanding	class Q&A and readiness to respond 3. Participation in class quiz
7	Infant Skull, Skull Fractures, Paranasal Sinuses, and Clinical Notes	1. Show the characteristics of the infant skull. 2. Differentiate between the anterior and posterior fontanelles. 3. Distinguish the characteristics of each paranasal sinus. 4. Classify and evaluate types of skull fractures and their clinical notes.	1. Analysis 2. Comprehension 3. Comprehension 4. Synthesis and evaluation	Lecture, group discussion, diagram drawing, slide presentation	90 minutes	PowerPoint, whiteboard, research on various anatomy websites, anatomy atlases for better understanding	1. Student attendance 2. Active participation in class Q&A and readiness to respond 3. Participation in class quiz
8	Scalp and Facial Muscles, Blood Supply, and Nerve Supply of the Facial Region	1. Explain the layers of the scalp. 2. Differentiate the arteries responsible for scalp blood supply. 3. Describe the nerves of the scalp region. 4. Explain the connections of the facial region muscles. 5. Classify the nerves entering the face into sensory and motor branches.	1. Comprehension 2. Analysis 3. Knowledge 4. Comprehension 5. Synthesis	Lecture, group discussion, diagram drawing, slide presentation	90 minutes	PowerPoint, whiteboard, research on various anatomy websites, anatomy atlases for better understanding	1. Student attendance 2. Active participation in class Q&A and readiness to respond 3. Participation in class quiz

9	Blood Supply and Nerve Supply of the Parotid Region, Temporal Cavity, and Its Anatomical Contents	1. Learn and explain the anatomy of the parotid gland, its contents, and its surroundings. 2. Differentiate the arteries responsible for blood supply to the parotid region. 3. Describe the nerves of the parotid region. 4. Explain the boundaries of the temporal region. 5. Describe the connections of the muscles and fascia of the temporalis. 6. Classify the nerves entering the temporal region into sensory and motor branches.	1. Comprehension 2. Analysis 3. Knowledge 4. Comprehension 5. Comprehension 6. Synthesis	Lecture, group discussion, diagram drawing, slide presentation	90 minutes	PowerPoint, whiteboard, research on various anatomy websites, anatomy atlases for better understanding	1. Student attendance 2. Active participation in class Q&A and readiness to respond 3. Participation in class quiz
10	Infratemporal Fossa and Its Anatomical Contents, Temporomandibular Joint	1. Explain the boundaries of the infratemporal fossa. 2. Differentiate the branches of the maxillary artery. 3. Distinguish the branches of the maxillary and mandibular nerves. 4. Explain the connections of the internal and external pterygoid muscles. 5. Compare the functions of the internal and external pterygoid muscles. 6. Classify the nerves of the infratemporal region into sensory and motor branches.	1. Comprehension 2. Comprehension 3. Analysis 4. Comprehension 5. Evaluation 6. Synthesis	Lecture, group discussion, diagram drawing, slide presentation	90 minutes	PowerPoint, whiteboard, research on various anatomy websites, anatomy atlases for better understanding	1. Student attendance 2. Active participation in class Q&A and readiness to respond 3. Participation in class quiz
11	Pterygopalatine Fossa and Its Anatomical	1. Explain the boundaries of the pterygopalatine fossa. 2. Differentiate the branches of the	1. Comprehension 2. Comprehension	Lecture, group discussion, diagram drawing	90 minutes	PowerPoint, whiteboard, research on	1. Student attendance 2. Active

	Contents	third part of the maxillary artery. 3. Distinguish the branches of the maxillary nerve that separate in the pterygopalatine fossa. 4. Explain the foramina that open into the pterygopalatine fossa. 5. Evaluate the vessels and nerves passing through each foramen.	3. Analysis 4. Comprehension 5. Evaluation	, slide presentation		various anatomy websites, anatomy atlases for better understanding	participation in class Q&A and readiness to respond 3. Participation in class quiz
12	Skin, Superficial and Deep Fascia, Anterior Neck Triangle (Boundaries, Muscles, and Vascular-Nervous Elements)	1. Explain the boundaries of the neck region. 2. Differentiate the superficial and deep fascia of the neck. 3. Distinguish the spaces created in the neck region. 4. Explain the connections of the neck muscles. 5. Differentiate the triangles of the neck. 6. Compare the anatomical elements of each triangle. 7. Evaluate the vessels and nerves passing through the neck.	1. Comprehension 2. Comprehension 3. Analysis 4. Comprehension 5. Analysis 6. Evaluation 7. Evaluation	Lecture, group discussion, diagram drawing, slide presentation	90 minutes	PowerPoint, whiteboard, research on various anatomy websites, anatomy atlases for better understanding	1. Student attendance 2. Active participation in class Q&A and readiness to respond 3. Participation in class quiz
13	SCM and Contents of the Carotid Sheath, Cervical and Cervical Sympathetic Network	1. Explain the boundaries of the SCM region. 2. Explain the connections of the SCM muscle. 3. Differentiate the contents of the carotid sheath. 4. Illustrate the formation of the cervical network. 5. Distinguish the superficial and deep branches of the cervical and cervical	1. Comprehension 2. Comprehension 3. Analysis 4. Analysis 5. Analysis 6. Evaluation	Lecture, group discussion, diagram drawing, slide presentation	90 minutes	PowerPoint, whiteboard, research on various anatomy websites, anatomy atlases for better understanding	1. Student attendance 2. Active participation in class Q&A and readiness to respond 3. Participation in

		sympathetic network. 6. Evaluate the position of the cervical and cervical sympathetic network.					class quiz
14	Posterior Neck Triangle (Boundaries, Muscles, and Vascular-Nervous Elements)	1. Explain the boundaries of the posterior neck triangle. 2. Describe the anatomical elements located in the roof and floor of the triangle. 3. Differentiate the branches of the subclavian artery. 4. Explain the muscular connections involved in the posterior triangle. 5. Evaluate the proximity of anatomical elements in the posterior neck triangle.	1. Comprehension 2. Comprehension 3. Analysis 4. Comprehension 5. Evaluation	Lecture, group discussion, diagram drawing, slide presentation	90 minutes	PowerPoint, whiteboard, research on various anatomy websites, anatomy atlases for better understanding	1. Student attendance 2. Active participation in class Q&A and readiness to respond 3. Participation in class quiz
1	Practical Anatomy of the Frontal, Ethmoid, and Occipital Bones	Show and differentiate all anatomical structures of the frontal, ethmoid, and occipital bones on the model and cadaver.	Application and analysis	Lecture and group discussion in the dissection hall	120 minutes	Model and cadaver	1. Quiz 2. Q&A 3. Student attendance
2	Practical Anatomy of the Sphenoid and Temporal Bones	Show and differentiate all anatomical structures of the sphenoid and temporal bones on the model and cadaver.	Application and analysis	Lecture and group discussion in the dissection hall	120 minutes	Model and cadaver	1. Quiz 2. Q&A 3. Student attendance
3	Practical Anatomy of the Temporal Bones	Students should show and differentiate all anatomical structures of the temporal bones (continued),	Application and analysis	Lecture and group discussion in the	120 minutes	Model and cadaver	1. Quiz 2. Q&A 3. Student attendance

	(Continued), Mandible, and Parietal	mandible, and parietal on the model and cadaver.		dissection hall			
4	Practical Anatomy of Facial Bones Including: Nasal, Lacrimal, Maxilla, Vomer, Palatine, Inf. Nasal Concha	Students should show and differentiate all anatomical structures of the facial bones on the model and cadaver.	Application and analysis	Lecture and group discussion in the dissection hall	120 minutes	Model and cadaver	1. Quiz 2. Q&A 3. Student attendance
5	Practical Anatomy of the Scalp and Facial Muscles, Blood Supply, and Nerve Supply of the Facial Region, Parotid Region	Students should show and differentiate all anatomical structures of the scalp, facial muscles, parotid region, and temporal cavity on the model and cadaver.	Application and analysis	Lecture and group discussion in the dissection hall	120 minutes	Model and cadaver	1. Quiz 2. Q&A 3. Student attendance
6	Practical Anatomy of the Infratemporal Fossa and Its Anatomical Contents, Temporomandibular Joint, Pterygo	Students should show and differentiate all anatomical structures of the infratemporal fossa, pterygopalatine fossa, and temporomandibular joint on the model and cadaver.	Application and analysis	Lecture and group discussion in the dissection hall	120 minutes	Model and cadaver	1. Quiz 2. Q&A 3. Student attendance

	palatine Fossa						
7	Practical Anatomy of the Skin, Superficial and Deep Fascia, Anterior Neck Triangle (Boundaries, Muscles, and Vascular-Nervous Elements)	Students should show and differentiate all anatomical structures of the anterior neck triangle, superficial and deep fascia of the neck on the model and cadaver.	Application and analysis	Lecture and group discussion in the dissection hall	120 minutes	Model and cadaver	1. Quiz 2. Q&A 3. Student attendance
8	Practical Anatomy of the Posterior Neck Triangle (Boundaries, Muscles, and Vascular-Nervous Elements)	Students should show and differentiate all anatomical structures of the posterior neck triangle on the model and cadaver.	Application and analysis	Lecture and group discussion in the dissection hall	120 minutes	Model and cadaver	1. Quiz 2. Q&A 3. Student attendance

Notes:

- Each session is designed to last approximately 90-100 minutes.
- The teaching methods primarily include lectures, question and answer sessions, and in some cases, flipped classroom techniques.
- Evaluation is conducted through class assessments and final exams.

Grading Scheme

Evaluation Type	Date	Evaluation Tool[1]	Weight from Total
Quiz		Answering essay questions	10% of the score
Project Presentation		Presentation style, mastery of the topic, answering student questions	20% of the score
Midterm Exam	According to the academic calendar	Answering written multiple-choice, essay, and short-answer questions	25% of the score
Final Exam	According to the academic calendar	Answering written multiple-choice, essay, and short-answer questions	40% of the score
Other Items		Class participation, answering the instructor's questions, interest in the topic, and following discussions and questions	5% of the score
Total			**100%**

Reference

1. Gray's Anatomy for Students: Chapter of Head & Neck by: Richard L. Drake, A. Wayne Vogl, Adam W.M. Mitchel (preferably the latest edition)

2. Atlas of human anatomy. Frank H. Netter

3. Clinical Anatomy for Medical Students- Snell

[1] **Evaluation tools** can include items such as essay exams, short answer questions, fill-in-the-blank questions, multiple-choice questions (MCQs), projects, and assignments, among others.

4. Gray’s Anatomy

5. Clinically Oriented Anatomy- Moor