بسمه تعالی

# 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)

**Instructors:** Dr. Iraj Amiri, Dr. Abbas Bakhtiari, Dr. Sepideh Gohari Taban

**Course Coordinator:** Dr. Abbas Bakhtiari

**Head of Department:** Dr. Maryam Bahmanzadeh

**Credits:** 0.47 Theory (4 sessions), 0.23 Practical (4 sessions)

**Student Major & Level:** General Basic Medical Sciences

**Academic Semester:** First

**Teaching Location:** Faculty of Medicine – Hamedan University of Medical Sciences

# Theoretical Unit – Anatomy of the Respiratory System (0.47 Credits – 4 Sessions)

**Lecturers:** Dr. Amiri, Dr. Bakhtiari

| Session | Topic | Learning Objectives | Domain | Teaching Methods | Duration | Teaching Aids | Evaluation Methods |
|---|---|---|---|---|---|---|---|
| 1 | Introduction to the Respiratory System; Anatomy of Nasal Cavity and Pharynx | 1. Name components of the respiratory system and their functions. <br> 2. List structures forming the nasal cavity. <br> 3. Describe paranasal sinuses. <br> 4. Explain blood supply and innervation of the nasal cavity. <br> 5. Describe pharyngeal structure. | Knowledge | Lecture, group discussion | 120 min | PowerPoint, whiteboard | Q&A |
| 2 | Anatomy of the Larynx | 1. Describe borders of the larynx. <br> 2. List laryngeal cartilages. <br> 3. List laryngeal muscles. <br> 4. Explain muscle functions. <br> 5. Describe laryngeal membranes. <br> 6. Describe vascular and nerve supply. <br> 7. State clinical points. | Knowledge | Lecture, group discussion | 120 min | PowerPoint, whiteboard | Quiz, Q&A |
| 3 | Anatomy of Trachea, Bronchial | 1. Describe tracheal structure and | Knowledge | Lecture, group discussion | 120 min | PowerPoint, whiteboard | Quiz, Q&A |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Tree, Pleura; Embryology of the Respiratory System | branches. <br> 2. State lung and bronchial divisions. <br> 3. Describe pleura and its function. <br> 4. Explain innervation of lungs and pleura. <br> 5. Describe lung diseases. <br> 6. Describe respiratory radiology. <br> 7. Describe development of nasal cavity and palate. <br> 8. Explain development of lungs, trachea, larynx. <br> 9. State developmental anomalies. | | | | | |
| 4 | Histology of the Respiratory System | 1. Describe respiratory epithelium. <br> 2. List epithelium types of various respiratory structures. <br> 3. Describe lung cell types. <br> 4. State components of the blood-air barrier. | Knowledge | Lecture, group discussion | 120 min | PowerPoint, whiteboard | Quiz, Q&A |

---

# Practical Unit – Anatomy of the Respiratory System (0.23 Credits – 4 Sessions)

**Lecturer:** Dr. Sepideh Gohari Taban

| Session | Topic | Learning Objectives | Domain | Teaching Methods | Duration | Teaching Aids | Evaluation Methods |
|---|---|---|---|---|---|---|---|
| 1 | Anatomy of Nasal | Identify bones and cartilages | Application, Comprehens | Observation, | 120 min | Models, cadaver, | Class activity, |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Cavity and Nasopharynx | of the nose on skull specimens, models, cadavers. <br> Identify nasal cavities, conchae, and sinuses. <br> Locate sinus drainage openings. <br> Demonstrate structure and limits of the nasopharynx. <br> Identify eustachian tube orifice, pharyngeal tonsil, salpingopalatine and salpingopharyngeal folds. | ion | demonstration, group Q&A, multimedia | | anatomical simulator, posters, radiology images, software | quiz, in-class Q&A |
| 2 | Anatomy of the Larynx | Identify cartilages, membranes, muscles, innervation, and cavities of the larynx. | Application | Observation, demonstration, group Q&A, multimedia | 120 min | Larynx models, cadaver, simulator, posters, radiology images | Class activity, quiz, Q&A, attendance, clinical assignment |
| 3 | Anatomy of Bronchial Tree and Lungs | Identify trachea, bronchi, lung lobes, segments, root contents, relations, pleura. | Application | Observation, demonstration, group Q&A, multimedia, Auckland video | 120 min | Models, cadaver, simulator, posters, radiology/MRI/CT images, software | Class activity, quiz, Q&A, attendance, clinical assignment |
| 4 | Histology of the Respiratory System | Identify microscopic structures of trachea, lungs, epiglottis; differentiate epithelial types; describe significant features of each part. | Application, Comprehension | Observation, demonstration, group Q&A, live microscopy projection | 120 min | Histology slides, microscopes, monitor, multi-headed microscope, whiteboard | Class activity, OSCE/practical exam, Q&A, attendance, clinical assignment, histology drawing |

# Grading Scheme

**Theoretical:**

- Quiz (MCQ & short answer): 0.5 points
- Project (presentation, mastery, Q&A): 0.5 points
- Final Exam (MCQ, essay, short answer): 18 points
- Other (class participation, active interest, complete attendance): 1 point

**Total:** 20 points

**Practical:**

- Quiz (short answer): 1 point
- Attendance: 1 point
- Final Exam (written practical): 18 points

**Total:** 20 points

---

# References


1. *Gray's Anatomy*, Vol. 3 – Head & Neck, 2024 Edition (main)
2. *Gray's Anatomy*, Vol. 2 – Thorax & Abdomen, 2024 Edition (main)
3. *Snell's Clinical Anatomy*, Vol. 1 – Thorax & Abdomen, 10th Edition (supplementary)
4. *Junqueira's Basic Histology*, 16th Edition, 2024 (main)
5. Histology by Dr. Soleimani Rad (supplementary)
6. *Langman's Medical Embryology*, 15th Edition, 2024 (main)
7. *DiFiore's Atlas of Histology* (supplementary)
8. Practical Histology Atlas (supplementary)
9. Histology by Dr. Soleimani Rad (supplementary)