



Course: Otorhinolaryngology

Course Coordinator: Associate Professor Dubravko Manestar, MD, PhD

Course Collaborators: Full professor Tamara Braut, MD, PhD; Full professor Neven Skitarelić, MD, PhD; Associate professor Marko Velepich, MD, PhD; Assistant professor Blažen Marijić, MD, PhD; Assistant professor Diana Maržić, MD, PhD; Assistant professor Jelena Vukelić, MD, PhD

Department: Otorhinolaryngology and Head and Neck Surgery

Study program: University Integrated Undergraduate and Graduate Study of Dental Medicine (in English)

Study year: third year

Academic year: 2025/2026

SYLLABUS

Course description (a brief description of the course, general instructions, where and in what form the lessons are organized, necessary equipment, instructions for attendance and preparation for classes, student obligations, etc.):

Otorhinolaryngology is a mandatory third-year course within the Integrated Undergraduate and Graduate University Study of Dental Medicine (English program). The course comprises 30 hours of lectures and 15 hours of practical classes, totaling 45 hours (3 ECTS credits). Classes are conducted at the Clinic for Otorhinolaryngology and Head and Neck Surgery, Clinical Hospital Centre Rijeka.

Course aim

The course is designed to provide students with fundamental knowledge in the field of otorhinolaryngology, while introducing them to the clinical scope of an ENT specialist—covering diagnostics, pharmacological, and surgical treatment of ENT disorders. Special emphasis is placed on training students to perform head and neck examinations and manage the most common and urgent ENT conditions. Additionally, the course aims to familiarize students with the organizational structure and workflows of the operating theatre, hospital wards, and the ENT polyclinic.

Course content

The course includes an overview of the ENT and head and neck surgery specialty. It covers the diagnosis and treatment of otological, rhinological, pharyngolaryngological disorders, and neck pathologies, with particular emphasis on ENT emergencies.

Class format and assessment

Teaching is conducted through a combination of lectures and practical sessions, typically spread over a two-week period.

During practical classes, students are actively involved in examining and treating



patients, under the supervision of clinical instructors. Teachers engage students in discussions on specific patient cases and ENT pathologies encountered in the clinic.

Assessment includes:

- ongoing evaluation of active participation and clinical skills during practical sessions,
- an oral colloquium, and
- a final oral examination.

Assigned reading:

1. Braut T., Velepich M., Kujundžić M., Marijić B., Maržić D., Oštarijaš E.: Emergencies in ENT – e-teaching material. Sveučilište u Rijeci, Medicinski fakultet, Rijeka, 2021.
2. Cummings Otolaryngology: Head and Neck Surgery, e-teaching material available at Clinical Key base, enabled by the Faculty of Medicine's Library.

Optional/additional reading:

1. Johnson JT, Rosen CA, Bailey BJ. Bailey's head and neck surgery – otolaryngology. Wolters Kluwer Health/Lippincott Williams & Wilkins, Philadelphia, 2014.
2. Additional e-teaching material available at Access Medicine and Clinical Key bases (e.g. Cummings Pediatric Otolaryngology, ENT guidelines, etc.)

COURSE TEACHING PLAN:

The list of lectures (with topics and descriptions):

L1, L2 Introduction to ENT; ENT anatomy and physiology

Learning outcomes:

To discover the ENT and head and neck surgery field of work.
To recall previous knowledge of anatomy and physiology of the ENT region.
To describe the connection between embryological, anatomical, and physiological units with possible pathological phenomena.

L3, L4 Emergencies in ENT

Learning outcomes:

To identify emergencies in ENT.
To describe the symptomatology of basic emergencies in ENT.
To define the basics of clinical examination for recognition and differential diagnostics of emergencies in ENT.
To identify the basic causes of inspiratory stridor and to describe treatment options for respiratory distress (conicotomy/tracheotomy).
To describe the management of other emergencies in the ENT region.



L5, L6 Benign and malignant tumors of the larynx

Learning outcomes:

To identify risk factors for the development of benign and malignant laryngeal disorders.

To classify laryngeal disorders, to describe their clinical presentation, TNM classification and basic diagnostic methods.

L7, L8 Metastatic neck disease; Laryngeal surgery

Learning outcomes:

To describe the diagnosis of local and distant malignant neck metastases and their treatment.

To describe different types of laryngeal surgical procedures (sparing and radical).

L9 Local cutaneous flaps in ENT surgery

Learning outcomes:

To define the concept of local cutaneous flaps and explain their relevance in ENT and head and neck reconstructive surgery.

To classify different types of local cutaneous flaps (e.g., rotation, transposition) used in ENT procedures.

To describe the principles of planning and designing local flaps, including flap vascularity and tissue characteristics.

To identify indications for the use of local cutaneous flaps in ENT (e.g., reconstruction after tumor excision, trauma, or congenital defects).

To outline basic surgical techniques for the elevation and transfer of cutaneous flaps in the head and neck region.

To recognize potential complications of local flap surgery and describe their prevention and management.

To evaluate functional and aesthetic outcomes of local flap reconstructions in the ENT field.

L10, L11 Rhinological allergology

Learning outcomes:

To describe allergic rhinitis (medical history, clinical manifestations, diagnostic methods, and therapy).

To identify hyperreactive rhinopathy and drug-induced rhinitis

L12 Functional endoscopic sinus surgery (FEES)

Learning outcomes:

To define modern sinus surgery.

To list types of endoscopic procedures and to describe postoperative patient monitoring.



To recognize indications for functional endoscopic surgery.

L13, L14 Rhinological disorders in everyday practice; Epistaxis

Learning outcomes:

To list symptoms of rhinological disorders and to explain the range of diagnostic procedures (anterior and posterior rhinoscopy, endoscopy of the nose and sinuses, rhinomanometry, olfactometry) and basic treatment methods.

To name the basic causes of epistaxis and methods of stopping nosebleeds.

To describe the treatment of patients with epistaxis.

L15 Outer and middle ear disorders

Learning outcomes:

To describe the etiology of acute outer and middle ear inflammations, the connection of otitis media with upper respiratory tract disorders and pharyngeal obstruction (enlarged tonsils), Eustachian tube dysfunction (cleft palate), etc.

To list symptoms of acute outer and middle ear inflammations (anamnestic, otoscopic).

To describe prevention and treatment of acute outer and middle ear inflammations.

L16 Causes and diagnosis of deafness and vertigo

Learning outcomes:

To identify different causes and types of hearing impairment and dizziness.

To describe their diagnosis and pharmacological and surgical therapy.

L17 Otogenic complications

Learning outcomes:

To describe the complications of ear infections (intratemporal, intracranial, cervical, systemic).

To recognize their symptoms and signs and to describe treatment methods.

L18 Aesthetic surgery

Learning outcomes:

To describe aesthetic and reconstructive procedures of the head and neck (indications, contraindications, and patient selection criteria for aesthetic and reconstructive procedures in the head and neck region).

To differentiate between various aesthetic surgical techniques (e.g., rhinoplasty, blepharoplasty, facelift) and their specific applications.

L19 Non-surgical aesthetic medicine

To define the scope and principles of non-surgical aesthetic medicine in ENT field, including cosmetic and functional considerations of the head and neck region.

To identify common non-surgical aesthetic procedures used in ENT, such as:

Botulinum toxin injections (e.g., for facial wrinkles, hyperhidrosis, spasmodic



dysphonia), dermal fillers (e.g., for nasal contouring, perioral rejuvenation), skin resurfacing techniques (e.g., chemical peels, laser therapy), non-invasive fat reduction (e.g., cryolipolysis, radiofrequency).

To describe the anatomical considerations relevant to aesthetic procedures in the ENT region, with an emphasis on facial nerve pathways, vascular anatomy, and danger zones.

To explain patient selection criteria, consultation techniques, and aesthetic analysis, including facial symmetry, proportions, and aging changes relevant to ENT practice.

To outline procedural techniques, including indications, contraindications, materials used, injection techniques, and safety precautions.

To identify and manage complications of non-surgical aesthetic procedures, such as vascular occlusion, infection, asymmetry, and allergic reactions.

To recognize the ethical, psychological, and communicational aspects of aesthetic practice, including managing patient expectations.

To evaluate functional and aesthetic outcomes of non-surgical procedures.

To describe interdisciplinary cooperation with dermatology, plastic surgery, and maxillofacial teams when planning or performing aesthetic treatments.

L20 Pharyngeal tissue; Tonsillar disorders

Learning outcomes:

To define tonsillar disorders and the Waldeyer's ring.

To define indications for tonsillectomy – history-taking, swabs, AST-O, peritonsillar abscess.

L21 Pharyngeal tumors

Learning outcomes:

To identify benign and malignant tumors of the pharynx (nasopharynx, oropharynx, hypopharynx), including their typical anatomical locations and risk factors.

To describe the clinical presentation, diagnostic process (e.g., endoscopy, imaging, biopsy), and differential diagnosis of pharyngeal tumors.

To classify pharyngeal malignancies according to histological type and TNM staging system.

To outline treatment modalities for pharyngeal tumors (surgical, radiotherapeutic, chemotherapeutic), including indications and contraindications.

To evaluate potential complications and prognosis of treated pharyngeal tumors, including functional outcomes (speech, swallowing, airway).

L22, L23 Thyroid gland tumors

Learning outcomes:

To describe the course of the disease and the prognosis in different histological types of benign and malignant thyroid tumors.

To describe the surgical treatment of thyroid glands



L24 Voice and speech rehabilitation

Learning outcomes:

- To identify laryngectomy club.
- To describe voice rehabilitation and laryngectomy.
- To describe prostheses and speech cannulas.

L25 Anatomical anomalies and other selected chapters on pediatric ENT

Learning outcomes:

- To describe the basic anomalies of the ENT region and their treatment options.
- To differentiate clinical features of relevant ENT pathological conditions between children and adults, as well as the specific pathology of the ENT region depending on the developmental age.

L26, L27 Modern otosurgery; Implantable hearing aids; Cochlear implants

Learning outcomes:

- To list types of otoscopic procedures.
- To define modern otosurgery.
- To describe postoperative patient monitoring.
- To name implantable hearing aids and to define the indications for prescribing them.
- To recognize indications for cochlear implantation.

L28 Selected chapters of the inner ear

Learning outcomes:

- To list symptoms of inner ear disorders and the basics of their treatment.

L29, L30 Infections in ENT

Learning outcomes:

- To name inflammatory and infectious diseases in the field of otorhinolaryngology.
- To describe the etiology, clinical manifestations, propagation of inflammatory processes, and complications in deep neck spaces and, consequently, to define diagnostic procedures and treatment options

The list of seminars with descriptions:

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The list of practicals with descriptions:

Practical classes in the course of Otorhinolaryngology are conducted at the Clinic for Otorhinolaryngology and Head and Neck Surgery, Clinical Hospital Centre Rijeka.

During the practical sessions, students become familiar with ENT pathologies and fundamental patient examination techniques under the supervision of an assistant. They practice using essential diagnostic tools such as the headlight, otomicroscope, and endoscope.

Students actively participate in discussions on differential diagnosis and treatment options for patients in the outpatient clinic, preoperative patients scheduled for surgery, and patients treated at the Department of Audiology and Phoniatrics. They accompany their mentors on hospital rounds, engage in clinical care, and observe postoperative patient follow-up.

In addition, students are introduced to the organizational structure and workflow of the polyclinic, subspecialist outpatient clinics, and the Department of Audiology and Phoniatrics, gaining insight into the daily responsibilities of ENT specialists, particularly in the management of urgent and common conditions.

Students' obligations:

Students are obligated to regularly attend and actively participate in all forms of classes.

Exam (exam taking, detailed exam description of the oral/written/practical part, point distribution, grading criteria):

Student grading is conducted according to the current **Ordinance on Studies of the University of Rijeka**.

Student work will be assessed and evaluated during course classes and on the final exam.

Students can obtain **50 grade points** during classes and **50 grade points** on the final exam, which totals **100 grade points**. Students are evaluated according to the ECTS (A–F) and numerical systems (1–5). Evaluation according to the ECTS system is conducted according to the absolute redistribution.

Out of the maximum of 50 grade points possible to obtain during classes, the student must obtain at least 25 grade points to access the final exam. Students who obtain less than 25 grade points during classes (F grade), must re-enroll the course.

Grade points can be obtained by active participation during classes and by performing the assignments as follows:

I. Evaluation during classes (maximum of 50 grade points):



- a) class attendance (up to 25 grade points)
- b) participation in practicals (up to 25 grade points)

a) Class attendance (up to 25 grade points)

Students can be absent from 30% of classes provided they have a justifiable cause, i.e., a doctor's note. Attending lectures, seminars, and practicals is mandatory. Compensation of practicals is possible with a prior agreement with the course coordinator. If a student is absent from more than 30% of classes, whether it is justifiable or not, they cannot continue to participate in the course and cannot access the final exam. In that case, the student is graded with 0 ECTS credits and an F grade.

Grading **class attendance at practicals** will be performed as follows:

% of attendance	grade points
85–100%	15
75–84%	10
< 74%	5

Grading **class attendance at seminars** will be performed as follows:

% of attendance	grade points
94–100%	5
87–93%	4
80–86%	3
< 80%	2

Grading **class attendance at lectures** will be performed as follows:

% of attendance	grade points
90–100%	5
< 90%	3

b) Participation in practicals (up to 25 grade points)

Practical knowledge of all students will be evaluated during classes, for which they can obtain a maximum of 25 grade points (13–25). The examination is performed during practicals.

During the examination, **the course coordinator evaluates each student's acquired knowledge and skills during their ENT patient examination**. Grades are assigned as follows:

grade	grade points
excellent	25
very good	21
good	17
sufficient	15



II. Final exam (maximum of 50 grade points):

Who can access the final exam

Students who **obtained at least 25 grade points** during classes are obligated to access the final exam on which they can obtain a maximum of 50 grade points.

Who cannot access the final exam

Students who **obtained less than 25 grade points and/or were absent from more than 30% of classes** cannot access the final exam and have to re-enroll the course next year.

The final exam consists of an oral examination. A maximum of 50 grade points can be obtained at the final exam (25–50).

Success at the final exam is converted into grade points as follows:

grade	grade points
excellent	50
very good	42
good	33
sufficient	25
insufficient	0

In order to pass the final exam and final evaluation (including the previously obtained grade points during classes), the student must be positively evaluated and obtain at least 25 grade points on the final exam.

Grading in the ECTS system is performed according to the absolute grading system, i.e., based on the final success:

A – 90–100%
B – 75–89,9%
C – 60–74,9%
D – 50–59,9%
F – 0–49,9%

Grades in the ECTS system are converted into numerical grades as follows:

A = excellent (5)
B = very good (4)
C = good (3)
D = sufficient (2)
F = insufficient (1)



Sveučilište u Rijeci
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Other information important for students regarding the course:

Teaching content, exam dates, and all information regarding the course can be found on the website of the Department of Otorhinolaryngology.



COURSE SCHEDULE (for the academic year 2025/2026)

Date	Lectures (time and place)	Seminars (time and place)	Practicals (time and place)	Instructor
30/09/2025	L1 Introduction to ENT			Full professor Tamara Braut, MD, PhD
	L2 ENT anatomy and physiology			Full professor Tamara Braut, MD, PhD
	L3 Emergencies in ENT			Full professor Tamara Braut, MD, PhD
	L4 Emergencies in ENT			Full professor Tamara Braut, MD, PhD
07/10/2025	L5 Benign and malignant laryngeal disorders			Assistant professor Blažen Marijić, MD, PhD
	L6 Benign and malignant laryngeal disorders			Assistant professor Blažen Marijić, MD, PhD
	L7 Metastatic neck disease			Assistant professor Blažen Marijić, MD, PhD
	L8 Laryngeal surgery			Assistant professor Blažen Marijić, MD, PhD
	L9 Local cutaneous flaps in ENT Surgery			Assistant professor Blažen Marijić, MD, PhD
14/10/20	L10 Rhinological			Full professor Tamara



25	allergology			Braut, MD, PhD
	L11 Rhinological allergology			Full professor Tamara Braut, MD, PhD
	L12 Functional endoscopic sinus surgery (FESS)			Full professor Tamara Braut, MD, PhD
	L13 Rhinological disorders in everyday practice			Full professor Tamara Braut, MD, PhD
	L14 Epistaxis			Full professor Tamara Braut, MD, PhD
21/10/2025	L15 Outer and middle ear disorders			Associate professor Marko Velepich, MD, PhD
	L16 Causes and diagnosis of deafness and vertigo			Associate professor Marko Velepich, MD, PhD
	L17 Otogenic complications			Associate professor Marko Velepich, MD, PhD
	L18 Aesthetic surgery			Associate professor Dubravko Manestar, MD, PhD
	L19 Non-surgical aesthetic medicine			Associate professor Dubravko Manestar, MD, PhD



28/10/20 25	L20 Pharyngeal tissue; Tonsillar disorders			Assistant professor Jelena Vukelić, MD, PhD
	L21 Pharyngeal tumors			Assistant professor Jelena Vukelić, MD, PhD
	L22 Thyroid gland disorders			Assistant professor Diana Maržić, MD, PhD
	L23 Thyroid gland disorders			Assistant professor Diana Maržić, MD, PhD
	L24 Voice and speech rehabilitation			Assistant professor Diana Maržić, MD, PhD
04/11/20 25	L25 Anatomical anomalies and other selected chapters on pediatric ENT			Associate professor Marko Velepich, MD, PhD
	L26 Modern otosurgery			Associate professor Marko Velepich, MD, PhD
	L27 Implantable hearing aids; Cochlear implants			Associate professor Marko Velepich, MD, PhD
	L28 Selected chapters of the inner ear			Associate professor Marko Velepich, MD, PhD
online	L29 Infections in ENT (online)			Full professor Neven Skitarelić, MD, PhD
	L30 Infections in ENT (online)			Full professor Neven Skitarelić, MD, PhD



Important note: All lectures will take place in **Lecture Room 1, Clinical Hospital Centre Rijeka**, except for Lectures L1 and L2 (Infections in ENT), which will be held online.
Details and access information for the online lectures will be announced in due time.

List of lectures, seminars and practicals:

	LECTURES (Topics)	Teaching hours	Location/Lecture room
L1	Introduction to ENT	1	New lecture room – Krešimirova 42
L2	ENT anatomy and physiology	1	ENT Clinic
L3-4	Emergencies in ENT	2	ENT Clinic
L5-6	Benign and malignant laryngeal disorders; Benign and malignant laryngeal disorders	2	ENT Clinic
L7-8	Metastatic neck disease; Laryngeal surgery	2	ENT Clinic
L9	Local cutaneous flaps	1	ENT Clinic
L10-12	Rhinological allergology; Rhinological allergology; Functional endoscopic sinus surgery (FESS)	3	ENT Clinic
L13	Rhinological disorders in everyday practice	1	ENT Clinic
L14	Epistaxis	1	ENT Clinic
L15-17	Outer and middle ear disorders; Causes and diagnosis of deafness and vertigo; Otogenic complications	3	ENT Clinic
L18	Aesthetic surgery	1	ENT Clinic
L19	Non-surgical aesthetic medicine	1	
L20	Pharyngeal tissue; Tonsillar disorders	1	ENT Clinic
L21	Pharyngeal tumors	1	
L22	Thyroid gland disorders	1	ENT Clinic
L23	Thyroid gland disorders	1	
L24	Voice and speech rehabilitation	1	ENT Clinic
L25	Anatomical anomalies and other selected chapters on pediatric ENT	1	ENT Clinic
L26-28	Modern otosurgery; Implantable hearing aids; Cochlear implants; Selected chapters of the inner ear	3	ENT Clinic
L29-30	Infections in ENT	2	online
	TOTAL TEACHING HOURS	30	



	SEMINARS (Topics)	Teaching hours	Location/Lecture room
	TOTAL TEACHING HOURS		

	PRACTICALS (Topics)	Teaching hours	Location/Lecture room
	TOTAL TEACHING HOURS		

ENT exercises schedule plan

Duration: 23 February 2026 – 5 June 2026 (15 Thursdays)

Exercises are held every Thursday, from 08:30 – 10:00 (2 hours)

Total: 15 exercises

Each group: 7 2-hour sessions + 1 1-hour session (last week)

	FINAL EXAM DATES
1.	
2.	
3.	

	Lectures	Seminars	Practicals	Total
Total number	30		15	45
On-line	02/30			
Percentage				