

“INTERNATIONAL MASTER COURSE in ENDOSCOPIC SKULL BASE SURGERY” – 1[^] EDITION

A.A. 2022/2023

The University of Insubria - Department of Biotechnology and Life Sciences (DBSV), proposes the 1st edition of the 2nd level Master "International Master Course in Endoscopic Skull Base Surgery".

Director of the Master: Prof. Paolo Castelnuovo.

1. OBJECTIVES OF THE COURSE

Endonasal endoscopic approaches evolved significantly over the last 20 years, allowing for the minimally invasive treatment of various inflammatory and oncologic pathologies of the nose and paranasal sinuses. Furthermore, the possibility to repair the skull base defects allows to use the paranasal sinuses as a surgical corridor to access the anterior, middle and posterior cranial fossa. Thanks to these innovations and the close collaboration between otolaryngologists and neurosurgeons, at present, extensive skull base pathologies could be successfully treated through a minimally invasive endoscopic approach. In recent years, the development of transoral and transorbital surgical approaches has further widen the limits of minimally invasive endoscopic approaches to the skull base. For this reason, a highly specialized course is necessary to train a professional in the field of endoscopic treatment of skull base disease. The conception of this course was inspired by the success achieved by previous editions of university specialization courses in endoscopic surgery of the paranasal sinuses and skull base organized by the Department of Biotechnology and Life Sciences of the University of Insubria.

The aim of this University Master Course is to provide the anatomical and clinical knowledge necessary for the surgeon, interested in the treatment of paranasal sinuses and skull base pathologies, through minimally invasive endoscopic surgical approaches. The course will also deal in detail with the diagnostic workup and the employ of essential instruments. During the course the attendants will have the opportunity to develop practical surgical skills through exercises on anatomical specimens and direct clinical exercises.

2. PROGRAM

The program is organized with an overall workload of 1525 hours (61 ECTS):

- 210 hours of lectures;
- 750 hours of stage;
- 20 hours of safety training;
- 200 hours of conception and drafting of the final dissertation;
- 345 hours of individual study.

The didactic program of the Master includes:

- 3 teaching modules:
- 1 in-depth activity concerning Worker Safety Training - High Risk
- stage

At the end of each module there the attendants will have to take an oral/practical test.

At the end of the entire course the attendants will have to draft a final project (thesis) and related discussion. The final exam evaluation will be expressed in cents.

In order to be admitted to the final exam, the students will have to attend 75% of the hours scheduled for each teaching module e carry out the required activities.

TITLE OF EDUCATIONAL ACTIVITY OR MODULE	SSD	EXAM	MARK	ECTS
1. Principles of basic anatomy and surgical anatomy	MED/31 MED/27 MED/36 MED/30	Oral	mark/30	6
2. Basic and advanced surgical techniques	MED/27 MED/19 MED/31 MED/36 MED/13 MED/10 MED/29	Oral	mark/30	11
3. Principles of Head-Neck Oncology applied to the skull base	MED/08 MED/06 MED/31 MED/36 MED/41	Oral	mark/30	4
Worker Safety Training - High Risk (General Part + Specific Part)	MED/44	To be defined	Suitability	2
Stage		Practical	Suitability	30
Thesis/ final dissertation		Oral	mark/110	8
TOTAL				61

MODULE	OBJECTIVE	TEACHING	DISCIPLINARY AREA	SSD	HOURS	LECTURER	TYPOLOGY	ECTS
1. Principles of basic anatomy and surgical anatomy	Provide the attendant with the necessary clinical and technological knowledge and the appropriate technical skills for the anatomical dissection	Basic Otolaryngology	Otolaryngology	MED/31	5	Mario Turri Zanoni	In attendance or distance lectures	6
		Anatomy of the sinonasal compartment	Otolaryngology	MED/31	5	Apostolos Karligkiotis	In attendance or distance lectures	
		Anatomy of the skull base	Otolaryngology	MED/31	3	Paolo Battaglia	In attendance or distance lectures	
		Intracranial anatomy	Neurosurgery	MED/27	3	Sergio Balbi	In attendance or distance lectures	
		Principles of sinonasal and cerebral physiology and pathophysiology	Neurosurgery	MED/27	3	Davide Locatelli	In attendance or distance lectures	
		Basic principles of endoscopic diagnostics	Otolaryngology	MED/31	2	Francesca de Bernardi	In attendance or distance lectures	
		Non-invasive instrumental diagnostics: role of modern radiological techniques	Imaging and radiotherapy diagnostics	MED/36	4	Massimo Venturini	In attendance or distance lectures	
		Principles of interventional neuroradiology	Imaging and radiotherapy diagnostics	MED/36	4	Andrea Giorgianni	In attendance or distance lectures	
		Anatomical dissection laboratory management principles and appropriate management of human specimens	Otolaryngology	MED/31	2	Luca Volpi	In attendance or distance lectures	
		Sinonasal surgical techniques	Otolaryngology	MED/31	2	Andrea Pistochini	In attendance or distance lectures	
		Principles of paediatric sinonasal endoscopic surgery	Otolaryngology	MED/31	2	Ernesto Pasquini	In attendance or distance lectures	
		Frontal sinus surgical techniques	Otolaryngology	MED/31	2	Anshul Sama	In attendance or distance lectures	
		Maxillary sinus surgical techniques	Otolaryngology	MED/31	2	Christos Georgalas	In attendance or distance lectures	
		Endoscopic approaches to the anterior skull base	Otolaryngology	MED/31	2	Paolo Castelnuovo	In attendance or distance lectures	
Endoscopic approaches to the middle and posterior skull base	Neurosurgery	MED/27	4	Davide Locatelli	In attendance or distance lectures			

		Orbital surgery	Otolaryngology	MED/31	5	Paolo Castelnuovo	In attendance or distance lectures	
		Combined transorbital surgical approaches	Diseases of the visual apparatus	MED/30	4	Simone Donati	In attendance or distance lectures	
		Balanced orbital decompression	Otolaryngology	MED/31	2	Iacopo Dallan	In attendance or distance lectures	
		Multiportal transoral approaches	Otolaryngology	MED/31	4	Mario Turri Zanoni	In attendance or distance lectures	
		TOTAL HOURS			60			
2. Basic and advanced surgical techniques	Provide the learner with the appropriate knowledge: - the basic principles and methodologies used for the management of the pathology of the paranasal sinuses; - on surgical techniques and materials available for skull base repair; - on the clinical framework, mechanisms, surgical maneuvers for the endoscopic treatment of pituitary pathology; - on reconstructive plastic surgery in the field of skull base surgery	Sinonasal inflammatory pathology	Otolaryngology	MED/31	5	Maurizio Bignami	In attendance or distance lectures	11
		Classification of patient with chronic rhinosinusitis - New monoclonal biological therapies for rhinobronchial pathology	Otolaryngology	MED/31	5	Stefania Gallo	In attendance or distance lectures	
		Pneumological framework	Diseases of the respiratory system	MED/10	4	Antonio Spanevello	In attendance or distance lectures	
		Complications of endonasal endoscopic sinus surgery	Otolaryngology	MED/31	2	Paolo Battaglia	In attendance or distance lectures	
		Benign sinonasal tumors	Otolaryngology	MED/31	5	Maurizio Bignami	In attendance or distance lectures	
		Principles of maxillofacial surgery	Maxillofacial surgery	MED/29	2	Dimitri Rabbiosi	In attendance or distance lectures	
		Sinonasal imaging	Imaging and radiotherapy diagnostics	MED/36	5	Anna Mercuri	In attendance or distance lectures	
		Heterologous materials	Neurosurgery	MED/27	6	Fabio Pozzi	In attendance or distance lectures	
		Free grafts taken intranasally, abdominally or in the lower limbs	Neurosurgery	MED/27	2	Luigi Maria Cavallo	In attendance or distance lectures	
		Innovations in transphenoidal surgery	Neurosurgery	MED/27	2	Paolo Cappabianca	In attendance or distance lectures	
		Suprasellar approaches	Neurosurgery	MED/27	2	Diego Mazzatenta	In attendance or distance lectures	
		Approaches to the clivus	Neurosurgery	MED/27	2	Francesco Doglietto	In attendance or distance lectures	
		Endonasal surgical approaches to the petrous apex and internal carotid artery	Neurosurgery	MED/27	2	Wouter van Furth	In attendance or distance lectures	

		Intranasal pedicled flaps	Otolaryngology	MED/31	6	Apostolos Karligkiotis	In attendance or distance lectures
		Regional rotation flaps prepared from the temporal and cervicofacial region	Neurosurgery	MED/27	2	Veiceschi Pierlorenzo	In attendance or distance lectures
		Technological supports available	Neurosurgery	MED/27	6	Davide Locatelli	In attendance or distance lectures
		Endocrinological aspects	Endocrinology	MED/13	8	Maria Laura Tanda	In attendance or distance lectures
		Radiotherapy aspects	Imaging and radiotherapy diagnostics	MED/36	8	Paolo Antognoni	In attendance or distance lectures
		Trans-sphenoidal surgical techniques	Neurosurgery	MED/27	6	Davide Locatelli	In attendance or distance lectures
		Complications of surgical and multimodal combined treatments	Neurosurgery	MED/27	3	Davide Locatelli	In attendance or distance lectures
		Anatomical and clinical bases of reconstruction in head and neck surgery	Plastic surgery	MED/19	9	Luigi Valdatta	In attendance or distance lectures
		Reconstructive algorithms studied based on the site and size of the defect to be reconstructed	Plastic surgery	MED/19	9	Luigi Valdatta	In attendance or distance lectures
		Aesthetic-functional classification of the patient	Plastic surgery	MED/19	9	Luigi Valdatta	In attendance or distance lectures
		TOTAL HOURS			110		
3. Principles of Head-Neck Oncology applied to the skull base	Provide learners with the necessary knowledge on head and neck oncology necessary for the treatment of neoplastic diseases that may involve the sinuses and the skull base, which must be addressed in a multidisciplinary manner	Principles of radiotherapy	Imaging and radiotherapy diagnostics	MED/36	3	Paolo Antognoni	In attendance or distance lectures
		Principles of oncology: induction and adjuvant chemotherapy	Medical oncology	MED/06	6	Paolo Bossi	In attendance or distance lectures
		Principles of immunotherapy	Medical oncology	MED/06	6	Paolo Bossi	In attendance or distance lectures
		Heavy particles (hadrons: carbon ions and protons) for the treatment of radioresistant neoplasms	Imaging and radiotherapy diagnostics	MED/36	2	Paolo Antognoni	In attendance or distance lectures
		Malignant tumors of the paranasal sinuses	Pathological anatomy	MED/08	2	Carla Facco	In attendance or distance lectures
		Short and long term oncological results in the treatment of	Otolaryngology	MED/31	2	Piero Nicolai	In attendance or distance lectures

		sinonasal malignant tumors						
		Principles of molecular biology	Pathological anatomy	MED/08	5	Stefano La Rosa	In attendance or distance lectures	
		Malignant intracranial and brain tumors	Pathological anatomy	MED/08	5	Fausto Sessa	In attendance or distance lectures	
		Role of post-operative intensive care	Anesthesiology	MED/41	2	Luca Cabrini	In attendance or distance lectures	
		Anesthetic support in the operating room	Anesthesiology	MED/41	2	Paolo Severgnini	In attendance or distance lectures	
		How to build a multidisciplinary team for the management of the cancer patient with skull base cancer	Otolaryngology	MED/31	5	Philippe Herman	In attendance or distance lectures	
		TOTAL HOURS			40			
Individual study related to lessons		Modules 1,2,3			210			21
		Each CFU corresponds to 10 hours of frontal lectures and 15 hours of individual study			315			
		TOTAL HOURS			525			
In-depth activities		Worker Safety Training - High Risk (General Part + Specific Part)	Occupational medicine	MED/44	20		Distance lectures	2
		Each CFU corresponds to 10 hours of frontal lectures and 15 hours of individual study			30			
		TOTAL HOURS			50			
Stage	Achieve, through internship, the adequate practical skills necessary in an otolaryngology / neurosurgical multidisciplinary clinic, in the operating room and dissection exercises	Stage	Stage	-	750			30
		TOTAL HOURS			750			
Individual study and preparation of the final dissertation		Thesis / final dissertation (1 hour)	Final dissertation	-	199 + 1h			8
		TOTAL HOURS			200			
TOTAL HOURS					1525			61

3. PERIOD AND SEAT

The Master will start in April 2023 and will end in July 2024.

Lessons will take place approximately from Monday to Friday in weekly cycles: 8 AM - 1 PM and 2PM – 7 PM.

The educational activities will take place in Aula didattica di Otorinolaringoiatria Ospedale di Circolo – Fondazione Macchi, Varese, Asst Sette Laghi.

All lectures will also be provided online through the Microsoft Teams platform.

Stage: Ospedale di Circolo – Fondazione Macchi, Varese, Asst Sette Laghi and Presidio Ospedaliero Sant’Anna, San Fermo della Battaglia (CO), Asst Lariana.

Students will be divided as follows:

STUDENTS / MONTHS	04/23	05/23	06/23	07/23	08/23	09/23	10/23	11/23	12/23	01/24	02/24	03/24	04/24	05/24	06/24	07/24
1	STAGE Operating Room (Varese)	LESSONS (Varese or Online by Teams)	STAGE Dissection (Varese)			LESSONS (Varese or Online by Teams)				STAGE Operating Room (Como)	LESSONS (Varese or Online by Teams)	STAGE Operating Room (Como)		LESSONS (Varese or Online by Teams)		FINAL DISSERTATION (Varese)
2	STAGE Operating Room (Como)	LESSONS (Varese or Online by Teams)	STAGE Dissection (Varese)			LESSONS (Varese or Online by Teams)				STAGE Operating Room (Varese)	LESSONS (Varese or Online by Teams)	STAGE Operating Room (Varese)		LESSONS (Varese or Online by Teams)		FINAL DISSERTATION (Varese)
3		LESSONS (Varese or Online by Teams)				LESSONS (Varese or Online by Teams)	STAGE Dissection (Varese)	STAGE Operating Room (Varese)			LESSONS (Varese or Online by Teams)		STAGE Operating Room (Como)	LESSONS (Varese or Online by Teams)	STAGE Operating Room (Como)	FINAL DISSERTATION (Varese)
4		LESSONS (Varese or Online by Teams)				LESSONS (Varese or Online by Teams)	STAGE Dissection (Varese)	STAGE Operating Room (Como)			LESSONS (Varese or Online by Teams)		STAGE Operating Room (Varese)	LESSONS (Varese or Online by Teams)	STAGE Operating Room (Varese)	FINAL DISSERTATION (Varese)
5		LESSONS (Varese or Online by Teams)	STAGE Dissection (Varese)	STAGE Operating Room (Varese)		LESSONS (Varese or Online by Teams)			STAGE Operating Room (Como)	STAGE Operating Room (Como)	LESSONS (Varese or Online by Teams)			LESSONS (Varese or Online by Teams)		FINAL DISSERTATION (Varese)
6		LESSONS (Varese or Online by Teams)	STAGE Dissection (Varese)	STAGE Operating Room (Como)		LESSONS (Varese or Online by Teams)			STAGE Operating Room (Varese)	STAGE Operating Room (Varese)	LESSONS (Varese or Online by Teams)			LESSONS (Varese or Online by Teams)		FINAL DISSERTATION (Varese)
7		LESSONS (Varese or Online by Teams)				LESSONS (Varese or Online by Teams)	STAGE Dissection (Varese)	STAGE Operating Room (Como)			LESSONS (Varese or Online by Teams)		STAGE Operating Room (Varese)	LESSONS (Varese or Online by Teams)	STAGE Operating Room (Varese)	FINAL DISSERTATION (Varese)
8		LESSONS (Varese or Online by Teams)				LESSONS (Varese or Online by Teams)	STAGE Dissection (Varese)	STAGE Operating Room (Varese)			LESSONS (Varese or Online by Teams)		STAGE Operating Room (Como)	LESSONS (Varese or Online by Teams)	STAGE Operating Room (Como)	FINAL DISSERTATION (Varese)

4. POSITIONS AVAILABLE

A maximum number of 8 (eight) participants will be admitted to the Master Course.

The Course will start only with the established minimum number of participants, 2 (two), and in any case only if a balanced budget is guaranteed.

5. ADMISSION REQUIREMENTS

Those who meet the following requirements may be admitted:

- Medical degree obtained under the D.M. 509/99 or of the Ministerial Decree 270/2004, or a degree in Medicine and Surgery obtained according to the legal systems prior to the Ministerial

Decree 509/1999 or of the Ministerial Decree 270/2004 or equivalent qualification, or other qualification obtained abroad deemed suitable;

- Specialization in Otolaryngology / Neurosurgery / Maxillofacial Surgery;
- Equivalent qualifications obtained abroad are allowed.

6. FEES

The admission fee for pre-enrollment classification is set at € 20.00 (twenty / 00) and must be paid in a single payment using the payment notification attached to the online registration.

The enrollment fee for the Master is set at € 8,000.00 (eight thousand /00) for each participant, according to the procedures that will be indicated in the admission ranking list of the course.

7. APPLICATION PROCEDURE

The application for admission to the master must be submitted using only the online procedure by connecting to the University of Insubria website (www.uninsubria.it) from any personal computer no later than 12 AM of March 3rd 2023

Candidates should register themselves on the web page <https://uninsubria.esse3.cineca.it/Start.do>, by entering the following data: tax code, personal data, address, telephone number and e-mail address. With the username assigned and the chosen password, they must log in, click on the "Admission test" and register for the competition called "International Master Course in Endoscopic Skull Base Surgery".

During the registration procedure, will be required to upload a valid identity document and to enter the data relating to the academic qualifications obtained during professional career, with the relative classification.

At the end of the registration procedure, the candidate must provide for the payment of the contribution of € 20.00 through the electronic printable payment notice by clicking on the "Payments" button. Payment of the € 20.00 contribution must be made no later than 12 AM of March 3rd 2023.

In case of difficulty in online registration, please contact master.ateneo@uninsubria.it

The terms for submitting applications for participation in the competition are peremptory.

The amount of € 20.00, as an admission fee to the competition, will not be returned under any circumstances, not even in case of incorrect payment.

Failure to complete the application in the manner described above determines the inadmissibility. Incomplete applications will be rejected. Applications received after the deadline or in different ways will not be accepted from those indicated. The deadlines for submitting applications for admission to the competition are peremptory.

FOREIGN OR ITALIAN CANDIDATES IN POSSESSION OF FOREIGN STUDY CERTIFICATE must follow the same procedure and also send to the "Post-Lauream Office" (write to master.ateneo@uninsubria.it to arrange an appointment):

- application form filled in and signed by the candidate

- documentation relating to the qualification obtained abroad (translated and legalized qualification, declaration of value and certificate of exams taken and related translated and legalized programs)
- curriculum vitae
- motivational letter
- identification document:
 - a. EU citizens: copy of an identification document
 - b. non-EU citizens not resident in Italy: copy of the entry visa, issued by the competent Italian Consular Authorities of the country of origin (Decreto Ministero Affari esteri 12.07.2000, artt. 4 e 5 D.Lgs. 286/98);
 - c. non-EU citizens legally resident in Italy: copy of the green card released for one of the reasons mentioned in art. 39 del D. Lgs. 286/98 (art. 5, D. Lgs. 286/98, DPR 394/99).

For further information, please refer to the provisions of the MIUR for the academic year 2022/2023, available at the link: <https://www.studiare-in-italia.it/studentistranieri/>

Those who fail to obtain the required documentation in time may be admitted with reserve. They will deliver the academic qualification, translated, and legalized in addition to the Declaration of Value by the registration date.

If the qualification was obtained in a European university, it is possible, as an alternative to the Declaration of Value, to present the Diploma Supplement, legalized by the competent authorities.

The University reserves the right to request the “declaration of value” if there are doubts about the validity of the presented qualification.

8. RULES AND SELECTION RESULTS

The admission test will be performed only if the number of candidates will be superior to the number of available positions (8 / eight).

At the end of the selection a ranking will be drawn up and published on the website: <https://www.uninsubria.it/la-didattica/master.>

9. ENROLLMENT

The admitted candidates, under penalty of forfeiture, must provide for the registration according to the procedures and deadlines indicated simultaneously with the publication of the ranking list.

10. COMPATIBILITY

Pursuant to Law 12 April 2022, n. 33 “Simultaneous enrollment in a course of bachelor’s or master’s degree and to a master’s, research doctorate or Specialization, with the exception of medical specialization

courses, as well as enrolment at the same time as a PhD or Masters course and a Specialization course medical”.

11. TITLE ATTAINMENT

To obtain the II Level Master's Degree in International Master Course in Endoscopic Skull Base Surgery it is necessary to attend at least 75% of the training hours provided, pass the exams related to the individual modules, as well as a final examination.

The qualification awarded has academic value and provides for the acquisition of 61 university educational credits (ECTS).

Receiving the diploma by post in Italy or abroad: how to collect the attendance certificate will be published later on the dedicated web page: <https://www.uninsubria.it/la-didattica/master>

12. PERSONAL DATA TREATMENT

Pursuant to Regulation (EU) 2016/679, the processing of personal data will be carried out using manual, computerized and telematic instruments, however, suitable for guaranteeing the security and confidentiality of the data. Data collection takes place in compliance with the principles of lawfulness, correctness, relevance, completeness and non-excessiveness in relation to the purposes for which they are processed.

Personal data is processed in compliance with the principles of lawfulness, correctness and transparency, provided for by law, with the aid of instruments designed to record and store the data and in any case in such a way as to guarantee their security and protect the utmost confidentiality of the interested.

The management and storage of personal data collected takes place at the University and / or at suppliers of services necessary for technical and administrative management which, for the sole purpose of the service requested, could be made aware of the personal data of the interested parties appointed as Data Processors pursuant to art. 28 of the Regulation (EU) 2016/679. More details in the attached information.

13. DISCLOSURE ON THE APPLICATION OF THE RULES FOR PREVENTION OF CORRUPTION

The University, in implementation of the relevant legislation, has adopted its own "Three-year plan for the prevention of corruption" and appointed the Manager.

The three-year plan is published on the institutional website at <https://www.uninsubria.it/amministrazione-trasparente/disposizioni-general/piano-triennale-la-prevenzione-della-corruzione-e>

Any reports can be sent to the address: anticorruzione@uninsubria.it

14. RESPONSIBLE FOR THE PROCEDURE

Pursuant to the provisions of art. 5 of Law 241/1990 and subsequent amendments and additions (law 11th February 2005 n. 15 and law 14th May 2005 n. 80), the person in charge of the procedure referred to in this announcement, as far as his authority permits, is Dr. Isabella Bechini, head of Office Post Lauream

For matters not specifically set out in this announcement, the University of Insubria complies with current legislation.

For information about the admission procedure, please contact:

Ufficio Post Lauream – Via Ottorino Rossi n. 8 - 21100 Varese

e-mail: master.ateneo@uninsubria.it

For information about the Course organization, please contact:

- Dipartimento di Biotecnologie e Scienze della Vita - Via J.H. Dunant, n. 3 21100 Varese

hnsresearchcenter@uninsubria.it

- Professor Paolo Castelnuovo (director of the course) paolo.castelnuovo@uninsubria.it