MINISTERUL EDUCAȚIEI

Str. Universității nr.16, 700115, Iași, România [www.umfiasi.ro](http://www.umfiasi.ro/)

# Program data

ACADEMIC DISCIPLINE OVERVIEW

|  |  |
| --- | --- |
| 1.1. Higher education institution | Grigore T. Popa University of Medicine and Pharmacy Iasi |
| 1.2. Faculty | Medical Bioengineering |
| 1.3. Department | Biomedical Sciences |
| 1.4. Field of study | Health |
| 1.5. The cycle of studies | Bachelor |
| 1.6. Study program / qualification | Balneo-physiokinetotherapy and rehabilitation – english language  / Physiokinetotherapist |

# Discipline data

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 2.1. Name of the discipline / Code | | | | **Special Rehabilitation**  **Techniques for People with Disabilities** | | **RE1308** |
| 2.2. Teaching staff in charge with lectures | | | | **Lecturer Bogdan Cobzeanu, MD, PhD**  **Lecturer Andreea Moraru, MD, PhD**  **Associate Professor Mariana Rotariu, PhD** | | |
| 2.3. Teaching staff in charge with practical activities | | | | **Lecturer Bogdan Cobzeanu, MD, PhD**  **Lecturer Andreea Moraru, MD, PhD**  **Associate Professor Mariana Rotariu, PhD** | | |
| 2.4. Year of study | **III** | 2.5. Semester | **1.2** | 2.6. The type of assessment | **Colloquium, C1, C2** | |
| 2.7. Discipline type | | **Elective** | | **Specialty discipline** | | |

1. **Estimated total time (hours/semester of didactic activity)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 3.1. Number of hours / week: | | 3.2. Courses number of hours /  week | | 3.3. Seminars / practical classes  number of hours / week | | | |
| Semester 1 | 2.5 | 1 | | 1.5 | | | |
| Semester 2 | **4** | **2** | | **2** | | | |
| 3.4. Total number of  learning hours: | **91** | 3.5. Of which: Courses | **42** | 3.6. Of which: Seminars /  practical classes: | | | **49** |
| 3.7. Distribution of individual study time: | | | | | Hours sem. 1 | Hours sem. 2 | |
| Study time using course book materials, bibliography and hand notes | | | | | 4 |  | |
| Supplementary documentation in the library, using specialised platforms via internet and by field work | | | | | 2 |  | |
| Preparation time for seminars / practical classes, study themes, reviews, portfolio and essays | | | | | 3 |  | |
| Tutorship | | | | | 2 | 2 | |

**SECRETARIAT FACULTATE**

+40 232 213 573 tel

[bioinginerie@umfiasi.ro](mailto:bioinginerie@umfiasi.ro)

|  |  |  |
| --- | --- | --- |
| Examinations | 2 | 2 |
| Other activities |  |  |
| Total hours of individual study (*without examinations*) | **9** |  |
| 3.8. Total hours per semester | **50** | **50** |
| 3.9. Number of credits | **2** | **2** |

# Preconditions (where applicable)

|  |  |
| --- | --- |
| 4.1. of curriculum | Physiology, Physiopathology, Medical semiology and internal medicine |
| 4.2. of competences | Knowing the fundamental concepts, theories and notions for the physiological and pathological mechanisms of the human body, recognizing the clinical signs  and symptoms |

1. **Conditions (where applicable)**

|  |  |
| --- | --- |
| 5.1. for lectures | Video logistical support |
| 5.2. for seminars / practical classes | Students will wear protective equipment (gowns) |

# Specific competences acquired

|  |  |  |
| --- | --- | --- |
| **Professional competencies** | **C1.3** | The application of physical therapy programs correlated with the functional diagnosis and according to the doctor's indications, also carrying out secondary prophylaxis. |
| **C 2.1** | Defining the general and local effects of medical massage, describing the main massage techniques for different body regions, with their indications and contraindications |
| **C4.1** | Description of electrotherapy techniques, application parameters, indications, contraindications, the way the equipment that supplies the electric current and the forms of derived energy work. |
| **C4.2** | Using basic knowledge to explain and interpret electrotherapy procedures |

1. **Objectives of the study discipline (according to the grid of specific competences acquired)**

|  |  |
| --- | --- |
| 7.1. General objective | * Learning methods of recovery/rehabilitation for hearing loss, balance issues, disphonias and evaluation of the results * Learning methods of rehabilitation for visual disfunctions, both in children and adults * Applying concepts, theories and methods of investigation to assess the visual aparatus * Differentiating between typical normal development and abnormal development patterns |
| 7.2. Specific objectives | * Testing the patients to assess the auditory and balance (vestibular) functions * Use of the latest developments in knowledge and professional applications in the field of ophthalmologic rehabilitation * Enabling students to identify the symptoms that determine the differential diagnosis of language disorders |

# Contents

|  |  |  |
| --- | --- | --- |
| **8.1. Lectures – Visual Disabilities** | **Teaching methods** | **Observations** |
| **M1- Recovery for dysphonia and auditory disabilities** | | |

|  |  |  |  |
| --- | --- | --- | --- |
| 1 | Anatomy and physiology of the nose and pharynx and related inflamatory and tumoral diseases.Anatomy and physiology of the larynx and related inflamatory and tumoral diseases. Disphonia and ways of vocal rehabilitation. ENT emergencies: acute respiratory failure, bleeding. | Powerpoint presentations, interactive courses | 2 hours |
| 2 | Hearing apparatus and hearing loss. Conventional hearing aids for hearing rehabilitation. | 2 hours |
| 3 | Implantable devices for hearing rehabilitation. | 2 hours |
| 4 | Speech recovery in patients with hearing aids. | 3 hours |
| 5 | Vestibular apparatus and balance pathology. | 4 hours |
| 6 | Vestibular evaluation and rehabilitation methods for periferic vertigo. | 4 hours |
| 7 | Dysphonia – pathology and rehabilitation. | 4 hours |
| **M2: Recovery of visual disability** | | | |
| 1 | Visual Rehabilitation Techniques of Patients with Refractive Errors | Powerpoint presentations,  interactive courses | 2 hours |
| 2 | Vision Therapy – Functional Rehabilitation for Patients with Binocular Vision Dysfunctions and Amblyopia | Powerpoint presentations,  interactive courses | 4 hours |
| 3 | Visual Rehabilitation Techniques of Patients with Cataract | Powerpoint presentations,  interactive courses | 2 hours |
| 4 | Visual Rehabilitation Techniques of Patients with Retinal Diseases. Laser Therapy | Powerpoint  presentations, interactive courses | 4 hours |
| 5 | Visual Rehabilitation with the aid of Ocular Prostesis | Powerpoint presentations,  interactive courses | 2 hours |
| **M3 – Recovery speech disorders** | | | |
| 1 | Psychomotor development of the child. Language development in ontogeny. Pathological aspects. | Powerpoint presentations, interactive courses | 2 hours |
| 2 | Language pathology. Classification of language disorders. | 2 hours |
| 3 | Disorders of language development. | 2 hours |
| 4 | Articulation (pronunciation) disorders. | 2 hours |
| 5 | Voice disorders. | 2 hours |
| 6 | Disorders of rhythm and fluency. Arrhythmias and fluency. Fluff. Tahilalia. bradilalia Tumultus sermonis. | 2 hours |
| 7 | Polymorphic disorders. Alalia. Aphasia. Recovery methods and techniques. | 2 hours |

|  |  |  |  |
| --- | --- | --- | --- |
| **8.2. Practical activities - laborator** | | **Teaching methods** | **Observations** |
| **M1- Recovery for auditory and vocal disabilities** | | | |
| 1 | Clinical diagnosis in ENT, clinical cases presentation. | Clinical cases presentation Powerpoint presentations, interactive courses | **4 hours** |
| 2 | Paraclinical exploring methods in ENT. | **4 hours** |
| 3 | Epistaxis-therapeutical methods; Acute repiratory failure; Tracheotmy; clinical cases presentation. | **2 hours** |
| 4 | Pure tone audiometry, vocal audiometry and tympanometry.  Objective methods for evaluating the auditory function. | **2 hours** |
| 5 | Conventional hearing aids – practical aplications and post-prostethic evaluation.Bone-anchhoursd hearing aids(BAHA) – overview and types of prosthesis. | **4 hours** |
| 6 | Cochlear and retrocochlear auditory implants – overview and types of implants. | **2 hours** |
| 7 | Clinical and paraclinical evaluation of the vestibular pathology – practical aspects.Vestibular rehabilitation | **3 hours** |
| **M2: Recovery of visual disability** | | | |
| 1 | Measuring the Visual Acuity. Rehabilitation of Patients with Refractive Errors | Powerpoint presentations,  interactive courses | 2 hours |
| 2 | Examination of Patients with Binocular Vision Disorders and Amblyopia. Treatment Techniques | Powerpoint  presentations, interactive courses | 4 hours |
| 3 | Examination of the Anterior Segment of The Eye. Ocular Tonometry | Powerpoint presentations,  interactive courses | 2 hours |
| 4 | Examination of the Posterior Segment of the Eye | Powerpoint  presentations, interactive courses | 2 hours |
| 5 | Visual Rehabilitation for Patients with Neurological Disorders. Lagophthalmia | Powerpoint  presentations, interactive courses | 2 hours |
| 6 | The Red Eye – Etiology and Treatment Techniques | Powerpoint presentations,  interactive courses | 2 hours |
| **M3 – Recovery speech disorders** | | | |
| 1 | The organs involved in speech and language nerve centers. Language pathology. | Powerpoint presentations,  interactive courses | 2 hours |
| 2 | Classification of speech disorders | Clinical cases presentation | 2 hours |
| 3 | Analysis of case studies, practical demonstrations of working methods (movies) in language development disorders. | Clinical cases presentation | 4 hours |
| 4 | Specific speech therapy phonation disorders. Steps therapeutic for various disorders voice. | Clinical cases presentation | 2 hours |
| 5 | The composition of therapeutic protocols, design of therapeutic approaches for different rhythm and fluency disorders. | Clinical cases presentation | 2 hours |

|  |  |  |  |
| --- | --- | --- | --- |
| 6 | The role and importance of each decision maker involved in resolving polymorphic disorders. | Clinical cases presentation | 2 hours |

|  |
| --- |
| **8.3. Bibliography** |
| ***Mandatory:*** |
| 1. Mihail Dan Cobzeanu, Compediu de patologie oto-rino-laringologică și chirurgie cervico-facială, Editura Junimea 2020 2. Dan Martu, Luminita Radulescu - Ghid practic O.R.L. 3. Burlea Georgeta, “ Normal şi patologic în evoluţia limbajului. Esenţialul în logopedie”, Ed. Spiru Haret, Iaşi şi Ed. Tehnica-Info, Chişinău, 2001 4. John Salmon - Kanski's Clinical Ophthalmology- A Systematic Approach, 9th edition – Elsevier, 2019 5. D. Chiseliţă Oftalmologie generală – editura Stef, Iaşi , 2008 6. Elemente de nursing în oftalmologie, sub redacţia Camelia-Margareta Bogdănici,Ed. Cermi Iaşi, 2015 |

|  |
| --- |
| ***Elective:*** |
| 1. The Wills Eye Manual: Office and Emergency Room Diagnosis and Treatment of Eye Disease, 8th  Edition- Wolters Kluver, 2021  2. Burlea Georgeta, Burlea Marin şi alţii, “ Dicţionar explicativ de logopedie”, Ed. Polirom, Iaşi, 2011 |

1. ***Correlation of the discipline contents with the expectations of the epistemic community, professional associations, and representative employers from the afferent program field***

Knowledge and abilities are established as didactic objectives and specified as such in the analytic programs that are revised yearly. After their analysis by the study discipline staff, these are discussed and approved in the Curricular Committee, towards curricular harmonization among the various study disciplines. Along this entire process systematic evaluation is performed, directly if possible, regarding the correspondence of the contents to the expectations of the academic community and of the representatives of the social community,

professional associations, and employers.

# Evaluation

|  |  |  |  |
| --- | --- | --- | --- |
| Type of activity | Assessment criteria | Evaluation methods | Contribution to the final  grade |
| Lectures | Acquiring theoretical notions and  presented in the course | Written exam.  MCQ Examination | 80 % |
| Practical activities | Activities carried out in laboratory and  conducted quality essays. | Colloquium practical  activity | Admitted/  Rejected |
| Individual study | Preparation time for seminars / practical classes, study themes, reviews, portfolio and essays.  Study time using coursebook materials, bibliography and hand notes, documentation in the library, using specialised platforms via internet and by  field work. | Tests during the semester | 20 % |
| Minimal performance standard:   * **Knowledge on the conventional hearing aids, the main methods of auditory, visual and speaking rehabilitation.** | | | |

Date

Holder of course / signature,

Holder of practical activities / signature,

12.09.2023 Lecturer Bogdan Cobzeanu, MD, PhD Lecturer Bogdan Cobzeanu, MD, PhD

Lecturer Andreea Moraru, MD, PhD Lecturer Andreea Moraru, MD, PhD

Associate Professor Mariana Rotariu, PhD Associate Professor Mariana Rotariu, PhD

|  |
| --- |
| Date of approval in the Department Council/Teaching Council, |
| 14.09.2023 Department director / signature, |
| Associate Professor Daniela-Viorelia Matei, MD, PhD |
|  |
|  |