MASTER PROGRAMME IN LOGOPEDICS
“AUDITORY-VERBAL THERAPY AFTER COCHLEAR IMPLANTATION”

Educational degree: Master of Arts
Professional qualification: Logopedics
Training type: fulltime
Training duration: 2 semesters
Enrollement requirements: Bachelor’s degree of graduation in Logopedics; acquired basic training in the field of auditory and speech rehabilitation of children and adults with hearing disorders.

Logopedics is developing as higher education specialty at South-West University for more than 20 years. Nowadays this is a well-established specialty within the scientific direction of Public Health, successfully accredited by the NAEA in year 2015 for a period of 5 years.

The Department of Logopedics providing training in the field was opened as an independent one after the separation from Special Education in 2002.

The curriculum structure is according to the requirements of IALP (International Association of Logopedists and Phoniatrists) and also meets the standards of CPLOL (Standing Liaison Committee of E.U. Speech and Language Therapists and Logopedists).

The training is delivered by high-qualified lecturers (professors, assoc. professors, assistant professors with PhD) from the Department and other university units, and lecturers from well-known Bulgarian universities. The lecturers from the Department are participating in international programmes for academic exchange and welcomes visiting lecturers from EU universities, US and others.

The high quality of students’ training is also due to mean and modern office and therapeutic equipment placed at the Recourse Centre (1995), the University Research Centre in Stuttering (2000), the KayPentax Speech Lab (2007), and the faculty Centre of Logopedics for practice and research (2009).

At the Recourse Centre is opened a specialized library offering a good variety of books and periodic in Logopedics, both Bulgarian and international issues. Modern interactive methods of training are applied, including multimedia, movies, etc.

Practice in Logopedics is run at specialized settings, diagnostic and daily centres, and at the faculty Centre of Logopedics.

Master students graduate in Logopedics and acquire knowledge and skills for: (a) diagnostics of hearing disorders, aiding and rehabilitation; implementation of specific techniques for hearing and speech therapy of candidates and CI users as follows: children with pre- and post lingual hearing disorders; adolescents and adults with pore- and post lingual hearing disorders; persons with multiple disabilities, including hearing disorder.

Graduated Masters in Logopedics are welcomed for placement at clinics, logopedical and rehabilitation settings, delivering services to persons with hearing disorders and/or other attendant disabilities.
PROGRAMME

Year I

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>ECTS credits</th>
<th>Spring Semester</th>
<th>ECTS credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Diagnostic methods in audiology</td>
<td>4.0</td>
<td>1. Early intervention of children with hearing disorders</td>
<td>3.0</td>
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<tr>
<td>2. Psychological diagnostics and therapy</td>
<td>5.0</td>
<td>2. Therapy of postlingually deaf persons with cochlear implants</td>
<td>5.0</td>
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<tr>
<td>3. Therapy of prelingually deaf children with cochlear implants</td>
<td>7.0</td>
<td>7. Elective course</td>
<td>3.0</td>
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<tr>
<td>4. Language development in prelingually deaf children with cochlear implants</td>
<td>7.0</td>
<td>3. Clinical practice in Logopedics</td>
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<tr>
<td>5. Elective course</td>
<td>3.0</td>
<td>4. Diploma thesis</td>
<td>15.0</td>
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<tr>
<td>6. Clinical practice in Logopedics</td>
<td>4.0</td>
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Total 30

Elective courses - group I (students choose one course)

| 1. Surgery techniques in cochlear implantation | 3.0 |
| 2. Statistical methods in Logopedics work | 3.0 |

Elective courses - group II (students choose one course)

| 1. Clinical diagnostics of cochlear implantation candidates | 3.0 |
| 2. Cochlear implantation for children with multiple disorders | 3.0 |
| 3. Social and occupational therapy for persons with cochlear implants | 3.0 |

CREDITS IN TOTAL: 60

COURSE DESCRIPTIONS

I. COMPULSORY COURSES

**DIAGNOSTIC METHODS IN AUDIOLOGY**

ECTS credits: 4  
Evaluation form: exam  
Semester: fall  
Supervision:  
Department of Logopedics  
Faculty of Public Health, Health Care and Sports

**Annotation:**
The course on "Diagnostic methods in audiology" aims to provide the students a wide range of knowledge in the field of audiology, study methods for the auditory function, as well as diagnostic methods for identification of hearing impairment. At the end of the course students should have knowledge about the basic techniques of auditory and speech therapy used in the rehabilitation of children with cochlear implant systems; to acquire skills to assess the needs of the child and the family and on this basis to plan upcoming impacts and carry out therapeutic work.
Course content:
There is a purposeful description of morphology and physiology of hearing. There are diagnostic tools, assessment methods of hearing and the needed contemporary apparatus presented in order. In separate section clinical diagnostics of candidates for cochlear implantation is presented. Attention is paid on screening methods of its early detection during selection of candidates.

Training and evaluation techniques:
Methods of instruction: Lectures; demonstrations by multimedia, head-over projector, TV; discussions; case studies; monitoring.
Evaluation: Written exam.

**PSYCHOLOGICAL DIAGNOSTICS AND THERAPY**

ECTS credits: 5  
Evaluation form: exam  
Semester: fall  
Supervision: Department of Logopedics  
Faculty of Public Health, Health Care and Sports

Annotation:
The course of Psychological diagnostics and therapy after cochlear implantation / CI / is relatively new to the educational traditions in Bulgaria. The aims of the course is to introduce students the opportunities, techniques and tools of psychological diagnostics in the context of all the events and activities that precede or follow the course of cochlear implantation and have always to be focus of hearing and speech therapists, speech therapists and special educators to the overall system of methods and activities that support the assessment and decision on the CI, and those activities that are directed towards training, advice and assistance to parents, school environment and teachers in integrated education of children with CI. Attention is paid to the psychological problems of prevention and juridical assistance to adolescents and young people for family life and realization in society.

Course content:
Possibilities, techniques and facilities for psychological diagnostics are studied in relation to all activities before and after cochlear implantation.

Training and evaluation techniques:
Methods of instruction: Lectures; practice, discussion and demonstrations.
Evaluation: Written exam.

**THERAPY OF PRELINGUALLY DEAF CHILDREN WITH COCHLEAR IMPLANTS**

ECTS credits: 7  
Evaluation form: exam  
Semester: fall  
Supervision: Department of Logopedics  
Faculty of Public Health, Health Care and Sports
Annotation:
The course is designed to acquaint students with leading strategies in hearing, speech therapy, ensuring development of auditory skills, and development of language and speech competence of prelingually deaf children, owners of cochlear implant systems. At the end of the course students should have knowledge about the basic techniques of auditory-verbal therapy for development of listening skills, as well as development of speech and language competencies used in the rehabilitation of children with cochlear implant systems; to acquire skills to assess the needs of the child and the family and on this basis to plan upcoming impacts and carry out therapeutic work.

Students will built professional qualities and skills under the new standards for speech training within the European Higher Education (CPLOL / NQ, 2013).

Course content:
Studying therapeutic techniques for development of listening skills in children with cochlear implants; main approaches in assessing child and family needs; auditory-verbal therapy in partnership with parents; development of individual therapy plans; evaluation of developing listening skills; stimulation of speech and language development of children with cochlear implants.

Training and evaluation techniques:
Methods of instruction: Lectures; demonstrations by multimedia, head-over projector, TV; discussions; case studies; monitoring.
Evaluation: During the semester: test – 1; paper - 1; essay -1; final written exam.

LANGUAGE DEVELOPMENT IN PRELINGUALLY DEAF CHILDREN WITH COCHLEAR IMPLANTS

ECTS credits: 7
Evaluation form: exam
Semester: fall
Supervision: Department of Logopedics
Faculty of Public Health, Health Care and Sports

Annotation:
The proposed course of lectures, seminars and practical classes are taught in one semester. It is designed for students of Master in Speech Therapy: "Auditory-Verbal Therapy after Cochlear Implantation". The aim of the course is to acquaint the students with specifics language developed in prelingually deaf children users of cochlear implant systems. The focus is on specific mastery of the language at an early hearing deficit and its impact on communicative competence of prelingually deaf children. Students will examine the basic approaches in work with parents of children with CI and how they can be "attract" as partners in the overall therapeutic process - before and after cochlear implantation.

Course content:
Students are acquainted in the specifics in language development of prelingually deaf children, CI users. The focus is on specific language acquisition and its influence on competencies in communication of prelingually deaf children. Some basic approaches in training parents of these children is offered, and how they can become partners in the complex therapeutic process – prior and after implantation.
CLINICAL PRACTICE IN LOGOPEDICS

ECTS credits: 4
Evaluation form: coursework mark
Hours per week: 0l+0s+3p
Type of exam: practical
Semester: fall
Supervision:
Department of Logopedics
Faculty of Public Health, Health Care and Sports

Annotation:
The training in this course includes rehabilitation of persons with cochlear implants in the post-surgery period.

Course content:
Students will study the therapeutic techniques for the development of auditory skills in children, users of cochlear implant systems; introduction to the basic approaches to studying child and family needs; realization of therapy in partnership with parents; preparation of individual programs for therapy; current and periodic evaluation of the developing auditory perception; partnership between hearing therapist and speech therapist to stimulate language and speech development of children with cochlear implant systems.

Training and evaluation techniques:
Methods of instruction: Observation, demonstration, practice, and monitoring.
Evaluation: Coursework mark.

EARLY INTERVENTION OF CHILDREN WITH HEARING DISORDERS

ECTS credits: 3
Evaluation form: exam
Hours per week: 1l+1s+0p
Type of exam: written
Semester: spring
Supervision:
Department of Logopedics
Faculty of Public Health, Health Care and Sports

Annotation:
Early intervention is a key stage in the therapeutic process for children with hearing disorders. It is a multidisciplinary method that combines procedures oriented to the children and their parents. The training includes introduction to the philosophy and objectives of early intervention in the context of the theory of individual and family life cycle; theory of crisis and coping strategies; introduction of models for early intervention and modern trends in their application. Are considered organizational and procedural aspects, with a view to developing and implementing effective early intervention programs. There is a discussion about family-centered approach and partnership between parents and professionals in the therapeutic process; discussion about the principles of working in a multidisciplinary team.
Course content:
Early intervention is a key concept in the therapeutic process for children with hearing disorders. It presents a multidisciplinary method that combines procedures oriented to the child and the family. The course introduce the philosophy and goals of early intervention; theory of crisis and coping strategies. The models for early intervention are presented. There is discussion about family-centered approach and partnership between parents and professionals in the therapeutic process. The basic of family counseling is presented.

Training and evaluation techniques:
Methods of instruction: lectures, case studies, case management, video analysis, search of literature in particular topics
Evaluation: During the semester: test – 3; paper - 1; essay -1; case studies; final written exam - test.

THERAPY OF POSTLINGUALLY DEAF PERSONS WITH COCHLEAR IMPLANTS
ECTS credits: 5
Evaluation form: exam
Semester: spring
Supervision: Department of Logopedics
Faculty of Public Health, Health Care and Sports

Annotation:
The course provides information on preparing candidates for CI surgery; how to motivate patients and their relatives for postoperative therapy; Explanation about creating realistic expectations for the development of the new type of auditory skills; introduction of techniques for development of auditory skills and self-control over their speech; models using the new prosthesis in different environmental conditions. At the end of the course students should have knowledge about the specifics of hearing, speech therapy, providing development of auditory skills, keeping the level of language and speech competence of postlingually deaf persons, cochlear implant systems users; students acquire skills to assess the needs of the patient and family and on this basis to plan the therapeutic work.

Course content:
Studying approaches for preparation of CI candidates; motivation of patients and their families for up-coming post operative therapy; realistic expectations for developing new type of listening skills; speech self control techniques; modelling new skills for device use in different environmental conditions

Training and evaluation techniques:
Methods of instruction: Lectures; demonstrations by multimedia, head-over projector, TV; discussions; case studies; monitoring. Evaluation: during the semester: 1 test, 1 essay, 1 paper; final written exam

CLINICAL PRACTICE IN LOGOPEDICS
ECTS credits: 4
Evaluation form: coursework mark

Hours per week: 0l+0s+3p
Type of exam: practical
**Semester:** spring  
**Supervision:**  
Department of Logopedics  
Faculty of Public Health, Health Care and Sports  

**Annotation:**  
Compulsory course within the curriculum of Logopedics, Master's program "Auditory-Verbal therapy after CI". Students have to be thought how to make an individual plan, how to collect data about the client and how to rehabilitate persons with cochlear implants in the post-surgery period. Prior conditions: students in Master degree have to know how does the cochlear implant work – mechanism and specificity.

**Course content:**  
Training skills for rehabilitation of persons (post lingual hearing loss) with cochlear implants in the post-surgery period.

**Training and evaluation techniques:**  
Methods of instruction: Observation, demonstration, practice, and monitoring.  
Evaluation: Coursework mark.

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**DIPLOMA THESIS**

**ECTS credits:** 10  
**Hours per week:** n.a.  
**Evaluation form:** diploma research  
**Type of exam:** public defence  

**Semester:** spring  
**Supervision:**  
Department of Logopedics  
Faculty of Public Health, Health Care and Sports  

**Annotation:**  
Compulsory course within the curriculum of Logopedics, Master's program "Auditory-Verbal therapy after CI". Students should know the theory and should be ready to start practice. They have to be aware of all activities that a speech therapist should do. The students have to be able to solve theoretical and practical problems. Prior conditions: All term examinations should be passed. The topic of the thesis should be discussed on a Department meeting. Science supervisor is determined by choice of all members of the Department. All theses are reviewed.

**Course content:**  
Diploma thesis should contain research elements as well as experiments in diagnostics and speech-language treatment. The topic of the thesis should be written in a request form. Diploma thesis includes all methods, terms, group/s/ used in the study. If the request is approved by students inspector of study department, it is signed and stamped.

**Training and evaluation techniques:**  
Methods of instruction: Consultations. Evaluation: an open defence with a State examination commission, which has been determined by a Rector’s order.
II. ELECTIVE COURSES

SURGERY TECHNIQUES IN COCHLEAR IMPLANTATION

ECTS credits: 3
Evaluation form: exam
Semester: fall
Supervision:
Department of Logopedics
Faculty of Public Health, Health Care and Sports

Annotation:
The course offers introduction to preparing the patient for surgery; surgical techniques for placement of the implant; risks of surgery; postoperative procedures; control medical examination; pre- and post-operative advice. Students should have knowledge about different techniques for placement of the implant used in surgical practice, and developments in surgery for infant patients. At the end of the training the student should have built professional qualities and skills under the new standards for speech training within the European Higher Education (CPLOL / NQ, 2013)

Course content:
Information about the preparation of CI candidates for surgery; surgery techniques for device implantation; risks during CI surgery; post operative procedures and monitoring; counseling candidates and families before and after the surgery.

Training and evaluation techniques:
Methods of instruction: Lectures; demonstrations by multimedia, TV. Evaluation: during the semester: 1 test; final written exam.

STATISTICAL METHODS IN LOGOPEDICS

ECTS credits: 3
Evaluation form: exam
Semester: fall
Supervision:
Department of Informatics
Faculty of Mathematics and Natural Sciences.

Annotation:
The aim of the course is to introduce students to the possibilities of specialized statistical packages for processing of experimental data and their application in practice. The course includes basic principles of modelling of empirical data and the possibilities of modern technologies for their realization (MS EXCEL, SPSS and STATISTICA, etc.).

Course content:

Training and evaluation techniques:
Lecturer presents the students different topics and principles of their application in practice. During laboratory classes students discuss topics under the guidance of the teacher, applying lessons learned at practice. They explain the practical problems and methods for its solution. Students should develop self-practical tasks for the extracurricular work.

During the semester, students must solve specific tasks by integrating IT in statistical data analysis. Final exam is in two parts: Part 1. Test that includes tasks on the topics of the syllabus. The student selects three tasks of topics 1-3 and 2 tasks of themes 4-7. Part 2. Includes development and defence of a project, and a description of the IT.

**CLINICAL DIAGNOSTICS OF COCHLEAR IMPLANTATION CANDIDATES**

ECTS credits: 3
Evaluation form: exam
Semester: spring
Supervision:
Department of Logopedics
Faculty of Public Health, Health Care and Sports

Annotation:
The aim of the course is to provide the students in master's program a wide range of knowledge in the field of audiology, methods for the study of auditory function, as well as diagnostic methods for identification of hearing loss.

Course content:
There is a purposeful description of morphology and physiology of hearing. There are diagnostic tools, assessment methods of hearing and the needed contemporary apparatus presented in order. In separate section clinical diagnostics of candidates for cochlear implantation is presented. Attention is paid on screening methods of its early detection during selection of candidates.

Training and evaluation techniques:
Methods of instruction: lectures, demonstrations (video, slides, multimedia). Evaluation: during the semester: 1 test, 1 essay, 1 paper; final written exam.

**COCHLEAR IMPLANTATION FOR CHILDREN WITH MULTIPLE DISORDERS**

ECTS credits: 3
Evaluation form: exam
Semester: fall
Supervision:
Department of Logopedics
Faculty of Public Health, Health Care and Sports

Annotation:
The course provides information about the specificity of development in children with multiple disabilities, candidates for cochlear implantation; work with the family of the candidate for positive motivation and realistic expectations; Hearing and Speech therapy for children with multiple injuries after CI; early intervention as a prerequisite for effective postoperative rehabilitation. Students are introduced modern strategies for
auditory-verbal therapy, leading to development of listening skills, as well as development of speech and language competencies in children with multiple disorders - cochlear implants users.

Course content:
Studying specific development of children with multiple disorders, candidates for CI; family support for better motivation and realistic expectations; early intervention as a basis for effective post-implant development of listening skills and speech-language rehabilitation in patients with multiple disorders.

Training and evaluation techniques:
Methods of instruction: lectures; demonstrations by multimedia, TV.
Evaluation: during the semester: paper – 1, essay -1; final written exam.

SOCIAL AND OCCUPATIONAL THERAPY FOR PERSONS WITH COCHLEAR IMPLANTS

ECTS credits: 3
Evaluation form: exam
Hours per week: 2l+1s+0p
Semester: spring
Type of exam: written
Supervision:
Department of Logopedics
Faculty of Public Health, Health Care and Sports

Annotation:
This course includes learning related to social issues and to employment orientation and realization of people with cochlear implantation, having social educational needs. The teaching is based on the theoretical paradigm of social importance of the forms of social adaptation and improvement the quality of life for those with disabilities.

Course content:
This educational discipline includes knowledge in the field of social problems, labour realization in persons with cochlear implantation. The teaching process emphasises social meaning of forms of social adaptation and improvement of life quality of persons with disabilities.

Training and evaluation techniques:
Methods of instruction: lectures, observation and content analysis. Evaluation: written exam.