



BLDE **(DEEMED TO BE UNIVERSITY)**

Choice Based Credit System (CBCS) **Curriculum**

B.Sc. Programme in **Audiology & Speech Language** **Pathology**

2020-21

Published by

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(DEEMED TO BE UNIVERSITY)

Declared as Deemed to be University u/s 3 of UGC Act, 1956

The Constituent College

SHRI B. M. PATIL MEDICAL COLLEGE, HOSPITAL & RESEARCH CENTRE, VIJAYAPURA

Smt. Bangaramma Sajjan Campus, B. M. Patil Road (Sholapur Road), Vijayapura - 586103, Karnataka, India.

BLDE (DU): Phone: +918352-262770, Fax: +918352-263303, Website: www.bldedu.ac.in, E-mail: office@bldedu.ac.in

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BLDE(DU)/REG/B.Sc.-Bio-Sci/2020-21/ 187/16

May 12, 2020

NOTIFICATION

Sub: Curriculum for B.Sc. Programme in Biomedical Sciences with Semester Scheme

Ref: 1. Minutes of the meeting of the 5th Standing Committee Academic Council of the University held on 06-05-2020.

2. Approval of Board of Management dtd.08-05-2020

3. Approval of Hon'ble Vice-Chancellor vide order no.1834, dtd.09-05-2020

In accordance with the Rule-09 (ii) of the Memorandum of Association (MoA) of the Deemed to be University, the Board of Management (BoM) has approved the Curriculum of '**B.Sc. Programme in Biomedical Sciences**' in 1) Medical Laboratory Technology (MLT), 2) Anaesthesia Technology, 3) Operation Theater Technology, 4) Respiratory Care Technology, 5) Cardiac Care Technology, 6) Perfusion Technology, 7) Emergency Medicine Technology, 8) Optometry, 9) Forensic Science, 10) Clinical Genetics, 11) **Audiology & Speech-Language Pathology**, following Choice Based Credit System (CBCS) with Semester Scheme.

The Curriculum shall be effective from the Academic Session 2020-21 onwards, in the Constituent College of the University viz. Shri B. M. Patil Medical College, Hospital and Research Centre, Vijayapura.

To,
The Dean, Faculty of Allied Health Sciences,
Shri B. M. Patil Medical College,
Hospital and Research Centre,
Vijayapura


REGISTRAR
REGISTRAR
BLDE (Deemed to be University)
Vijayapura-586103, Karnataka

Copy to:

- The Secretary, UGC, New Delhi
- The Dean, Faculty of Medicine & Principal
- The Controller of Examinations
- The Dean, Student Affairs
- The Prof. & HoDs of Pre, Para and Clinical Departments
- The Coordinator, IQAC
- PS to the Hon'ble Chancellor
- PS to the Hon'ble Vice-Chancellor

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Vision:

- To be a leader in providing quality medical education, healthcare & to become an Institution of eminence involved in multidisciplinary and translational research, the outcome of which can impact the health & the quality of life of people of this region.

Mission:

- To be committed to promoting sustainable development of higher education, including health science education consistent with statutory and regulatory requirements.
- To reflect the needs of changing technology
- Make use of academic autonomy to identify dynamic educational programs
- To adopt the global concepts of education in the health care sector

Course Code	Course Name	Teaching Hrs/wk (min.)	Total Credits	Total hrs / Sem. (min)	Exam duration	Exam Marks	I.A. Marks	Total
SEMESTER I								
BASLP 1.1	Introduction to Human	4	4	64	3	80	20	100
BASLP 1.2	Speech Language Development &	4	4	64	3	80	20	100
BASLP1.3	Introduction to & Hearing	4	4	64	3	80	20	100
BASLP 1.4	Basic Medical Sciences related to Speech & Hearing	4	4	64	3	80	20	100
BASLP1.5	Clinical Practicum-Speech Language Pathology-1	12	4	192	-	50	50	100
BASLP1.6	Clinical Practicum-Audiology-1	12	4	192	-	50	F50	100
TOTAL		40	24	640	12	420	180	600
SEMESTER II								
BASLP2.1.	Speech - Language Diagnostics and Therapeutics	4	4	64	3	80	20	100
BASLP 22	Introduction to Audiology	4	4	64	3	80	20	100
BASLP2.3	Management of the Hearing Impaired	4	4	64	3	80	20	100
BASLP2.4	Psychology related to Speech & Hearing	4	4	64	3	80	20	100
BASLP2.5	Clinical Practicum-Speech Language Pathology-11	12	4	192	-	50	50	100
BASLP2.6	Clinical Practicum-Audiology-11	12	4	192	-	50	50	100
TOTAL		40	24	640	12	420	180	600
ADD ON COURSE								
BASLP 27	Communicative English & Soft skills	4		60	3	80	20	100

BASLP27 is optional as per respective university & accurate to their prescribed paper content/course work

***One hour of lecture = 1 credit, Three hours of clinical practicum = 1 credit, for add on course 15 hours of lecture = 1 credit

Course Code	Course Name	Teaching Hours/week	Total Credits	Total hours / semester	Exam duration	Exam Marks	I.A. Marks	Total
SEMESTER III								
BASLP 3.1	Articulation & Phonological Disorders	4	4	64	3	80	20	100
BASLP 3.2	Maxillofacial Anomalies	4	4	64	3	80	20	100
BASLP 3.3	Diagnostic Audiology: Part 1	4	4	64	3	80	20	100
BASLP 3.4	Rehabilitative Audiology	4	4	64	3	80	20	100
BASLP 3.5	Clinical Practicum-Speech Language Pathology-II	12	4	192	-	50	50	100
BASLP 3.6	Clinical Practicum-Audiology-III	12	4	192	-	50	50	100
TOTAL		40	24	640	12	420	180	600
SEMESTER IV								
BASLP 4.1	Voice & Larynx;ectomy	4	4	64	3	80	20	100
BASLP 4.2	Motor Speech Disorders in	4	4	64	3	80	20	100
BASLP 4.3	Diagnostic Audiology: Part 2	4	4	64	3	80	20	100
BASLP 4.4	Pediatric Audiology	4	4	64	3	80	20	100
BASLP 4.5	Clinical Practicum-Speech Language Pathology-IV	12	4	192	-	50	50	100
BASLP 4.6	Clinical Practicum-Audiology-IV	12	4	192	-	50	50	100
TOTAL		40	24	640	12	420	180	600
BASLP 4.7	Computer Basics & Applications	4		6	3	80	20	100
BASLP 4.7 is optional as per respective university & accurate to their prescribed paper content/course work								

Course Code	Course Name	Teaching Hours/ week (minimum)	Total Credits	Total hours / semester (minimum)	Exam duration	Exam Marks	I.A. Marks	Total
SEMESTER V								
BASLP 5.1.	Fluency & its Disorders	4	4	64	3	80	20	100
BASLP 5.2	Technology & Amplification Devices for persons with Hearing	4	4	64	3	80	20	100
BASLP 5.3	Professional Practices in Speech, Language & Bearing including Community Work	4	4	64	3	80	20	100
BASLP 5.4 (A) (B)	Forensic Sciences related to Speech and Hearing	4	4	64	3	80	20	100
BASLP.5.5	Clinical Practicum-Speech Language Pathology -V	12	4	192	-	50	50	100
BASLP.5.6	Clinical Practicum-Audiology-V	12	4	192	-	50	50	100
TOTAL		40	24	640	12	420	180	600
SEMESTER VI								
BASLP 6.1.	Neurogenic Language Disorders In Adults	4	4	64	3	80	20	100
BASLP 6.2	Noise Measurements &	4	4	64	3	80	20	100
BASLP 6.3	Basic Statistics & Scientific Enquiry in Audiology & Speech language Pathology	4	4	64	3	80	20	100
BASLP 6.4 (A) (B)	Auditory Verbal Therapy Genetics related to	4	4	64	3	80	20	100
BASLP.6.5	Clinical Practicum-Speech Language Pathology-VI	12	4	192	-	50	50	100
BASLP.6.6	Clinical Practicum-Audiology-VI	12	4	192	-	50	50	100
TOTAL		40	28	640	12	420	180	600
BASLP.6.7	Environmental Studies	4	4	64	3	80	20	100
BASLP 6.7 is optional as per respective university & accurate to their prescribed paper content/course work								

INTERNSHIP										
Course Code	Course Name	Credits/Week				Hrs/semester				
		Lecture (L)	Tutorial (T)	Practical (P)	Clinical Posing/ Rotation	Lecture (L)	Tutorial (T)	Practical (P)	Clinical Posing/ Rotation	Total hrs.
BASLP 7.1	Internship	-	-	-	1440	-	-	-	1440	1440
Total		0	0	0	1440	0	0	0	1440	1440

Course Code	Course Name	Teaching Hours/ week	Total Credits	Total hours / semester	Exam duration	Exam Marks	I.A. Marks	Total	
	Internship	<p>Guidelines Internship is mandatory</p> <p>Duration: 6 Months</p> <p>Structure and duration of the postings:</p> <p>1. The place of postings of the students for internship will be decided by the respective institute conducting the course.</p> <p>ii. Students should spend minimum of 50% period of internship at parent institute and 50% period outside the parent institute like hospital set ups, educational set ups, special clinical facilities like ASD, cochlear implants, AVT, mother's training program, centres for CP, centres for LD. Exposure should be for those areas where limited exposure was provided in the parent institute.</p> <p>111. During internship students should get additional training in the areas of neurological related problems, prevention and early intervention programmes, community based rehabilitation, occupational health programmes, structural abnormalities related to speech & hearing.</p>							

Rules and Regulations of Curriculum

B.Sc. Audiology and Speech Language Pathology

Definitions of Key Words:

1. **Academic Year:** Two consecutive (one odd + one even) semesters constitute one academic year. Choice Based Credit System (CBCS).
2. The CBCS provides choice for students to select from the prescribed courses (core, elective or minor or soft skill courses).
3. **Course:** Usually referred to, as “papers” is a component of a programme. All courses need not carry the same weight. The courses should define learning objectives and learning outcomes. A course may be designed to comprise lectures/ tutorials/ laboratory work/ outreach activities/ project work/ viva/ seminars/ term papers/assignments/ presentations/ self-study etc. or a combination of some of these.
4. **Credit Based Semester System (CBSS):** Under the CBSS, the requirement for awarding a degree or diploma or certificate is prescribed in terms of number of credits to be completed by the students.
5. **Credit:** A unit by which the course work is interpreted. It functions the number of hours of instructions required per week. One credit is equivalent to one hour of teaching (lecture or tutorial) or two hours of practical work/field work per week.
6. **Cumulative Grade Point Average (CGPA):** It is a measure of overall cumulative performance of a student over all semesters. The CGPA is the sum total of the credit points obtained by the student in various courses in all semesters and the sum of the total credits of all courses in all the semesters.
7. **Grade Point:** It is a numerical marking allotted to each letter grade on a 10-point scale.
8. **Letter Grade:** It is an appreciated point of the student’s performance in a selected course. Grades are denoted by letters O, A+, A, B, C and RA x. Programme: An educational programme leading to award of a Degree certificate.
9. **Semester Grade Point Average (SGPA):** It is index of performance of all performance of work in a semester. Its total credit points obtained by a student in various courses registered in a semester and the total course credits taken during that semester. It shall be expressed up to two decimal places.

10. **Semester:** Each semester will consist of minimum of 180 working days. The odd semester may be scheduled from June/ July to December and even semester from December/ January to June.

Duration of Study Programme: The duration of the study for B.Sc. Audiology and Speech Language Pathology will be of Three years + 6 Months Internship.

Program pattern:

- First Semester: July
- Second Semester: January
- Third Semester: July
- Fourth Semester: January
- Fifth Semester-July
- Sixth Semester-January

Eligibility Criteria:

- He/she has passed the Higher Secondary (10+2) with Science (PCB) or equivalent examination recognized by any Indian University or a duly constituted Board with pass marks in Physics, Chemistry, and Biology.
- Minimum percentage of marks: 45% aggregate.

Medium of Instruction:

English shall be the Medium of Instruction for all the Courses of study and for examinations.

CBCS – Definition and benefits: Choice Based Credit System is a flexible system of learning. The distinguishing features of CBCS are the following:

- It permits students to learn at their own pace.
- The electives are selected from a wide range of elective courses offered by the other University Departments.
- Undergo additional courses and acquire more than the required number of credits.
- Adopt an inter-disciplinary and intra-disciplinary approach in learning.
- Make best use of the available expertise of the faculty across the departments or disciplines
- Has an inbuilt evaluation system to assess the analytical and creativity skills of students in addition to the conventional domain knowledge assessment pattern.

Semester System and Choice Based Credit System:

The semester system initiates the teaching-learning process and screws longitudinal and latitudinal mobility of students in learning. The credit based semester system provides flexibility in designing curriculum and assigning credits based on the course content and hours of teaching. The choice based credit system provides a sun shone" type approach in which the students can take choice of courses, learn and adopt an interdisciplinary approach of learning.

Semesters:

An academic year consists of two semesters:

	UG
Odd Semester 1 st semester	July – December
Odd Semester 3 rd , 5 th semesters	June – October/ November
Even Semester 2 nd , 4 th , 6 th semesters	December –April

Credits:

Credit defines the coefficient of contents/syllabus prescribed for a course and determines the number of hours of instruction required per week. Thus, normally in each of the courses, credits will be assigned on the basis of the number of lectures/ tutorial laboratory work and other forms of learning required, to complete the course contents in a 15-20 week schedule:

- a. **1 credit** = 1 hour of lecture per week
- b. **3 credits** = 3 hours of instruction per week
- ✓ Credits will be assigned on the basis of the lectures (L) / tutorials (T) / Clinical Training (CR) / laboratory work (P) / Research Project (RP) and other forms of learning in a 15- 20 week schedule L - One credit for one hour lecture per week
- c. **P/T** - One credit for every two hours of laboratory or practical
- d. **CR** - One credit for every three hours of Clinical training/Clinical rotation/posting
- e. **RP** - One credit for every two hours of Research Project per week – Max Credit 20- 25

	Lecture - L	Tutorial - T	Practical - P	Clinical Training/ Rotation– CT/CR	Research Project– RP*
1 Credit	1 Hour	2 Hours	2 Hours	3 Hours	2 Hours
RP*	Maximum Credit 20 – 25 / Semester				

Types of Courses: Courses in a programme may be of three kinds:

- **Core Course**
- **Elective Course**
- **Ability Enhancement Compulsory Courses**

Core Course: A course, which should compulsorily be studied by a candidate as a basic requirement is termed as a Core course. There may be a Core Course in every semester. This is the course which is to be compulsorily studied by a student as a basic requirement to complete programme of respective study.

Elective Course: A course which can be chosen from a very specific or advanced the Course of study or which provides an extended scope or which enables an exposure to some other domain or expertise the candidates ability is called an Elective Course.

Discipline Specific Elective (DSE) Course: Elective courses offered by the main Course of study are referred to as Discipline Specific Elective. The University / Institute may also offer discipline related Elective courses of interdisciplinary nature. An elective may be “Discipline Specific Electives (DSE)” gazing on those courses which add intellectual efficiency to the students.

Dissertation / Project: An Elective/Core course designed to acquire special / advanced knowledge, such as supplement study / support study to a project work, and a candidate studies such a course on his own with an advisory support by a teacher / faculty member is called dissertation / project.

Generic Elective (GE) Course: An elective course chosen generally from an unrelated discipline/Course, with an intention to seek exposure is called a Generic Elective. P.S.: A core course offered in a discipline / Course may be treated as an elective by other discipline / Course and vice versa and such electives may also be referred to as Generic Elective.

Ability Enhancement Compulsory Courses: The Ability Enhancement (AE) Courses may be of two kinds: Ability Enhancement Compulsory Courses (AECC) and Skill Enhancement Courses (SEC).

“AECC” courses are the courses based upon the content that leads to Knowledge enhancement (i) Environmental Science and (ii) English/MIL Communication. These are mandatory for all disciplines.

Assigning Credit Hours per Course: While there is flexibility for the departments in allocation of credits to various courses offered, the general formula would be:

- All core courses should be restricted to a maximum of 4 credits.
- All electives should be restricted to a maximum of 3 credits.
- All ability enhancement courses should be restricted to a maximum of 2 credits.
- Projects should be restricted to a maximum of 20-25 credits.

Rules and Regulation for Examination of Audiology and Speech Language Pathology Program under CBCS Pattern

1. **Title of the Programme offered: Audiology and Speech Language Pathology**
2. **Duration of the Programme:** Three years + 6 Months Internship for UG course.
3. **Medium of instruction:** The medium of instruction and examination shall be in English
4. **Letter Grades and Grade Points:**

Adopted the UGC recommended system of awarding grades and CGPA under Choice Based Credit Semester System.

- 4.1 Would be following the absolute grading system, where the marks are compounded to grades based on pre-determined class intervals.
- 4.2 The UGC recommended 10-point grading system with the following letter grades will be followed:

Table 1: Grades and Grade Points:

Letter Grade	Grade Point
O (Outstanding)	10
A+ (Excellent)	9
A (Very Good)	8
B (Good)	7
C (Above Average)	6
F (Fail)/ RA (Reappear)	0
Ab (Absent)	0
Not Completed (NC)	0
RC (<50% in attendance or in Internal Assessment)	

- 4.3 A student obtaining Grade F/RA will be considered failed and will require reappearing in the examination.
- 4.4 Candidates with NC grading are those detained in a course (s); while RC indicate student not fulfilling the minimum criteria for academic progress or less than 50% attendance or less than 50% in internal assessments (IA). Registrations of such students for the respective courses shall be treated as cancelled. If the course is a core course, the candidate has to re-register and repeat the course when it is offered next time.

5. CBCS Grading System - Marks Equivalence Table

5.1 Table 2: Grades and Grade Points

Letter Grade	Grade	% of Marks
O (Outstanding)	10	86-100
A+ (Excellent)	9	70-85
A (Very Good)	8	60 -69
B (Good)	7	55 -59
C (Above Average) – Passing criteria for ASLP	6	50- 54
F (Fail))/ RA (Reappear)	0	Less than 50
Ab (Absent)	0	-
NC- not completed	0	-
RC- Repeat the Course	0	0

5.2 Table 3: Cumulative Grades and Grade Points

Letter Grade	Grade Point	CGPA
O (Outstanding)	10	9.01 - 10.00
A+ (Excellent)	9	8.01 – 9.00
A (Very Good)	8	7.01 – 8.00
B (Good)	7	6.00 - 7.00
C (Above Average)	6	5.01 - 6.00

6. Assessment of a Course: Evaluation for a course shall be done on a continuous basis. Uniform procedure will be adopted under the CBCS to conduct internal assessments (IA), followed by one end-semester university examination (ES) for each course.

6.1 For all category of courses offered (Theory, Practical, Discipline Specific Elective [DE] ; Generic Elective [GE] and Ability Enhancement Courses [AE]; Skills Enhancement Courses [SE] Theory or P (Practical) & RP(Research Project), assessment will comprise of Internal Assessment (IA) in the form of continuous comprehensive evaluation and mid-semester exam, end-semester (ES) examination or college exam as applicable.

6.2 Courses in programs wherein Theory and Practical/Clinical are assessed jointly. The minimum passing head has to be 50% Grade each for theory and practical's separately. RA grade in any one of the components will amount to reappearing in both components. i.e. theory and practical.

6.3 Evaluation for a course with clinical rotation or clinical training or internship will be done on a continuous basis.

7. Eligibility to appear for the end-semester examinations for a course includes:

- 71 Candidates having $\geq 75\%$ attendance and obtaining the minimum 40% in internal assessment in each course to qualify for appearing in the end-semester university examinations.
- 72 The students desirous of appearing for university examination shall submit the application form duly filled along with the prescribed examination fee.
- 73 Incomplete application forms or application forms submitted without prescribed fee or application form submitted after due date will be rejected and student shall not be allowed to appear for examination.

8. Passing Heads

- 8.1 Courses where theory and practical are involved, the minimum passing head shall be 50% in total including the internal assessment.
- 8.2 Elective Courses – the minimum prescribed marks for a pass in elective Course should be 50%. The marks obtained in elective Courses should be communicated to the university before the commencement of the university examination.

9 Detention: A student not meeting any of the above criteria maybe detained (NC) in that particular course for the semester. In the subsequent semester, such a candidate requires improvement in all, including attendance and/or IA minimum to become eligible for the next end-semester examination.

10 The maximum duration for completing the program will be 6 years (minimum duration of program x 2) i.e. $(3 \times 2) = 6$ years, failing which his/her registration will be cancelled. Full fees of entire program of 3 years may be liable to be paid by the students.

11 Carry over benefit:

- 11.1 A student will be allowed to keep term for Semester II irrespective of number of heads of failure in Semester I.
- 11.2 A student will be allowed to keep term for Semester III if she/he passes each Semester I and II OR fails in not more than 2 courses each in semester I and II.
- 11.3 Student will be allowed to keep term for Semester IV irrespective of number of heads of failure in Semester III. However, student must mandatorily have passed each course of Semester I and II in order to appear for Semester IV exam.
- 11.4 Student will be allowed to keep term for Semester V, if she/he passes Semester I, II, III and IV OR has passed in all courses of Semester I and II and fails in not more than two courses each of Semester III and IV.
- 11.5 Student will be allowed to keep term for Semester VI, irrespective of number of heads of failure in Semester V. However, student must mandatorily have passed each course of Semester I, II, III and IV in order to appear for Semester VI exam.

12 Grace Marks for UG Courses:

- 121 A student shall be eligible for grace marks, provided he/she appeared in all the papers prescribed for the examination.
- 122 Maximum up to 5 grace marks may be allowed for passing, spread over between Courses.
- 123 No grace marks will be awarded in internal evaluation.

13 University End-Semester Examinations

- 131 There will be one final university examination at the end of every semester.
- 132 A student must have minimum 75% attendance (Irrespective of the type of absence) in theory and practical in each Course to be eligible for appearing the University examination.
- 133 The Principal / Director shall send to the university a certificate of completion of required attendance and other requirements of the applicant as prescribed by the university, two weeks before the date of commencement of the written examination.
- 134 A student shall be eligible to sit for the examination only, if she / he secure a minimum of 40% in internal assessment (individually in theory and practical as applicable). Internal examinations will be conducted at college/ department level.
- 135 Notwithstanding any circumstances, a deficiency of attendance at lectures or practical maximum to the extent of 10% - may be condoned by the Principal / Director.
- 136 If a student fails either in theory or in practical, he/ she have to re-appear for both.
- 137 There shall be no provision of re-evaluation of answer sheets. Student may apply to the university following due procedure for recounting of theory marks in the presence of the Course experts.
- 138 Internal assessment shall be submitted by the Head of the Department to the University through Dean at least two weeks before commencement of University theory examination.

- 14. Supplementary examination:** The supplementary examination will be held in the next semester. Eligibility to appear for supplementary examination will be as per rule number 11.1-11.5.

15. Re-Verification

There shall be provision of re-totaling of the answer sheets; candidate shall be permitted to apply for recounting/re-totaling of theory papers within 8 days from the date of declaration of results.

- 16. Scheme of University Exam Theory UG Program:** General structure / patterns for setting up question papers for Theory / Practical courses, for UG program are given in the following tables. Changes may be incorporated as per requirements of specific courses.

Guidelines to Prepare Internship Research Proposal & Project

1. Selection of Research Problem:

Select your interest area of research, based on felt need, issues, social concern.

- a. State the problem in brief, concise, clear.
- b. State the purpose of selected study & topic.
- c. State the objectives of proposal/project.
- d. Prepare conceptual framework based on operational definition.
- e. Write scope of research proposal/project.

2. Organizing Review of Literature

- a. Study related and relevant literature which helps to decide conceptual framework and research design to be selected for the study
- b. Add specific books, bulletins, periodicals, reports, published dissertations, encyclopaedia and text books
- c. Organize literature as per operational definition
- d. Prepare summary table for review of literature

3. Research Methodology: To determine logical structure & methodology for research project.

- a. Decide and state approach of study i.e. experimental or non-experimental
- b. Define/find out variables to observe effects on decided items & procedure
- c. Prepare simple tool or questionnaire or observational checklist to collect data.
- d. Determined sample and sampling method
- e. Mode of selection ii) Criteria iii) Size of sample iv) Plan when, where and how data will be collected.
- f. Test validity of constructed tool
- g. Check reliability by implementing tool before pilot study(10% of sample size)
- h. Conduct pilot study by using constructed tool for 10% selected sample size

4. Data collection: To implement prepared tool

- a. Decide location
- b. Time
- c. Write additional information in separate exercise book to support inferences and interpretation

5. Data analysis and processing presentation

- a. Use appropriate method of statistical analysis i.e. frequency and percentage
- b. Use clear frequency tables, appropriate tables, graphs and figures.
- c. Interpretation of data:
- d. In relation to objectives
- e. Hypothesis
- f. Variable of study or project
- g. writing concise report

6. Writing Research Report**a. Aims:**

- i. To organize materials to write project report
- ii. To make comprehensive full factual information
- iii. To make appropriate language and style of writing
- iv. To make authoritative documentation by checking footnotes, references & bibliography
- v. To use computers & appropriate software

b. Points to remember

- i. Develop thinking to write research report
- ii. Divide narration of nursing research report
- iii. Use present tense and active voice
- iv. Minimize use of technical language
- v. Use simple, straightforward, clear & concise language
- vi. Use visual aids in form of table, graphs & figures
- vii. Treat data confidentially
- viii. Review & rewrite if necessary

Evaluation Criteria for Project Report

Sr. No	Criteria	Rating					Remark
		1	2	3	4	5	
I	Statement of the problem						
	1. Significance of the problem selected						
	2. Framing of title and objectives						
II	Literature Review						
	1. Inclusion of related studies on the topic and its relevance						
	2. Operational definition						
III	Research Design						
	1. Use of appropriate research design						
	2. Usefulness of the research design to draw the inferences among study variables/						
IV	Sampling Design						
	1. Identification & description of the target population						
	2. Specification of the inclusion & exclusion criteria						
	3. Adequate sample size, justifying the study design to draw conclusions						
V	Data Collection Procedure						
	1. Preparation of appropriate tool						

	2. Pilot study including validity & reliability of tool						
	3. Use of appropriate procedure/ method for data collection						
VI	Analysis of Data & Interpretation						
	1. Clear & logical organization of the finding						
	2. Clear presentation of tables(title, table & column heading)						
	3. Selection of appropriate statistical tests						
VII	Ethical Aspects						
	1. Use of appropriate consent process						
	2. Use of appropriate steps to maintain ethical aspects & principles						
VIII	Interpretation of the finding						
	& appropriate discussion of the results						
IX	Conclusion						
	Summary & recommendations						
X	Presentation/ Report Writing						
	Organization of the project work including language & style of						

Signature of the Evaluator

18. Eligibility for award of degree

18.1 A candidate shall have passed in all the Courses of all semester's I-VI, completed internship and submitted research project report to be eligible for award of B . S c . Audiology and Speech Language Pathology degree.

The performance of a candidate in a course will be indicated as a letter grade, whereas grade point will indicate the position of the candidate in that batch of candidates. A student is considered to have completed a course successfully and earned the prescribed credits if he/she secures a letter grade other than F/RA. A letter grade RA in any course implies he/she has to Re-appear for the examination to complete the course.

18.2 The RA grade once awarded in the grade card of the student is not deleted even when he/she completes the course successfully later. The grade acquired later by the student will be indicated in the grade sheet of the subsequent semester in which the candidate has appeared for clearance in supplementary exams

18.3 If a student secures RA grade in the Project Work/Dissertation, he/she shall improve it and resubmit it, if it involves only rewriting / incorporating the revisions suggested by the evaluators. If the assessment indicates lack of student performance or data collection then the student maybe permitted to re-register by paying the prescribed re-registration fee and complete the same in the subsequent semesters.

A candidate shall be declared to have passed the examination if he/she obtains the following minimum qualifying grade / marks:-

- (a) For Core courses CT (Core Theory), CL (Core Lab), DE (Discipline centric Electives), clinical rotation and internship student shall obtain Grade B (50 % of marks) in the University End Semester Examination (ES) and in aggregate in each course which includes both Internal Assessment and End Semester Examination.
- (b) For Generic Electives (GE), Ability Enhancement (AE) and Skill Enhancement (SE) courses student shall obtain Grade D (40 % of marks) in the College Examination.

19. Guidelines for Clinical Internship or Research internship:

19.1 Internship may be commenced only on completion of all course work. The internship may be observed only at the clinical postings and areas of extension activities of Department of Physiotherapy, BLDEDU. No external postings will be considered during internship. Students are expected to act in a responsible and professional manner at all times during their postings.

19.2 Eligibility for appearing for Internship: On completion of all course work, a candidate is permitted by the Director/Principal to join internship during the beginning of the semester i.e., Odd/ Even.

- 193 Responsibilities during internship: During the internship period candidates should show at least 90% attendance. They must engage in practice/ skill based learning of professional conduct. Their learning outcomes must be maintained and presented in the form of logbooks/ case studies/ research project report. The appropriate formats for the postings/ clinical rotations/ research assignments will be as prescribed as required.
- 194 Evaluation of internees and award of credits: All internees will be assessed based on their satisfactory attendance, performance in the postings/ research labs and the presentation of the logbook. The credits and hours of internship will be as defined in the ASLP program

Computation of SGPA and CGPA

The UGC recommends the following procedure to compute the Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA):

- i. The SGPA is the ratio of sum of the product of the number of credits with the grade points scored by a student in all the courses taken by a student and the sum of the number of credits of all the courses undergone & earned by a student, i.e.,

$$\text{SGPA (Si)} = \frac{\sum(C_i \times G_i)}{\sum C_i}$$

where C_i is the number of credits of the i th course and G_i is the grade point scored by the student in the i th course.

- ii. The CGPA is also calculated in the same manner taking into account all the courses undergone & earned by a student over all the semesters of a programme, i.e.

$$\text{CGPA} = \frac{\sum(C_i \times S_i)}{\sum C_i}$$

Where S_i is the SGPA of the i th semester and C_i is the total number of credits in that semester.

- iii. The SGPA and CGPA shall be rounded off to 2 decimal points and reported in the transcripts.

Illustration of Computation of SGPA and CGPA

Course	Credit	Grade Letter	Grade Point	Credit Point (Credit x Grade)
Course 1	3	A	8	3 X 8 = 24
Course 2	4	B+	7	4 X 7 = 28
Course 3	3	B	6	3 X 6 = 18
Course 4	3	O	10	3 X 10 = 30
Course 5	3	C	5	3 X 5 = 15
Course 6	4	B	6	4 X 6 = 24
	20			139
Illustration for SGPA				
Thus, SGPA = 139/20 = 6.95				

Semester 1	Semester 2	Semester 3	Semester 4
Credit : 20 SGPA : 6.9	Credit : 22 SGPA : 6.8	Credit : 25 SGPA : 6.6	Credit : 26 SGPA : 6.0
Semester 5	Semester 6		
Credit : 26 SGPA : 6.3	Credit : 25 SGPA : 8.0		
Illustration for CGPA			

Thus,

$$\text{CGPA} = \frac{20 \times 6.9 + 22 \times 6.8 + 25 \times 6.6 + 26 \times 6.0 + 26 \times 6.3 + 25 \times 8.0}{144} = 6.75/\text{B+}$$

- ii. Transcript: Based on the above recommendations on Letter grades, grade points and SGPA and CGPA, the transcript for each semester and a consolidated transcript indicating the performance in all semesters may be issued.

Course Registration

17.1. After admission to a Program, a student identity number is generated .This PRN number may be used in the process of registration for a course.

17.2 The registration process is a registration for the courses in a semester. The registration card is generated after a student completes the choice of electives. Every student shall register for the stipulated number of Courses/Credits semester wise even if electives are not prescribed in their regulations for the said semester. Every student must register for Elective/Ability Enhancement Courses semester-wise for the courses he/she intends to undergo in that semester within two weeks of commencement of the semester.

The list of students registered for each elective will be communicated to the HoDs/ Course Chairpersons. Students will be requested to authenticate the chosen electives by appending their signature in acceptance with approval by the HoDs/ Course Chairpersons. A soft copy of the registered students will be submitted to the elective course offering departments for their official use.

Re - Entry after Break of Study:

The University regulations for readmission are applicable for a candidate seeking re-entry to a program.

- Students admitted the program and absenting for more than 3 months must seek readmission into the appropriate semester as per university norms.
- The student shall follow the syllabus in vogue (currently approved / is being followed) for the program.
- All re-admissions of students are Course to the approval of the Vice-Chancellor.

Ranking

The first two ranks of the programme will be decided on the basis of grades of CGPA in the courses (core and DE courses only). In case of a tie, marks % [of core and DE courses only] will be taken into account.

Classification of Successful Candidates

Overall Performance in a Program and Ranking of a candidate is in accordance with the University regulations.

Consolidated Grade Card – ASLP Program			
Letter Grade	% Marks Range	Grade point	CGPA RANGE
O	80 & Above	10	9.01 – 10
A+	75-80	9	8.01 - 9.00
A	60-74	8	7.01 - 8.00
B+	55-59	7	6.01- 7.00
B	50-54	6	5.01- 6.00
F/RA (Reappear)	Less than 50	0	4.51 – 5.00
Ab (Absent)		0	
Not Completed (NC)		0	
Repeat the course (RC = <50% in attendance or Internal Assessment)		0	

A successful candidate will be:

- i. Who secures not less than O grade with a CGPA of 9.01 – 10.00 shall be declared to have secured ‘OUTSTANDING’ provided he/she passes the whole examination in the FIRST ATTEMPT;
- ii. Who secures not less than A+ grade with a CGPA of 8.01 – 9.00 shall be declared to have secured ‘EXCELLENT’ provided he/she passes the whole examination in the FIRST ATTEMPT;
- iii. Who secures not less than A grade with a CGPA of 7.01 –8.00 and completes the course within the stipulated course period shall be declared to have passed the examinations with ‘Very Good’
- iv. All other candidates (with grade B and above) shall be declared to have passed the examinations.

SEMESTER-I

BASLP 1.1 INTRODUCTION TO HUMAN COMMUNICATION

(80+20 marks)

(Total = 64 hrs)

Objectives: After studying this paper at the end of the semester, the student should be able to understand the following –

Human communication, process involved in communication

Interrelation between hearing, speech and language

The neurological, psychological, social and acoustic bases of communication

Unit 1

(12 hrs)

1. History and development of the profession of Speech-language pathology (SLP) specifically in India
1. Major work activities of the SLP
2. Various settings of service delivery
3. Other professions concerned with communication disorders
4. Human communication:
Definition and components
Interdependency & interrelation between communication, hearing, speech, and language.
Function of communication, speech and language Modes of communication (Verbal & Non-verbal) Characteristics of good speech
5. Interactive bases of human communication
 - a. Genetic bases
 - b. Psychological & cognitive bases
 - c. Social bases
6. Speech as an overlaid function
7. Pre-requisites and factors affecting language and speech development

Unit 2

(14 hrs)

Nervous system:

- Divisions and functions of the nervous system, nerve cell, receptors and synapse, types of nerve fibres. Peripheral nervous system. Brief description of spinal cord and CSF.
- Structure of the brain and divisions: general and lobes of cerebrum. Reticular formation, Basal ganglia and cerebellum. Reflex action and common reflexes. Cranial nerves, distribution and supply with the special reference to II, V, VII, IX, X, XII., Nerve tracts (motor and sensory), Broadmann's area, anatomy of the nervous system related to speech and language.

Unit 3

(14 hrs)

Mechanism of speech and language production- I

- Anatomy and physiology of respiratory system: Detailed study of trachea, larynx, oropharynx and nasopharynx.
- Respiration for life and speech
- Physiology: External and internal respiration. Mechanism of respiration- internal and external influence, nervous control, Lung volumes (vital capacity-tidal volume. residual air, artificial respiration.(in brief)
- Composition of gases. Exchange of gases in the lungs and tissues. Hypoxia, asphyxia and cyanosis. Regulation of respiration. Respiratory efficiency test and artificial respiration.

Unit 4

(12 hrs)

1. Basic Acoustics of speech:

- Vibrating system -simpleharmonic motion -simplevibrating system- system with two or more masses - system with many modes of vibrations - vibration spectra. Waves - What is a wave? Progressive waves - sound waves - wave propogation - Doppler effect - reflection, diffraction, interference, absorption. Resonance of a mass spring vibrator- standing waves - partials, harmonics and overtones -Acoustic impedance - Helmholtz resonator - sympathetic vibrations.

2. Mechanism of speech and language production- II

- Anatomy and physiology of laryngeal system
- Development of voice
- Bases of pitch and loudness change mechanism

Unit 5

(12 hrs)

Mechanism of speech and language production- III

- Anatomy and physiology of articulatory system
- Anatomy and physiology of resonatory system

LIST OF BOOKS

Compulsory Reading:

1. Speech Correction: An Introduction to Speech Pathology and Audiology (8th Ed.). Van Riper, C and Emerick, L. (1990). New Jersey: Prentice Hall Inc.
2. Singh, I. (1996). Textbook of Anatomy with Colour Atlas, Vol. III Jaypee Brothers.
3. Zemlin, W.R. (1981). Speech and Hearing Science: Anatomy and Physiology, (2nd Ed.). Englewood Cliffs, New Jersey: Prentice Hall.

Additional / Optional Reading:

1. Minifie, F.D., Hixon, T.J., and Williams, F. (1973). Normal aspects of Speech, Hearing and Language. New Jersey: Prentice Hall Inc.
2. Skinner, P.H. and Shelton, R.L. (1978). Speech, Language and Hearing- Normal Processes and Disorders. (2nd Ed.). New York: John Wiley and Sons.
3. Human Communication Disorders: An Introduction (4th Ed.). Shames, G.H. Wiig, E.H. & Secord, W.A. (1994) New York: Merrill Publishing Co.
4. Speech and Hearing Science, Anatomy and Physiology (3rd ed.). Zemlin, W.R. (1988) New Jersey: Englewood Cliffs
5. Human Communication & Its Disorders (2nd Ed.). Boone, D.R. & Plante, E. (1993). New Jersey: Prentice Hall Inc.
6. Palmer, J.M. (1984). Anatomy for Speech and Hearing, (3rd Ed.). New York: Harper and Row.
7. Perkins, W.H. and Kent, R.D. (1986). Textbook of Functional Anatomy of Speech, Language and Hearing. London: Taylor and Francis.
8. Gray's Anatomy. (37th Ed.). Williams Warwick and Dyson Banniser. (1989). Churchill

BASLP 1.2 SPEECH, LANGUAGE DEVELOPMENT AND DISORDERS

(80+20 marks)

(Total = 64 hrs)

Objectives: After studying this paper at the end of the semester, the student should be able to understand the following –

- Development of speech & language
- Identify different speech & language disorders
- Basics of assessment and intervention for Child language disorders.

Unit 1

(14 hrs)

Development of speech and Language: Development of language

Semantics: A brief introduction to different types of homonyms, synonyms and antonyms.

Morphology: Morpheme -bound and free, process of word formation, content and function words.

Syntax:, grammatical and syntactic categories, sentence types, Syntactic analysis.

Pragmatics: Introduction to verbal and non-verbal communication and other indicators, intent of communication.

Unit 2

(10 hrs)

Theories and models of language Acquisition -Behavioral, Nativistic, Cognitive, Linguistic, Pragmatic, Biological and Information processing model.

Developmental issues in communicative development - genetic, neurological, medical, behavioral, social and psychological.

Bilingualism / multilingualism in children; Bilingual Language learning contexts home and school situations, compound / coordinate context and others.

Unit 3

(12 hrs)

Definition, Etiology, Characteristics, Classification and Impact of Hearing Impairment
Mental Retardation Cerebral Palsy Seizure disorders

Introduction to assessment procedures, differential diagnosis and management

Unit 4

(12 hrs)

Definition, Etiology, Characteristics and classification of
Autism Spectrum Disorders/Pervasive Developmental Disorders Attention Deficit
Disorder/ Attention Deficit Hyperactive Disorder

Introduction to assessment procedures, differential diagnosis and management.

Unit 5

(16 hrs)

Definition, Etiology, Characteristics, Classification and Impact of Specific Language
Impairment Learning Disability Acquired aphasias in childhood Traumatic Brain
Injury Multiple disabilities

Introduction to assessment procedures, differential diagnosis and management.

LIST OF BOOKS

Compulsory Reading:

1. Reed, V. (1994). An Introduction to children with language disorders. (2nd Ed.) New York: Macmillan.
2. Nelson N. W (1998). Childhood language disorders in context - infancy through adolescence, Allyn and Bacon, Boston.
3. Hegde, M. N. (1996). A Coursebook on Language Disorders in Children. San Diego: Singular Publishers.
4. Ladefoged P. (1992). A course in Phonetics. (3rd Ed.). New York: Harcourt Brace Jovanovich.
5. Lees, J.A. and Urwin, S. (1991): Children with Language Disorders. Whurr Publishers

Additional/Optional Reading:

6. Woolfolk, E. & Lynch J. (1982). An integrative approach to language disorders in children. New York: Grune and Stratton.
7. Thirumalai M. S. Shyamala Chengappa (1988) Simultaneous Acquisition of two languages CIIL, Mysore
8. Fromkin, L.F. and Rodman, R. (1993). An Introduction to Language (51 Ed.). New York: Harcourt Brace Jovanovich
10. Subba Rao (1992). Developing communication skills in MR, NIMH, Secunderabad.
11. Shyamala K. Chengappa (1992). Speech and Language of the cerebral palsied, CIIL, Mysore.
12. Shyamala K. Chengappa (1986). Introduction to speech disorders in children an introduction IED cell, Port Blair, Anadaman & Nichobar.
13. O'Connor. (1993). Phonetics. Hammondsworth: Penguin books
14. Yule, G (1996). The Study of Language: An Introduction. (2nd Ed.). Cambridge: Cambridge University Press.
15. Lyons, J. (Ed.). (1970). New Horizons in Linguistics. Hammondsworth: Penguin Books
16. Akmajian. A. et al. (1990). Linguistics: An Introduction to Language and Communication

BASLP 1.3 INTRODUCTION TO HEARING & HEARING SCIENCES

(80+20 marks)

(Total = 64 hrs)

Objectives: After studying this paper at the end of the semester, the student should be able to understand the following –

- Basic aspects of auditory system
- Physical and psychophysical basis of sound
- Tuning fork tests

Unit 1

(12 hrs)

- Origin of Audiology
- Its growth & development (since World War II)
- Its growth in India
- Scope of Audiology
- Branches of Audiology

Unit 2

(14 hrs)

- Audio vestibular system: Anatomy of the external, middle and internal ears. Ascending and descending auditory and vestibular pathways.
- Physiology of the external, middle & inner ear, central hearing mechanisms, cochlear micro phonics, action potentials, theories of hearing (AC & BC)
- Vestibular system: Functions of utricle, saccule and vestibular apparatus. Posture and equilibrium. Tests of posture and equilibrium
- Role of hearing (threshold concept, binaural hearing, head shadow, pinna shadow effect, MAF, MAP – Curve for threshold of hearing) & Causes of hearing impairment

Unit 3

(14 hrs)

- Sound Pressure, Power and Loudness. Physical and psychophysical scales, Equal loudness contours, Frequency weighting curves, combined sources, Pitch and Timbre. Physical and psychophysical scales. Fourier analysis of complex Tones
- dB concept: power and pressure formulae: zero dB reference for pressure and power calculation of actual SPL, reference and dB values with any to given values, calculation of overall dB when two signals are superimposed.
- Phones and Sones: relation between phones and sones; use of phone and sone; computation of relative loudness of two given sounds using these graphs. Frequency and intensity, their psychological correlates: dL for frequency and intensity

Unit 4 (12 hrs)

- Causes of hearing loss
 - f* Genetic (congenital, of late onset, progressive, syndromic/non-syndromic)
 - f* Non-Genetic (Congenital/acquired)
 - f* Importance of case history in identifying the cause of hearing loss

Unit 5 (12 hrs)

- Tuning fork tests (Rinne, Weber, Bing, Schwabach), interpretation, merits & demerits.
- Basic concepts of AC & BC testing
 - procedure
 - interpretation
 - precautions to be taken while testing
- Theory of bone conduction

LIST OF BOOKS

Compulsory Reading:

1. Hodgson, H.R. (1980) Basic Audiologic Evaluation, London Williams and Wilkins.
2. Martin, F.N. (1991), Introduction to Audiology, IV Edition, New Jersey: Prentice Hall.
3. Newby, H.A. (1985), Audiology, New York: Appleton-Century-Crofts.
4. Testing, interpretation and recording - ISHA Battery (1990). ISHA publication.
5. The Science of sound - Thomas D. Rossing, Addison - Wasloy Publishing Company
6. Architectural Acoustics. Egan, M. D. Mc Graw Hill Inc, (1988)
7. Bess and Humes (1990) Audiology - Fundamental. Williams and Wilkins, London.
8. Davis and Silverman, (Latest Edition). Hearing and deafness. Holt, Rinehats & Winston, London.
9. Rose, D.M. (Ed.) 1978), Audiological Assessment, New Jersey: Prentice Hill.

Additional Reading:

10. Beagly, H.A. (Ed.) (1981). Audiology and Audiological Medicine. Vol. 1, Oxford University Press.
11. Relevant BIS documents

BASLP 1.4 BASIC MEDICAL SCIENCES RELATED TO SPEECH & HEARING

(80+20 marks)

(Total = 64 hrs)

Objectives: After studying this paper at the end of the year, the student should be able to understand the following –

- Basic anatomy and physiology related to speech and hearing
- Basic neurological, genetic issues related to speech and hearing
- General diseases/conditions related to speech and hearing disorders

PART A (UNIT 1) ANATOMY

Unit 1 (20 + 5 marks)

(12 hrs)

- a) General introduction, definitions, Coronal & sagittal & I plane) Planes. Definition of anatomy, morphology, physiology, histology, embryology.
- b) Definition of Cell and organelles, tissue, organ system, specialized tissues like nervous tissue, vascular tissue, muscle and bone tissue.
- c) Nervous system: Definition of neuron, synapse, reflex action, bio electrical phenomena, action potential, depolarisation, division and functions of the nervous system, brain – general lobes, reticular formations, basal ganglia, cerebellum, circle of willis, cranial nerves, spinal cord, CSF – formation & flow.
- d) Circulatory system: Definition of capillaries, arteries, veins, cardiac cycle, blood brain barrier, aneurysm, vascular shock – its reference to aphasia & speech disorders.
- e) Respiratory system: General outline, detailed study of trachea, larynx and nasopharynx,

PART B (UNIT 2) PHYSIOLOGY

Unit 2 (20 + 5 marks)

(14 hrs)

- a) Definition of inflammation, infection, tumor – benign & malignant, tissue healing.
- b) Mechanism of respiration – internal and external influence, nervous control - vital capacity -tidal volume, residual air, artificial respiration (in brief).
- c) Genetics :introduction – structure of DNA and RNA, karyotyping, family tree (pedigree chart), symbolic representation, inheritance, autosomal dominant, autosomal recessive, sex chromosomal disorders, structural aberrations, mutation (in brief).
- d) Endocrine system: Definition of hormone, functions of thyroid hormone, growth hormone, androgen, testosterone and its influence in voice disorders.

PART C (UNIT 3, 4, 5) ENT

Unit 3 (40 + 10 marks)

(14 hrs)

- a) Anatomy & Physiology of external, middle & inner ear, auditory pathways, vestibular pathway. Diseases of the external middle and inner ear leading to hearing loss: Congenital malformations, traumatic lesions, infections, management of middle ear and Eustachian tube disorders.
- b) Other causes of hearing loss – Facial paralysis, Tumors of the cerebello-pontine angle, Acoustic neuroma. Infection and management of inner ear diseases. Cochleo-vestibular diseases and its management.

Unit 4

(12 hrs)

- a) Anatomy & Physiology of pharynx & oro-peripheral structures

Causes of speech disorder, Disorders of the mouth, Tumors of the jaw and oral cavity, nasopharynx and pharynx, pharyngitis, Diseases of tonsils and adenoids.
- b) Oesophageal conditions: Congenital abnormality -Atresia, Tracheo-oesophageal fistula, Stenosis, Short oesophagus. Neoplasm – Benign, Malignant, Lesions of the oral articulatory structures like cleft lip, cleft palate, submucosal cleft, Velopharyngeal incompetence.

Unit 5

(12 hrs)

- a) Anatomy & Physiology of larynx – physiology of phonation / physiology of respiration.
- b) Congenital diseases of the larynx – difference between an infant and an adult larynx. Stridor-causes of infantile stridor. Disorders of structure– Laryngomalacia, Bifid epiglottis, Laryngeal web, Atresia, fistula, Laryngeal cleft, Tumors and Cysts, Laryngitis, Laryngeal trauma and Stenosis. Neuromuscular dysfunctions of the larynx – Vocal cord palsy, Spastic dysphonia, Hypothyroidism, gastro oesophageal reflux disorders, Laryngectomy, artificial larynx, oesophageal speech, tracheo oesophageal puncture.

LIST OF BOOKS

Compulsory Reading:

1. Singh, I. (1996). Textbook of Anatomy with Color Atlas, Vol. III Jaypee Brothers.
2. Zemlin, W.R. (1981). Speech and Hearing Science: Anatomy and Physiology, (2nd Ed.). Englewood Cliffs, New Jersey: Prentice Hall.
3. Alper, C.M., Myers, E.N., Eibling, D.E. (2001). Decision making in ear, nose & throat disorders. W.B. Saunders Company, Philadelphia.
4. Dhingra, P.L. (1992). Diseases of Ear, Nose & Throat. Churchill Livingstone, New Delhi.
5. Gray R.F., Hawthorne, M. (1992). Synopsis of Otolaryngology. Butterworth Heinemann Ltd, Oxford. 5th Edition.
6. Ramalingam, K.K., Sreeramamoorthy, B. (1990). A short practice of Otolaryngology. A.I.T.B.S. Publishers Distributors.
7. Scott-Brown, W.G., Ballantyne, J., Groves, J. Diseases of the nose & throat. Butterworth & Co., Ltd. 2nd edition, Chichester.
8. Inderbeer Singh (1996) - Text book of embryology.

Additional I Optional Reading:

9. Palmer, J.M. (1984). Anatomy for Speech and Hearing, (3rd Ed.). New York: Harper and Row.
10. Perkins, W.H. and Kent, R.D. (1986). Textbook of Functional Anatomy of Speech, Language and Hearing. London: Taylor and Francis.
11. Gray's Anatomy. (37th Ed.). Williams Warwick and Dyson Banniser. (1989). Churchill Livingstone.

BASLP 1.5 CLINICAL PRACTICUM- Speech Language Pathology-I

At the end of Semester I, the students should be able to carry out the following-

1. Taking case history of a minimum of 10 individuals (5 normal & 5 clients with complaints of speech-language problems)
2. Label and identify structures of the speech mechanisms with the help of charts, models, specimens and computer software
3. Conduct Oral Peripheral Mechanism examination on at least 5 normal and 5 children/adults with speech language complaints
4. Analyze the following in normal Courses :
 - Pitch -normal /high /low
 - Loudness - normal /loud /soft
 - Quality -normal /hoarse /harsh /breathy /hyper - nasal /hypo - nasal
 - Rate of speech - -normal /fast /slow
 - Articulation -normal / abnormal
 - Fluency -normal / abnormal
 - Intelligibility -using the AYJNIHH intelligibility rating scale
5. Use varying range of pitch and loudness
 - Measure FO, Vital capacity, phonation duration, rate of speech, Alternate Motion Rates and Sequential Motion Rates, s/z ratio in 5 normal individuals
6. Measure in 2 normal samples (with the help of video or live)
 - Mean Length of Utterance (MLU)
 - Syllable structure
 - Syntactic structures
 - Communication intent
7. Use proformae for the following disorders:
 - Articulation
 - Voice
 - Fluency
 - Cleft lip and palate
 - Child language assessment
8. Use scale / test for :
 - Receptive language skills
 - Expressive language skills

Receptive Expressive Emergent Language Scale (REELS) 3-Dimensional Language Acquisition Test (3DLAT)
Scales of Early Communication Skills for Hearing impaired children (SECS) and Indian tests

Observation of a minimum of 5 diagnostic cases, 5 therapy cases Writing of observation reports of the above
Maintenance of a clinical diary

Maintenance of a clinical work record to be submitted at the end of the term

BASLP 1.6 CLINICAL PRACTICUM-Audiology- I

At the end of Semester I, the student should be exposed and be able to carry out the following:

1. Public information materials (videos, pamphlets, booklets etc.)
2. Taking case histories of 10 adults and 10 children with normal hearing & with hearing impairment under supervision.
3. Analyse 10-15 case histories of adults and children with hearing impairment.
4. Undergo pure-tone audiometry. Become familiar with different types of sound stimuli used for assessment of hearing and sound generator softwares.
5. Identify the different types of audiometers (at least 1 portable & 1 diagnostic) and their accessories referring to their respective manuals. Get familiar with the various parts of audiometers and their functions. Carry out listening checks of audiometers. Trouble-shoot audiometers. List the different earphone/ear cushion combination, BC vibrator, study the same and report the status of the same.
6. Prepare 0 dB HL equivalent chart with different earphone/ear cushion combinations.

SEMESTER-II

BASLP 2.1 SPEECH LANGUAGE DIAGNOSTICS AND THERAPEUTICS

(80+20 marks)

(Total = 64 hrs)

Objectives:

After studying this paper at the end of the semester, the student should be able to understand the following –

1. Importance of case history, diagnostics and therapeutic approaches
2. Taking case history and therapy in general
3. Will get theoretical backup for clinical documentation

Speech language diagnostics

Unit 1

(12 hrs)

1. Case history - need for the case history - essential factors to be included in the case history form - comparison of adults vs. children case history - usefulness of the case history
2. Basic terminologies and concepts
 - Introduction to diagnostics
 - Terminologies in the diagnostic process
 - General principles of diagnosis
 - Diagnostic setup and tools

Unit 2

(14 hrs)

1. Diagnostic approaches and methods
 - Approaches to diagnosis - case history, need for the case history, essential factors
 - to be included in the case history form, comparison of adults vs. children case history, usefulness of the case history.
 - Interview - principles and techniques
 - Self-reports, questionnaire, observations.
 - Diagnostic models - SLPM, Wepman, Bloom and Lahey
 - Types of diagnoses – Clinical diagnosis, direct diagnosis, differential diagnosis, diagnosis by treatment, diagnosis by exclusion, team diagnosis, instrumental diagnosis, provocative diagnosis, Provisional diagnosis; advantage/disadvantages
 - Characteristics of a good clinician as diagnostic

B. Speech therapeutics

Unit 3

(12 hrs)

Basic concepts of therapeutics
Terminologies in speech therapeutics
General principles of speech and language therapy
Speech therapy set-up
Individual and group therapy
Integrated and inclusive education

Unit 4

(14 hrs)

1. Procedures for speech-language therapy
 - Approaches to speech and language therapy - formal, informal and eclectic approaches
 - Types of speech and language therapy
 - Planning for speech and language therapy -goals, steps, procedures, activities
 - Techniques for:
 - % Speech and language therapy for various disorders of speech and language
 - % Importance of reinforcement principles and strategies in speech and language therapy, types and schedules of rewards and punishment

Unit 5

(12 hrs)

1. Clinical documentation and professional codes
 - Documentation of diagnostic, clinical and referral reports
 - Introduction to parent counseling, facilitation of parent participation and transfer
 - of skills, follow-up
 - Evaluation of therapy outcome
 - Ethics in diagnosis and speech language therapy
 - Self-assessment and characteristics of a clinician.

LIST OF BOOKS

Compulsory Reading:

1. Meyer, S.M. (1998). Survival guide for the beginning speech-language clinician. Maryland: Aspen Publishers.
2. Owens, R.E. (1999). Language disorders: Functional approach to assessment and intervention. Boston: Allyn & Bacon Inc.
3. Tomblin, E. et.al. (1994). Diagnosis in Speech language pathology. San Diego: Singular Publishing Inc.
4. Shipley, K.G., & Mcafer, J.G. (1998). Assessment in speech language pathology: A resource manual. San Diego: Singular Pub Inc.
5. Klein, H.B., & Nelson, M. (1994). Intervention planning for children with communication disorders: A guide for clinical practicum and professional practice. New Jersey. Prentice Hall.

Additional I Optional Reading:

6. Frattali, C.M. (1998). Measuring outcomes in speech language pathology. New York: Thieme.
7. Shames, G.H. (2000). Counselling the communicatively disabled and their families. Boston: Allyn & Bacon.
8. Hegde, M.N. (1985). Treatment procedures in communicative disorders. Texas. Pro Ed.
9. Darley, F.L., & Spriesterbach (1978). Diagnostic methods in Speech Pathology. San Diego: Singular Pub Inc.
10. Leith, W.R. (1993). Clinical methods in communicative disorders. Texas. Pro. Ed.

BASLP 2.2 INTRODUCTION TO AUDIOLOGY & AUDITORY TESTS

(80+20 marks)

(Total = 64 hrs)

After studying this paper at the end of the semester, the student should be able to understand the following–

Unit 1: (14 hours)

- Pure Tone audiometry: Need and scope
- Instrumentation
- Standards
- Different types of transducers
- Permissible ambient noise levels for audiometric testing Calibration: Biological and instrumental for AC & BC transducers

Unit 2: (14 hours)

- Classification of audiograms
- Sound field & closed field testing
- Factors affecting AC & BC testing Screening Vs Diagnostic pure tone testing
- Extended high frequency testing & its interpretation

Unit 3: (12 hours)

- Masking: Definition, types of masking, types of noises, critical band concept,
- Terminology related to masking: Test ear, non-test ear, masker, maskee, crossover, cross hearing and shadow curve
 - Interaural attenuation; Factors affecting IA; Criteria for masking during AC & BC
 - Factors determining amount of masking noise, AB gap in masked ear, masking dilemma in bilateral symmetrical conduction hearing loss.
 - Fusion Inferred Test (FIT)

Unit 4: (12 Hours)

- Orientation to speech audiometry
- Need for speech audiometry
- Speech recognition threshold, speech identification score, UCL, MCL, dynamic range, articulation index
- Tests developed in India and abroad
- Factors affecting speech audiometry
- Limitations of speech audiometry
- Masking for speech audiometry
- PI-PB function

Unit 5:

(12 hours)

- Acoustics of Rooms. Sound propagation in outdoors and indoors.
- Direct, early and reverberant sound. Calculation of reverberation time.
- Air absorption. Background noise.
- Loudspeaker placement and directivity.
- Sound images and multiple sources.
- Sound field in listening rooms. Quadraphonic sound.
- Listening with earphones. Pressure field, free field and diffused field.
- Audiometric test rooms - Basic requirements concept and structure - transmission loss,
- NRC rating - Standards for sound treated rooms - Basic requirements, concept and structure - standards.
- Classrooms of hearing impaired children - Basic requirements, concept and structure - standards.

LIST OF BOOKS

Compulsory Reading:

- Hodgson, R.R. (1980) Basic Audiologic Evaluation, London Williams and Wilkins.
- Martin, F.N. (1991), Introduction to Audiology, IV Edition, New Jersey: Prentice Hall.
- Martin, H (1987), Speech Audiometry. Whurr Publisher, London
- Newby, H.A. (1985), Audiology, New York: Appleton-Century-Crofts.
- Testing, interpretation and recording – ISHA Battery (1990). ISHA publication.

Additional Reading:

- Beagly, H.A. (Ed.) (1981). Audiology and Audiological Medicine. Vol. 1, Oxford University Press.
- Bess and Humes (1990) Audiology - Fundamental. Williams and Wilkins, London.
- Davis and Silverman, (Latest Edition). Hearing and deafness. Holt, Rinehart & Winston, London.
- Rose, D.M. (Ed.) 1978), Audiological Assessment, New Jersey: Prentice Hill.
- Relevant BIS documents

BASLP 2.3 MANAGEMENT OF THE HEARING IMPAIRED

(80+20 marks)

(Total = 64 hrs)

Unit 1

(14 hrs)

- Definitions and goals of rehabilitation & aural rehabilitation
- Early identification and its importance in aural rehabilitation
- Unisensory Vs Multisensory approach
- Manual Vs oral form of communication for children with hearing impairment
Total communication

Unit 2

(12 hrs)

- Methods of teaching language to the hearing impaired
- Natural method
- Structured method
- Computer aided method

Unit 3

(14 hrs)

- Educational problems of children with hearing impairment in India
- Educational placement of hearing impaired children
- Criteria for recommending the various educational placements
- Factors affecting their outcome
- Counseling the parents and teachers regarding the education of the hearing handicapped
- Parent Infant Training Programme (PIP) & Mother's Training Programme, Home training -need, preparation of lessons; correspondence programs (John Tracey Clinic, SKI-HI), follow up

Unit 4

(14 hrs)

- Introduction to hearing aid technology: Parts of hearing aids & its functions
- Type of hearing aids:
 - Body level Vs ear level
 - Monaural Vs Binaural Vs Pseudobinaural
 - Directional hearing aids Vs modular hearing aids
- Classroom amplification devices; Group amplification systems- hard wired, induction loop, FM, infrared rays.
- Setting up class rooms for the hearing handicapped
- Classroom acoustics preferential seating and adequate illumination

Units

(10 hrs)

- Ear moulds: Importance, types (hard, soft), procedure of making each type of ear mould, styles of ear moulds, criteria for selection of one style over the other, ear mould modifications, EAC of hearing aid along with ear mould.
- Importance of counseling for users & parents -importance of harness, BTE loops. Tips to facilitate acceptance of hearing aids, battery life, battery charger. Counseling for geriatric population, Trouble shooting of hearing aids

LIST OF BOOKS

Compulsory Reading:

1. Sanders, D. A. (1993). Management of Hearing Handicap; Infants to Elderly, 3rd Ed., New Jersey, Prentice Hall.
2. Tucker, I., & Nolan, M. (1984). Educational Audiology. London: Croom Helm, Chapter. 10.
3. Markides A (1977) Binaural hearing aids, Academic Press Inc., London.
4. Hodgson HR and Skinner (PH) (1977, 1981), Hearing aid Assessment and use in audiologic babilitation, Williams and Wilkins, Baltimore.
5. Pollack M. (1980). Amplification for the hearing impaired . NY: Grune and Stratton.

Additional Reading:

6. Davis, J.M. and Hardick, E.J. (1981). Rehabilitative Audiology for Children and Adults. New York: John Wiley and Sons.
7. Ross, M. Brackett, D. and Maxon, A.B. (1991). Assessment and management of mainstreamed hearing-impairment children: Principles and practice. Austin: Pro.Ed.
8. Lynas, W. (2000). Communication options. In J. Stokes (Ed.), Hearing impaired infants- Support inthe first eighteen months. London: Whurr Publishers Ltd.
9. Sims, L.G., Walter, G.G., and Whitehead, R.L. (1981). Deafness and Communication: Assessment and Training. Baltimore: Williams and Wilkins.
10. Alpiner, J.G. (1982). Handbook of Adult Rehabilitative Audiology . Baltimore: Williams and Wilkins.
11. Chermak, G.D. (1981). Handbook of Audiological Rehabilitation. C.C.Thomas.
12. Ebbin, J.B. (1974). Critical Age in Hearing. In C.Griffiths (Ed), Proceeding of the International Conference on Auditory Techniques. Illinois: Charles C. Thomas.
13. Griffiths, C. (1974). Early Identification - Plus the Auditory Approach. In C. Griffths (Ed.), Proceeding of the International Conference on Auditory

Techniques. Illinois: Charles C. Thomas.

BLDE (Deemed to be University)

14. Bornstein, H. (1977). Systems of Sign. In L.J. Bradford & W.G. Hardy (Eds.), *Hearing and Hearing-Impairment*. New York: Grune and Stratton Inc.
15. Hull, R.H. (Ed). (1982). *Rehabilitative Audiology*. New York: Grune and Stratton Inc.
16. Fitzgerald, E. (1929). *Straight Language for the Deaf*. McClure.
17. Jackson, A. (1981). *Ways and Means-3 . Hearing-Impairment a Resource Book of Information, Technical Aids, Teaching Material, and Methods used in the Education of Hearing-hnpaired Children*. Hong Kong: Somerset Education Authority.
18. Tebbs, T. (1978). *Ways and Means: A Resource Book of Aids, Methods, Materials, Materials and Systems for use with the Language Retarded Child*. Hong Kong: Somerset Education Authority.
19. *Correspondence Program for Parents of the Deaf*, John Tracy clinic.
20. Nix, G.W. (1976) *Mainstream Education for Hearing-Impaired Children and Youth*. New York: Grune and Stratton Inc.
21. Ross, M. Brackett, D. and Maxon, A.B. (1991). *Assessment and management of mainstreamed hearing-impairment children: Principles and practice*. Austin: Pro.Ed.
22. Webster, A. & Ellwood, J. (1985). *The Hearing-hnpaired Child in the Ordinary School*. London: Croom Hehn.

BASLP 2.4 PSYCHOLOGY RELATED TO SPEECH AND HEARING

(80+20 marks)

(64 hrs)

Objectives

After studying this paper at the end of the semester, the student should be able to understand the following –

- Developmental Psychology
- Psychology of learning
- Cognitive issues in the field of speech and hearing

Unit 1

(10 hrs)

Introduction to psychology- Definition, History and perspectives, Branches and scope, application of psychology in the field of speech and hearing.

Introduction to Clinical psychology -Definition, Perspectives and models of mental disorders

Unit 2

(14 hrs)

Psychology of learning -Introduction,Definition of learning, Theories of learning, Classicalconditioning, Operant conditioningand Sociallearning.

Application of learning theories in the field of speech and hearing (therapeutic, educational and rehabilitative applications).

Unit 3

(14 hrs)

Cognitive Psychology-Introduction, Definition andtheoretical perspectives (David Rumelhart and David Mc Clelland, Noam Chomsky, George miller, Allan Newell).

Applications of cognitive psychology in the field of speech and hearing.

Neuropsychology -Introduction, definition, principles ofneuropsychological assessment, diagnosis and rehabilitation.

Applications of neuropsychology in the field of speech and hearing.

Unit 4

(12 hrs)

Psych diagnostics -Case history taking, Mental statusexamination, behavioral analysis, psychological testing.

Counseling- Meaning and definition, types of counseling, Counseling in rehabilitation practice.

Unit 5

(14 hrs)

Developmental psychology:

Introduction, Definition, Principles, Motor development, Emotional development

Cognitive development- Definition, Piaget's theory

Play as a therapeutic tool

Personality development- Introduction, Stages, Hazards

LIST OF BOOKS

Compulsory Reading:

1. Hurlock, E.B. (1981). Child development VI Ed. Mc Graw Hill International Book Co.
2. Morgon C.T., King R.A., Robinson N.M. Introduction to Psychology. Tata McGraw Hill Publishing Co.
3. Coleman J.C. Abnormal Psychology and Modern Life, Taraporevala Sons &

Co. Additional/Optional Reading:

4. Siegal M.G. (Ed). (1987). Psychological Testing from Early Childhood Through Adolescence. International Universities Press.
5. Kline, P. (1993). The Handbook of Psychological Testing, Routledge,
6. Anastasi, A. (1999). Psychological testing, London: Freeman

BASLP 2.5 CLINICAL PRACTICUM- Speech Language Pathology-II

At the end of Semester II, the student should be able to carry out the following—

1. Take case history of 10 individuals (5 normal & 5 cases with complaints of speech-language problems)
2. Label and identify structures of the speech mechanisms with the help of charts, models, specimens and computer software
3. Conduct Oral Peripheral Mechanism examination on at least 5 normals and 5 children/adults with speech language complaints
4. Observation of therapy of 10 clients with speech language disorders.
5. Observation of a minimum of 5 diagnostic clients and 5 therapy clients
6. Developing therapy material specific to 10 clients they have observed
7. Writing of observation reports of the above
8. Maintenance of a clinical diary
9. Maintenance of a clinical work record to be submitted at the end of the term

BASLP2.6 CLINICAL PRACTICUM- Audiology- II

At the end of Semester II, the student should be exposed and be able to carry out the following:

1. Obtain audiograms of 10 normal Courses.
2. Observe /participate during audiological evaluation on a variety of cases under supervision. Plot audiograms, calculate inter-aural attenuation, occlusion effect.
3. Obtain audiograms under supervision on 20 adult clients (AC & BC).
4. Obtain audiograms with masking (5 cases)
5. Classify audiograms as per:
 - Nature of hearing loss
 - Degree of hearing loss
 - Configuration of hearing loss
6. Observe calibration of audiometers (Demonstration) – AC/BC/Sound field, instruments used, identifying the instruments, combination of equipments for different types of calibration, preparing correction charts.

COMMUNICATIVE ENGLISH AND SOFT SKILLS

Teaching Schedule

Contact Programme of 12 periods of 1 hour 30 minutes each
Semester-I for all PG Courses

Objectives

1. to hone students communication skills and provide them • job skills
2. to impart strategies for effective written communication
3. to train students in soft skill and to prepare them for academic professional demands

SYLLBUS

Unit I Oral and Aural Skills

- a) Sounds or English Vowels and Consonants and Constant sounds
- b) Word Accent and Connected speech – Contractions, Question
- c) Listening for information; taking notes while listening to lecture

(Use or Dictionary with CD-ROM for phonetics symbols, pronunciation and listening practice)

Unit II Writing Skills

- a) Sentence Writing and Paragraph Writing; use of linkers and appropriate vocabulary
- b) Business Letters and E-mail (writing & etiquette)
- c) Descriptive writing (describing a person, product and process)

UNIT III Job Skills

- i. Group discussions and debates
- ii. Presentation skills - kinesics
- iii. Interview skills

UNIT IV SOFT SKILLS

- i. Interpersonal communication - verbal and Non-verbal, etiquette
- ii. Critical thinking
- iii. Team work

Suggested reading:

1. English for success, Suresh Kumar et al, Cambridge University press India PVT LTD. 2010
2. Communication Skills and Soft Skills: An Integrated Approach Dorinda Kindersley (India) Pvt. LTD., 2013.
3. Inter-Personal Communication by Radly - 1909
4. Soft skills - AV Suresh Kumar – Rishi Publication – 2009
5. New Technologies In the classroom. Dhanvel McMillan Publications - 2010

