SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION AND RESEARCH
(A Deemed to be University Declared under Section 3 of UGC Act, 1956)
Comprising Sri Devaraj Urs Medical College
[Constituent Unit of Sri Devaraj Urs Educational Trust for Backward Classes (Regd.)]
TAMAKA, KOLAR-563103, KARNATAKA, INDIA
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(With effect from 2016-17 batches)

Choice Based Credit System Based Graduate Curriculum for Bachelor of Science in Clinical Psychology

Approved as per BOM-67-2022,(Resolution No-LXVII-07/22) Dated-02/07/2022

REGULATIONS GOVERNING THE BACHELOR OF SCIENCE (B.Sc.) DEGREE UNDER CHOICE BASED CREDIT SYSTEM

2016

SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH
(Declared as Deemed - to - be University u/s 3 of the UGC Act
TAMAKA, KOLAR – 563 101. KARNATAKA, INDIA.
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REGULATIONS GOVERNING

THE BACHELOR OF SCIENCE (B.Sc.)

DEGREE

UNDER CHOICE BASED CREDIT SYSTEM

2016

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REGULATIONS GOVERNING THE DEGREE OF BACHELOR OF SCIENCE (B.Sc.)

CHOICE BASED CREDIT SYSTEM IN ALLIED HEALTH SCIENCES

INTRODUCTION

The University Grants Commission has brought in numerous measures to enhance equity, efficiency and excellence in the higher education system in the country. Consequently, has set considerable effectiveness with noticeable improvements in higher education system. Even though, there existed diversity in the evaluation system in Universities in India and to mitigate tremendous diversity adapted in Universities, UGC issued circular D.O.No. F.1-2/2008 (XI Plan) dated March 2009 and further in its circular D.O.No.F-1-1/2014 dated 12th November 2014 has directed all the Universities in the country to implement the Choice Based Credit system (CBCS) scheme to all the undergraduate and post graduate level degrees Programs mandatorily.

In compliance to the above, Sri Devaraj Urs Academy of Higher Education and research [SDUAHER] has notified with vide No SDUAHER/KLR/ADMN/2063/16-17 dated 20.10.16 and introduced CBCS for undergraduate Programs (B.Sc.) in order to achieve academic excellence, quality improvement and as administrative reforms. Based on this background, SDUAHER has framed REGULATION governing B.Sc. Programs under Faculty of Allied Health Sciences.

This facilitates flexible learning; multifaceted development of students with wide variety of courses viz core, electives in discipline specific, Ability enhancement and open to enhance their knowledge and skills. This qualitative change in the Programs is to the global requirements and aspiration of students and stake holders for mobility both within and across the geographical jurisdiction.

CBCS implementation brings desired uniformity in grading system and method for computing semester grade point average (SGPA) for semester performance and cumulative Grade Point average (CGPA) for overall program performance of students in the examinations.

DEFINITIONS OF KEY WORDS

Applicable to undergraduate, postgraduate level degree, diploma and certificate Programs under the choice based credit system in semester scheme.

1. University: Sri Devaraj Urs Academy of Higher Education and Research Tamaka, Kolar

2. Academic Year consists of two consecutive semesters a) Even semester (scheduled from January to June) b) Odd semester (scheduled between July to December).

3. S**emester:** Each semester will consists of 15-18 weeks of academic work equivalent to 90 actual teaching days.

4. Choice Based Credit System (CBCS): Provides choice for students to select from the prescribed courses/papers such as core, elective or minor or soft skill courses offered in a Program.

5. 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.

6.Program: An educational program leading to award of a Degree, diploma or certificate.

7. Course usually referred to as 'papers' is a component of a program. *All courses May 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/ field work/ outreach activities/ project work/ vocational training/viva/ seminars/ term papers/assignments/ presentations/ self-study etc. or a combination of some of these.

8. Branch: Specialization or discipline of B.Sc. Degree Programs are like Medical Laboratory technology, Imaging technology, optometry, renal dialysis technology, operation theater technology, radiotherapy technology etc.

9.Letter Grade: It is an index of the performance of students in a said course. Grades are denoted by letters O, A+, A, B+, B, C, P, F and Ab

10. Grade Point: It is a numerical weight allotted to each letter grade on a 10-point scale

11. Credit: Each course shall carry certain number of credits. Credits normally represent the weightage of a course and are a function of teaching, learning and evaluation strategies such as number of contact hours, the course content, teaching methodology, learning expectations, etc. In the proposed Programs, credit is a unit by which course work is measured. Credit determines the number of hours of instructions required per week, generally, one credit is equivalent to one hour of teaching [lecture or tutorial] or 2 hours of practical work /field work per week.

12. Credit Point: It is the product of grade point and number of credits for a course.

13. Semester Grade Point Average (SGPA): It is a measure of performance of work done in a semester. It is ratio of total credit points secured 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.

14. Cumulative Grade Point Average (CGPA): It is a measure of overall cumulative Performance of a student over all semesters. The CGPA is the ratio of total credit points secured by a student in various courses in all semesters and the sum of the total credits of all courses in all the semesters. It is expressed up to two decimal places.

15. First Attempt: A student who has completed all formalities of the semester becomes eligible to attend the examinations and has passed in first sitting; such attempt shall be treated as first attempt.

16 **Transcript or Grade Card or Certificate:** Based on the grades earned, a grade Certificate shall be issued to all the registered students after every semester. The grade Certificate will display the course details (code, title, number of credits, grade secured) along with SGPA of that semester and CGPA earned till that semester.

B.Sc. PROGRAMS STRUCTURE

Semester	Program structure
I	Basic medical sciences Common to all disciplines as mandatory core courses (CC), Compulsory foundation course (FC) Discipline specific elective (DSE)
II	Basic medical sciences Common to all disciplines as mandatory core courses (CC), Compulsory foundation course (FC) Discipline specific elective (DSE) Ability enhancement course (AEC)
III	Core courses discipline wise (CCD) Skill enhancement course (SEC)
IV	Core courses discipline wise Ability enhancement course (AEC)
V	Core courses discipline wise (CCD) Skill enhancement course(SEC)
VI	Core courses discipline wise (CCD) Ability enhancement course (AEC)
VII	Internship

In CBCS, UG degree Programs offered in University are structured to have 7 semesters will have credits in the range of 20 to 26 an average of 23 credits per semester and a total of around 120-156 credits per under graduate program.

STRUCTURE OF B.Sc. PROGRAMS UNDER CBCS SCHEME

Semester	Core courses (1-19)	Discipline specific elective (DSE)	Ability enhancement Compulsory Course (AEC)	Skill enhancement courses (SEC)	Open elective (OE)	Foundation course
I	Paper 1 Paper 2 Paper 3 Paper 4	DSE-1 DSE-2 DSE-3 DSE-4	-	-	-	Basic Computer Application
II	Paper-1 Paper 2 Paper 3	DSE-1 DSE-2 DSE-3 DSE-4 DSE-5 DSE-6	Environmental science	-	-	English communication
III	Paper-1 Paper 2 Paper 3	-	-	SEC-1 (SAFE-I)	-	-
IV	Paper 1 Paper 2 Paper 3	-	Constitution of India	-	-	-
V	Paper 1 Paper 2 Paper 3	-	-	SEC-2 Medical Ethics		-
VI	Paper 1 Paper 2 Paper 3	-	Quality control	-	-	-
VII	Internship					

Types of courses. 3 types, such as core, elective and foundation

Core courses: This is the course/paper which is to be compulsorily studied by a student as a core requirement to complete the requirement of a program in a said discipline of study.

Foundation Course: 2 kinds:
1. **Compulsory Foundation courses**: mandatory to all disciplines, which based upon the content that leads to Knowledge enhancement.
2. **Elective foundation courses**: are value-based and are aimed at man-making education.

Elective courses:
This can be chosen from a pool of electives listed in University. It is expected to Support to the discipline of study, provide an expanded scope, enable an exposure to some other discipline/domain and nurture student's proficiency/skill.
An elective may be "Discipline centric" or may be chosen from an unrelated discipline. It may be called an "Open Elective."

3. CREDIT STRUCTURE FOR COURSE
Example : SEMESTER-I

courses	Lectures hours /week In a semester	Tutorials hours /week in a semester	Lab work hours /week in a semester	credits	Total credits
Course-I	02	01	02	2:1:1	04
Course-II	02	01	02	2:1:1	04
Course-III	02	01	02	2:1:1	04
Course-IV	02	01	02	2:1:1	04
Compulsory Foundation course	02	-	02	2:0:1	03
Discipline specific Elective	01	-	-	0:0:1	01
				Total	20

Course-1 Anatomy paper-1
Course-II anatomy paper 2
Course-III Physiology paper1
Course-IV Physiology paper2
Compulsory foundation course: Basics in computer applications
Discipline Specific electives (anatomy histological techniques and Physiology PFT and ECG)

REGULATIONS GOVERNING THE DEGREE OF B.Sc. PROGRAMS AS PER CHOICE BASED CREDIT SYSTEM UNDER THE FACULTY OF ALLIED HEALTH SCIENCES

1. TITLE

The undergraduate programs known as Bachelor of Science abbreviated as B.Sc.
B. Sc. Programs are as under

- Bachelor of science in Medical laboratory Technology
- Bachelor of science in Imaging Technology
- Bachelor of Science in Optometry
- Bachelor of Science in operation Theater Technology
- Bachelor of Science in Renal Dialysis technology
- Bachelor of Science in Radiotherapy Technology
- Bachelor of Science in Cardiac Care Technology
- Bachelor of Science in Cardiac Perfusion Technology
- Bachelor of Science in Respiratory Care Technology
- Bachelor of Science in Emergency Medicine Technology
- Bachelor of Science in Blood Banking Technology
- Bachelor of Science in Clinical Psychology

2. DURATION

The duration of the under graduate Programs shall be four years consists of 3 years Study period (6 semesters) and one year internship.

Ref Notification No. SDUAHER/KLR/ADMN/1071/2021-22, dt. 04.09.2021

3. CALENDAR OF EVENTS

The calendar of events in respect of each program of study shall be fixed by the University from time to time. The examination in all programs of study shall be conducted at the end of each semester.

4 ELIGIBILITY FOR ADMISSION

A Candidate seeking admission to B.Sc. program

Shall have passed two years Pre University examination conducted by the pre University board of Karnataka state, with English as one of the subject and physics, chemistry and biology as optional subjects.

OR

Shall have passed any other examination conducted by Boards/councils/intermediate examination established by state Government/central Government and recognized as equivalent to two year pre University examination by the Rajiv Gandhi University of health sciences/Association of Indian Universities (AIU) , with English as one of the subjects and physics, chemistry and biology as optional subjects and the candidate shall have passed subjects of English, physics, chemistry and biology individually.

OR

Shall have passed intermediate examination in science of an Indian university/ Boards/council or other recognized examining bodies with physics ,chemistry and biology which shall include a practical test in these subjects and also English as compulsory subject.
the candidate shall have passed subjects of English, physics, chemistry and biology individually.

OR

Candidates with regular three years diploma in respective discipline recognized by Rajiv Gandhi University of health sciences

OR

The minimum marks for the purpose of eligibility shall be forty percent (40%) in optional subjects in case of students belonging to SC/ST and OBC students from Karnataka or as decided by the Government of Karnataka. Provided further that, the student shall have studied and passed English as one of the subjects.

Candidates who have completed diploma or vocational course through correspondence shall not be eligible for Bachelor of Science Programs.

5 LATERAL ENTRY

Candidates passing diploma in concerned discipline and 10+2 or PUC shall be eligible for Lateral entry i.e. admission to II year / semester –III of the B.Sc. Program. However, this will be entertained only if vacancies are available. Applicants should possess minimum of 45 % aggregate marks in PUC (PCMB).

6 ATTENDANCE

Each course comprising theory & Practical and tutorials shall be treated as single unit for the purpose of calculation of attendance. A student shall have to attend a minimum of 75% attendance of the total instruction hours in a course (theory/practical/tutorials) in each semester from the date of commencement of the semester to last working day as notified by the University.

The students shall be informed about their attendance status periodically by the department of Allied health sciences. So that, the students shall be cautioned to make up the shortage. The Department of Allied Health sciences shall submit the list of students who have been eligible to appear examinations and list of detained students due to shortage of attendance by the end of the semester to the Controller of Examinations.

Students lacking in the prescribed attendance and progress in any subject(s) in theory and practical should not be permitted to appear for the examination. Such student shall repeat the course in which he/she is deficient with attendance.

7. MAXIMUM PERIOD FOR COMPLETION OF THE PROGRAMS

The candidate shall complete the program generally within the twice the number of years of the program from the date of commencement of the program i.e. within six years from the date of admission. If the candidate fails to complete the program with in the period permitted he/she will be discharged from the University. However, fee to be paid for repeating the semesters.

8. MEDIUM OF INSTRUCTION: The medium of instruction shall be English.

9. TEMPORARY DISCONTINUATION OF THE PROGRAM

A student, who wishes to temporarily discontinue the program and continue the same subsequently, has to obtain prior permission from the University by applying through the head of the department. Such students have to take readmission to the same semester/year in the subsequent session. However, the student shall complete the course as per the maximum period fixed by the University

10. HOURS OF INSTRUCTION PER WEEK

These number of hours of instruction for each course is defined which includes lectures, tutorials, practical and assignments, as specified to individual courses.

11. COURSE PATTERN

The number of credits per semester may vary from 20 to 26, an average of 23 credits per semester and a total of around 120-153 credits for the program. Generally 1 credit per hour of instruction in theory and 1 credit for 2 hours of practical or project work or internship per week.

The courses offered in a program are divided in to core, foundation, and elective courses. The program patterned indicating hours of instruction in all semesters defined under section -3

12. THE SCHEME OF EXAMINATION

There shall be examinations at the end of each semester as per the calendar of events notified by the university.

13. INTERNAL ASSESSMENT

Regular internal assessment examinations should be conducted on each course in a semester.
There should be a minimum of at least 03 internal assessments examinations in each semester, the number of examination on each course is left to the department. An average of the best two internal assessment examinations should be taken in to consideration during calculation of marks of internal assessment.

The weightage given to the internal assessment is 20% out of the total marks assigned to the course.
Student must secure at least 35% of total marks fixed for internal assessment examination of that course to be eligible to appear for the examination

14. REGISTERING FOR THE EXAMINATIONS

Candidate to be eligible to appear for University examination, shall have undergone satisfactorily the semester of the study, shall have to obtain 75% attendance in theory and practical/tutorial jointly to become eligible to appear for examination in the subject/course, Shall secure at least 35% of internal assessment from the total marks fixed for IA in a particular subject in order to become eligible for examination, shall fulfil any other requirement that may be prescribed by the University from time to time.
And shall pass in all the courses of that semester. Such eligible students will be allotted Registration Number.

15. VALUATION OF ANSWERSCRIPTS

Each written paper shall be valued by one internal examiner and one external examiner. Each practical examination shall be jointly conducted and evaluated by one internal examiner and one external examiner or two external examiners if there are no internal examiners. But not by two internal examiners. If the difference in marks between two valuations is more than 15% of the maximum marks, the Registrar (Evaluation) or his nominee shall check the entries and the total marks assigned by the two valuers. If there is any mistake in totalling, it shall be rectified. While checking the total, if it is observed that any one or more of the answers is not valued by one of the valuers, the Chairman, BOE shall advise internal members of the Board of Examiners to value that answer. After receiving the marks, the Chairman, BOE shall make the necessary corrections. Despite all these corrections, if the difference between the two valuations is still more than 15%, the Chairman, BOE shall arrange for third valuation by examiners from the approved panel of examiners.

In case of two valuations, the average of the two valuations and if there are three valuations, the average of the nearest two valuations shall be taken for declaring results.

15. a) **POLICY FOR REVALUATION OF ANSWER SCRIPTS**

Notified in a vide letter No. SDUAHER/KLR/ADMN/468/2021-22, dt. 04.07.2022 to implement the policy for revaluation of answer scripts, and the same has been added in to examination manual. Policy consists of guidelines for photo / Xerox copy of the evaluated answer scripts and guide line for photo/ Xerox copies of the evaluated answer scripts and revaluation.

The candidate who has failed subject/s in theory (without considering the IA /viva / Practical) examination only can apply for revaluation within 10 days from published results through Principal of the college by remitting Rs. 5000/- per theory paper in noncash mode.

Note: For more information refer examination manual in website: www.sduaher.ac.in

16. RESULTS CLASSIFICATION OF SUCCESSFUL CANDIDATES

The results of successful candidates at the end of each semester shall be declared on the basis of Percentage of Aggregate Marks, converted to grade point and alpha – sign grade for each course on the basis of 10 point scale recommended by UGC.

The following table 1 and 2 shows the final results with grade description and grades

Table 1: Final Result/Grades Description

Semester/ Program % of marks	Semester GPA / Program CGPA	Alpha-Sign/ Letter Grade	Result/Class Description
90.0-100	9.00-10.00	O (Outstanding)	Outstanding
80.0-<90.0	8.00-<9.00	A+ (Excellent)	First Class Exemplary
70.0-<80.0	7.00-<8.00	A (Very Good)	First Class Distinction
60.0-<70.0	6.00-<7.00	B+ (Good)	First Class
55.0-<60.0	5.50-<6.00	B (Above Average)	High Second Class
50.0-<55.0	5.00-<5.50	C (Average)	Second Class
40.0-<50.0	4.00-<5.00	P (Pass)	Pass Class
Below 40	Below 4.00	F (Fail)	Fail/ Reappear
Absent	0	Ab (Absent)	

Table 2 point grading system with letter grade

Grade Point	0	0	4	5	6	7	8	9	10
Letter Grade	Ab	F	P	C	B	B+	A	A+	O
	Absent	Fail	Pass	Average	Above average	Good	Very good	Excellent	Outstanding

17. COMPUTATION OF SEMESTER GRADE POINT AVERAGE (SGPA) AND CUMULATIVE GRADE POINT AVERAGE (CGPA)

17.1 Calculation of SGPA

The following procedure to compute the Semester Grade Point Average

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 by a student, i.e

$$\textbf{SGPA}\ (Si) = \Sigma\ (Ci \times Gi) / \Sigma Ci$$

where Ci is the number of credits of the ith course and Gi is the grade point scored by the student in the ith course.

Note: Grade point denotes the decimal of percentage of marks scored

Example for SGPA (20 Credits)

Papers/courses	P1	P2	P3	P4	P5	Total
Max. marks	100	100	100	100	100	500
% Marks Obtained	77	73	58	76	64	348
Grade Points Earned (GP)	7.7	7.3	5.8	7.6	6.4	-
Credits for the Course(C)	4	4	4	4	4	20
Credit points= GP x C	31	29	23	30	26	139

Semester Aggregate Marks : 348 / **500 = 69.60 %**

Classification of Result **:** First Class

Illustration for SGPA

Course /Core paper	Credit	Grade letter As per 10 point scale	Grade point As per 10 point scale	Credit point (Credit X Grade point)
Course 1	04	A	7.7	4X7.7= 31
Course 2	04	B+	7.3	4X7.3=29
Course 3	04	B	5.8	4X5.8=23
Course 4	04	O	7.6	4X7.6=30
Course 5	04	C	6.4	4X26.4=26
	20			**139**
	SGPA	139/20 = 6.95		

Example for CGPA

The Cumulative Grade Point Average (CGPA) at the end of the fourth semester shall be calculated as the weighted average of the semester GPW. The CGPA is obtained by dividing the total of GPW of all the four semesters by the total credits for the program.

ILLUSTRATION I

Semester	**I**	**II**	**III**	**IV**	**V**	**VI**	**Total**
Total Marks per Semester	500	500	500	500	500	500	3000
Total Marks Secured	348	460	466	450	400	400	2524
Semester Alpha Sign Grade	B+	O	O	O	A+	A+	-
SGPA	6.95	8.0	7.77	8.5	7.0	7.0	-
Semester total Credits	20	26	24	24	24	24	142

Aggregate Percentage of Marks = 2524 / 3000 = 84.1 **%**

Classification of Result**: Excellent (First class with exemplary)**

Illustration for CGPA

Semester 1	**Semester 2**	**Semester 3**	**Semester 4**	**Semester 5**	**Semester 6**
Credit 20	Credit 26	Credit 24	Credit 24	Credit 24	Credit 24
SGPA 6.95	SGPA 8.0	SGPA 7.77	SGPA 8.5	SGPA 7.0	SGPA 7.0

$$CGPA = \frac{20(6.95)+26(8.0)+24(7.77)+24(8.5)+24(7.0)+24(7.0)}{\textit{Total credits of programme 142}}$$

CGPA = 139+ 208+186.5+ 204+ 168+168 = 1073.50 / 142= 7.56

CGPA 7.56 A (very good) First class with distinction

18. TRANSCRIPT (SCORE CARD /MARKS SHEET) FORMAT

University will issue a transcript format indicating semester performance in terms of score, grade points, SGPA and CGPA. Where the SGPA and CGPA shall be rounded off to 2 decimal places and reported in the Transcripts.

19. MINIMUM FOR A PASS

A candidate shall be declared to have passed the UG, if he/she secures at least a CGPA of 4.0 (Course Alpha-Sign Grade C) in the aggregate of both internal assessment and semester end examination marks put together in each unit such as theory papers / practical / project work / dissertation / viva-voce.

However, candidate has to secure minimum of 35% marks in written theory and practical examination separately and 40% as subject aggregate to be declared as pass. Where the subject has no practical, Viva-voce, internal assessment component, passing criteria is 40%.

20. GRACE MARKS

Any student who completes all the courses in a semester, but failed in any one of the course with a shortage of 5 or less than 5 marks, such candidates will be awarded to maximum of 5 grace marks.

21. CARRY OVER PROVISION

In the first year, candidates who fail in a first semester examinations may go to the second semesters and take the examinations. But he/she has to complete the first year courses before enters to 2^{nd} year 3^{rd} semester. However, candidate is allowed to carry subjects of 3^{rd} and 4^{th} semesters to 5^{th} semester. . But before entering for the 6^{th} semester, he/she has to complete all the carried subjects along with 5th semester courses. However a carryover provision restricted to the maximum period offered to a candidate for completion of the program as per the clause 7.0

22. REVALUATION

There is no revaluation permissible in the regulation

23. POWER TO REMOVE DIFFICULTIES:

i) If any difficulty arises in giving effect to the provisions of these regulations, the Vice-Chancellor may by order make such provisions not inconsistent with the Act, Statutes, Ordinances or other Regulations, as appears to be necessary or expedient to remove the difficulty.

ii) Every order made under this rule shall be subject to ratification by the Appropriate University Authorities.

a)

PREVIEW ONLY, NOT FOR PRINTING

GRADE CARD

SEMESTER - I B.Sc. IMAGING TECHNOLOGY (C.B.C.S)
January 2018 Examination

Register Number : 17IMT001

Student Name : Abhijith K P
Father's Name : Pramod K Das
Mother's Name : Rekha Pramod

Sl. No.	Subject / Paper		Theory / Practical		I.A. / Viva		Total		Cr. Hrs.	Gr. Pts.	Cr. Pts.	Remarks
			Max.	Sec.	Max.	Sec.	Max.	Sec.				
	Core Course											
01	**Anatomy-I :** General Anatomy, Histology and Embryology	Th. Pr.	050 020	041 012	025 005	020 003	075 025	061 015	004	7.6	30.4	Pass
02	**Anatomy-II :** Systemic Histology and Gross Anatomy	Th. Pr.	050 020	027 013	025 005	020 003	075 025	047 016	004	6.3	25.2	Pass
03	**Physiology-I :** Physiological functions of the body	Th. Pr.	050 020	041 018	025 005	021 005	075 025	062 023	004	8.5	34.0	Pass
04	**Physiology-II :** Physiology of Hormonal and Regulatory function	Th. Pr.	050 020	038 017	025 005	021 004	075 025	059 021	004	8.0	32.0	Pass
	Foundation Course											
05	Basic Computer Applications	Th. Pr.	050 020	023 020	- -	- -	050 020	023 020	003	6.1	18.4	Pass
	Discipline Specific Elective											
06	Physiology (ECG)	Th.	030	028	-	-	030	028	001	9.3	09.3	Pass
	Grand Total						**500**	**375**	**020**		**149.4**	

S.G.P.A : 7.47 | **Grade : A (Very Good)**

35% in each Theory and Practical Examination and 40% in Subject aggregate.
College / Department : Allied Health Sciences, SDUAHER

Name & Signature of verifier

Date : 04/04/2018

Controller of Examinations

Percentage of Marks	SGPA/CGPA	Alpha-Sign/Letter Grade	Result/Class Description
90.0-100	9.00-10.00	O (Outstanding)	Outstanding
80.0-<90.0	8.00-<9.00	A+ (Excellent)	First Class Exemplary
70.0-<80.0	7.00-<8.00	A (Very Good)	First Class Distinction
60.0-<70.0	6.00-<7.00	B+ (Good)	First Class
55.0-<60.0	5.50-<6.00	B (Above Average)	High Second Class
50.0-<55.0	5.00-<5.50	C (Average)	Second Class
40.0-<50.0	4.00-<5.00	P (Pass)	Pass Class
Below 40	Below 4.00	F (Fail)	Fail/Reappear
Absent	0	Ab	

SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION AND RESEARCH

KOLAR KARNATAKA

Adoption of Choice based credit system for

B.Sc. Clinical Psychology

(Program Code CPS)

UNDER FACULTY OF ALLIED HEALTH SCIENCES

As per University Grants Commission

2022 – 23

At a glance this logo is abstract, yet it contains the vital ingredients for an institution like Sri Devaraj Urs Academy of Higher Education and Research.

The institution's medical background, humanitarian values, Compassion, approachability, social commitment and the subsequent research towards the most precious thing, the human life, is the core theme.

The graphic form of a person in the centre of a bud represents the humanity. It denotes the growing process of life and its existence. And the two hands safeguarding them show the care and a sense of security. It is also capable of holding something within the vast expanse of knowledge by the University for the People's Benefit. Hence, the motto "Knowledge for Posterity" is very appropriate and gives a punch in Red. The four light blue half circles (smaller to bigger) depict the unending quest for knowledge and imparting it to a wider horizon, growing higher and higher.

And finally, the whole unit is embedded in a "D" shaped graphic template as background to give it a corporate identity.

COLORS USED:

Deep Blue:Credible, Confident and dependable. Represents Peace, tranquility, stability, harmony, trust, security, cleanliness and loyalty.

Light Blue: For sky and water (colour scheme for 4 half circles)

Red: A dominant colour for strengths.

Green: For nature, health and generosity. It's cool quality soothes and has great healing powers.

SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION AND RESEARCH

VISION

"**UNIVERSITY OF EXCELLENCE - KNOWLEDGE FOR POSTERITY**"

MISSION

- To be a global center of excellence for Teaching, Training and Research in the field of Higher Education.
- To inculcate scientific temper, research attitude and social accountability amongst faculty and students.
- To promote with value based education for the overall personality development and leadership qualities to serve the humanity.

OBJECTIVES

- To provide need based infrastructure and facilities to students to become responsible professionals with social commitment and accountability.
- To implement effectively innovative Programs in teaching learning and evaluation.
- To impart scientific and socio cultural temperament among students to forge National identity and needs.
- To provide instruction and training in basic and advanced branches of learning.
- To provide facilities for research for the advancement and dissemination of knowledge.
- To undertake extra mural studies, consultancy, extension Programs and field outreach services for the development of society.
- To collaborate with other Universities, Institutions of excellence and Research Organizations within the country and outside for the purpose of teaching, training and research.
- To undertake need based activities for the betterment of socially and educationally backward society.

SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH
Comprising Sri DevarajUrs Medical College
(A-Deemed-To-Be-University)

Declared under Section 3 of UGC Act, 1956, MHRD GOI No.F.9-36/2006-U.3(A) Dt. 25th May 2007
POST BOX NO.62, TAMAKA, KOLAR-563 101, KARNATAKA, INDIA
Ph:08152-243244, 210604, 210605, Fax:08152-243008, E-mail: registrar@sduu.ac.in/office@sduu.ac.in, website: www.sduu.ac.in

No: SDUAHER/KLR/ADMN/ 2063 / 2016-17 **Date: 20.10.2016**

NOTIFICATION

Sub: Implementation of **Choice Based Credit System**for the Undergraduate degree Programs under the Faculty of Allied Health science.

Ref: 1.UGC Guideline D.O.No F.1-1/2014 dated 12th Nov.2014
2. Proceedings of the 16th meeting of Board of studies of Health science subjects held on 25.08.2016
3.Proceedings of the committee of the Academic Council meeting held on 13.10.2016
4. Proceedings of the 41st meeting of Board of Management held on 19.10.2016

Sri Devaraj Urs Academy of Higher Education and Research after establishing a department of Allied health sciences has been offering B.Sc. courses in the Medical laboratory Technology, Imaging Technology, Operation Theater technology, Renal Dialysis Technology, Ophthalmic technology and Radiotherapy Technology. All these courses are under semester system but have not followed CBCS as recognized by University Grants Commission. However, in the light of the UGC letter referred above, the University has taken necessary steps to implement CBCS from the Academic Year 2016-17. Accordingly, the subject was placed in the meetings of the authorities of the University as cited above and the University is pleased to announce that the undergraduate courses offered in the Department of allied health Sciences shall follow Choice Based credit system with effect from the Academic year 2016-17 onwards.

By Order,

Sd/-
Registrar

SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION AND RESEARCH
(A Deemed to be University declared under Section 3 of UGC Act 1956)
Comprising Sri Devaraj Urs Medical College
[Constituent unit of Sri Devaraj Urs Educational Trust for Backward Classes (Regd.)]
TAMAKA, KOLAR-563 103, KARNATAKA, INDIA
Ph: 918152-243003, +91 9448395232, Fax : +918152 - 243008 E-mail – office@sduaher.ac.in

No. SDUAHER/KLR/ADMN/ 2022-23

Date: 14-07-2022

NOTIFICATION

Sub: Start of B.Sc. Clinical Psychology Program – reg.

Ref: Proceeding of the 67th Board of Management held on 02.07.2022
Proceeding of the 40th Academic council held on 01.06.2022

In accordance with the decision taken in the 67th Board of Management meeting held on 02.07.2022, The Academy has decided to start B.Sc. in Clinical Psychology Program under Faculty of Allied Health and Basic sciences from the Academic year 2022-23. Accordingly, The Academy hereby announces and notifies the above decision and shall come into effect from the Academic year 2022-23.

Registrar
SDUAHER
Registrar
Sri Devaraj Urs Academy of Higher
Education and Research
Tamaka, Kolar - 563 103.

Goal

Goal of psychology is to know description of a psychological problem or an issue to gain more accurate understanding and perspective on human behavior, actions, and thoughts and also for assessment to therapeutic intervention.

Program outcomes:

PO1: Performs the duty as a clinical psychologist, having a good written & communication skill.

PO2: To gain the knowledge to understand and describe about psycho-social problem or issue related to human behavior.

PO3: Understanding the methodologies for measurement of child and adult psychology.

PO4: To learn the basics of Anatomy, Physiology, Biochemistry, Microbiology and Pathology for gaining expertise in clinical psychology practice.

PO5: To learn about basics of personality and its abnormality, social and industrial psychology.

PO6: Understanding of gender studies, adult ageing, geriatric counseling.

PO7: To learn the testing procedure, assessment, counseling ability and guidance for psycho therapeutic interventions under Psychologist supervision.

PO8: Understand the basics of disability and rehabilitations.

PO9: Understand the work place based hazards, medical ethics and basics of psycho social related law.

Structure of B.Sc. Clinical Psychology Program under CBCS scheme

Semester	Core courses (1-19)	Discipline specific elective (DSE)	Ability enhancement Compulsory Course (AEC)	Skill enhancement courses (SEC)	Open elective (OE)	Foundation course
I	1&2.Anatomy –I & II 3&4.Physiology – I & II	DSE-1 DSE-2 DSE-3 DSE-4	Spoken Kannada	-	-	Basic Computer Application
II	5. General Biochemistry 6. General Microbiology 7. General Pathology	DSE-1 DSE-2 DSE-3 DSE-4 DSE-5 DSE-6	Environmental studies Spoken Kannada	-	-	English for Communication
III	8. Foundations of Human Behavior and Experiments in Psychology 9. Child Psychology 10. Cognitive processes 11. Psychological Psychology and Measurement in Psychology 12. Adolescent Psychology			SEC-1 (Leadership and Personality Development)	-	-
IV	13. Health Psychology 14.Abnormal Psychology 15. Basics of Personality, Social Psychology 16. Psychology of Intelligence 17. Industrial Psychology		Constitution of India	-	-	-
V	18. Gender studies 19. Psychology of Adulthood and Ageing 20. Psychotherapeutic Interventions I 21. Guidance & Counseling			SEC-2 Medical Ethics	-	-
VI	22. Neuropsychology 23. Psychotherapeutic Interventions II 24. Integrated Psychological Interventions 25.Disability and Rehabilitation	-	Quality control	-	-	-
VII& VIII	Internship					

SEMESTER - I

Papers

Core courses

1. Anatomy - I (General Anatomy,Histology & Embryology)
2. Anatomy - II (Systemic Histology & Gross anatomy)
3. Physiology - I (Physiological functions of the body)
4. Physiology - II (Physiology of hormonal and regulatory function)

Ability enhancement Compulsory Course (AEC)

5. Spoken Kannada

Foundation course

6. Basic Computer Application

Discipline specific electives (DSE)

a. Histology Techniques preparation of slides & stains

b. Museum Preparation

c. Electro Cardiogram(ECG)

d. Pulmonary Function Test (PFT)

First semester distribution of hours and credits- CBCS scheme

Subject	Paper& Code	Subjects	Theory		Practical		Tutorials		Total	
			Hours	**Credits**	hours	**Credits**	hours	**Credits**	Hours	**Credits**
CC-Anatomy	Paper-I A101	General Anatomy, Histology & Embryology	30	**02**	30	**01**	30	**01**	90	**04**
	Paper – II A102	Systemic Histology & Gross anatomy	30	**02**	30	**01**	30	**01**	90	**04**
CC-Physiology	Paper-I A104	Physiological functions of the body	30	**02**	30	**01**	30	**01**	90	**04**
	Paper – II A105	Physiology of hormonal and regulatory function	30	**02**	30	**01**	30	**01**	90	**04**
CF-Compulsory foundation course	A107	Basic computer application	30	**02**	30	**01**	-	**-**	60	**03**
		Total	170	**11**	150	**05**	120	**04**	440	**19**
	A108	Discipline specific electives (DSE)	Anatomy*	1 Histology Techniques preparation of slides & stains (01 credit)						**01**
	A109			2 Museum preparation (01 credit)						
	A110		Physiology*	1 ECG (01 credit)						
	A211			2 Pulmonary function test (01 credit)						
				Grand Total						**20**

Note: Each student has to choose any one discipline specific elective (DSE) offered during first semester in the core subject.

First semester distribution of marks- CBCS scheme

Subject	Paper &code	Subject	Theory	Theory IA	Viva voce	Practical	Practical I.A	Grand total	
CC-Anatomy	Paper-I A101	General Anatomy, Histology & Embryology	50	10	-	-	-	60	UNIVERSITY LEVEL EXAM
	Paper –II A102	Systemic Histology & Gross anatomy	50	10	-	-	-	60	
	A103	Anatomy common Practical	-	-	30	40	10	80	
CC-Physiology	Paper-I A104	Physiological functions of the body	50	10	-	-	-	60	
	Paper –II A105	Physiology of hormonal and regulatory function	50	10	-	-	-	60	
	A106	Physiology common Practical	-	-	30	40	10	80	
Compulsory foundation course	A107	Basic computer application	50	-	-	20	-	70	
Discipline specific electives (DSE)	A108	Histology Techniques preparation of slides & stains	30	-	-	-	-	30	
	A109	Museum preparation							
	A110	Electrocardiogram(ECG)							
	A111	Pulmonary Function Test (PFT)							
			280	40	60	100	20	500	

Note: As per the following

1. Proceedings of the 19th meeting of the board of Undergraduate and Post graduate studies in Allied Health Sciences held on 9th February 2018. (Agenda No. AHS/XIX-11/18)
2. 17th meeting of Faculty of Medicine held on 24th February 2018.
3. Proceedings of 31st meeting of Academic council held on 3rd November 2018 (Agenda No. AC/XXXI-02/18)

The two separatephysiology practical with respect to physiology theory paper I & II is modified to single practical. Similarly the two separate Anatomy practical with respect to Anatomy theory paper I & II is modified to single practical. The decision is in effect to 2018-19 admission.

DETAILS OF THE COURSES

Core courses- Anatomy

1. General Anatomy, General Histology, General Embryology,
2. Gross Anatomy, Systemic Histology

Discipline Specific Elective – Anatomy

1. Histology Techniques preparation of slides & stains
2. Museum preparation

Core courses – Physiology

1. Physiological functions of the body
2. Physiology of hormonal and regulatory function

Discipline Specific Elective Physiology

1. Electrocardiogram (ECG)
2. Pulmonary function Tests

Ability enhancement course

-

Compulsory foundation course

1. Basic Computer Application

FIRST SEMESTER PROGRAM STRUCTURE

Semester	Course Opted	Course Name	Credits
First Semester	**Core courses- Anatomy**	1. General Anatomy, General Histology, General Embryology,	04
		2. Gross Anatomy, Systemic Histology	04
	Discipline specific elective – Anatomy	1. Histology Techniques preparation of slides & stains	01
		2. Museum preparation	01
	Core courses – Physiology	1. Physiological functions of the body	04
		2. Physiology of hormonal and regulatory function	04
	Discipline specific elective Physiology	1. Electrocardiogram (ECG)	01
		2. Pulmonary function Tests	01
	Ability enhancement course	-	
	Compulsory foundation course	1. Basic Computer Application	03

SEMESTER - I

Course: Anatomy

Paper 1 Title: General Anatomy and Histology

COURSE OUTCOMES

At the end of the course students shall be able to know

	COURESE OUTCOMES (CO)
CO1:	Use correct terminologies to communicate General anatomical features of Human body
CO2:	Comprehend the normal disposition of the various structures and organs in The body with clinical correlations
CO3:	Determine the topography of various structures on the surface of the body
CO4:	Describe the microscopic structure of various tissues
CO5	Identify and locate structures of the body
CO6	Identify organs and tissues under microscope

SEMESTER-I
B.Sc. Allied Health Science Programs (Occupation Therapy Technology)
Syllabus
Subject: Anatomy
Paper-I
Paper Title: (General Anatomy, General Histology, General Embryology)
Credits (Theory 02, Practical 01)

Theory lectures: 30

Unit –1

Introduction human body as a whole **08 hours**

Definition of anatomy & its divisions, Terms of location, positions & planes, **Cell** & its organelles, **Basic tissues**- classification with examples, **Epithelium**- definition, classification, describe with examples, functions, **Glands**-classification, describe serous & mucous glands with examples

Unit-2

Locomotion & support **10 hours**

Connective Tissue- components and classification, **Cartilages-** types with example & histology, **Bone**-classification, names of bone cells, parts of long bone, microscopy of compact bone, names of all bones, Vertebral column, Invertebral disc. **Joints**- Classification of joints with examples. **Muscular system**-structure & classification of muscular tissue. **Nervous System** Neuron, Classification of CNS,

Unit-3

Cardiovascular system **10 hours**

Heart-Size, Location, Chambers, Exterior & Interior, Blood Supply Of Heart, Pericardium Systemic & Pulmonary Circulation, Branches Of Aorta, Common Carotid, Subclavian , Axillary , Brachial , Femoral and Internal Iliac artery, Portal Vein, Great Saphenous vein, Dural Venous Sinuses. **Lymphatic System** Thoracic duct Lymphoid organs- Primary & secondary, Names of regional Lymphatics, Axillary & Inguinal Lymph nodes

Unit-4

General Embryology **02 hours**

Spermatogenesis & oogenesis, Ovulation, Fertilization, Placenta.

PRACTICAL

Experiments **(Credits 01 , Hours 30)**

1. Histology of types of epithelium
2. Histology of serous, Mucous & mixed salivary glands
3. Histology of 3 types of cartilages,
4. Demonstration of all bones showing parts, radiographs of normal bones & joints.
5. Histology of compact bone (TS & LS)
6. Histology of skeletal (TS& LS), smooth & cardiac muscle
7. Histology of peripheral nerve
8. Demonstration of heart & vessels in the body,
9. Histology of large, medium sized arteries, & Large vein,
10. Histology of lymph node, Spleen, Tonsil & Thymus
11. Demonstration of embryology model

Syllabus
Subject: Anatomy
Paper-II
Paper Title: (Gross Anatomy, Systemic Histology)
Credits (Theory 02, Practical 01)

Theory lectures: 30

Unit –1

Gastro- Intestinal System **05 hours**

Parts of GIT, Oral Cavity(lip, tongue with histology), Tonsil, Dentition, Pharynx, Salivary glands, Waldeyer's ring, Oesophagus, Stomach, Small & large intestine, Liver, Gall Bladder, Spleen and Pancreas. Thoraco abdominal Diaphragm

Unit-2

Peritoneum 02 hours

Describe in brief Peritoneal folds

Unit-3

Respiratory System **03 hours**

Parts of Respiratory system , Nose, Nasal cavity, Larynx, Trachea, Pleura, Lungs, Broncho pulmonary Segments

Unit-4

Urinary System 03 hours

Gross Anatomy of Kidney, Ureter, Urinary bladder, male & female urethra,

Unit –5

Reproductive System **04 hours**

Male reproductive system - Testis, Vas deferens, epididymis, prostate (gross & histology)

Female reproductive system- Uterus, Fallopian tubes, ovary (gross & histology)

Mammary gland- gross

Unit –6 04 hours

Endocrine glands

Names of all endocrine glands, Pituitary gland, Thyroid gland, Parathyroid gland,Supra renal glands- (gross & Histology)

Unit –7

Neuroanatomy **04 hours**

Cerebrum, Cerebellum, midbrain, pons, medulla oblongata, Spinal cord with spinal, Nerves, Meninges, Ventricles & cerebrospinal fluid, Names of basal nuclei, Blood supply of brain, Cranial nerves,

Unit-8

Sensory Organs **05 hours**

Skin- Histology, Appendages of Skin **Eye-** Parts of Eye & Lacrimal Apparatus, Extra ocular muscles & nerve supply **Ear-** parts of Ear-External, Middle and inner ear and contents.

PRACTICAL

Experiments **(Credits 01 , Hours 30)**

1. Demonstration of Gastro intestinal system, Histology of GIT
2. Demonstration of part of Respiratory System. Histology of lung & trachea
3. Demonstration of parts of Urinary system, Histology of kidney, Ureter, Urinary bladder
4. Demonstration of section of male & female pelvis with organs in situ, Histology of testis, Vas deferens, epididymis, prostate, Uterus, Fallopian tube, ovary
5. Demonstration of glands, Histology of pituitary Thyroid, Parathyroid, Suprarenal glands
6. Demonstration of all nerve plexus and palpable nerves in the body.
7. Demonstration of all parts of brain. Histology of Optic nerve, Cerebrum, Cerebellum, Spinal cord.
8. Histology of Thin and Thick Skin, Demonstration of eye ball, Histology of Cornea & Retina.

Reference Books - Anatomy

1. William Davis (P) understanding Human anatomy and Physiology MC Graw Hill
2. Chaurasia –A text book of Anatomy T.S Ranganathan –A text book of human Anatomy .
3. Fattana, Human anatomy Description & applied) Saunder's& C P Prism publishers, Banglore
4. ESTER.M.Grishcimer, physiology & anatomy with practical Considerations J.P. Lippincott. Philadelphia.
5. Bhatnagar Essentials of Human Embryology –Revised Edition Orient BlackswanPvt.Ltd.
6. B.D.Chaurasia Human anatomy CBS publishers
7. Patrick W.Tank and Thomas R Gest Atlas of anatomy Lippincotwilliams and Wilkins
8. Hollinshed Text book of Anatomy Harper and Row Publishers
9. Willium J Larson Human embryology 3rd edition Churchill Living stone
10. Indebir Singh. Human neuro Anatomy Jaypee brothers
11. Halim A Surface and Radiological Anatomy CBS publishers

SEMESTER - I

Course: Physiology

COURSE OUTCOMES

At the end of the course, the student shall be able to know

	COURESE OUTCOMES (CO)
CO1:	Use correct terminology to communicate physiological Process /basis Required in the field of allied health care
CO2:	Describe the normal functioning of the organs and systems in the body
CO3:	Comprehend interrelationships, and contribution of among various organs and systems for maintaining homeostasis
CO4:	Variation between normal and abnormal functioning of organs systems
CO5	Acquire knowledge of physiological basis of pathogenesis of disorders.
CO6	have comprehensive knowledge of normal functions of the organ systems of the human body and introduce them to the methods of studying.

SEMESTER-I
B.Sc. Allied Health Science Programs
Syllabus
Subject: Physiology
Paper-I
Paper Title: (Physiological functions of the body)
Credits (Theory 02, Practical 01)

Theory lectures: 30

Unit –1

Blood **10 hours**

Composition and functions of blood, Plasma proteins types and function, RBC- formation, function physiological variation, Anemia classification-morphological and etiological effects of anemias on the body, Blood indices –colour index, MCV, MCH, MCHC, ESR normal value PCV normal value, WBC-function, life span, normal value, Immunity, Hemoglobin- functions normal value, Types of Hemoglobin, Jaundice, Platelets morphology normal value and function, Blood groups- basis of blood grouping, clinical importance, Clinical Psychology and transfusion, Haemostasis, Definition, normal values of clotting and bleeding time mechanism disorders, Anticoagulants

Unit-2

Renal System **05 hours**

Structure and function of nephron, types of nephron, classify nephrons. Steps of urine formation, define GFR, GFR normal value, factors affecting GFR. Micturition reflex. Diuretics Water diuresis and osmotic diuresis, define role of kidney in regulation of Blood pressure.

Unit-3

Digestive System **05 hours**

Basic structure of Digestive system, Composition and functions of Salivary secretion, Gastric secretion, Pancreatic secretion, Intestinal secretion, Bile & Gastro-intestinal movements

Unit-4

Cardiovascular System **05 hours**

List the Properties of cardiac muscle, conducting system of heart. List the events of Cardiac cycle & Heart sounds. Define Cardiac output and give normal value. Effect of exercise on heart. List the mechanism of Regulation blood pressure. Electrocardiogram-physiological basis and applications. Defined shock signs and symptoms of hypovolemic shock

Unit-5

Respiratory System **05 hours**

Functional anatomy, Mechanics of normal respiration, functions of surfactants and lung function test, Lung volumes and capacities, definitions of Hypoxia, cyanosis, dyspnea, asphyxia, artificial respiration, partial pressure of oxygen and carbon dioxide in arterial and venous blood.

PRACTICAL

Experiments **(Credits 01 , Hours 30)**

Hematology Experiments

1. Estimation of Hemoglobin
2. Bleeding time
3. Clotting time
4. PCV
5. ESR
6. Preparation of Peripheral smear.

Syllabus
Subject: Physiology
Paper-II
Paper Title: (Physiology of hormonal and regulatory function)
Credits (Theory 02, Practical 01)

Theory lectures: 30

Unit –1

Muscle And Nerve Physiology **02 hours**

Structure and functions of a neuron and neuroglia. Transmission of nerve impulse, Structure and transmission across neuro-muscular junction, Myasthenia gravis, Types of muscle fibers, Rigor mortis

Unit-2

Endocrinology **09 hours**

Definition, classification of endocrine hormones, Estimation and assessment of Hormones, function of Pituitary hormone, Thyroid hormone, Parathyroid hormone, Adrenal hormone, Pancreatic hormones. List the disease associated with hyper secretion and hypo secretion.

Unit-3

Reproductive System **05 hours**

Male reproductive system: Functions of testis, list the step of Spermatogenesis & factors influencing it.
Female reproductive system: function of ovary, Ovulation tests, define menstrual cycle, give the average duration, name the hormones influencing menstrual cycle Physiological changes during pregnancy, Pregnancy diagnostic tests. Define contraception. Describe contraceptive methods in males and females.

Unit-4

Central Nervous System **09 hours**

Organization of nervous system, define synapse, synapse receptor, action potential, list sensory nerves and sensations that carry, list the motor tracts, comment on sensation of spinal cord. Higher functions-memory learning speech, Cerebro spinal fluid formation, composition and functions. Lumbar puncture. Reflex arc, functions of cortex, cerebellum, hypothalamus, basal ganglia. Limbic system- components of anterior nervous system and action of heart.

Unit-5

Special Senses **05 hours**

List the special senses and their receptor, visual pathway, Colour vision, refractive errors Visual reflexes-pupillary and light reflex. structure of the middle ear and inner ear, Mechanism of hearing, Pathway of taste, primary taste sensations, receptor for smell.

PRACTICAL

Experiments **(Credits 01, Hours 30)**

Clinical Physiology

1. Pulse
2. Blood pressure
3. Spirometry
4. Pulmonary function tests
5. Electro Cardio Gram (ECG)
6. General physical examination

Reference Books Physiology

1. Guyton (Arthur) Text Book of Physiology. Latest Ed. Prism publishers
2. Chatterjee(CC) Human Physiology Latest Ed. Vol-1, Medical Allied Agency
3. Choudhari (Sujith K) Concise Medical Physiology Latest Ed. New Central Book,
4. Ganong (William F) Review of Medical Physiology. Latest Ed . Appleton
5. Pal G.K. Text book of Medical physiology Avichal publishing company
6. Campbell FJM Clinical physiology ELBS
7. Schmidi R.F. and Thews G Human physiology Springer verlong
8. Parvathi Pal A text book of practical physiology

SEMESTER-II

Papers

1. Elementary aspects of Biochemistry
2. Elementary Microbiology
3. Basics of General ,Systemic, Clinical, hematology and histopathological technique
4. English for Communication
5. Environmental Science
6. Discipline Specific Electives (DSE)
    a. Basic aspects of research
    b. Sample collection, preservation and transportation
    c. Sterilization
    d. disinfection
    e. Antibiotic resistance
    f. Phlebotomy
    g. Museum Technology

Second semester distribution of hours and credit- CBCS scheme

Subject	Paper& Code	Subjects	Theory		Demonstrations/ assignments		Tutorials		Total	
			hours	Credits	hours	Credits	hours	Credits	Hours	Credits
Core course (CC)	Paper-I B101	Elementary aspects of biochemistry	40	**02**	40	**01**	40	**02**	160	**05**
	Paper-II B102	Elementary microbiology.	40	**02**	40	**01**	40	**02**	160	**05**
	Paper-III B103	Basics of general ,systemic, clinical, hematology and histopathological technique	40	**02**	40	**01**	40	**02**	160	**05**
Compulsory foundation Course (FC)	B104	English for communication	30	**02**			-	**-**	30	**02**
Ability enhancement course (AEC)	B105	Environmental science	30	**02**	Field visit-	**01**	-	**-**	30	**03**
		Total	180	**09**	240	**07**	120	**03**	540	**20**
Discipline specific electives (DE)	B206 B107	Biochemistry*		1 Basic aspects of research (01) credit 2 Sample collection, preservation and transportation (01 credit)						**01**
	B108 B109 B110	Microbiology*		1. Sterilization and disinfection (01 credit) 2. Antibiotic resistance (01 credit) 3. Specimen collection and transportation (01 credit)						
	B111 B112	Pathology*		1.Phlebotomy (01 credit) 2. Museum Technology (01credit)						
				Grand Total						**21**

Note: choose any one elective from DSE during second semester in the subject *

Second semester distribution of marks- CBCS scheme

Subject	Paper/code	Subjects	Theory				Practical			
			Theory	Viva voce	I.A	Sub total	Practical	I.A	Sub total	Grand total
CC Bio chemistry	Paper-I B101	Elementary aspects of biochemistry	80	-	20	100	-	-	-	100
CC Micro biology	Paper-II B102	Elementary microbiology.	80	-	20	100	-	-	-	100
CC Pathology	Paper-III B103	Basics of general ,systemic, clinical, hematology and histopathological technique	80	-	20	100	-	-	-	100
Compulsory foundation course (CF)	B104	English for communication	50	-	-	50		-	-	50
Ability enhancement course (AEC)	B105	Environmental science-	60-	--	20	80	--	-	-	80
Discipline specific electives (DE)	B106 Biochemistry B107	1. Basic aspects of research 2.Sample collection, preservation and transportation	30	-	-	30	-	-	-	30
	B108 B109 B110	1.Sterilization and disinfection 2.Antibiotic resistance 3.Specimen collection and transportation								
	B111 Pathology B112	Phlebotomy (01 credit) 3.Museum Technology (01credit)								
		Total	**380**		**80**	**460**	-	-	-	**460**

Note: No practical examinations in semester –II Biochemistry, pathology and microbiology

DETAILS OF THE COURSES

I. CORE COURSES- BIOCHEMISTRY

1. Elementary aspects of Biochemistry.

Discipline specific elective biochemistry

1. Basics aspects of Research
2. Sample collection, preservation and transportation

II CORE COURSES – MICROBIOLOGY

1. Elementary Microbiology.

Discipline specific elective Microbiology

1. Sterilization and Disinfection
2. Antibiotic resistance
3. Specimen collection and transportation

Ability enhancement course

1. Environmental Science

Compulsory foundation course

2. English Communication

III CORE COURSES – PATHOLOGY

1. Basics of general, systemic, clinical, hematology and histopathological technique

Discipline specific elective Pathology

1. Phlebotomy (01 credit)
2. Museum Technology (01credit)

SECOND SEMESTER PROGRAM STRUCTURE

Semester	Course Opted	Course Name	Credits
second semester	**Core courses- Biochemistry**	**1. Elementary aspects of Biochemistry**	05
	Discipline specific elective – Biochemistry	1. Basics aspects of research	01
		2. Sample collection, preservation and transportation	
	Core courses – Microbiology	**1. Elementary Microbiology.**	05
	Discipline specific elective Microbiology	1. Sterilization and Disinfection	01
		2. Antibiotic resistance	
		3. Specimen collection and transportation	
	Ability enhancement course	1. Environmental science	03
	Compulsory foundation course	1. English communication	02
	Core courses pathology	**1. Basics of general, Systemic, Clinical, hematology and histopathological technique**	05
	Discipline specific elective Pathology	1. Phlebotomy (01 credit) 2. Museum Technology (01credit)	01

Note: choose any one elective from DSE during second semester in the subject *

SEMESTER -II

Course: Paper-I 1. Elementary aspects of Biochemistry

COURSE OUTCOMES

At the end of the course students will be able to know

	COURESE OUTCOMES (CO)
CO1:	Know the responsibility of Allied health care personals and hazards encountered in the clinical laboratory
CO2:	Describe the different types, use, care and maintenance of the laboratory apparatus and instruments.
CO3:	Describe the fundamental chemistry and knowledge of different solutions.
CO4:	Define acid, bases, salts, indicators and also explain about acid base balance.
CO5	Explain the management of biomedical waste.
CO6	Explain different methods for disposal of the used samples.

SEMESTER-II
B.Sc. Allied Health Science Programs Syllabus
Subject: Biochemistry
Paper-I
Paper Title: (Elementary aspects of Biochemistry)
Credits (Theory 02, Demonstration 01)

Theory lectures: 40

Unit –I **04 hours**

Laboratory hazards and its prevention

Common laboratory accidents and ways for its prevention. First Aid in the Clinical laboratory, Laboratory precautions, storage and handling of dangerous chemicals, safety measures. Conventional and SI Units

Unit-2 **02 hours**

Definition of Atomic weight, Molecular weight and Equivalent weight of elements and compounds

Unit-3 **05 hours**

Normality, Molarity, Molality – definition and preparation of solutions with examples

Unit 4

Acids and Bases **06 hours**

Definition. Properties, theories, Classification, examples of strong and weak acids.
Basic concepts of Acid base reaction, Ionization of water, pH- definition, Henderson's Hassel Bach's equation, its applications and measurement.

Unit-5 **02 hours**

Indicators

Definition, concepts, mechanisms of an indicator, use and its limitations, Commonly used indicators and their pH range. Ideal pH indicators used in different titrations. Universal indicators

Unit-6: **04 hours**

Buffers

Definition, mechanism of action, various types of buffers with example and applications, Preparation of Buffer solutions using pH meter

Unit-7 **02 hours**

Normal values and its interpretations

Unit 8 **06 hours**

Biophysics

Various grades of chemicals, reagents and water. Biomedical waste management Waste disposal in the laboratory. Medico legal aspects of laboratory technicians and laboratory ethics

Unit-9 **05 hours**

Specimen collection preservation and transportation-blood urine and other body fluids.

Unit 10 **04hours**

Quality control

Definition, types, IQAS and EQAS. Calculation of mean, standard deviation and percentage of coefficient of variation.

SEMESTER-II
B.Sc. Allied Health Science Programs
Syllabus
Subject: Biochemistry
Paper-I
Paper Title: (1.Elementary aspects of biochemistry)

Demonstrations (01 credit)

Unit-1 **08 hours**

Introduction to laboratory apparatus
Pipettes, Types Calibration
Burettes, beakers, petri dishes, depression plates, funnels
Flask, Bottles, Measuring cylinders, test tubes, centrifuge tubes, dispensers, tripod stand, wire gauze, Bunsen burner, desiccator, stop watch (Types - reagent bottles, wash bottles , specimen bottles)
Cuvettes (Types, precautions, uses and limitations)
Maintenance of glassware and apparatus, Significance of borosilicate glass, Care and cleaning of glass ware and plastic ware, Different cleaning solution

Unit-2 **12 hours**

Introduction to instruments
Water bath, Oven, Incubators, Water distillation plant and water deionizers (Use, care and maintenance)
Refrigerators, Cold box, Deep freezers Reflex condenser (Use, care and maintenance)
Centrifuges (Types, Principle, procedure, RPM, Use, care and maintenance, limitations)
Laboratory balances (Types, Use, care and maintenance, procedure for weighing different chemicals)

pH meter (Principle, procedure, types of electrodes use, care, maintenance)

Unit-3 **04 hours**

Dilutions, Reagent dilution techniques, calculating the dilution of a solution (Preparation of 0.1 N NaCl, 1 N Hcl etc.)

Unit –4 **04 hours**

Stock solution, working standard, saturated and super saturated solutions
Preparation of glucose, urea etc. Volumetric flask- uses, limitations in preparing standard solutions

Unit-5 **04 hours**

Preparations of normal solutions Preparation of molar solutions, % solutions, v/v, w/v solutions Conversion of % solution into molar solutions
(Preparation of 1 N Na2 Co3, 1 NaOH, 0.1 N HCletc)

Unit-6 **02 hours**

Titration of simple acid using a base
Demo- Titration of oxalic acid using NaOH

Unit-7 **02 hours**

Normal values & interpretations –
(Normal reference range)

Reference Books Biochemistry

1. Varley – Clinical chemistry

2. TEITZ – Clinical chemistry

3. Kaplan – Clinical chemistry

4. Ramakrishna(S) Prasanna(KG), Rajna ® Text book of Medical Biochemistry Latest Ed Orient longman Bombay

5. Vasudevan (DM) Sreekumari(S) Text book of Biochemistry for Medical students ,LatestEdn

6. DAS (Debajyothi) Biochemistry Latest ED Academic, Publishers, Culcutta

7. Rajagopal G & Ramakrishna –Practical Biochemistry for Medical Students orientalBlackswan Pvt. Ltd.

8.PankajNaik Biochemistry Jaypee publication..

SEMESTER –II

Course: Paper-II Elementary Microbiology

COURSE OUTCOMES

At the end of the course students will be able to know

	COURESE OUTCOMES (CO)
CO1:	**E**xplain the structure, classification, and identification of microorganisms including bacteria, fungi, parasite and virus.
CO2:	Describe the mode of transmission, clinical features, and sample collection for identification of disease producing organisms that includes bacteria, fungi, parasite and virus.
CO3:	Describe the different methods of infection control and practices in laboratory and their role in hospital infection control program
CO4:	Describe the various diagnostic tests employed in the laboratory diagnosis of diseases.
CO5	Describe the concepts of Antibiotic sensitivity testing and their role in drug resistance in bacteria.
CO6	Describe the concepts and principles of immunity, hypersensitivity, Autoimmunity, and immunization.

SEMESTER-II
B.Sc. Allied Health Science Programs Syllabus
Subject: Elementary Microbiology
Paper Title: (Elementary Microbiology)
Credits (Theory 02, Demonstration 01)

Theory lectures: 40

Unit-1 **05 hours**

Bacterial cell*: Anatomy, labeled diagram,

Antibiotics* : Commonly used antibiotics, target sites , misuse of antibiotics
Penicillin, Ceftriaxone, ceftazidime, ciprofloxacin, streptomycin, Erythromycin

Unit-2 **06 hours**

Sterilization & Disinfectants* :
Define sterilization and disinfection
Enumerate the different physical methods of sterilization
Diagram of Autoclave , principle , articles to be sterilized
Diagram of Hot Air oven, principle , articles to be sterilized
Enumerate the commonly used chemical disinfectants & their uses.
Phenol, Aldehydes, halogens, Ethylene oxide, detergents, antiseptics
Describe disinfection of operation theatre

Unit-3 **03 hours**

Infection:
Types: acute, chronic , Primary, reinfection, secondary, cross, nosocomial, iatrogenic, subclinical, latent, atypical Source and modes of transmission with examples.
Types of infectious diseases : outbreak, endemic, epidemic , pandemic,

Unit-4 **02 hours**

Immunity:
Antigen & its properties
Humoral immunity: classes of immunoglobulins and its biological role
Primary Immune response :
Secondary Immune response / Booster response
Vaccines:
Killed : DPT, IPV
Live : BCG, OPV, MMR
Cell mediated immunity : cells involved , biological role

Unit-5 **04 hours**

Hypersensitivity*
Describe the clinical picture of anaphylaxis and mechanisms of anaphylaxis with clinical importance.
Contact dermatitis: mechanism with examples

Unit-6 **02 hours**

Bacterial infections / diseases: *
Draw a map of human body and mark the different lesions/ diseases caused by the following bacteria :

Mycobacterium tuberculosis
Vibrio cholera
Salmonella typhi
Leptospira
Treponemapallidium
Coynebacterium diphtheria
Staphylococcus ,
Streptococcus,
Pneumococcus
E. coli
Klebsiella ,
Pseudomonas

Describe the modes of transmission, cardinal clinical manifestations & samples to be collected in the above infections

Unit-7 **08 hours**

Viral infections / diseases:*

Draw a map of human body and mark the different lesions/ diseases caused by the following Viruses :
Hepatitis A, B ,C viruses ,
Rabies ,
HIV
Arboviruses – Dengue , chikungunya ,
Measles , Mumps ,
Influenza ,
Herpes, Chicken pox

Describe the modes of transmission, cardinal clinical manifestations & samples to be collected in the above infections

Unit-8 **02 hours**

Fungal infections / diseases :*

Draw a map of human body and mark the lesions / diseases caused by opportunistic fungus
Candida,
Cryptococcus,
Aspergillus,
Penicillium,
Mucor ,
Rhizopus

Describe the modes of transmission , cardinal clinical manifestations & samples to be collected in the above infections

Unit-9 **04 hours**

Parasitic infections / diseases :*

Draw a map of human body and mark the lesions / diseases caused by the following parasites :
Entamoeba
Plasmodium
Leishmania
Trichomonas,
Giardia ,
Heliminths : Hook worm , Round worm , Pork Tape worm , Beef Tape worm, Dog Tape worm , Pin worm , Filarial worms

Describe the modes of transmission , cardinal clinical manifestations & samples to be collected in the above infections

Describe the preventive & control measures against the heliminths

Unit-10 **04 hours**

Bio safety

Describe the standard precautions to be followed in the work place
Describe the hand hygiene technique
Describe the segregation and appropriate color coded containers for biomedical waste
Describe the post exposure prophylaxis against HIV, Hepatitis B and Rabies
Describe blood spill management

Note: * these chapters can be asked for long essay

Electives:

Sterilization and Disinfectants
Antibiotic Resistance
Specimen collection and transportation

Reference Books Microbiology

1. Ananthanarayana&Panikar Text book of Medical Microbiology Universities press
2. Text book of Microbiologgy by C.P.Baveja
3. Chatterjee- Parasitology – Interpretation to clinical medicine.
4. Basic laboratory methods in Parasitology, 1st Ed, J.P.boros, New Delhi-199.
5. Basic laboratory procedures in clinical bacteriology 1st Ed, JP.Brothers, New Delhi.
6. Practical microbiology methods for LAB Technicians.
7. Bhatia R : Essentials of medical Microbiology Jay pee New delhi
8. Vandepitte J Basic laboratory procedures in clinical bacteriology Jay pee publications
9. Colle JG Practical Medical Microbiology USA
10. Chatterjee K D parasitology Chatterjee medical publishers

SEMESTER -II

Course: Paper-III Pathology

COURSE OUTCOMES

At the end of the course students will be able to know

	COURESE OUTCOMES (CO)
CO1:	Ability to describe the basic concepts of General pathology, systemic pathology, describe the basics of haematology and blood banking
CO2:	Describe the clinical features and complications of atherosclerosis Hypertensive heart disease
CO3:	Classify and describe the etio-pathogenesis, clinical features of cancer-lung and gastric.
CO4:	Learn about theory of tissue processing and staining techniques
CO5	Classify and describe the etiopathogenesis and morphology of Urinary stones and gall stones
CO6	Collect blood by various methods to efficiently perform routine and special investigations in clinical haematology laboratory

SEMESTER-II
B.Sc. Allied Health Science Programs Syllabus
Subject: Pathology
Paper-I Paper Title: (Basics of Hematology, clinical pathology and histopathological techniques**)**

Credits (Theory 02, Demonstration 01) **Theory lectures 40**

Unit-1 **07 hours**

(Basics in General Pathology)

Cell injury: agents causing cell injury, cellular adaptations (hypertrophy, atrophy, hyperplasia, metaplasia) reversible and irreversible injury.

Inflammation: cardinal signs of inflammation, acute and chronic inflammation. Laboratory tests in inflammation.
Hemodynamics: edema, thromboembolism, shock
Neoplasia: definition of neoplasm, differences between benign and malignant tumors, carcinogenesis
Infections: tuberculosis, leprosy, Environmental pollution

Unit-2 **10 hours**
(Basics in systemic pathology)
Cardio vascular system (CVS): Atherosclerosis and its complication, hypertensive heart disease, Myocardial infarction.
Leucocytes: causes for leukocytosis and leucopenia, leukemia
Respiratory system; Pneumonia, Lung cancer
GIT: peptic ulcer, gastric cancer
Liver: viral hepatitis, Gall stones
Kidney: UTI Urinary stones
Breast: Fibro adenoma, breast carcinoma
CNS: meningitis

Unit –3 **08 hours**
(Basics of hematology and Clinical Psychology)
Blood collection, hemoglobin, ESR,PT/PTT
RBC's: Definition of anemia, iron deficiency anaemia and megaloblastic anaemia
Blood grouping and Rh typing

Unit-4 **05 hours**

(Clinical Pathology)
Urine examinations
Collection and transport of various clinical specimens

Unit-5(Techniques in pathology) **05 hours**
Basics in tissue processing, FNAC, staining techniques.

DEMONSTRATIONS **05 hours**

Hemoglobin estimation.

Erythrocytes sedimentation Rate (ESR)

Urine examination

H&E staining

Blood grouping

Rh typing

Reference Books Pathology

1. Culling Histopathology techniques
2. Bancroft Histopathology techniques
3. Koss – cytology
4. Winifred Greg – Diagnostic cytopathology
5. Orell – Cyto Pathology
6. Todd & Sanford Clinical Diagnosis by laboratory method
7. Dacie& Lewis – Practical Haematology
8. RamanicSood, Laboratory Technology (Methods and interpretation)
4th Ed.J.P. Bros, New Delhi
9. Satish Gupta Short text book of Medical Laboratory for technician J.P. Bros, New Delhi
10. Sachdev K.N. Clinical Pathology and Bacteriology 8th Ed, J.P. Bros, New Delhi-
11. Krishna - Text book of Pathology, Orient Longman PVT Ltd.

SEMESTER – III

Papers

1. Foundations of Human Behavior and Experiments in Psychology
2. Child Psychology
3. Cognitive processes
4. Psychological Psychology and Measurement in Psychology
5. Adolescent Psychology

COURSE OUTCOMES

At the end of the course students will be able to know

Course: Paper-I Foundations of Human Behavior and Experiments in Psychology

	COURESE OUTCOMES (CO)
CO1:	To apply psychological theory, concepts to practical situations to understand cognitive, emotional, behavior process in daily life.
CO2:	To familiarizes the way of sense organs collect information and how it is processed by the brain.
CO3:	To stimulate a person to act and behave to achieve the desired goal – motivation, while emotion drive itself from the action caused by motive.
CO4:	To know psychology experiments while applying scientific methods.

Course: Paper-II Child Psychology

	COURESE OUTCOMES (CO)
CO1:	Understand the discipline of child psychology as an area of study to assemble the objective knowledge base that can provide insight into both the nature of childhood**.**
CO2:	Understand how theories try to explain children's development prenatal and neonatal development.
CO3:	To know the development of infancy and childhood.

Course: Paper-III Cognitive processes

	COURESE OUTCOMES (CO)
CO1:	To analyze major concepts and theories about problem solving, thinking and intelligence.
CO2:	To Compare and contrast theories of cognitive and language development, language acquisition, and language use.
CO3:	To know the nature and types of memory and forgetting.
CO4:	To demonstrate problem solving, steps of problem solving and decision making

Course: Paper-IV Psychological Psychology and Measurement in Psychology

	COURESE OUTCOMES (CO)
CO1:	To recognize the various types of psychological tests and to analyze and apply the understanding of psychological testing.
CO2:	To Interpret and assess the role of psychological testing in various measurement promotes competence in theories and method of psychological assessment.
CO3:	Construction and standardization of psychological test settings that effectively synthesize and apply the variations in scales and tests.
CO4:	To review the ethical issues surrounding psychometric evaluation, testing and interpretation in day to day life
CO5:	To know the reliability and validity of the psychological norms of testing, to know the work place based hazard in psychological professional.
CO6:	To know the work place based hazard in psychological professional.

Course: Paper-V Adolescent Psychology

	COURESE OUTCOMES (CO)
CO1:	To describe the contributions of heredity and environment to adolescent development in the physical, cognitive, and psychosocial domains.
CO2:	To describe the role of culture in adolescent development.
CO3:	To describe the various explanations of adolescent development proposed by learning, social-cognitive, cognitive-developmental, information processing, psychosexual, and psychosocial theorists.
CO4:	To describe developmental processes, periods, transitions, and issues in the physical, cognitive and psychosocial domains.

Third semester B.Sc. in clinical Psychology
Distribution of hours and credit- CBCS scheme

Subject	Paper	Subjects	Theory		Practical		Demonstrations/ assignments		Tutorials		Total	
			hours	**Credits**	hours	**Credits**	hours	**Credits**	hours	**Credits**	Hours	**Credits**
Core course (CC)	Paper-I C101	Foundations of Human Behavior and Experiments in Psychology	40	**02**	40	2			40	**02**	120	**06**
	Paper-II C102	Child Psychology	40	**02**	-	-			40	**02**	120	**04**
	Paper-III C103	Cognitive processes	40	**02**	-	-	40	2	40	**02**	120	**06**
	Paper- IV C104	Psychological Psychology and Measurement in Psychology	40	**02**	40	2			40	**02**	120	**06**
	Paper- V C105	Adolescent Psychology	40	**02**	-	-	40	2	40	**02**	120	**06**
Skill enhancement course (SEC)	C106	Skill Enhancement Course (Leadership and Personality Development)	30	**03**	-	-	-	-	-	-	30	**03**
		Total	230	**13**	80	**4**	80	04	200	**10**	630	**21**

Third semester B.Sc. in Clinical Psychology distribution of marks - CBCS scheme

Subject	Paper/code	Subjects	Theory				Practical			
			Theory	Viva voce	I.A	Sub total	Practical	I.A	Sub total	Grand total
Core course (CC)	Paper-I C101	Foundations of Human Behavior and Experiments in Psychology	80	30	20	130	40	10	50	180
	Paper-II C102	Child Psychology	80	-	20	100	-	-	-	100
	Paper-III C103	Cognitive processes	80	-	20	100	-	-	-	100
	Paper – IV C104	Psychological Psychology and Measurement in Psychology	80	30	20	130	40	10	50	180
	Paper- V C105	Adolescent Psychology	80	-	20	100	-	-	-	100
Skill enhancement course (SEC)	C106	Skill Enhancement course (Leadership and Personality Development)	40	-	10	50	-	-	-	50
		Total	**440**	**60**	**110**	**610**	80	20	100	**710**

Note: Department level paper weightage 40 theory and 10 IA as per notification No.SDUAHER/KLR/ADMN/2732/2020-21, dated 29.03.2021.

THIRD SEMESTER PROGRAM STRUCTURE

Semester	Course Opted	Course Name	Credits
Third Semester	**Core courses-**	1. Foundations of Human Behavior and Experiments in Psychology	**06**
		2. Child Psychology	**04**
		3. Cognitive processes	**06**
		4. Psychological Psychology and Measurement in Psychology	**06**
		5. Adolescent Psychology	**06**
	Skill Enhancement course	(Leadership and Personality Development)	**03**

SEMESTER-III
B.Sc. in Clinical Psychology Program Syllabus

Paper Title: Foundations of Human Behavior and Experiments in Psychology
Credits (Theory 02, Practical 01, Demonstration 01)

40 hours

Unit-1 **03 hours**
Introduction
Definition and goals of Psychology; psychology as a science, fields of Psychology
Historical and contemporary perspectives of Psychology
Methods of research in Psychology: Case history, Observation, Survey, Interview
Charting a timeline
Diagrammatic presentation of fields of psychology in a circle

Unit-2
Sensation, attention and perception **04 hours**
Sensation: meaning, concepts: sensory threshold, types of sensory processes
Attention: meaning; concepts, determinants of attention, types of attention
Perception: meaning and nature, laws of perceptual organization, Perceptual processes: form perception, figure-ground law, Constancy – size, shape and brightness, Illusion: types
Vigilance
Preparing a model

Unit-3
Motivation and Emotion **02 hours**
Motivation: Definition and nature of motivation; theories of motivation and their critical evaluation
Type of motives: Biological and Social, Need hierarchy theory
Emotion: Nature and concept, theories of emotion and their critical evaluation, Emotional self-regulations
Aggression Cultural variations in emotions

Unit-4 **04 hours**
Nature of science, psychological experimentation: nature, applications of scientific method
Experimental plan: planning of experiment, Types of experiments, conducting and writing up an experiment
Experimental designs: within and between subject design, field experiment
Field experiments and longitudinal experiments
Longitudinal study in developmental psychology

Unit-5 **04 hours**
Classical Experiments – Experimental Psychology
Weber's law and its verification by any classical method of Gustav Fechner, signal detection experiments by Green and Swets, ROC curves
Experiment of classical conditioning by Pavlov, Tolman's experiment on sign significate learning, Gibson's visual cliff experiment
Ebbinghaus experiments on learning and retention
Trying to draw self forgetting curve
Trying some mnemonics

Unit-6 **04 hours**

Classical Experiments – Social and Emotional Behavior

Cognitive Physiological experiment of emotions by Schachter and Singer
Obedience experiments by Stanley Milgram
Sheriff's experiment of Rober's cave, Stanford prison experiment on roles and rules by Zimbardo, experiments on conformity by Solomon Asch
The phenomena in Indian contexts
Classroom group games

Syllabus Books:

1. Atkinson, Hilgard, Nolen-Hoeksema, S., Fredrickson, B. L., Loftus, G. R., & Lutz, C. (2014). *Introduction to psychology*. Cengage Learning EME.
2. Baron, R.A. (2002). *Psychology (5th).* New Delhi: Pearson Education.
3. Meyer, G., &Ciccarelli, S. (2005). *Psychology (Paperback)*. Prentice Hall.
4. Gorrig, R.F. and Zimbardo, P.G. (2005). *Psychology and Life*. Allyn and Bacon.
5. Milgram, S. (1974). *Obedience to authority*. New York: Harper Arrow
6. Asch, S.E. (1952). *Social Psychology*. Prentice Hall: NJ.
7. McGuigan, F.J. *Experimental Psychology*. Prentice Hall: NJ
8. Schachter, S. (1971). *Emotion, obesity, and crime*. Academic Press: New York.
9. Gross, R.D. (2005). *Psychology: The Science of Mind and Behaviour*
10. *Physiological Psychology*.
11. D'Amato, M.R. (2010). *Methodology, Psychophysics and Learning*. Tata McGraw Hill: New Delhi.

SEMESTER-III
B.Sc. in Clinical Psychology Program Syllabus
Paper Title: Child Psychology
Credits (Theory 02, Practical 01, Demonstration 01)

40 hours

Unit-1 **15 Hours**

Introduction

Concept of development, principles of growth
Maturation and development, determinants: biological and socio-cultural
Developmental stages: life span approach
Observe and prepare developmental charts
Some genetic abnormalities and behavioural syndromes

Unit-2 **15 hours**

Pre-natal and Neonatal Development

Stages and factors in prenatal stage
Neonatal: physical characteristics, reflexes, issues in childbirth
Sensory, motor and cognitive capacities in neonatal stage
Interact with a newly born in family or neighbourhood
Draw milestones for growing baby for a year

Unit-3 **10 hours**

Infancy and childhood

Development during infancy: physical and motor development
Language, emotional and social development during infancy
Development during childhood: preschool and childhood – social, emotional, cognitive and moral development
Interacting with preschool boys and girls
Focusing on gender identity in childhood

References:

1. Berk, L.E. (2008). *Child development*. New Delhi: Pearson Education
2. Hurlock, J.B. (1997). *Child development*. New Delhi:McGraw Hill
3. Seifert, K.L. and Hoffnung, R.J. (1991). *Child and adolescent development*. New York: Houghton Miffin Co.

SEMESTER-III
B.Sc. in Clinical Psychology Program Syllabus

Paper Title: Cognitive Processes
Credits (Theory 02, Practical 01, Demonstration 01)

40 hours

Unit-1 **15 Hours**

Learning

Definition; Theories: classical conditioning: phenomenon and types of classical conditioning
Instrumental or Operant conditioning, schedules of reinforcement
Social learning theory of Bandura
Temperamental features of nervous system
Counter-conditioning and experimental neurosis

Unit-2 **15 hours**

Memory and forgetting

Memory: Nature and types; Stages of memory: sensory, STM, LTM
Models of information processing: Atkinson-Shiffrin, working memory
Forgetting: nature and factors; forgetting curve; interference theory
Information processing theory
Game theory

Unit 3 **10 hours**

Higher order Processes

Thinking: meaning and types; concept and language
Problem solving: meaning; steps of problem solving; decision making
Creativity: Nature and components of creativity, creative problem solving
Decision making strategies
Developing creative skills

Reference books:

1. Atkinson, Hilgard, Nolen-Hoeksema, S., Fredrickson, B. L., Loftus, G. R., & Lutz, C. (2014). *Introduction to psychology*. Cengage Learning.
2. Baron, R.A. (2002). *Psychology (5th).* New Delhi: Pearson Education.
3. Meyer, G., &Ciccarelli, S. (2005). *Psychology (Paperback)*. Prentice Hall.
4. Reed, K. S. (2010). *Cognition: Theories and Applications*. Belmont: Wadsworth.

SEMESTER-III
B.Sc. in Clinical Psychology Program Syllabus

Paper Title: Psychological Psychology and Measurement of Psychology
Credits (Theory 02, Practical 01, Demonstration 01)

Unit 1 **06 hours**

Introduction

The biological context of Psychology; structure of neurons: Types of neurons
Functions of neurons, resting and action potential, conduction of impulse
Synaptic transmission and chemical neurotransmitters
Description of various systems of human body
Anatomical features of Human body

Unit 2 **06 hours**

Nervous system and its functions

Nervous System: Classification; cranial nerves
Central nervous system: Brain and spinal cord- structure and function.
Peripheral and Autonomic nervous system: structure and function of somatic and autonomic
Reflex actions
Autonomous stress reactions

Unit 3 **06 hours**

Bio-chemical basis of behavior

Hormones: types; role of endocrine glands
Biological basis of hunger, thirst and sex
Sleep: biological basis and stages, Arousal
Developmental endocrinology
Some lessons in reproductive biology

Unit 4 **06 hours**

Introduction to Measurement in Psychology

Definition, purpose and application
Levels of measurement; properties and functions of measurement
Sources of error in measurement in Psychology
Theory of measurement
History of quantitative techniques

Unit 5 **04 hours**

Testing in Psychology

History of psychological testing, uses of psychological tests
Psychological testing, classification and characteristics of a test,
Steps of test construction, item writing and item analysis
Early biological measures of abilities
Recent IRT techniques

Unit 6 **06 hours**

Reliability, Validity, and Norms

Meaning, types of reliability, Factors influencing reliability
Meaning, types of validity, Factors influencing validity
Meaning of norms, types, Development of norms
Experimenting with length of the test and reliability
Factor analysis

Unit -7

Work place based Hazards **06 hours**

(In accordance with the decision taken in the meeting of the 38th Academic council held on 2nd June 2021 and as per Notification No.SDUAHER/KLR/ADMN/1207/2021-22 dated 29th Sept. 2021 The Academy has decided to introduce chapter on "Work Placed Based Hazard" with weightage of 5 marks during question paper setting)

- Definition, different types, description of Biological, chemical, physical, Ergonomic, Psychosocial.
- National Institute for Occupational Safety and Health (NIOSH) standards to prevent work place injuries.
- Hazard Identification and assessment, work place health surveillance, Occupational health indicators, Data sources of Occupational health indicators and Tools, medical surveillance tools,
- Occupational Health records confidentiality of information. Common office hazards, hazards relevant to disciplines (Medical Lab Technology/ Imaging/optometry/ dialysis/ radiotherapy/ cardiac care and perfusion/ respiratory technology at work place. Basic Life support.

References:

1. Anastasi, A. (1968) &Urbania, S. (1997). Psychological Testing. Pearson Education Asia: Pearson Publication.
2. K.R. &Davidshafer, C.D. (1994). Psychological Testing: Principles and Applications (3rd ed.) New Jersey: Prentice Hall
3. Singh, A.K. (2015). Tests, Measurements and Research Methods in Behavioural Sciences.NewDelhi:Bharti Bhawan

SEMESTER-III
B.Sc. in Clinical Psychology Program Syllabus
Paper V Subject: Clinical Psychology

Paper Title: Adolescent Psychology
Credits (Theory 02, Practical 01, Demonstration 01)

40 hours

Unit 1 **15 hours**

Introduction

Adolescence: concept and characteristics, Developmental tasks during adolescence
Puberty and physical changes during early, middle and late adolescence
Perception and reactions to physical changes during adolescence
Shyness during adolescence
Friendships and adolescence

Unit 2 **15 hours**

Cognitive and social development

Cognitive development during late childhood and early adolescence: Piagetian stages
Moral judgment and development: Kohlberg, Loevinger model
Social development: achieving independence from parents, parenting,parent and peer relationships
Empathy during adolescence
Moral behavior among males and females

Unit 3 **10 hours**

Personality development and issues

Identity and self-esteem, search for identity, ethnic identity and self-esteem
Problems in adolescence: major stressors of adolescence, depression and suicidal behaviours
Deviant behaviors: drug abuse, juvenile violence and delinquent behaviour, Teenage parenthood
Conduct problems in adolescence
Fantasies and imaginations during adolescence

References:

1. Berk, L.E. (2007). *Development through the lifespan*. Pearson Education: India.
2. Shaffer, D.R. (1996). *Developmental psychology and adolescence*. Brooks & Cole: California.
3. Learner, R.M. and Steinberg, L. (2004). *Handbook of Adolescent Psychology*. John Wiley:

SEMESTER-IV

Papers

1. Health Psychology
2. Abnormal Psychology
3. Basics of Personality and Social Psychology
4. Psychology of Intelligence
5. Industrial Psychology
6. Ability Enhancement compulsory course (Constitution of India)

FOURTH SEMESTER PROGRAM STRUCTURE

Semester	Course Opted	Course Name	Credits
Fourth Semester	**Core courses-**	1. Health Psychology	**05**
		2. Abnormal Psychology	**04**
		3. Basics of Personality and Social Psychology	**06**
		4. Psychology of Intelligence	**06**
		5. Industrial Psychology	**05**
	AECC	Constitution of India	**02**

COURSE OUTCOMES

At the end of the course students will be able to know

Course: Paper-I Health Psychology

	COURESE OUTCOMES (CO)
CO1:	To analyze Historical perspective on Health & Illness
CO2:	To know how theoretical and empirical findings are applied to improve the lives and development of individuals and groups with the help of health psychology.
CO3:	To analyze critically to evaluate fundamental issues, with a particular focus on how to promote across the health settings.
CO4:	To provide an insight into how psychology can be used to understand important health issues like pain and stress management
CO5:	Management of chronic illness with a psychological dimension

Course: Paper-II Abnormal Psychology

	COURESE OUTCOMES (CO)
CO1:	To impart ability for appreciation of complex issues surrounding abnormal behavior and its type using different model.
CO2:	Students would be able to diagnose a disorder, prescribe a treatment, and make a prognosis. They would also get an insight into the skills which are required by a psychologist.
CO3:	Ability to understand different abnormality behavior mental illness linked to genetic involvement.
CO4:	Students also learn to describe the diagnostic criteria, symptoms, course, incidence, prevalence, etiology, prognosis and correlates of major mental disorders
CO5:	Ability to know Anxiety, mood, Personality disorders behavior and Schizophrenia: Epidemiological survey of common psychopathologies, Personality disorders.

Course: Paper-III Basics of Personality and Social Psychology

	COURESE OUTCOMES (CO)
CO1:	To develop insight into concept, nature and factors influencing personality development.
CO2:	To know the theories of Personality developments and involvement of genetics.
CO3:	Ability to assess to study the personality development.
CO4:	Develop insight and analyze the contribution of social psychologists to the understanding of human society.
CO5:	To know the Social perception: Concept and nature, in social process to understand aspects related to social psychology
CO5:	To develop insight into attitudes, Stereotypes, Prejudices and Discrimination in social psychology.

Course: Paper-IV Psychology of Intelligence

	COURESE OUTCOMES (CO)
CO1:	Apply psychological testing, and various tests to assess intelligence biological, genetics bases and cultural difference of intelligence.
CO2:	To have extensive knowledge about different theories and principles of intelligence
CO3:	Ability to administer, analyse and interpret results from various psychological tests related to intelligence and emotional intelligence .

Course: Paper-V Industrial Psychology

	COURESE OUTCOMES (CO)
CO1:	Students will be able to describe concepts of psychology in the process of manpower training in industrial environmental
CO2:	The principle and technic of personnel selection and to develop leadership qualities at work place.
CO3:	To develop insight about technic of work motivation towards organizational commitment.

B.Sc. in Clinical Psychology Fourth semester distribution of hours and credit- CBCS scheme

Subject	Paper	Subjects	Theory		Practical		Demonstrations/ assignments		Tutorials		Total	
			hours	**Credits**	hours	**Credits**	hours	**Credits**	hours	**Credits**	Hours	**Credits**
Core course (CC)	Paper-I D101	Health Psychology	40	**02**			40	1	40	**02**	120	**05**
	Paper-II D102	Abnormal Psychology	40	**02**					40	**02**	80	**04**
	Paper-III D103	Basics of Personality and Social Psychology	40	**02**	40	**01**	40	1	40	**02**	160	**06**
	Paper – IV D104	Psychology of Intelligence	40	**02**	40	**01**	40	1	40	**02**	160	**06**
	Paper – V D105	Industrial Psychology	40	**02**			40	1	40	**02**	120	**05**
AECC	D206	Constitution of India	30	**02**	-	**-**	-	-	-	**-**	30	**02**
		Total	230	**12**	80	**02**	160	04	200	**10**	670	**28**

B.Sc. in Clinical Psychology Fourth semester distribution of marks - CBCS scheme

Subject	Paper/code	Subjects	Theory				Practical			
			Theory	Viva voce	I.A	Sub total	Practical	I.A	Sub total	Grand total
Core course (CC)	Paper-I D101	Health Psychology	80	-	20	100	-	-	-	100
	Paper-II D102	Abnormal Psychology	80	-	20	100	-	-	-	100
	Paper-III D103	Basics of Personality and Social Psychology	80	30	20	130	40	10	50	180
	Paper – IV D104	Psychology of Intelligence	80	30	20	130	40	10	50	180
	Paper – V D105	Industrial Psychology	80	-	20	100	-	-	-	100
AECC	D206	Constitution of India	50	-	-	50	-	-	-	50
		Total	**450**	**60**	**100**	**610**	**80**	**20**	**100**	**710**

SEMESTER-IV
B.Sc. in Clinical Psychology Program Syllabus

Paper Title: Health Psychology
Credits (Theory 02, Practical 01, Demonstration 01)

40 Hours

Unit-1 - Introduction to Health Psychology **10 Hours**

Concept and need of health psychology, perspectives – individual, cultural, lifespan, biopsychosocial model
Health behaviors, health beliefs, Illness cognitions
Health promoting and compromising behaviours
Government's policies in health promotion
Planned behaviour and health

Unit-2 – Stress and coping **15 Hours**

Nature, physiology and management of pain, pain management techniques
Stress: physiology and sources of stress, stress management
Coping interventions: mindfulness, relaxation, self-affirmation, effectiveness training
Sources and daily management of stress
Practicing relaxation and mindfulness

Unit-3 – Chronic and terminal disorders **15 Hours**

Management of chronic illness: quality of life, emotional responses, coping with chronic illness, Personal issues
Psychological dimensions of heart disease and diabetes
Psychological issues in terminal illness: adjustment with death/dying, management of terminally ill
Visiting a health setting and interview with a chronically ill CHD patient
Case study of a diabetic patient

References:

1. Curtis, A. (2002). *Health Psychology*. Routledge: London.
2. Ogden, J. (2012). *Health Psychology – A Textbook*. McGraw Hill: London

SEMESTER-IV
B.Sc. in Clinical Psychology Program Syllabus

Paper Title: Abnormal Psychology
Credits (Theory 02, Practical 01, Demonstration 01)

40 Hours

Unit-1 – Introduction **15 Hours**

Abnormality –nature, criteria: statistical abnormality, Psychometric abnormality, Utopian model, deviant behaviour;Misconceptions about mental disorders

Historical background; Indian concept of mental disorders

Classificatory systems; Need of classification; ICD 10 and DSM 5

History of depression

Inter-edition comparison of DSM

Unit-2- Models of abnormal behavior **10 Hours**

Psycho-dynamic, behaviourist, cognitive model

Biological viewpoint

Bio-psycho-social approach to abnormal behaviour

Indian concept of abnormality

Genes in mental illnesses

Unit-3- Psychological disorders (DSM 5) **15 Hours**

Anxiety disorders: symptoms and causes of Phobias, Panic disorder, generalized anxiety disorder, OCD, PTSD

Mood disorders: symptoms and causal factors of depression, bipolar disorder; Substance use disorders: Alcoholism

Schizophrenia: Symptoms, causes and types), Personality disorders: Classification

Epidemiological survey of common psychopathologies, Personality disorders

Reference Books:

1. Butcher, J.N. Mineka, S., Hooley, J.M. (2014) – *Abnormal Psychology (15th).* New Delhi: Pearson Education.
2. Niraj, A. (2006).*A short textbook of psychiatry*. Jaypee Brothers Publishers.
3. Kearney, C.A. and Trull, T.J. (2012). *Abnormal Psychology and Life: A dimensional approach*. New Delhi: Cengage Learning
4. Barlow, D.H. and Durand, V.M. (2010). *Textbook of Abnormal Psychology*. New Delhi: Cengage Learning

SEMESTER-IV
B.Sc. in Clinical Psychology Program Syllabus

Paper Title: Basics of Personality and Social Psychology
Credits (Theory 02, Practical 01, Demonstration 01)

40 Hours

Unit-1- Introduction **07 Hours**

Concept and nature

Factors influencing personality development

Psychobiological correlates: temperament, Humoral theories

Indian concept of personality – triguna

Historical views on personality

Unit-2 - Theories in Personality **07 Hours**

Psychodynamic approach: Theory of Personality by Freud, Adler, Jung

Trait and type approach: Kretschmer'sclassificationandtheory of personality by Allport,

Sheldon'sclassification

Albert Bandura's Social- Learning theory, Self theories, Indian view

Nervous system property- Pavlov

Genetics of personality

Unit-3 - Assessment in the study of personality **07 Hours**

Self-report Inventories and Projective techniques; MMPI; TAT

Interviews, Behaviour Assessment, Situational test

Qualitative techniques: Thought and Experience Sampling

Ink blot techniques

A deep interview

Unit-4 – Introduction to Social Psychology **07 Hours**

Definition, nature, scope, methods of social psychology

Groups: types and group formation

Leadership: meaning and types of leadership

Revealing experiences of participating in a group

Leadership analysis of 5 leaders in various areas

Unit-5 - Social Processes **07 Hours**

Social perception: Concept and nature, Attribution theory and its application, Impression management.

Aggression: its causes and prevention

Pro-social behaviour and its measurement, Theories of kin selection theory, Bystander effect

Violence, Altruism

Unit-6 -Attitudes, Stereotypes, Prejudices and Discrimination **05 Hours**

Attitude; nature, components, formation of attitudes

Measurement of attitudes, Persuasion, Cognitive dissonance.

Stereotypes, prejudice and discrimination: nature, causes and strategies of reducing them

Gender Stereotypes in Indian society

Caste System in India

Reference Books:

1. Aronson, E., Wilson, T.D., Akert, R.M. (2010). *Social Psychology. (7th ed.).* Princeton: Printice Hall.
2. Baron, R.A., Branscombe, N.R., Byrne, D. (2009). *Social Psychology (12th ed.).* Boston: Pearon/Allyn and Bacon.

SEMESTER-IV
B.Sc. in Clinical Psychology Program Syllabus

Paper Title: Psychology of Intelligence
Credits (Theory 02, Practical 01, Demonstration 01)

40 hours

Unit 1: Construct of Intelligence **15 Hours**

Intelligence: meaning and concept
Biological basis of intelligence: Galton
Factor theories: Spearman and Thurstone
Genetic basis of intelligence
Cultural differences in intelligence

Unit 2: Theories of intelligence **15 Hours**

Cattell and Horn: gf and gc
Gardner: multiple intelligence
Sternberg: componential theory
Binet scale of intelligence
Educating Intelligence

Unit 3: Emotional Intelligence **10 Hours**

Models of emotional intelligence- Goleman, Mayer and Salovey
EQ competencies: self-awareness, self-regulation, motivation and empathy
Managing emotions: techniques to manage emotions for conflict management and effective leadership
Social intelligence
Resilience

References:

1. Goleman, D. (1995). *Emotional Intelligence*. New York: Bantam Books.
2. Singh, D. (2003). *Emotional Intelligence at Work*. New Delhi:
3. Sternberg, R.J. (2010). *Cognitive Psychology*. New York: Cengage Learning
4. Passer, M.W. and Smith, R.E. (2010). *Psychology: The science of mind and behaviour*. New Delhi: McGraw Hill.

SEMESTER-IV
B.Sc. in Clinical Psychology Program Syllabus

Paper Title: Industrial Psychology
Credits (Theory 02, Practical 01, Demonstration 01)

40 hours

Unit 1 Introduction **15 hours**

Historical background of industrial psychology: as profession and science
Working conditions: illumination and Noise; work schedule – shift work and rest period
Personnel selection: principles and techniques
Structure of a Production unit
Circadian Rythum

Unit 2: **Work motivation** **15 hours**

Motivation: concept of incentives and rewards, intrinsic motivation
Theories of work motivation: need hierarchy theory, ERG theory, two factor theories: Hertzberg, Expectancy theory
Job satisfaction, Job analysis
Wages and Salary
Organizational commitment

Unit 3: **Leadership at Workplace and HRM** **10 hours**

Leadership: meaning and theories of leadership – trait theory and contingency theory
Human factors in job design: work space design, types and uses of displays
Meaning of Human Resource Management, training: on and off site training method, Evaluation of training
Profiling leaders
Skill Training

References:

1. Aamodt, M.G. (2001). *Industrial and Organizational Psychology*. India: Cengage Learning.
2. Chadha, N.K. (2002). *Human Resource Management: Issues, case studies and experiential exercises*. New Delhi: Sai Printographers.
3. McCormick, E.J. and Ilgen, T. (1984). *Industrial Psychology*. PHI: New Delhi.

SEMESTER-V
Papers

1. Gender Studies
2. Psychology of Adulthood and Ageing
3. Psychotherapeutic Interventions I
4. Guidance & Counseling
5. Skill enhancement course: Medical Ethics

FIFTH SEMESTER PROGRAM STRUCTURE

Semester	Course Opted	Course Name	Credits
Fifth Semester	**Core courses-**	1. Gender Studies	**04**
		2. Psychology of Adulthood and Ageing	**04**
		3. Psychotherapeutic Interventions I	**05**
		4. Guidance & Counseling	**06**
	Skill enhancement course (SEC)	Medical Ethics	**02**

COURSE OUTCOMES

At the end of the course students will be able to know

Course: Paper-I Gender Studies

	COURESE OUTCOMES (CO)
CO1:	To know cultural differences, philosophical and political issues surrounding gender system feminism.
CO2:	To know gender discrimination and caste attitude identity, transgender and foeticide.
CO3:	To know sex related issues in social domain and abuse and sexual harassment.

Course: Paper-II Psychology of Adulthood and Ageing

	COURESE OUTCOMES (CO)
CO1:	To know the concept of adulthood and ageing by biological and social approaches.
CO2:	To get an insight into Indian ashram and changes concerned in adulthood.
CO3:	To know about Pre-retirement planning, grand parenting, living arrangement Coping with bereavement, death and loneliness
CO4	To know about medical law and ethics related to professional

Course: Paper-III Psychotherapeutic Interventions I

	COURESE OUTCOMES (CO)
CO1:	To know the nature of psychotherapy, Mesmerism and Hypnotherapy Risks in Psychotherapy
CO2:	To develop insight about Psychodynamic therapies and Interpretation of dreams Indian psyche
CO3:	To know about Humanistic-Existential therapy / purpose of life self-actualization or Spirituality

Course: Paper-IV Guidance & Counseling

	COURESE OUTCOMES (CO)
CO1:	To apply and develop conceptual difference between guidance counseling & psychotherapy.
CO2:	To know about Counselor and the counselee, Ethical issues in counseling rights and risks of counseling profession
CO3:	To know about different Techniques of counseling at different areas. (Crisis intervention)

B.Sc. in Clinical Psychology Fifth semester distribution of hours and credit- CBCS scheme

Subject	Paper	Subjects	Theory		Practical		Demonstrations/ assignments		Tutorials		Total	
			hours	**Credits**	hours	**Credits**	hours	**Credits**	hours	**Credits**	Hours	**Credits**
Core course (CC)	Paper-I E101	Gender Studies	40	**02**	-	**-**	-	-	40	**02**	80	**04**
	Paper-II E102	Psychology of Adulthood and Ageing	40	**02**	-	**-**	-	-	40	**02**	80	**04**
	Paper-III E103	Psychotherapeutic Interventions I	40	**02**	40	**01**	-	-	40	**02**	120	**05**
	Paper – IV E104	Guidance & Counseling	40	**02**	40	**01**	40	1	40	**02**	160	**06**
Skill enhancement course (SEC)	E105	Medical Ethics	30	**02**	-	**-**	-	-	-	**-**	30	**02**
		Total	190	**10**	80	**02**	140	01	160	**08**	470	**21**

B.Sc. in Clinical Psychology Fifth semester distribution of marks - CBCS scheme

Subject	Paper/code	Subjects	Theory				Practical			
			Theory	Viva voce	I.A	Sub total	Practical	I.A	Sub total	Grand total
Core course (CC)	Paper-I E101	Gender Studies	80	-	20	100	-	-	-	100
	Paper-II E102	Psychology of Adulthood and Ageing	80	-	20	100	-	-	-	100
	Paper-III E103	Psychotherapeutic Interventions I	80	30	20	130	40	10	50	180
	Paper – IV E104	Guidance & Counseling	80	30	20	130	40	10	50	180
Skill enhancement course (SEC)	E105	Medical Ethics	50	-	-	50	-	-	-	50
		Total	**370**	**60**	**80**	**510**	**80**	**20**	**100**	**610**

SEMESTER-V
B.Sc. in Clinical Psychology Program Syllabus

Paper Title: Gender Studies
Credits (Theory 02, Practical 01, Demonstration 01)

40 hours

Unit 1 - Introduction to Gender **15 hours**

Meaning of gender; cultural differences; philosophical and political issues surrounding gender .
Methods of research- Meaning, goals and steps of gender research; difficulty in conducting research; feminist research methodology.
Gender perspectives – evolutionary theory and socio-biology, psychoanalytic, constructivist and post modern perspectives.
Feminism as a movement
Third Gender

Unit 2 - Gender discrimination, attitude and identity **15 hours**

Gender differences and inequalities; stereotyping and discrimination; gender and caste.
Gender roles and gender role attitude; gender- role socialization; gender and emotion
Concept of identify; gender identity; multiple identities ; gender mainstreaming
Transgender individuals
Case study on foeticide

Unit 3- Sex related comparisons **10 hours**

Sex related comparison- cognitive abilities; personality attribute and social domains
Aggression and violence- concept and theories; rape and other forms of sexual coercion; domestic abuse and sexual harassment.
Sex differences in health – mortality; health behaviours and chronic illness. Sex differences in mental health- depression, suicide, death and bereavement.
Changing sex roles
Reproductive health

References:

1. Whelehan, I., &Pilicher, J. (2004). *50 key concepts in gender studies*. New Delhi: Sage Publications.
2. Howson, A. (2005). *What is Gender*. London: Sage Publications.

Semester-V B.Sc in Clinical Psychology Program Syllabus

Paper Title: Psychology of Adulthood and Ageing
Credits (Theory 02, Practical 01, Demonstration 01)

40 hours

Unit 1: Introduction **10 hours**

Concept of adulthood and ageing: characteristics and developmental tasks
Biological approaches: genetic and physiological; Psychological approaches: Erickson
Social approaches: roles in adulthood and ageing, activity disengagement
Indian theory of Ashramas
Role of mental and physical exercises in preventing ageing

Unit 2- Changes and Concerns in Adulthood **12 hours**

Physical and cognitive changes
Personality and social changes
Concerns: working life – career, marriage, family and parenting, Midlife crisis
Indian Family System
Parenting styles

Unit 3 - Concerns of ageing **12 hours**

Pre-retirement planning, grand parenting, living arrangement
Coping with bereavement, death and loneliness
Positive ageing: positive mental health in adulthood and ageing – factors, longevity, and successful ageing
Senile-Dementia
Case study of elderly old

Unit 4 **Medical Law and Ethics (06 hours)**
(In accordance with the decision taken in the meeting of the 38th Academic council held on 2nd June 2021 and as per Notification No.SDUAHER/KLR/ADMN/1207/2021-22 dated 29th Sept. 2021 The Academy has decided to introduce chapter on "Basic Law for Allied Health care professionals" with weightage of 5 marks during question paper setting)

Introduction to medical Law and ethics : Introduction to Code of conduct, Basic principles of medical ethics Confidentiality, Malpractice and negligence - Rational and irrational drug therapy, Autonomy and informed consent - Right of patients, Care of the terminally ill- Euthanasia, Organ transplantation, **Medico legal aspects of medical records** –Medico legal case and type- Records and document related to MLC - ownership of medical records - Confidentiality Privilege communication - Release of medical information - Unauthorized disclosure - retention of medical records. Professional Indemnity insurance policy, development of standardized protocol to avoid near miss or sentinel events. Obtaining an informed consent. Consideration of medical ethics – Doctors, patient and profession.

References:

1. Bee, H. and Bjorklund, B.R. (2003). *Journey of Adulthood*. Prentice Hall.
2. Hofer, S.M. and Alwin, D.E. (2008). *Handbook of Cognitive Ageing*: Interdisciplinary Perspectives. London: Sage.

Semester-V B.Sc in Clinical Psychology Program Syllabus
Paper III Subject: Clinical Psychology

Paper Title: Psychotherapeutic Interventions I
Credits (Theory 02, Practical 01, Demonstration 01)

40 hours

Unit 1 Introduction **15 hours**

Nature of psychotherapy; history and development of psychotherapy, process of psychotherapy
Client-therapist relationship, role and qualities of a good therapist
Role of theory, ethics in psychotherapy, Mechanisms of change
Mesmerism and Hypnotherapy
Risks in psychotherapy

Unit 2 Psychodynamic therapies **10 hours**

Traditional psychoanalysis: Freud; free association; psychodynamic therapy: theoretical ground.
Therapeutic factors: resistance, transference and counter transference, defense mechanisms.
Adlerian therapy; Jungian therapy, Contemporary psychoanalytic therapies
Interpretation of dreams
Indian psyche

Unit 3 :Humanistic-Existential therapy **15 hours**

Humanistic therapy: client- centered therapy; meaning of existence and purpose in life, self-actualization, self-psychology.
Existential therapy, logo therapy; contributions of Frankl, May, Rank and Yalom
Gestalt therapy, Group therapy
Humane approach
Spirituality

References:

1. Hersen, M. & Sledge, W. (2002). *Encyclopedia of psychotherapy*. Academic Press.
2. Yalom, I. (2009). *The Gift of Therapy*. Harper Perennial: New York.
3. Gobbard, G. Beck, J. Holmes, J. (2007). *Oxford Textbook of Psychotherapy*. OUP: London.
4. L. Klerman, M. M. Weissman, B. J. Rounsaville, E. S. Chevron. (1984). *Interpersonal Psychotherapy of Depression.*Basic Books.
5. Sue Weissmark, D. A. Giacomo. (1998). *Doing Psychotherapy Effectively.* University of Chicago Press.

6. Jeffrey L. Kleinberg. (2012). *The Wiley-Blackwell Handbook of Group Psychotherapy.*Wiley Blackwell.
7. Mace. (1995). *The Art and Science of Assessment in Psychotherapy*. Routledge.
8. J. Fagan, M. D. Kaiser, D. M. Depalma, T. J. C. Heavner, E. L. Phillips. (1985). *Psychotherapy Revised: New Frontiers in Research and Practice.*Lawrence Erlbaum Associates, 1985
9. Nick Totton. (2005). *New Dimensions in Body Psychotherapy.*Open University Press, 2005

Semester-V B.Sc. in Clinical Psychology Program Syllabus
Paper III Subject: Clinical Psychology

Paper Title: Guidance and Counseling
Credits (Theory 02, Practical 01, Demonstration 01)

40 hours

Unit 1: Introduction **15 hours**

Guidance and counseling: meaning and goals
Educational guidance: need and goals
Vocational guidance: need and goals
Guide- role
Guidance interview

Unit 2: Counseling **15 hours**

Counselor and the counselee: expectations and goals, role and functions of a counselor
Ethical issues in counseling; Counseling as a profession-training and skills
Effective counselor, characteristics of a counsellor
Risks in counseling profession
Rights of a counselee

Unit 3: Techniques and areas **10 hours**

Psychoanalytic, Humanistic
Behavioristic and cognitive
Areas of counseling: familycounseling, career counseling
Crisis intervention
Transactional analysis

References:

1. Gibson, R.L. and Mitchel, M.H. (2005). *Introduction to Counseling and Guidance*. Pearson Education.
2. Locke, D.C., Myers, J.E., & Herr, E.L. (2001). *Handbook of Counseling*. Thousand Oaks, CA: Sage Publications
3. Patri, V.R. (2008). *Counseling Psychology*. New Delhi: Authors Press.
4. A. Vacc, S. B. Devaney, J. M. Brendel. (2003). *Counseling Multicultural and Diverse Populations: Strategies for Practitioners*. Brunner Routledge.
5. H. Blocher. (2000). *Counseling: A Developmental Approach*. Wiley.
6. H. Osipow, W. B. Walsh. (1990). *Career Counseling: Contemporary Topics in Vocational Psychology.*Lawrence Erlbaum Associates.
7. Thompson. (2003). *Counseling Techniques: Improving Relationships with Others, Ourselves, Our Families, and Our Environment.* Brunner Routledge.
8. Walsh. (2003). *Counseling Psychology and Optimal Human Functioning.*Lawrence Erlbaum Associates.

VI semester

Papers

1. Neuropsychology
2. Psychotherapeutic Interventions II
3. Integrated Psychological Interventions
4. Disability and Rehabilitation
5. Ability Enhancement compulsory course

Quality control

SIXTH SEMESTER PROGRAM STRUCTURE

Semester	Course Opted	Course Name	Credits
Fifth Semester	**Core courses-**	1. Neuropsychology	**06**
		2. Psychotherapeutic Interventions II	**06**
		3. Integrated Psychological Interventions	**06**
		4. Disability and Rehabilitation	**05**
	Ability enhancement compulsory course	Quality control	**03**

COURSE OUTCOMES

At the end of the course students will be able to know

Course: Paper-I Neuropsychology

	COURESE OUTCOMES (CO)
CO1:	To describe the nature and basic principles of neuropsychology.
CO2:	To Identify the brain's levels and structures and summarize the functions of its parts.
CO3:	Plan and Execute assessments and rehabilitation for individuals with neurocognitive dysfunctions and also Neuropsychological Disorders

Course: Paper-II Psychotherapeutic Interventions II

	COURESE OUTCOMES (CO)
CO1:	To know about psychotherapies Interventions Importance, limitations and research
CO2:	To apply Basic principles of Cognitive therapy in identifying and evaluating automatic thoughts, modifying beliefs, and its applications in depression, anxiety, anger, social anxiety and Shyness
CO3:	To apply Behavior therapy Basic principles, history and development Techniques of classical conditioning flooding, systematic desensitization, aversion therapy.

Course: Paper-III Integrated Psychological Interventions

	COURESE OUTCOMES (CO)
CO1:	To know about Psycho therapeutic intervention by means of yoga meditation, and religious experiences.
CO2:	To know about Cognitive-Behavior Therapy, couple - marital and family therapy Relapse and follow-ups in psychotherapy.
CO3:	To get insight about other Psychological interventions like Positive , mindfulness, savoring, Biofeedback, Life style coaching, progressive muscle relaxation, leisure planning and Vipassana meditation

Course: Paper-IV Disability and Rehabilitation

	COURESE OUTCOMES (CO)
CO1:	To know about Nature of disability impairment and handicap and attitudes towards the disabled and related legal issues rights of people with disability.
CO2:	To empowerment, employment of disability family / Paralympics.
CO3:	To Coping with disability by psycho social intervention by Assisted technologies for rehabilitation.7

B.Sc. in Clinical Psychology Sixth semester distribution of hours and credits- CBCS scheme

Subject	Paper& Code	Subjects	Theory		Practical		Demonstrations/ assignments		Tutorials		Total	
			hours	**Credits**	hours	**Credits**	hours	**Credits**	hours	**Credits**	Hours	**Credits**
Core course (CC)	Paper-I F101	Neuropsychology	40	**02**	40	**01**	40	1	40	**02**	160	**06**
	Paper-II F102	Psychotherapeutic Interventions II	40	**02**	40	**01**	40	1	40	**02**	160	**06**
	Paper-III F103	Integrated Psychological Interventions	40	**02**	40	**01**	40	1	40	**02**	160	**06**
	Paper – IV F104	Disability and Rehabilitation	40	**02**			40	1	40	**02**	120	**05**
AECC	Ability enhancement compulsory course F205	Quality control	30	**03**	-	**-**	-	-	-	**-**	30	**03**
		Total	190	**11**	120	**03**	160	04	160	**08**	630	**26**

B.Sc. in Clinical Psychology Sixth semester distribution of marks - CBCS scheme

Subject	Paper/code	Subjects	Theory				Practical			
			Theory	Viva voce	I.A	Sub total	Practical	I.A	Sub total	Grand total
Core course (CC)	Paper-I F101	Neuropsychology	80	30	20	130	40	10	50	180
	Paper-II F102	Psychotherapeutic Interventions II	80	30	20	130	40	10	50	180
	Paper-III F103	Integrated Psychological Interventions	80	30	20	130	40	10	50	180
	Paper – IV F104	Disability and Rehabilitation	80		20	100	-	-	-	100
AECC	Ability enhancement compulsory course F205	Quality Control	50	-	-	50	-	-	-	50
		Total	**370**	**90**	**80**	**540**	**120**	**30**	**150**	**690**

SEMESTER-VI
B.Sc. in Clinical Psychology Program Syllabus

Paper Title: Neuropsychology
Credits (Theory 02, Practical 01, Demonstration 01)

40 hours

Unit 1- Introduction to Neuropsychology
History and scope of neuropsychology
Functions and dysfunctions of the nervous system
Meninges, ventricles, vascular system
Phrenology
Trephination

Unit 2 – Neuro-diagnostics
Comprehensive neuropsychological assessment, Individualized approach
Haltead-Reitan Neuropsychological battery
Luria-Nebraska neuropsychological battery
Brain imaging and scans
AIIMS Battery

Unit 3 – Neuropsychological Disorders
Cerebrovascular accidents: types, causes, symptoms, and management
Tumors of the brain: types, causes, symptoms, and management
Traumatic head injuries: types, causes, symptoms, and management
Glasgow Coma scale
Neuropsychological rehabilitation

Unit 4 Basic aspects of Disaster Management (6 hours)

(In accordance with the decision taken in the meeting of the 38th Academic council held on 2nd June 2021 and as per Notification No.SDUAHER/KLR/ADMN/1207/2021-22 dated 29th Sept. 2021 The Academy has decided to introduce chapter on "Basic aspect of Disaster Management" with weightage of 5 marks during question paper setting)

Definition and types of disaster: Risk and Vulnerability in Disasters, Natural disasters- earthquakes, floods drought, landside, land subsidence, cyclones, volcanoes, tsunami, avalanches, global climate extremes. Man-made disasters Terrorism, gas and radiations leaks, toxic waste disposal, oil spills, forest fires.

Study of Important disasters: Earthquakes and its types, magnitude and intensity, seismic zones of India, major fault systems of India plate, flood types and its management, drought types and its management, landside and its managements. Social Economics and Environmental impact of disasters.

Mitigation and Management techniques of Disaster: Basic principles of disasters management, Disaster Management cycle, Disaster management policy, National and State Bodies for Disaster Management, Early Warming Systems, Building design and construction in highly sesmic zones, retrofitting of buildings.

Training, awareness program: Training and drills for disaster is preparedness, Awareness generation program, Usages of GIS and Remote sensing techniques in disaster management.

References:

1. Boller, F. &Grafman, J. (1988). *Handbook of Neuropsychology*. New York: Elsevier.
2. Hersen, M. Kazdin, A. E., &Bellack, A.S. (1991). *The Clinical Psychology Handbook.* New York: Pergamon
3. Kolb, B. &Whisaw, I.Q. (1990). *Fundamentals of Human Neuropsychology*. New York: Freeman, W.H.
4. E. Maruish, J. A. Moses. (1997). *Clinical Neuropsychology: Theoretical Foundations for Practitioners.*Lawrence Erlbaum Associates.
5. Joanette, A. R. Lecours. (1996). *Classic Cases in Neuropsychology, Vol. 1.*Psychology Press.
6. Leclercq, P. Zimmermann. (2002). *Applied Neuropsychology of Attention: Theory, Diagnosis, and Rehabilitation.*Psychology Press.
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SEMESTER-VI
B.Sc. in Clinical Psychology Program Syllabus

Paper Title: Psychotherapeutic Interventions II
Credits (Theory 02, Practical 01, Demonstration 01)

40 hours

Unit 1 : Evidence based Psychotherapies **15 hours**

Evidence in psychotherapies, empirical basis of therapies: Importance and limitations of psychotherapy research
Objectivity-subjectivity issues, biases and cultural factors, client factors, therapist factors
Guidelines of evidence-based practice, randomized controlled trials, improving quality of research in psychotherapy
Quasi-experimental research
Meta-analysis in psychotherapy research

Unit 2: Cognitive therapy **15 hours**

Basic principles, theoretical background, history and development
Cognitive conceptualization, identifying and evaluating automatic thoughts, modifying Beliefs Applications: depression, anxiety, anger, social anxiety
Shyness Modifying beliefs

Unit 3: Behavior therapy **10 hours**

Basic principles, theoretical background, history and development
Techniques of classical conditioning: flooding, systematic desensitization, aversion therapy; Techniques of operant conditioning: contingency management, 96ehavior, extinction, token economy
Applications: behavior modification in children, anxiety, social anxiety, phobia, ADHD
Watson'sexperiments on phobia
Applied behavior analysis

References:

1. Gerring, R.J. & Zimbardo, P.G. (2006). *Psychology and Life*. Pearson.
2. Neitzel, M.T. Bernstein, D.A. &Millich, R. (1998). *Introduction to Clinical Psychology*. Upper Saddle River, New Jersey: Prentice Hall.
3. Snyder, L.R. & Lopez, S. (2007). *Positive Psychology: The scientific and practical exploration of human strengths*. Thousand Oaks, CA: Sage.
4. L. Chin, V. De La Cancela, Y. M. Jenkins. (1993). *Diversity in Psychotherapy: The Politics of Race, Ethnicity, and Gender.* Praeger Publishers.
5. Holmes, R. Lindley. (1998). *The Values of Psychotherapy.*Karnac Books.
6. A. Eisner. (2000). *The Death of Psychotherapy: From Freud to Alien Abductions.*Praeger, 2000
7. D. Geller, J. C. Norcross, D. E. Orlinsky. (2004). *The Psychotherapist's Own Psychotherapy: Patient and Clinician Perspectives.*Oxford University Press, 2004

SEMESTER-VI
B.Sc. in Clinical Psychology Program Syllabus

Paper Title: Integrated Psychological Interventions
Credits (Theory 02, Practical 01, Demonstration 01)

40 hours

Unit 1- Introduction **15 hours**

Meaning of integrated psychological interventions, Indian views, virtual therapies-online
Altered states of consciousness: functions of consciousness, hypnosis
Yoga, meditation, and religious experiences
Patanjali's Yoga
Drugged states

Unit 2 - Cognitive Interventions **15 hours**

Cognitive-Behavior Therapy: Beck
Rational Emotive Behavior Therapy: Ellis
Couple therapy, marital and family therapy
Relapse and follow-ups in psychotherapy
Schema therapy

Unit 3- Other psychological interventions **10 hours**

Positive Psychological interventions: mindfulness, savoring
Biofeedback, Transcranial Magnetic Stimulation
Life style coaching, progressive muscle relaxation, leisure planning
Vipassana meditation
Autogenic relaxation

References:

1. Gerring, R.J. & Zimbardo, P.G. (2006). *Psychology and Life*. Pearson.
2. Neitzel, M.T. Bernstein, D.A. &Millich, R. (1998). *Introduction to Clinical Psychology*. Upper Saddle River, New Jersey: Prentice Hall.
3. Snyder, L.R. & Lopez, S. (2007). *Positive Psychology: The scientific and practical exploration of human strengths*. Thousand Oaks, CA: Sage.
4. S. Swan. (2012). *Yoga- Philosophy for Everyone: Bending Mind and Body*. Wiley Blackwell.
5. Whicher, D. Carpenter. (2003). *Yoga: The Indian Tradition.*RoutledgeCourzon.
6. G. Plante. (2010*). Contemplative Practices in Action: Spirituality, Meditation, and Health*.Praeger, 2010
7. Fowler. (1996). *Learning to Dance Inside: Getting to the Heart of Meditation.*Addison Wesley, 1996
8. Perret. (2005*). Roots of Musicality: Music Therapy and Personal Development*. Jessica Kingsley, 2005

SEMESTER-VI
B.Sc. in Clinical Psychology Program Syllabus

Paper Title: Disability and Rehabilitation
Credits (Theory 02, Practical 01, Demonstration 01)

40 hours

Unit 1: Introduction to disability **15 hours**

Nature of disability; impairment and handicap; beliefs and attitudes towards the disabled, legal issues

Models of disability: social paternalistic, rehabilitation, minority, empowerment, socio-political models, Moral and charity models

Reactions to disablement: personal, environmental, and disability based determiners

Rights of People with Disability Act, 2016, RCI

Unit 2: Empowerment, employment and family **15 hours**

Empowerment: benefits, becoming empowered, social responsibility

Employment: need, preparation, obstacles, maintaining

Family's role in disability, caregivers' reactions and adjustment to disability**,** Burnout in caregivers and professionals

Working of NGOs in empowerment of disabled, Paralympics

Unit 3: Psychosocial issues and interventions **10 hours**

Coping with disability: acceptance, stress, maladjustment

Cultural sensitivity, mental health, Human rights

Recovery process, rehabilitation, Holistic growth

Mental health act

Assisted technologies for rehabilitation

References:

1. Frank, R.G., Rosenthall, M., Caplan, B. *Handbook of Rehabilitation Psychology(2nd ed).*Washington,American Psychological Association, 2015
2. Drum CE, Krahn GL, Bersani H. *Disability and Public Health*, Washington, America Public Health Association, 2009
3. F. Riggar, D. R. Maki. (2004). *Handbook of Rehabilitation Counseling*. Springer.
4. L. Leavitt. (1999). *Cross-Cultural Rehabilitation: An International Perspective*. W. B. Saunders.
5. Sohlberg, C. A. Mateer. (2001). *Cognitive Rehabilitation: An Integrative Neuropsychological Approach*. Guilford Press.
6. Marshall. (2005). *Perspectives on Rehabilitation and Dementia.*Jessica Kingsley

Distribution of Type, Number and marks of Questions for Various Subjects

THEORY

Subjects having maximum marks = 80			Total
Type of question	Number of questions	Marks for Each question	
Long Essay	02	10	20
Short essay	06	5	30
Short answer	10	3	30
		Total	80

For the papers which has section A & B and already existing standalone papers

Subjects having maximum marks = 40			Total
Type of question	Number of questions	Marks for Each question	
Long Essay	01	10	10
Short essay	03	5	15
Short answer	05	3	15
		Total	40

Note: In accordance with University notification No.SDUAHER/KLR/ADMN/2732/2020-21, dated 29.03.2021 based on proceedings of the 36th meeting of the Academic council held on 30.09.2020 and also proceeding of the 59th meeting of the Board of Management held on 09.10.2020 approve the subject of Conversion of Question papers with different weightage of Allied Health Science programs to common weightage to facilitate Question bank generation and also to have uniform marks in subsidiary subjects)

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