

APPENDIX : 'C' ITEM NO: B-3



SRI VENKATESWARA UNIVERSITY :: TIRUPATI SVU COLLEGE OF SCIENCES MASTER OF SCIENCES

Re-Structured P.G. Programme (CBCS) as per NEP 2020,
National Higher Education Qualification Frame Work (NHEQF) and
Guidelines of APSCHE

(With effect from the batch of Students admitted from the academic year 2024-25)

(As per Lr.no: CII(A)/Rev.Regulations/3rd & 4th sem/Sch & Syl/ 2025-26; Date: 06 -10-2025)

1. Preamble:

In Consonance with NEP – 2020, as per the levels prescribed by NHEQF for Master's Programmes and APSCHE Guidelines for Re-Structuring PG Programmes, the existing PG Programmes (M.A., M.Com., and M.Sc.) are redesigned to equip the students with skills and knowledge for employability conducting independent Research and contribute to advancement of knowledge in their fields.

2. Main features of the Redesigned curriculum of PG Programmes:

1. The redesigned curriculum frame work has the following main features.
2. Opportunity for learners to choose the courses of their interest in all disciplines.
3. Online learning and hybrid modes of blended learning.
4. Introduction of Skill enhancement courses.
5. Interdisciplinary learning to have a broad understanding of their chosen field and its connections to other disciplines.
6. Provide the Skills and knowledge to the learners for employability, Research and advancement of Knowledge in their fields.g
7. Mandatory open online Transdisciplinary courses.
8. The redesigned curricular frame work of PG Programmes are in consonance with the redesigned 4 year UG Honors Programmes. and
9. The redesigned PG Programmes are in sync with the National Credit Frame Work (NCrF) for creditization of all learning and assignment, accumulation, storage, transfer and redemption of credits, subject to assessment.

10. Eligibility and Credit Requirement for admission in PG Programmes (M.A., M.Com., and M.Sc.):

1. A 3 year Bachelor's Degree with minimum of 120 credits for 2 years P.G. Programme.
2. A student is eligible for PG Programme with 3 year Bachelor's Degree relevant to either Major or Minor discipline studied in the UG Programme **as prescribed by the concerned BoS.**
3. A student with Bachelors degree with 4 year Honours / Honours with Research is eligible for lateral entry into 2nd year (i.e., III Semester) of the PG Programme, for whom 20% of supernumerary seats shall be sanctioned in 2nd year (i.e., III Semester).
4. While awarding PG degree for one year PG with lateral entry the Provisional Certificate and the PG Degree shall clearly mention that one year PG degree is awarded after completing 4 year UG Honours / Honours Research Programme.

5. Multiple Entry and Exit Options:

- i. If the Student exits after successful completion of all courses of 1st year PG Programme, in a single attempt, such students may be awarded PG Diploma.
- ii. Such students may be permitted to take re-admission and continue the programme with in a period of Three years from the date of exit.

iii. **Branches of Study:**

The Branches of study in PG Degree Programmes are:

S. No	Branch	Name of the M.Sc. Degree Course
1	Branch I	Anthropology
		Specialisations:
		(i) Social-cultural Anthropology
2	Branch II	(ii) Biological Anthropology
		(A) Bio-Chemistry
		(B) Immunology
3	Branch III	Bio-Technology
4	Branch IV	Botany
5	Branch V	Chemistry
		Specialisations:
		(1) Analytical Chemistry
		(2) Environmental Chemistry
		(3) Inorganic Chemistry
		(4) Organic Chemistry
6	Branch VI	(5) Physical Chemistry
		(A) Computer Science
		(B) M.S Data Science
7	Branch VII	Environmental Science
8	Branch VIII	Fishery Science and Aquaculture
9	Branch IX	Geography
10	Branch X	Geology
11	Branch XI	(A) Home Science
		Specialisations:
		(i) Food Science Nutrition and Dietetics
		(ii) Human Development & Child welfare
		(iii) Extension Management and Communication Technology
		(B) Food Technology
12	Branch XII	(A) Mathematics
		(B) Applied Mathematics
13	Branch XIII	(A) Microbiology
		(B) Industrial Microbiology
14	Branch XIV	(A) Physics
		(B) Electronics
		(C) Instrumentation
15	Branch XV	(A) Psychology
		(B) Counselling Psychology
16	Branch XVI	(A) Statistics
		(B) Applied Statistics
17	Branch XVII	Virology
18	Branch XVIII	(A) Zoology
		(B) Animal Bio-technology

iv. **Programme Duration:**

- Minimum duration of the full-time P.G Programme is two consecutive academic years (i.e. 4 semesters) and maximum period is 4 academic years.

ii. **Semester:**

Generally, each semester shall consist of 90 actual instruction days including sessional test days. However, instructional days may be reduced up to 72, when necessary, with increased instructional hours per course per week.

iii. **Lateral Entry:**

- For a student who has completed 4 years UG Honours Degree, is eligible for lateral entry into the 2nd year/3rd semester of the 2-year PG program.
- An undergraduate with 4-year UG Honours with Research is eligible for lateral entry only into the 2nd year/3rd semester of the 2-year PG program.

iv. **Exit Point:**

For the PG programme, there shall only be one exit point for those who join two year PG programme. Students who exit at the end of 1st year shall be awarded a Postgraduate Diploma.

v. **Credits:**

Credit defines the quantum of contents/syllabus prescribed for a course and determines the number of instruction hours per week. The norms for assigning credits to a course for a duration of one semester shall be as follows:

- 10 credits for core courses and 6 credits for skill oriented courses in I, II & III semesters with a total of 48 credits
- 2 credits for core practical and 2 credits for SOC practical in I, II & III semesters with a total of 12 credits
- 2 credits for each OOTC in II & III Semesters and 8 credits for OOSDC in IV Semester with a total of 12 credits
- 12 credits for project work in IV semester.

vi. **Classification of Courses:**

The courses of each specialization of study are classified into **Core Courses (CC)**, **Skill Oriented Courses (SOC)**, **Open Online Transdisciplinary Course (OOTC)**, **Open Online Skill Development Course (OOSDC)** and **Courses on Indian Knowledge Systems (IKS)**. It is mandatory for a student to complete successfully all the **above courses** pertaining to his/her specialization of study.

SEMESTER - I								
S. No	Course	Code	Title of the Course	H/W	C	SEE	IA	Total Marks
1	CC	101	Core course - 1	4	4	70	30	100
2		102	Core Course – 2(A)	4	3	50	25	75
			Core Course – 2(B)					
3		103	Core Course – 3(A)	4	3	50	25	75
			Core Course – 3(B)					
4	*P	104	Practical I (related to CC 2 & 3)	6	2	35	15	50
5	SOC	105	Skill Oriented Course – 1(A)	4	3	50	25	75
			Skill Oriented Course – 1(B)					
6		106	Skill Oriented Course – 2(A)	4	3	50	25	75
			Skill Oriented Course – 2(B)					
7	*P	107	Practical II (related to SOC 1 & 2)	6	2	35	15	50
			Total	36	20	340	160	500
8	Audit Course	109	Indian Knowledge Systems - 1	4	0	0	100	0

- **CC (Core Courses)** - 1st Core Course is mandatory and 2nd & 3rd Core Courses Student can choose one from each code
- ***SOC (Skill Oriented Courses)** – Student can choose one from each code
- ***Practical – I** relating to 2nd & 3rd Core Courses and **Practical - II** relating to 1st & 2nd Skill Oriented Courses (SOC)
- **Audit Course** – Zero Credits but mandatory with only a Pass

SEMESTER - II								
S. No	Course	Code	Title of the Course	H/W	C	SEE	IA	Total Marks
1	CC	201	Core course - 4	4	4	70	30	100
2		202	Core Course – 5(A)	4	3	50	25	75
			Core Course – 5(B)					
3		203	Core Course – 6(A)	4	3	50	25	75
			Core Course – 6(B)					
4	P	204	Practical III (related to CC 5 & 6)	6	2	35	15	50
5	SOC	205	Skill Oriented Course – 3(A)	4	3	50	25	75
			Skill Oriented Course – 3(B)					
6		206	Skill Oriented Course – 4(A)	4	3	50	25	75
			Skill Oriented Course – 4(B)					
7	P	207	Practical IV (related to SOC 3 & 4)	6	2	35	15	50
8	OOTC	208	Open Online Transdisciplinary Course – 1	-	2	-	100	100
			Total	36	22	340	260	600
9	Audit Course	209	Indian Knowledge Systems - 2	4	0	0	100	0

- CC (Core Courses) – 4th Core Course is mandatory and 5th & 6th Core Courses Student can choose one from each code
- *SOC (Skill Oriented Courses) – Student can choose one from each code
- *Practical - III relating to 5th & 6th Core Courses and Practical - IV relating to 3rd & 4th Skill Oriented Courses (SOC)
- *Open Online Transdisciplinary Course (OOTC) - Students can choose any relevant course of his / her choice from the online courses offered by governmental agencies like SWAYAM, NPTEL, etc.,
- Audit Course – Zero Credits but mandatory with only a Pass

SEMESTER - III								
S. No	Course	Code	Title of the Course	H/W	C	SEE	IA	Total Marks
1	CC	301	Core course – 7	4	4	70	30	100
2		302	Core Course – 8(A)	4	3	50	25	75
			Core Course – 8(B)					
3		303	Core Course – 9(A)	4	3	50	25	75
			Core Course – 9(B)					
4	P	304	Practical V (related to CC 8 & 9)	6	2	35	15	50
5	SOC	305	Skill Oriented Course – 5(A)	4	3	50	25	75
Skill Oriented Course – 5(B)								
6		306	Skill Oriented Course – 6(A)	4	3	40	25	75
			Skill Oriented Course – 6(B)					
7	P	307	Practical VI (related to SOC 5 & 6)	6	2	35	15	50
8	OOTC or OE	308	Open Online Transdisciplinary Course – 2	-	2	-	100	100
			or Open Elective	4	2	70	30	100
*	Seminar / tutorials / remedial classes and Quiz as part of internal assessment			4	-	-	-	-
			Total	36	22	340	260	600

- CC (Core Courses) – 7th Core Course is mandatory and 8th & 9th Core Courses Student can choose one from each code
- *SOC (Skill Oriented Courses) – Student can choose one from each code
- *Open Online Transdisciplinary Course (OOTC) / OPEN ELECTIVE – Students can choose any relevant course of his /her choice from the online courses offered by government agencies like SWAYAM, NPTEL, etc.,
- *Practical – V relating to 5th & 6th Core Courses and Practical – VI relating to 5th & 6th Skill Oriented Courses (SOC)

SEMESTER - IV								
S. No	Course	Code	Title of the Course	H/W	C	SEE	IA	Total Marks
1	OOSDC	401	Open Online Skill Development Courses-2	--	8	-	200	200
	or		or					
	SDC	401(A)	Skill Development Course-1	4	4	70	30	100
		401(B)	Skill Development Course-2	4	4	70	30	100
2	PW	402	Project Work – Orientation classes	24	12	300	0	300
*	Conducting classes for competitive exams, communication skills, UGC / CSIR and NET / SLET examinations			12	-	-	-	-
			Total	36	20	300	200	500
Total Semesters				164	84	1530	670	2200

*Open Online Skill development Courses (OOSDC) or Skill Development Courses (SDC) – Students can choose any **Two** relevant courses of his / her choice from the online courses offered by governmental agencies like SWAYAM, NPTEL, etc., **to get 8 credits (with 4 credits from each course).**

i. Core Course:

- Subject related topics designed to build upon the advanced knowledge acquired during their 3-year degree programme. They are designed to meet the requirements of research and industrial needs.
- Totally 9 core courses are mandatory and distributed evenly with 3 in each of the first three Semesters.
- 5 core courses are to be offered in each semester upto 3rd semester out of which 3 (one core with total theory and 2 cores with theory & practicals) will be opted in each semester by the student.
- In each semester upto 3rd semester 1 core course with total Theory is mandatory with 4 credits and 4 hrs of theoretical instructions / week.
- The structure of the remaining 2 core courses and skill oriented courses in each semester includes 4 hrs of theoretical instructions for each course along with seminars and 6 hours of practical work / week with 3 credits assigned to the theory and 2 credits to the practical component.

ii. Skill oriented courses:

Skill oriented course designed to bridge the gap between theoretical knowledge and practical implementation. These courses enhance the employability of the students by equipping them with the skills required for industrial employers and entrepreneurship. **6 Skill Oriented Courses** are offered and distributed evenly with **2** in each of first three Semesters.

iii. Open Online Transdisciplinary Courses (OOTC):

PG programs typically comprises 2 Open Online Transdisciplinary courses, distributed evenly with 1 in each of the **II & III semesters**. Each Online course is assigned with two credits. A two-credit Online course shall be with a minimum duration of 40 hours of learning. A student can opt for two or three courses of shorter duration to acquire the assigned two credits. Open online transdisciplinary courses can be chosen based on the interest of the students without confinement to traditional academic schedules. This ensures that students are exposed to the latest developments in various fields.

iv. Courses on Indian Knowledge Systems (IKS):

- a. The courses provide a more comprehensive and culturally diverse educational experience. Courses on IKS provide knowledge to students on the rich and diverse cultural heritage of India in traditional knowledge systems, Arts, literature, and philosophical traditions of Indian culture.
- b. The students can learn about ancient Indian contributions to science, mathematics and medicine and their influences on modern India.
- c. 2 IKS courses distributed 1 in each of first two semesters. They are Audit courses with Zero Credits, but mandatory with only a Pass. A Student has to secure 40 Marks out of 100 marks.

v. Open Online Skill Development Courses (OOSDC):

- a. OOSDC will broaden the students Skill sets beyond their primary academic focus. Students can acquire interdisciplinary skill which will enhance their versatility and competitiveness in Job market. These courses enable the students for continuous skill development and professional growth.
- b. **OOSDC Structure:**
Only 4th semester of II year students typically engage in Open Online Skill Development courses, totaling to 8 credits. While these courses are listed in Semester 4 of the 2-Year Master Program with Coursework. Students have the flexibility to pursue these courses at any point during their study period and fulfill the 8-credit requirement by the end of the 4th Semester. Each course is designed to be at least 20 hours in duration to earn 1 credit. Students have the option to select one or two or more courses to accumulate the designated 8 credits.

vii. Project work: In 4th semester carrying 12 credits

Students apply the theoretical knowledge gained during course work to real-world- scenarios, bridging the gap between academic learning and practical application. Project work provides orientation towards Research Project. Reports and documentation enhance analytical and technical writing skills.

viii. Scheme of Instructions:

- i. The Board of Studies (BOS) of each specialization shall formulate the scheme of instructions and detailed syllabi. For every course objectives and learning outcomes should be defined. While formulating the scheme of instructions, the BOS shall facilitate to offer the minimum number of credits for the entire Programme. The syllabi of theory courses shall be organized into 4 units of equal weight.
- ii. Question paper for Semester end Examination for First core paper without practicals - **Part A** contains **20 marks** with two short questions from each unit out of which the student has to answer four questions. Each question carries **5 marks** with a total of 20 marks.
- iii. **Part B** consists of 8 questions, two questions from each unit of syllabus, out of which a student shall answer one question in each unit carrying **12.5 marks**, with a total of **50 marks** for 4 questions.
- iv. For the other Two core papers and Skill Oriented Papers with practicals, Theory paper with semester end examination for **50 marks** - **Part A** contains **10 marks** with 8 short questions out of which the student has to answer 5 questions, each carries **2 marks**. **Part B** contains **40 marks** consists of 8 questions, two questions from each unit of syllabus out of which a student shall answer one question in each unit carrying **10 marks** for each question.
- v. **Practical Examinations of Two core papers** in each semester can be conducted as a combined paper for **50 marks** with **2 credits**. Same can be followed for practicals of the **Two Skill Oriented Courses** in each semester.

ix. **Course Numbering Scheme:**

Each course is denoted by an alphanumeric code as detailed below:

S. No	Department	Name of the M.Sc. Degree Course		Course Code
1	Anthropology	1	Anthropology	ANT
			Specialisations:	
			(i) Social-cultural Anthropology	ANTSA
			(ii) Biological Anthropology	ANTBA
2	Bio-Chemistry	2	Bio-Chemistry	BCH
		3	Immunology	IMT
3	Bio-Technology	4	Bio-Technology	BTE
4	Botany	5	Botany	BOT
5	Chemistry	6	Chemistry	CHE
			Specialisations:	
			(1) Analytical Chemistry	CHEAC
			(2) Environmental Chemistry	CHEEC
			(3) Inorganic Chemistry	CHEIC
			(4) Organic Chemistry	CHEOC
			(5) Physical Chemistry	CHEPC
6	Computer Science	7	Computer Science	CSC
		8	M.S Data Science	MSDS
7	Environmental Science	9	Environmental Science	ENS
8	Fishery Science	10	Aquaculture	FSA
9	Geography	11	Geography	GEG
10	Geology	12	Geology	GEO

11	Home Science	13	Home Science	
			Specialisations:	
			(i) Food Science Nutrition and Dietetics	HSFS
			(ii) Human Development & Child welfare	HSFD
			(iii) Extension Management and Communication Technology	HSEM
		14	Food Technology	FTE
12	Mathematics	15	Mathematics	MAT
		16	Applied Mathematics	AMA
13	Microbiology	17	Microbiology	MCB
		18	Industrial Microbiology	IMB
14	Physics	19	Physics	PHY
		20	Electronics	ELE
		21	Instrumentation	INS
15	Psychology	22	Psychology	PSY
		23	Counselling Psychology	CPSY
16	Statistics	24	Statistics	STA
		25	Applied Statistics	ASTA
17	Virology	26	Virology	VIR
18	Zoology	27	Zoology	ZOO
		28	Animal Bio-technology	ABT

x. **Evaluation:**

- i. Core course without practicals carries **100 marks** with **30%** continuous evaluation by Internal assessment and **70%** semester end examinations.
- ii. Core courses / Skill Oriented Courses with practicals carry **75 marks** with Internal Assessment **30%** and Semester end Examination **70%**.
- iii. Each practical paper carries **50 Marks** with **30%** continuous Internal evaluation and **70%** Semester end exam.
- iv. Internal assessment for Core courses without practicals includes Mid Semester examination (20 marks), Attendance (5 marks), Student Seminar (5 marks). Two Mid Semester examinations be conducted and average will be taken.
- v. Internal assessment for Core courses and Skill Oriented Courses with practicals includes Mid Semester examination (15 marks), Attendance (5 marks), Student Seminar (5 marks). Two Mid Semester examinations be conducted and average will be taken.
- vi. **Project work** carries **300 Marks** (Dissertation -200 marks, Seminar- 50 marks, Viva – voice – 50 marks).
- vii. **Minimum marks to pass is 40%** of Semester end exam with an aggregate of **50%** of total for each course (**Internal + Semester end exam**).
- viii. Grading System, SGPA (Semester Grade Point Average) and CGPA (Cumulative Grade Point Average) will be on par with other Universities.

xi. **Grading and Grade Points:**

Student Performance - Grading and Grade Points

i. **Letter Grade – Grade Point:**

After each course is evaluated for 100 marks, the marks obtained in each course will be converted to a corresponding letter grade as given below, depending on the range in which the marks obtained by the student fall. Letter Grade is an index of the performance of students in a said course. Grade Point is a numerical weight allotted to each letter grade on a 10-point scale.

A letter grade does not indicate any specific percentage of marks secured by the student, but it **indicates only the range of percentage of marks**. A student earns grade point (G) in each course, on the basis of the letter grade secured in that course. The corresponding ‘credit points’ (CP) are computed by multiplying the grade point with credits for that particular course.

Credit points (CP) = Grade point (G) x Credits (C).

Letter Grade	Range of Marks (Internal + End-Semester)	Grade Point
O (Outstanding)	91 - 100	10
A+ (Excellent)	81 – 90	9
A (Very Good)	71 – 80	8
B+ (Good)	61 - 70	7
B (Above Average)	50 - 60	6
F (Fail)	< 50	0
Ab (Absent)	-	0

ii. **Grade Point Average:**

Semester Grade Point Average (**SGPA**): It is a measure of student's performance in a semester.

Cumulative Grade Point Average (**CGPA**): It is a measure of overall performance of a student over all semesters.

Computation of Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA):

- a. The Semester Grade Point Average (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 in that semester.

$$SGPA (S_i) = \sum_{i=1}^N (C_i \times G_i) / \sum_{i=1}^N C_i$$

where, C_i is the number of credits of the i th Course and G_i is the grade point scored by the student in the i th course and N is the number of courses in that semester.

- b. The Cumulative Grade Point Average (CGPA) will be computed in the same manner considering all the courses undergone by a student over all the semesters of a program, i.e.

$$CGPA = \sum_{i=1}^M (C_i \times S_i) / \sum_{i=1}^M C_i$$

where 'Si' is the SGPA of the i th semester and C_i is the total number of credits in that semester and M is the number of semesters.

- c. Both SGPA and CGPA shall be rounded off to 2 decimal points and reported in the transcripts.
- d. While computing the SGPA/CGPA, the subjects in which the student is awarded Zero grade points will also be included.
- e. Conversion of CGPA into equivalent percentage is **Equivalent Percentage = (CGPA – 0.5) x 10**. It will also be mentioned in the transcripts.

iii. **Eligibility for Award of the PG Degree:**

A student shall become eligible for the award of M.A. / M.Sc. / M.Com. degree, if he/she earns **84** credits prescribed for the programme by passing all the core and Skill Oriented Courses, Online Courses along with practical's, project and dissertation work. It is mandatory for a student to complete successfully all the courses pertaining to his/her specialization of study.

- a. Earned the specified credits in all the categories of courses and projects. Successfully acquired the minimum required **84** credits as specified in the curriculum corresponding to the specialization of his/ her study within the stipulated time.
- b. Secured a **CGPA of ≥ 6.00** passed in all courses put together.
- c. No dues to the Institute.
- d. No disciplinary action is pending against him / her.

iv. **Award of Class:**

After a student has satisfied the requirements prescribed for the completion of the program and is eligible for the award of PG degree, he/she shall be placed in one of the following:

Class Awarded	CGPA Secured
First Class with Distinction	≥ 8.00
First Class	≥ 6.50 to <8.00
Second Class	≥ 6.00 to < 6.50

- First Class with Distinction:** A student who has passed all the courses during the period of study and with a **CGPA of 8.00** and above is considered eligible for the award of First Division with Distinction.
- First Class:** A student with a **CGPA of 6.50 and above but less than 8.00** is considered eligible for the award of First Division.
- Second Class:** A student with a CGPA of **6.00 and above but less than 6.50** is considered eligible for the award of Second Division.

v. **Consolidated Marks Memo & Provisional Certificate**

Marks memo (Grade Sheet) will be issued to the student in every semester. On the rare side of Marks memo Letter Grade – Grade Point table and conversion formula for SGPA to percentage should be printed invariably.

Consolidated Marks Memo (CMM) & Provisional Certificate (PC) shall be issued **separately in A4 size** format to the Student after completion of the Programme. On the rare side of CMM Letter Grade – Grade Point table and conversion formula for CGPA to Marks Conversion should be printed invariably. CGPA shall be converted into percentage marks using the following formula: % marks = (CGPA – 0.5) X 10.

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

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 and F.

Semester Grade Point Average (SGPA): It is a measure of performance of work done in a semester. It is the ratio of total credit points secured by a student in the courses registered in a semester and a total course credits taken during that semester. It shall be given up to two decimal places.

$$\text{SGPA (Si)} = \Sigma(C_i \times G_i) / \Sigma C_i$$

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

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

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 the courses in all semesters and the sum of the total credits of all courses in all the semesters. It is given up to two decimal places.

$$\text{CGPA} = \Sigma(C_i \times S_i) / \Sigma C_i$$

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

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

14. Award of Degree:

A student who has earned a minimum of 84 credits by passing in all the core courses Skill Oriented Courses, Open Online Courses and Project Work prescribed shall be declared to have passed the course work and shall be eligible for the award of degree.

15. Ranking and Award of Prizes / Medals:

- i. Ranks shall be awarded in each branch of study on the basis of Cumulative Grade Point Average (CGPA) for top ten percent of the students or top three students whichever is higher.
- ii. The students who have become eligible for the award of PG degree by passing regularly without break, shall only be considered for the award of ranks.
- iii. Award of prizes, scholarships and other honours shall be according to the rank secured by the student as said above and in conformity with the desire of the Donor.

16. Attendance Requirements:

- i. A student is required to complete the Programme of study satisfying the attendance requirements in all the semesters within twice the prescribed period of study four academic years from the year of admission, failing which he/she forfeits his/her seat.
- ii. Student shall repeat the semester if he/she fails to satisfy the attendance requirements given below:
 - a. A student shall attend at least 60 percent of the maximum hours of instruction taken by the teacher for each course.
 - b. A student shall attend at least 75 percent of the maximum hours of instruction taken for all the courses put together in that semester.
- iii. The Principal shall condone the shortage of attendance of a student provided, the student satisfies the clause 16(ii) and obtain atleast 60% of overall attendance in a semester on **medical grounds only.**
- iv. A student who fails to satisfy the attendance requirements specified in clause 6(ii) shall **repeat that semester** in the subsequent academic years with the written permission of the Principal.
- v. A student shall not be permitted to study any semester more than two times during the Programme of his/her study.
- vi. A student who satisfies the attendance requirements specified in clause 16(ii) in any semester may be permitted to repeat that semester after canceling the previous attendance and sessional marks of that semester with the written permission of the Principal. However, this facility shall be extended to any student not exceeding twice during the entire Programme of study provided the stipulation in clause 16(i) is met.

17. Conditions of Promotion:

A student shall be eligible for promotion to the next semester provided, if he/she satisfies the attendance requirements in the immediately preceding semester and registration for that semester end exam as specified in clause 16. The Principal of the concerned college will furnish the promotion list to the HOD at the beginning of II, III & IV Semester.

18. Transitory Regulations:

- i. A student who has been repeated in the previous regulations for not satisfying the attendance requirements shall be permitted to join in these regulations provided the clauses 16 (i) and 16 (iv) hold good.
- ii. Semester end University Examinations under the regulations that immediately precede these regulations, shall be conducted two times after the conduct of last regular examination under those regulations.
- iii. The students who satisfy the attendance requirements under the regulations that immediately precede these regulations, but do not pass the courses shall appear for the Semester end University Examinations in equivalent courses under these regulations as specified by the BoS concerned.

19. Grievance Redressal Committee:

The Principal of the concerned college shall constitute a Grievance Redressal Committee by nominating three Professors from among the faculty of the college with the Vice-Principal of the college as Convenor and Chairperson for a period of two years. The Convenor of the committee, one among the three, shall receive the complaints from the students regarding the valuation of sessional tests and place the same before the Committee for its consideration. The committee shall submit its recommendations to the Principal for consideration.

20. Amendment to the Regulations:

Sri Venkateswara University reserves the right to amend these regulations at any time in future without any notice. Further, the interpretation any of the clauses of these regulations entirely rest with the University.



DEAN FACULTY OF SCIENCES

Sri Venkateswara University College of Sciences:: Tirupati

Revised Scheme & syllabus of 3rd and 4th semesters wef 2025-2026

M.Sc ANTHROPOLOGY (wef 2025-2026)

**Re-Structured P.G. Programme (CBCS) as per NEP 2020, National Higher Education Qualification Frame Work (NHEQF) and Guidelines of APSCHE
(With effect from the batch of Students admitted from the academic year 2025-26)**

SEMESTER-III								
S.No	Course	Code	Title of the course	H/W	C	SEE	IA	Total marks
1	CC	301	Developmental Anthropology	4	4	70	30	100
2		302	(A) Human Genetics	4	3	50	25	75
			(B) Tribal India					
3		303	(A) Epidemiology	4	3	50	25	75
			(B) Forensic Anthropology					
4	P	304	Advanced Biological Anthropology (related to CC 8 & 9)	6	2	35	15	50
5	SOC	305	(A) Medical Anthropology	4	3	50	25	75
			(B) Social Anthropology of Complex Societies					
6		306	(A) Human Growth, development and Nutrition	4	3	50	25	75
			(B) Anthropology of Religion					
7	P	307	Human Physiology (related to SOC 5&6)	6	2	35	15	50
8	OOTC	308	Open online Transdisciplinary Course-2 / Open Elective: Fundamentals of Anthropology	4	2	70	30	100
	Total			36	22	410	190	600
*	Seminar/ Tutorials / remedial classes and Quiz as part of Internal Assessment			4	--	--	--	--

SEMESTER-IV								
S.No	Course	Code	Title of the course	H/W	C	SEE	IA	Total marks
1	OOSDC/ Skill developed Courses	401/	Open Online Skill Development Courses (Credits=8: Internal marks=200)	---	8	200	--	200
			OR					
		401(a)	a) Biological Anthropology	4	4	70	30	100
		401(b)	b) Economic and Political Anthropology	4	4	70	30	100
2	PW	402	Project Work – Orientation Classes	24	12	300	0	300
	Total			32	20	440	60	500
*	Conducting classes for competitive exams, communication skills, UGC/CSIR and NET/SLET examinations .			12	--	--	--	--
Total Semesters				164	84	1530	670	2200

SRI VENKATESWARA UNIVERSITY, TIRUPATI
DEPARTMENT OF BOTANY
RESTRUCTURING OF COURSE (CBCS) AS PER NEP-2020 (NHEQP)
(w.e.f. 2025-2026)
M.Sc. BOTANY
SCHEME OF INSTRUCTION AND EXAMINATION (FINAL)

SEMESTER - III

S. No	Course	Code	Title of the Course		H/ W	C	SEE	IA	Total marks
1.	CC	301	Core Course – 7	Molecular Biology & Techniques	4	4	70	30	100
2.		302	Core Course – 8(A)	Plant Biotechnology	4	3	50	25	75
			Core Course – 8(B)	Environmental Studies & Disaster Management					
3.		303	Core Course – 9(A)	Horticulture	4	3	50	25	75
			Core Course – 9(B)	Microbial Physiology					
4.	P	304	Practical – V (related to CC 8 & 9)		6	2	35	15	50
5.	SOC	305	Skilled Oriented Course – 5(A)	Mushroom Cultivation	4	3	50	25	75
			Skilled Oriented Course – 5(B)	Molecular Plant Pathology					
6.		306	Skilled Oriented Course – 6(A)	Phytodiversity and Conservation	4	3	50	25	75
			Skilled Oriented Course – 6(B)	Advanced Molecular Tools					
7.	P	307	Practical – VI (related to SOC 5 & 6)		6	2	35	15	50
8.	OOTC/ OC	308	Open Online Transdisciplinary Course – 2 Or Organic Farming		4	2	70	30	100
	Total :				36	22	410	190	600
	Seminar / tutorials / remedial classes and quiz as part of internal assessment				4	-	-	-	-

SEMESTER - IV

SEMESTER - IV								
S.No.	Course	Code	Title of the Course	H/W	C	SEE	IA	Total marks
1.	OOSDC or SDC	401	Open Online Skill Development Course	--	8	200	--	200
			or					
			(A) Hydroponics	4	4	70	30	100
			(B) Mushroom Culture	4	4	70	30	100
2.	PW	402	Project Work – Orientation classes	24	12	300	0	300
	Total :			32	20	440	60	500
*	Conducting classes for competitive exams, communication skills, UGC/CSIR and NET/SLET examinations.			12	-	-	-	-
	Total Semesters :			164	84	1530	670	2200

OOSDC – Open Online Skill Development Course (OOSDC) - Students can choose any Two relevant course of his/her choice from the online courses offered by governmental agencies like SWAYAM, NPTEL etc., to get 8 credits (with 4 credits from each course).

M.Sc BIO-TECHNOLOGY								
SEMESTER – III								
Sl. No	Course	Code	Title of the Course	H/W	C	SEE	IA	Total Marks
1	CC	BTE 301	Core course – 7 Animal Biotechnology	4	4	70	30	100
2		BTE 302	Core Course – 8(A) Plant and Agriculture Biotechnology	4	3	50	25	75
			Core Course – 8(B) Stem Cell Technology and Regenerative Medicine					
3		BTE 303	Core Course – 9(A) Environmental Biotechnology	4	3	50	25	75
			Core Course – 9(B) Solid Waste Management					
4	P	BTE 304	Practical V (related to CC 8 & 9)	6	2	35	15	50
5	SOC	BTE 305	Skill Oriented Course – 5(A) Food and Industrial Biotechnology	4	3	50	25	75
			Skill Oriented Course – 5(B) Medical Biotechnology and Vaccinology					
6		BTE 306	Skill Oriented Course – 6(A) IPR, Biosafety Bioethics & Bioentrepreneurship	4	3	50	25	75
			Skill Oriented Course – 6(B) Basics of Organic Farming and Bioentrepreneurship					
7	P	BTE 307	Practical VI (related to SOC 5 & 6)	6	2	35	15	50
8	OOTC	BTE 308	Open Online Transdisciplinary Course – 2	-		-	--	100
OR								
	Open Elective	BTE 308	Bioethics	4	2	70	30	100
*	Seminar/tutorials/ remedial classes and Quiz as part of internal assessment			4	-	-	-	-
	Total			40	22	410	190	600

SEMESTER – IV								
S. No	Course	Code	Title of the Course	H/W	C	SEE	IA	Total Marks
1	OOSDC	BTE 401	Open Online Skill Development Courses	-	8	200	--	200
OR								
2	SDC	BTE 401 a	Emerging technologies in Biotechnology	4	4	70	30	100
3	SDC	BTE 401 b	Pharmaceutical Biotechnology	4	4	70	30	100
4	PW	BTE 402	Project Work - Orientation Classes	24	12	300	0	300
*	Conducting classes for competitive exams, communication skills UGC/CSIR and NET/ SLET examinations			12	-	-	-	-
		Total		44	20	440	60	500
Total Semesters				164	84	1530	670	2200

M.Sc Branch II (A): M.Sc. Bio-chemistry

SEMESTER – III								
S. No	Course	BCH Code	Title of the Course	H/W	C	SEE	IA	Total Marks
1	CC	301	Core course-7: Endocrine Biochemistry	4	4	70	30	100
2		302	Core Course – 8(A) : Immunology	4	3	50	25	75
			Core Course – 8(B) : Neuro-Biochemistry					
3		303	Core Course – 9(A) : Developmental Biology	4	3	50	25	75
			Core Course – 9(B) : Cancer Biology					
4	P	304	Practical V (related to CC 8 & 9)	6	2	35	15	50
5	SOC	305	Skill Oriented Course – 5(A) : Technical Writing, Biostatistics, Bioinformatics and Omics	4	3	50	25	75
			SOC – 5(B): Research Methodology Tools Techniques, Research Publication and Ethics					
6		306	Skill Oriented Course –6(A): Clinical Biochemistry	4	3	50	25	75
			SOC –6(B): In Silico Drug Design and Discovery					
7	P	307	Practical VI (related to SOC 5 & 6)	6	2	35	15	50
8	OOTC/ OE	308	Open Online Trans disciplinary Course – 2/ OR	-	--	--	--	100
			Open Elective (Offered by other Dept.) BCH 308 Open Elective: Endocrine Biochemistry	4	2	70	30	100
			Total	36	22	410	190	600
*	Seminar / tutorials / remedial classes and Quiz as part of internal assessment			4				

SEMESTER - IV								
S. No	Course	BCH Code	Title of the Course	H/W	C	SEE	IA	Total Marks
1	OOSD C/SDC	401	Open Online Skill Development Courses/Two Skill Development Courses (Select <u>Any Two</u> out of Three Courses)	-	8	--	--	200
			OR					
			401 a) Plant Biochemistry	04	4	70	30	100
			401 b) Applied Biochemistry	04	4	70	30	100
			401 c) Life style disorders and therapeutics (E)	04	4	70	30	100
2	PW	402	Project Work – Orientation classes	24	12	300	0	300
			Total	32	20	440	60	500
*	Conducting classes for competitive exams, communication skills, UGC / CSIR and NET / SLET examinations			12	-	-	-	-
Total Semesters				164	84	1530	670	2200

- Open Online Skill Development Course (OOSDC) - Students can choose any **Two** relevant courses of his / her choice from the online courses offered by governmental agencies like SWAYAM, NPTEL, etc., **to get 8 credits (with 4 credits from each course)**

M.Sc Branch II (A): M.Sc. Immunology

SEMESTER - III								
S. No	Course	IMT Code	Title of the Course	H/W	C	SEE	IA	Total Marks
1	CC	301	Core course-7: Endocrine Biochemistry	4	4	70	30	100
2		302	Core Course – 8(A) : Immunology	4	3	50	25	75
			Core Course – 8(B) : Computational Biology					
3		303	Core Course – 9(A) : Applied and Molecular Immunology	4	3	50	25	75
			Core Course – 9(B) : Cancer Biology					
4	P	304	Practical V (related to CC 8 & 9)	6	2	35	15	50
5	SOC	305	Skill Oriented Course – 5(A) : Technical Writing, Biostatistics, Bioinformatics and Omics	4	3	50	25	75
			SOC– 5(B): Research Methodology Tools Techniques, Research Publication and Ethics					
6		306	Skill Oriented Course –6(A): Clinical Immunology	4	3	50	25	75
			SOC –6(B): In Silico Drug Design and Discovery					
7	P	307	Practical VI (related to SOC 5 & 6)	6	2	35	15	50
8	OOTC	308	Open Online Trans disciplinary Course-2 OR	-	2	-	--	100
			Open Elective (Offered by other Dept.) IMT 308 Open Elective: Endocrine Biochemistry	4	2	70	30	100
			Total	36	22	410	190	600
*	Seminar / tutorials / remedial classes and Quiz as part of internal assessment			4				

- CC (Core Courses) – 7th Core Course is mandatory and 8th& 9th Core Courses Student can choose one from each code
- *SOC (Skill Oriented Courses) – Student can choose one from each code
- *Open Online Trans disciplinary Course (OOTC) - Students can choose any relevant course of his / her choice from the online courses offered by governmental agencies like SWAYAM, NPTEL, etc.,
- *Practical - V relating to 5th& 6th Core Courses and Practical - VI relating to 5th& 6th Skill Oriented Courses (SOC)'

SEMESTER - IV								
S. No	Course	IMT Code	Title of the Course	H/W	C	SEE	IA	Total Marks
1	OOSD C/SDC	401 Out of three two opted	Open Online Skill Development Courses/Two Skill Development Courses (Select <u>Any Two</u> out of Three Courses)	-	8			200
			401 a) Immunotechniques	04	4	70	30	100
			401b) Immunological Diseases and Therapeutics	04	4	70	30	100
			401 c) Immunopharmacology (E)	04	4	70	30	100
2	PW	402	Project Work – Orientation classes	24	12	300	0	300
			Total	30	20	440	60	500
*	Conducting classes for competitive exams, communication skills, UGC / CSIR and NET / SLET examinations			12	-	-	-	-
Total Semesters				164	84	1530	670	2200

- Open Online Skill Development Course (OOSDC) - Students can choose any **Two** relevant courses of his / her choice from the online courses offered by governmental agencies like SWAYAM, NPTEL, etc., **to get 8 credits (with 4 credits from each course)**

M.Sc Chemistry

SEMESTER – III (Analytical Chemistry)								
S. No	Course	Code	Title of the Course	H/W	C	SEE	IA	Total Marks
1	CC	301	Core course – 7: Instrumental Methods of Analysis	4	4	70	30	100
2		302	Core Course – 8(A): Quality Control and General Principles	4	3	50	25	75
			Core Course – 8(B): Biotechnology and Environmental Management Laws and Protection					
3		303	Core Course – 9(A): Inorganic Spectroscopy & Thermal Methods of Analysis	4	3	50	25	75
			Core Course – 9(B): Chemistry of Transition and Non-Transition Elements					
4	P	304	Practical V (related to CC 8 & 9)	6	2	35	15	50
5	SOC	305	Skill Oriented Course – 5(A): Fundamentals of Spectroscopy and Applications	4	3	50	25	75
			Skill Oriented Course – 5(B): Bioinorganic, Bioorganic, Biophysical Chemistry					
6		306	Skill Oriented Course – 6(A): X- Ray Diffraction, Kinetics in Solutions, Electroanalytical Chemistry	4	3	50	25	75
			Skill Oriented Course – 6(B): Inorganic Materials for Electronic Industry					
7	P	307	Practical VI (related to SOC 5 & 6)	6	2	35	15	50
8	OOTC	308	Open Online Transdisciplinary Course – 2	-	2	-	-	100
			(OR)					
			Spectral Techniques (Open Elective)	4	2	70	30	100
			Total	36	22	410	190	600
*	Seminar / tutorials / remedial classes and Quiz as part of internal assessment			4	-	-	-	-
SEMESTER – III (Environmental Chemistry)								
S. No	Course	Code	Title of the Course	H/W	C	SEE	IA	Total Marks
1	CC	301	Core course – 7: Energy, Environment and Soils	4	4	70	30	100
2		302	Core Course – 8(A): Water Pollution Monitoring And Environment Laws	4	3	50	25	75
			Core Course – 8(B): Quality Control and General Principles					
3		303	Core Course – 9(A): Spectral Techniques in Inorganic Chemistry	4	3	50	25	75
			Core Course – 9(B): Group theory and spectroscopy					
4	P	304	Practical V (related to CC 8 & 9)	6	2	35	15	50
5	SOC	305	Skill Oriented Course – 5(A): Fundamentals of Spectroscopy and Applications	4	3	50	25	75
			Skill Oriented Course – 5(B): Bioinorganic, Bioorganic, Biophysical Chemistry					
6		306	Skill Oriented Course – 6(A): X- Ray Diffraction, Kinetics in Solutions, Electroanalytical Chemistry	4	3	50	25	75
			Skill Oriented Course – 6(B): Inorganic Materials for Electronic Industry					
7	P	307	Practical VI (related to SOC 5 & 6)	6	2	35	15	50
8	OOTC	308	Open Online Transdisciplinary Course – 2	-	2	-	-	100
			(OR)					
			Spectral Techniques (Open Elective)	4	2	70	30	100
			Total	36	22	410	190	600
*	Seminar / tutorials / remedial classes and Quiz as part of internal assessment			4	-	-	-	-

SEMESTER – III (Inorganic Chemistry)								
S. No	Course	Code	Title of the Course	H/W	C	SEE	IA	Total Marks
1	CC	301	Core course – 7: Inorganic Spectroscopy & Thermal Methods of Analysis	4	4	70	30	100
2		302	Core Course – 8(A): Co-Ordination Compounds, Organometallic Chemistry and Chemistry of Non-Transition Elements	4	3	50	25	75
			Core Course – 8(B): Energy Resources and Green Chemistry					
3		303	Core Course – 9(A): Instrumental Methods of Analysis	4	3	50	25	75
			Core Course – 9(B): Pollution and Control Methods					
4	P	304	Practical V (related to CC 8 & 9)	6	2	35	15	50
5	SOC	305	Skill Oriented Course – 5(A): Fundamentals of Spectroscopy and Applications	4	3	50	25	75
			Skill Oriented Course – 5(B): Bioinorganic, Bioorganic, Biophysical Chemistry					
6		306	Skill Oriented Course – 6(A): X- Ray Diffraction, Kinetics in Solutions, Electroanalytical Chemistry	4	3	50	25	75
			Skill Oriented Course – 6(B): Inorganic Materials for Electronic Industry					
7	P	307	Practical VI (related to SOC 5 & 6)	6	2	35	15	50
8	OOTC	308	Open Online Transdisciplinary Course – 2	-	2	-	-	100
			(OR) Spectral Techniques (Open Elective)	4	2	70	30	100
			Total	36	22	410	190	600
*	Seminar / tutorials / remedial classes and Quiz as part of internal assessment			4	-	-	-	-
SEMESTER – III (Organic Chemistry)								
S. No	Course	Code	Title of the Course	H/W	C	SEE	IA	Total Marks
1	CC	301	Core course – 7: Organic Synthesis-I	4	4	70	30	100
2		302	Core Course – 8(A): Organic Synthesis-II	4	3	50	25	75
			Core Course – 8(B): Organic Reagents In Quality Control and Analysis					
3		303	Core Course – 9(A): Inorganic Spectroscopy & Thermal Methods of Analysis	4	3	50	25	75
			Core Course – 9(B): Group Theory and Polymer Chemistry					
4	P	304	Practical V (related to CC 8 & 9)	6	2	35	15	50
5	SOC	305	Skill Oriented Course – 5(A): Fundamentals of Spectroscopy and Applications	4	3	50	25	75
			Skill Oriented Course – 5(B): Bioinorganic, Bioorganic, Biophysical Chemistry					
6		306	Skill Oriented Course – 6(A): Chemistry of Natural Products	4	3	50	25	75
			Skill Oriented Course – 6(B): X- Ray Diffraction, Kinetics in Solutions, Electroanalytical Chemistry					
7	P	307	Practical VI (related to SOC 5 & 6)	6	2	35	15	50
8	OOTC	308	Open Online Transdisciplinary Course – 2	-	2	-	-	100
			(OR) Spectral Techniques (Open Elective)	4	2	70	30	100
			Total	36	22	410	190	600
*	Seminar / tutorials / remedial classes and Quiz as part of internal assessment			4	-	-	-	-

SEMESTER – III (Physical Chemistry)								
S. No	Course	Code	Title of the Course	H/W	C	SEE	IA	Total Marks
1	CC	301	Core course – 7: Physical Chemistry-III	4	4	70	30	100
2		302	Core Course – 8(A): Advanced Electrochemistry	4	3	50	25	75
			Core Course – 8(B): Principles in Quality Control And Quality Measurements					
3		303	Core Course – 9(A): Inorganic Spectroscopy & Thermal Methods of Analysis	4	3	50	25	75
			Core Course – 9(B): Natural Resources-Pollution and Green Chemistry					
4	P	304	Practical V (related to CC 8 & 9)	6	2	35	15	50
5	SOC	305	Skill Oriented Course – 5(A): Fundamentals of Spectroscopy and Applications	4	3	50	25	75
			Skill Oriented Course – 5(B): Bioinorganic, Bioorganic, Biophysical Chemistry					
6		306	Skill Oriented Course – 6(A): X- Ray Diffraction, Kinetics in Solutions, Electroanalytical Chemistry	4	3	50	25	75
			Skill Oriented Course – 6(B):Crystal Structures, Kinetics of Electrodes, Electrode Chemistry					
7	P	307	Practical VI (related to SOC 5 & 6)	6	2	35	15	50
8	OOTC	308	Open Online Transdisciplinary Course – 2 (OR)	-	2	-	-	100
			Spectral Techniques (Open Elective)	4	2	70	30	100
			Total	36	22	410	190	600
*	Seminar / tutorials / remedial classes and Quiz as part of internal assessment			4	-	-	-	-

SEMESTER – IV (Analytical Chemistry, Environmental Chemistry, Inorganic Chemistry, Organic Chemistry, Physical Chemistry)								
S. No	Course	Code	Title of the Course	H/W	C	SEE	IA	Total Marks
1	OOSDC	401	Open Online Skill Development Courses (OR)	-	8	-	-	200
			Industrial Organic Chemistry (Skill Development Course-1)	4	4	70	30	100
			Environmental and Industrial Analytical Chemistry (Skill Development Course-2)	4	4	70	30	100
2	PW	402	Project Work – Orientation classes	24	12	300	0	300
			Total	32	20	440	60	500
*	Conducting classes for competitive exams, communication skills, UGC / CSIR and NET / SLET examinations			12	-	-	-	-
Total IV Semesters (for each specialisation)				164	84	1530	670	2200

- Open Online Skill Development Course (OOSDC) - Students can choose any **Two** relevant courses of his / her choice from the online courses offered by governmental agencies like SWAYAM, NPTEL, etc., **to get 8 credits (with 4 credits from each course)**

M.Sc. Environmental Science

SEMESTER – III

Sl. No	Course	Code	Title of the Course	H/W	C	SEE	IA	Total Marks
1	CC	ENS-301	Core course – 7- Environmental Safety	4	4	70	30	100
2		ENS-302	Core Course – 8(A) Environmental Chemistry	4	3	50	25	75
			Core Course – 8(B) Environmental Education					
3		ENS-303	Core Course – 9(A) Environmental Impact Assessment, Audit and Regulations	4	3	50	25	75
			Core Course – 9(B) Global Environmental Issues					
4	P	ENS-304	Practical -V (related to CC 8 & 9) ENS-302- Environmental Chemistry & ENS-303- Environmental Impact Assessment, Audit and Regulations	6	2	35	15	50
5	SOC	ENS-305	Skill Oriented Course – 5(A) Statistics, Computer Applications and Modelling	4	3	50	25	75
			Skill Oriented Course – 5(B) Green Technologies					
6		ENS-306	Skill Oriented Course – 6(A) Environmental Engineering	4	3	50	25	75
			Skill Oriented Course – 6(B) Nuclear and Biomedical Waste Management					
7	P	ENS-307	Practical -VI (related to SOC 5 & 6) ENS-305-Statistics, Computer Applications And Modeling & ENS-306- Environmental Engineering	6	2	35	15	50
8	OOTC (OR) Open Elective	ENS-308	Open Online Transdisciplinary Course – 2	-	2	-	--	100
			(OR)					
			Natural Resources Conservation	4	2	70	30	100
			Total	36	22	410	190	600
*	Seminar / tutorials / remedial classes and Quiz as part of internal assessment			4	-	-	-	-

SEMESTER – IV

SEMESTER – IV								
S. No	Course	Code	Title of the Course	H/W	C	SEE	IA	Total Marks
1	OOSDC (OR) SDC-I & II	ENS-401	Open Online Skill Development Courses	-	8	-	---	200
			(OR)					
			Nanotechnology: Environmental Applications	4	4	70	30	100
			Environmental Microbiology and Biotechnology	4	4	70	30	100
2	PW	ENS-402	Project Work – Orientation classes	24	12	300	0	300
			Total	32	20	440	60	500
*	Conducting classes for competitive exams, communication skills, UGC / CSIR and NET / SLET examinations			12	-	-	-	-
Total Semesters				164	84	1530	670	2200

M.Sc., AQUACULTURE

SEMESTER - III

Sl. No	COURSE	Code	Title of the course	H/W	Credits	SEE	IA	Total Marks
1.	CC	AQC 301	Core Course – 7 - : Microbiology and Fish Pathology	4	4	70	30	100
2.		AQC 302	Core Course – 8 (A) - Fish Immunology	4	3	50	25	75
			Core Course – 8 (B) - Fish Breeding and Hatchery Management					
3.		AQC 303	Core Course – 9 (A) - Cell Biology and Genetics	4	3	50	25	75
			Core Course – 9 (B) - Bioinformatics In Aquaculture					
4.	*P	AQC-304	Practical – V - Microbiology and Fish Diseases	6	2	35	15	50
5.	SOC	AQC 305	Skill Oriented Course – 5 (A) - Fish Nutrition Technology	4	3	50	25	75
			Skill Oriented Course – 5(B) - Seed production and Hatchery Management					
6.		AQC 306	Skill Oriented Course – 6(A) - Computer Applications, Information Technology And Biostatistics In Aquaculture	4	3	50	25	75
			Skill Oriented Course – 6 (B) - Fishing Technology and Fishery Management					
7.	*P	AQC: 307	Practical – VI - Biotechnology And Biochemical Estimations	6	2	35	15	50
8.	OOTC / OE	AQC: 308	Open Elective- General Principles and Practices of Aquaculture	4	2	70	30	100
	Total			36	22	410	190	600
*	Seminar / tutorials / remedial classes and quiz as part of internal assessment			4	--	--	--	--

SEMESTER- IV

SL. NO	COURSE	CODE	TITLE OF THE COURSE	H/W	C	SEE	IA	TOTAL MARKS
1	OOSD C / SDC	AQC:401	OPEN ONLINE SKILL DEVELOPMENT COURSES OR	--	8	--	--	200
			Skill Development Course - 1 (A)AQUACULTURE BIOTECHNOLOGY	4	4	70	30	100
			Skill Development Course - 1 (B) FINFISH AND SHELL FISH PATHOLOGY					
			Skill Development Course – 2 (A) Essentials Of Biochemistry	4	4	70	30	100
			Skill Development Course - 2 (B) RESEARCH METHODOLOGY, BIOINFORMATICS AND BIOSTATISTICS					
2.	PW	AQC :402	PROJECT WORK – Orientation Classes	24	12	300	0	300
	TOTAL			32	20	440	60	500
*	Conducting classes for competitive exams communication skills UGC/ CSIR and NET/SLET examinations			12	--	--	--	--
	TOTAL SEMESTERS			164	84	1530	670	2200

M.Sc. GEOLOGY

SEMESTER- III

Sl. No	Course	Code	Title of the paper	Instru- tion hours per week	Cre- dits	Internal assessm- ent marks	End semest- er exam Marks	Total
1		301	Mining Geology - 7	4	4	30	70	100
2	Core	302	Remote Sensing and GIS – 8 (A)	4	3	25	50	75
			Digital Image Processing – 8 (B)					
3		303	Economic Geology and Indian Mineral Deposits – 9 (A)	4	3	25	50	75
			Meteorology and Climatology – 9 (B)					
4	Practical - V	304	Remote Sensing and GIS – 8 (A) and Economic Geology and Indian Mineral Deposits – 9 (A)	6	2	15	35	50
5	SOC	305	Mineral Exploration and Ore Beneficiation – 5 (A)	4	3	25	50	75
			Dimensional Stones and Building Materials – 5 (B)					
6		306	Water Resource Management – 6 (A)	4	3	25	50	75
			Environmental Geology -6 (B)					
7	Practical – VI	307	Mineral Exploration and Ore Beneficiation – 5 (A) and Water Resource Management – 6 (A)	6	2	15	35	50
8	OOTC OR (Open Elective)	308	Open Online Transdisciplinary Course – 2	--	2	--	--	100
			OR GEO:308 - FUEL GEOLOGY	4	2	70	30	100
	Total			36	22	410	190	600
*	Seminar/tutorials /Remedial Classes and Quiz as part of internal assessment.			4	--	--	--	--

SEMESTER - IV

SEMESTER - IV								
S. No	Course	Code	Title of the Course	H/W	C	SEE	IA	Total Marks
1	OOSDC SDC	401	Open Online Skill Development Course	--	--			
			or (A) DIMENSIONAL STONES AND BUILDING MATERIALS	4	4	100	30	100
			(B) WATERSHED MANAGEMENT	4	4	100	30	100
2	PW	402	Project Work – Orientation classes	24	12	300	0	300
*	Conducting classes for competitive exams, communication skills, UGC / CSIR and NET / SLET examinations			12	-	-	-	-
			Total	40	20	300	200	500
Total Semesters				164	84	1530	670	2200

M.Sc. GEOGRAPHY (WEF 2025-2026)

SEMESTER - III

SEMESTER - III								
S.No	Course	Code	Title of the Course	H/W	C	SEE	IA	Total Marks
1	CC	GEG-301	7-Urban Geography	4	4	70	30	100
2		GEG-302	8(A)-Principles of Remote Sensing	4	3	50	25	75
3			8(B)- Water and Soil Resources Management					
		GEG-303	9(A)- Disaster Management Studies	4	3	50	25	75
			9(B)-Agriculture Geography					
4	P	GEG-304	Practical-V- Techniques of Mapping	6	2	35	15	50
5	SOC	GEG-305	5(A)-Research techniques for Geographical Studies	4	3	50	25	75
			5(B)-3DGIS(Geographical Information System)					
6		GEG-306	6(A)- Advanced Remote Sensing	4	3	50	25	75
			6(B)-Land use and Land cover analysis					
7	P	GEG-307	Practical-VI-Remote sensing applications	6	2	35	15	50
8	OOTC OR O.E	GEG-308	Open online Trans disciplinary Course-2 OR Regional Geography of India and Andhra Pradesh	-	2	-	-	-
					4	4	70	30
*	Seminar / Tutorials / Remedial Classes and quiz as part of internal Assessment			4	0	0	0	0
			Total	36	22	410	190	600

SEMESTER - IV

SEMESTER-IV								
S.No	Course	Code	Title of the Course	H/W	C	SEE	IA	Total Marks
1	OOSDC	GEG-401	Open online skill Development Courses OR	-	8	-	0	0
		OOSDC-1	Introduction to Research Methods in Geography	4	4	70	30	100
		OOSDC-2	Natural Resources Sustainable Management	4	4	70	30	100
2	PW	402	Project Work – Orientation classes	24	12	300	0	300
*	Conducting classes for competitive exams, communication skills, UGC / CSIR and NET / SLET examinations			12	-	-	-	-
	Total			44	20	440	60	500
Total Semesters				164	84	1530	670	2200

DEPARTMENT OF HOME SCIENCE

M.Sc EXTENSION MANAGEMENT AND COMMUNICATION TECHNOLOGY (EMCT)

SEMESTER-III

S. No	Course	CODE	Title of the Course	H/W	C	SEE	IA	Total Marks
1	CC	HSEM301	Extension Management (EM)-7	4	4	70	30	100
2		HSEM302	8(A)- Communication Technologies in Extension (CTE)	4	3	50	25	75
			8(B) -ICT for Development (ICTD)					
3		HSEM303	9(A)- Participatory Programme Management (PPM)	4	3	50	25	75
			9(B) -Monitoring , Evaluation and Impact Assessment(MEIA)					
4	P	HSEM304	Practical V (302 +303)	6	2	35	15	50
5	SOC	HSEM305	5(A)- E –Extension (EE)	4	3	50	25	75
			5(B) - Guidance and Counseling (G&C)					
6		HSEM306	6(A)-NGO Management	4	3	50	25	75
			6(B) -Management of SHGs (MSHGs)					
7	P	HSEM307	Practical VI (305 +306)	6	2	35	15	50
			*Seminars/Tutorials/remedial classes and Quiz as part of Internal assessment	4	-	-	-	-
8	OOTC	308	Open Online Trans disciplinary Course-2 (OR) Essentials of Home Science (Open Elective)	-	2	-	---	100
				4	4	70	30	100
			Total	40	22	410	190	600

SEMESTER-IV

S. No	Course	CODE	Title of the Course	H/W	C	SEE	IA	Total Marks
1.	OOSDC	HSEM 401-A	Life Skills Education (or) Open Online Skill Development Courses	4	4	70	30	100
				-	4	100	-	100
		HSEM 401-B	Scientific Writing & Reporting for Media. (or) Open Online Skill Development	4	4	70	30	100
2.	PW	HSEM 402	Project work –Orientation classes (Dissertation -200 Marks, Seminar-50 Marks, Viva- voce -50 Marks)	24	12	300	0	300
*	Conducting classes for Competitive exams, communication skills, UGC/ CSIR and NET/ SLET examinations			4	-	-	-	-
	Total			44	20	440	60	500
	Total Semesters			164	84	1530	670	2200

M.Sc. FOOD SCIENCE NUTRITION & DIETETICS (HSFS)
SEMESTER-III

SI. No	Components of Course	Code	Title of the Course	Hrs /Week	No. of Credits	SEE	IA	Total
1	CC	HSFS -301	Institutional Food Service Management	4	4	70	30	100
2		HSFS -302	A-Nutritional Biochemistry	4	3	50	25	75
			B-Nutrition during Life Span					
3		HSFS -303	A-Advances in Human Nutrition	4	3	50	25	75
			B-Geriatric Nutrition					
4	P	HSFS -304	Practical -V(302+303)	6	2	35	15	50
5	SOC	HSFS -305	A-Clinical Nutrition & Dietetics	4	3	50	25	75
			B-Nutritional Assessment Techniques					
6		HSFS -306	A-Nutrition for Health and Fitness	4	3	50	25	75
			B-Sports Nutrition					
7	P	HSFS -307	Practical-VI (305+306)	6	2	35	15	50
8	OOTC	HSFS -308	Open Online Transdisciplinary Course-2	-	2	-	---	100
			(or) Essentials of Home Science (Open Elective)	4	4	70	30	100
*	Seminar/Tutorial/Remedial classes and Quiz as part of Internal assessment			4	-	-	-	-
Total				40	22	410	190	600

SEMESTER-IV

Sl.No	Compon ents of Course	Code	Title of the Course	Hrs/W eek	No. of Credi ts	SEE	IA	Total
1.	OOSDC	HSFS -401-A	Food Quality Management Systems (or) Open Online Skill Development Courses	4	4	70	30	100
				-	4	100	-	100
		HSFS -401-B	Food Business Management (or) Open Online Skill Development Courses	4	4	70	30	100
				-	4	100	-	100
2.	PW	HSFS -402	Project Work-Orientation Classes (Dissertation -200 Marks, Seminar-50 Marks, Viva- voce -50 Marks)	24	12	300	0	300
*	Conducting classes for competitive exam, communication skills, UGC/CSIR and NET examinations			12	-	-	-	-
Total				44	20	440	60	500
TOTAL SEMESTERS				164	84	1530	670	2200

M.S FOOD TECHNOLOGY (FTE)

SEMESTER-III

Sl.No	Components of Course	Code	Title of the Course	Hrs/ Week	No. of Credits	SEE	IA	Total
1	CC	FTE -301	Unit Operations in Food Industry	4	4	70	30	100
2		FTE -302	A-Cereals, legumes and Oilseed Technology	4	3	50	25	75
			B-Snack Food Technology					
3		FTE -303	A-Fruit and Vegetable Technology	4	3	50	25	75
			B-Technology of Spices, Condiments and Plantation crops					
4	P	FTE -304	Practical -V(302+303)	6	2	35	15	50
5	SOC	FTE -305	A-Dairy Technology	4	3	50	25	75
			B-Basic Food Engineering					
6		FTE -306	A-Livestock and Sea Food Technology	4	3	50	25	75
			B-Food Toxicology					
7	P	FTE-307	Practical-VI (305+306)	6	2	35	15	50
8	OOTC	FTE-308	Open Online Transdisciplinary Course -2	-	2	-	100	100
			(Or) Essentials of Home Science (Open Elective)	4	4	70	30	100
*	Seminar/Tutorial/Remedial classes and Quiz as part of Internal assessment			4	-	-	-	-
Total				40	22	410	190	600

SEMESTER-IV

Sl.No	Component s of Course	Code	Title of the Course	Hrs/ Week	No. of Cre dits	SEE	IA	Total
1.	OOSDC	FTE-401-A	Food Quality Management Systems (or) Open Online Skill Development Courses	4	4	70	30	100
				-	4	100	-	100
		FTE-401-B	Food Business Management (or) Open Online Skill Development Courses	4	4	70	30	100
				-	4	100	-	100
2.	PW	FTE-402	Project Work- Orientation Classes (Dissertation -200 Marks, Seminar-50 Marks, Viva- voce -50 Marks)	24	12	300	0	300
*	Conducting classes for competitive exam, communication skills, UGC/CSIR and NET examinations			12	-	-	-	-
Total				44	20	440	60	500
TOTAL SEMESTERS				164	84	1530	670	2200

**M.Sc HUMAN DEVELOPMENT AND CHILD WELFARE (HSHD)
SEMESTER-III**

Sl. No	Components of Course	Title of the Course	Title of the Paper	Credit Hrs/Week	C	SEE	IA	Total
1	CC	HSHD -301	Theories of Human Development	4	4	70	30	100
2		HSHD -302	Advanced Human Development-II B- Elderly Problems and Care	4	3	50	25	75
3		HSHD -303	A- Guidance and Counselling B- Special and Inclusive Education	4	3	50	25	75
4		P	HSHD -304	Practical -V (CC 302+CC 303)	6	2	35	15
5	SOC	HSHD -305	Planning for Project Management	4	3	50	25	75
			B-Rehabilitation Management of Children with Developmental Challenges					
6		HSHD -306	A-Child Study Techniques B- Measurement and Evaluation in Education	4	3	50	25	75
7	P	HSHD-307	Practical – VI (SOC 305+SOC 306)	6	2	35	15	50
7	OOTC Open Elective	HSHD-308	Open Online Tran disciplinary Course-2	--	2	--	100	100
			(OR) Essentials of Home Science (Open Elective)	4	2	70	30	100
*	Seminars/tutorials/remedial classes and Quiz as part of internal assessment			4	-	-	-	-
			Total	40	22	410	190	600

SEMESTER-IV

Sl.No	Components of Course	Title of the Course	Title of the Paper	Credit Hrs/Week	Credits	SEE	IA	Total
		HSHD-401-A	Research Proposal and Scientific Writing.	4	4	70	30	100
			(OR) Open Online Skill Development Courses	-	4	100	-	100
		HSHD-401-B	Behaviour Problems and Management.	4	4	70	30	100
			(OR) Open Online Skill Development Courses	-	4	100	-	100
2.	PW	HSHD-402	Project Work – Orientation Classes (Dissertation -200 Marks, Seminar-50 Marks, Viva- voce -50 Marks)	24	12	300	0	300
*	Conducting classes for competitive exam, communication skills UGC /CSIR NET Examinations			12	-	--	-	-
			Total	44	20	440	60	500
			Total semesters	164	84	1530	670	2200

M.Sc., I(A) : MATHEMATICS

SEMESTER-III:

S.NO	COURSE	CODE MAT	TITLE OF THE COURSE	H/W	C	SEE	IA	TOTAL MARKS
1	CC	301	7. Classical Mechanics	4	4	70	30	100
2		302	8(A). Advanced Complex Analysis 8(B). Measure and Integration	4	3	50	25	75
3		303	9(A).Differential Geometry 9(B).Functional Analysis	4	3	50	25	75
4	P	304	Practical-I (Related to CC 8 &9)	6	2	35	15	50
5	SOC	305	5(A)Number Theory 5(B). Cryptography	4	3	50	25	75
6		306	6(A).Graph Theory 6(B). Fuzzy Sets and Fuzzy Logics	4	3	50	25	75
7	P	307	Practical -II (related to SOC 5 & 6)	6	2	35	15	50
8	OOTC-2	308	edX/Swayam/NPTEL/MOOCs OR	--	2	--	--	100
			Business Mathematics-I	4	2	70	30	100
Seminar/Tutorials/Remedial classes and Quiz as part of internal Assessment				4	-	-	-	-
			TOTAL	40	22	410	190	600

SEMESTER-IV: MATHEMATICS

Sl.No	Components of Course	Title of the Course	Title of the Paper	Credit Hrs/ Week	Credits	SEE	IA	Total
	OOSDC/ Open Elective	MA-401-A MA-401-B	Open online skill Development Course-2		8	--	--	200
			OR Algebraic Coding Theory-I	4	4	70	30	100
			Introductory Methods of Numerical Analysis	4	4	70	30	100
2.	PW	MA-402	Algebra/ Graph Theory / Coding Theory/ Operation Research/ Mathematical Statistics/ Cryptography/ Number theory	24	12	300	0	300
*	Conducting classes for competitive exam, communication skills UGC /CSIR NET Examinations			12	-	--	-	-
			Total	44	20	440	60	500
			Total semesters	164	84	1530	670	2200

SEMESTER-III: APPLIED MATHEMATICS

S.NO	COURSE	CODE AMA	TITLE OF THE COURSE	H/W	C	SEE	IA	TOTAL MARKS
1	CC	301	7. Classical Mechanics	4	4	70	30	100
2		302	8(A). Advanced Complex Analysis 8(B). Measure and Integration	4	3	50	25	75
3		303	9(A).Differential Geometry 9(B).Functional Analysis	4	3	50	25	75
4	P	304	Practical-I (Related to CC 8 &9)	6	2	35	15	50
5	SOC	305	5(A)Fluid Dynamics 5(B). Finite Element Method	4	3	50	25	75
6		306	6(A).Graph Theory 6(B). Boundary Value Problems	4	3	50	25	75
7	P	307	Practical -II (related to SOC 5 &6)	6	2	35	15	50
8	OOTC-2	308	edX/Swayam/NPTEL/MOOCs OR	--	2	--	--	100
			Business Mathematics-I	4	2	70	30	100
Seminar/Tutorials/Remedial classes and Quiz as part of internal Assessment				4	-	-	-	-
			TOTAL	40	22	410	190	600

SEMESTER-IV: APPLIED MATHEMATICS

S.NO	COURSE	CODE AMA	TITLE OF THE COURSE	H/W	C	SEE	IA	TOTAL MARKS
	OOSDC/ Open Elective	AMA-401-A AMA-401-B	Open online skill Development Course-2		8	--	--	200
			OR Continuum Mechanics	4	4	70	30	100
			Introductory Methods of Numerical Analysis	4	4	70	30	100
2.	PW	AMA-402	Fluid Dynamics/Graph Theory Magneto Hydro Dynamics/ Operation Research/Mathematical Statistics/Cryptography/ Number Theory	24	12	300	--	300
*	Conducting classes for competitive exam, communication skills UGC /CSIR NET Examinations			12	-	--	-	-
			Total	44	20	440	60	500
			Total semesters	164	84	1530	670	2200

M.Sc Micro-Biology

SEMESTER-III								
Sl. No.	Components of Study	Course code	Title of the course	Credit hours/ week	No. of Credits	SEE	IA	Total Marks
1	Core Courses (CC)	MB-301	Molecular Cell Biology and Technology	4	4	70	30	100
2		MB-302	Immunology	4	3	50	25	75
3		MB-303	Medical Microbiology	4	3	50	25	75
4	Practical-III	MB-304	MB-302: Immunology & MB-303: Medical Microbiology	6	2	35	15	50
5	Skill Oriented Course	MB-305	Industrial Microbiology	4	3	50	25	75
6	Skill Oriented Course	MB-306	Environmental Microbiology	4	3	50	25	75
7	Practical -IV	MB-307	MB-305: Industrial Microbiology & MB-306 Environmental Microbiology	6	2	35	15	50
8.	OOTC/OC	MB-308	Open online transdisciplinary Course-2 Industrial Food Microbiology	4	2	70	30	100
*	Seminar / tutorials / remedial classes and Quiz as part of internal assessment			4	-	-	-	-
	Total			40	22	410	190	600

SEMESTER-IV								
Sl. No.	Components of Study	Course code	Title of the course	Credit hours/ week	No. of Credits	SEE	IA	Total Marks
1	OOSDC /SDC	MB-401	Open online Skill development Courses (A) Pharmaceutical Microbiology and Bioenterprenurship	6	4	70	30	100
			(B) Bioprocessing of Industrial Microorganisms.	6	4	70	30	100
2	PW	MB-402	Project Work	24	12	300	--	300
*	Conducting classes for competitive exams, communication skills, UGC / CSIR and NET / SLET examinations			12	-	-	-	-
	Total			36	20	440	60	500
	Total Semesters			164	84	1530	670	2200

M.Sc Industrial Microbiology

SEMESTER-III								
Sl. No.	Components of Study	Course code	Title of the course	Credit hours/ week	No. of Credits	SEE	IA	Total Marks
1	Core Courses (CC)	IMB-301	Molecular Cell biology and Technology	4	4	70	30	100
2		IMB-302	Immunology	4	3	50	25	75
3		IMB-303	Medical Microbiology	4	3	50	25	75
4	Practical-III	IMB-304	IMB-302: Immunology & IMB-303: Recombinant DNA technology	6	2	35	15	50
5	Skill Oriented Course	IMB-305	Industrial Based Microbial Clean Technology	4	3	50	25	75
6	Skill Oriented Course	IMB-306	Industrial Production of Microbial Products	4	3	50	25	75
7	Practical -IV	IMB-307	IMB-305: Industrial Based Microbial Clean Technology & IMB- 306: Industrial Production of Microbial Products	6	2	35	15	50
8.	OOTC/OC	IMB-308	Open online transdisciplinary Course-2 Industrial Food Microbiology	4	2	70	30	100
*	Seminar / tutorials / remedial classes and Quiz as part of internal assessment			4	-	-	-	-
	Total			40	22	410	190	600

SEMESTER-IV								
Sl. No.	Components of Study	Course code	Title of the course	Credit hours/ week	No. of Credits	SEE	IA	Total Marks
1	OOSDC /SDC	IMB-401	Open online Skill development Courses	6	4	70	30	100
			(A) Pharmaceutical Microbiology and Bioenterprenurship (B) Bioprocessing of Industrial Microorganisms.	6	4	70	30	100
2	PW	IMB-402	Project Work	24	12	300	--	300
*	Conducting classes for competitive exams, communication skills, UGC / CSIR and NET / SLET examinations			12	-	-	-	-
	Total			44	20	440	60	500
	Total Semesters			164	84	1530	670	2200

M.Sc., PHYSICS

SEMESTER – III								
S. No	Course	Code	Title of the Course	H/W	C	SEE	IA	Total marks
1.	CC	PHY-301	Advanced Quantum Mechanics	4	4	70	30	100
2.		PHY-302	(A) Physics of Semiconductor Devices	4	3	50	25	75
			(B) IC Fabrication Technology					
3.		PHY-303	(A) Advances in Physics	4	3	50	25	75
			(B) Physics of Advanced Materials					
4.	P	PHY-304	Practical –V (related to CC 302 & 303)	6	2	35	15	50
5.	SOC	PHY-305	(A) Advanced Characterization Techniques	4	3	50	25	75
			(B) Sensors and Transducers					
6.		PHY-306	(A) Introduction to VLSI Design	4	3	50	25	75
			(B) Solar energy – Photo Voltaics					
7.	P	PHY-307	Practical – VI (related to SOC 305 & 306)	6	2	35	15	50
8.	OOTC/ Open Elective	PHY-308	Open Online Transdisciplinary Course – 2 (OR) Open Elective- Vacuum Technology and Applications	4	2	70	30	100
*	Seminars /Tutorials/Remedial Classes and Quiz as a part of Internal Assessment			4	-	-	-	-
Total				36	22	410	190	600

SEMESTER – IV								
S.No	Course	Code	Title of the Course	H/W	C	SEE	IA	Total marks
1.	OOSDC/	PHY-401	Open Online Skill Development Courses	-	8	140	60	200
	SDC (Skill Development Course)	(OR)						
		PHY-401	(A) Mobile and Wireless Communications	4	4	70	30	100
			(B) Nuclear and Particle Physics	4	4	70	30	100
2.	PW	PHY-402	Project work – Orientation Classes	24	12	300	0	300
*	Conducting classes for competitive exams, communication skills, UGC / CSIR and NET / SLET Examinations			12	-	-	-	
	Total			44	20	440	60	500
Total Semesters				164	84	1530	670	2200

M.Sc. STATISTICS

SEMESTER – III								
S.no	Course	Code	Tittle of the course	H/ W	C	SEE	IA	TOTAL Marks
01	CC	ST 301	Econometric Methods	4	4	70	30	100
02		ST 302	A: Bio Statistics B: Parametric Estimation	4	3	50	25	75
03		ST 303	A:Operations Research B: Statistical Testing in Data Analysis	4	3	50	25	75
04	P	ST 304	Practical – V (ST - 302 & ST - 303)	6	2	35	15	50
05	SOC	ST 305	A: Time Series Analysis B: Discrete Mathematics	4	3	50	25	75
06		ST 306	A: Demography and Official Statistics B:Reliability Theory	4	3	50	25	75
07	P	ST307	Practical – VI(ST - 305 & ST - 306)	6	2	35	15	50
08	OOTC OR Open Elective	ST 308	OOTC	--	2	--	--	100
			OR A: Statistics For Biological and Earth Sciences B: BUSINESS ANALYTICS	4	2	70	30	100
*	Seminar/tutorials /remedial classes and quiz as part of internal assessment			4		0	0	0
			Total	40	22	410	190	600

SEMESTER – IV								
S.No	Course	Code	Title of the Course	H/W	C	SEE	IA	Total marks
1.	OOSDC/	ST-401	Open Online Skill Development Courses	-	8	--	---	200
	SDC (Skill Development Courses)	(OR)						
		ST-401	A: Advanced Econometric Methods B. Python	4	4	70	30	100
			ST-401	A: R Programming B: Statistics For Research, Industry and Community development	4	4	70	30
2.	PW	ST-402	Project work – Orientation Classes	24	12	300	0	300
*	Conducting classes for competitive exams, communication skills, UGC / CSIR and NET / SLET Examinations			12	-	-	-	
	Total			44	20	440	60	500
Total Semesters				164	84	1530	670	2200

M.Sc. APPLIED STATISTICS

SEMESTER- III								
S.no	Course	Code	Title of the course	H/W	C	SEE	IA	TOTAL Marks
01	CC	APST 301	Applied Econometrics	4	4	70	30	100
02		APST 302	A: Advanced Bio Statistics B: Theory of Point Estimation	4	3	50	25	75
03		APST 303	A. Reliability and Survival Analysis B: Statistical Testing in Data Analysis	4	3	50	25	75
04	P	APST 304	Practical – V (302 &303)	6	2	35	15	50
05	SOC	APST 305	A: Applied Operations Research B: Computer Programming C++	4	3	50	25	75
06		APST 306	A: LINEAR MODELS AND REGRESSION ANALYSIS B: Total Quality Management and Six sigma	4	3	50	25	75
07	P	APST 307	Practical – VI (305 and 306)	6	2	35	15	50
08	OOTC	APST 308	OOTC/Open ELECTIVE OR	--	2	--	--	100
			A: Survival Analysis B: Statistics For Social and Behavioral Sciences	4	2	70	30	100
*	Seminar/Tutorials/Remedial Classes and Quiz as part of Internal Assessment			4	0	0	0	0
			Total	36	22	410	190	600

SEMESTER – IV								
S.No	Course	Code	Title of the Course	H/W	C	SEE	IA	Total marks
1.	OOSDC/	ST-401	Open Online Skill Development Courses	-	8	--	---	200
	SDC (Skill Development Courses)	(OR)						
		ST-401	A: Advanced Econometric Methods B. Python	4	4	70	30	100
		ST-401	A: R Programming B: Statistics For Research, Industry and Community development	4	4	70	30	100
2.	PW	ST-402	Project work – Orientation Classes	24	12	300	0	300
*	Conducting classes for competitive exams, communication skills, UGC / CSIR and NET / SLET Examinations			12	-	-	-	
	Total			44	20	440	60	500
Total Semesters				164	84	1530	670	2200

M. Sc., VIROLOGY

SEMESTER - III								
S. No	Course	Code	Title of the Course	H/W	C	SEE	IA	Total Marks
1	CC	301	Core course – 7: Animal and Human Virology	4	4	70	30	100
2		302	Core Course – 8(A): Molecular Virology	4	3	50	25	75
			Core Course – 8(B): Agricultural and Veterinary Viruses and their Management					
3		303	Core Course – 9(A): Animal and Human Virus Diseases.	4	3	50	25	75
			Core Course – 9(B): Emerging and Re-emerging Virus Diseases					
4	P	304	Practical V (related to CC 8 & 9)	6	2	35	15	50
5	SOC	305	Skill Oriented Course – 5(A): Applied Virology	4	3	50	25	75
			Skill Oriented Course – 5(B): Clinical Virology					
6		306	Skill Oriented Course – 6(A): Industrial Biotechnology	4	3	50	25	75
			Skill Oriented Course – 6(B): Medical Lab Technology					
7	P	307	Practical VI (related to SOC 5 & 6)	6	2	35	15	50
8	OOTC (Open Elective)	308	Open Online Transdisciplinary Course – 2 VIR-308: GENERAL VIROLOGY (Optional) (Open Elective- Theory)	--	2	70	30	100
Total				36	22	410	190	600
*	Seminar / tutorials / remedial classes and Quiz as part of internal assessment			4	-	-	-	-

SEMESTER - IV								
S. No	Course	Code	Title of the Course	H/W	C	SEE	IA	Total Marks
1	***** OOSDC (Skill Develop ment Courses)	401	Open Online Skill Development Courses					
		401(A)	Environmental Biotechnology (Skill development course-Theory)	4	4	70	30	100
		401(B)	Pharmaceutical Biotechnology (Skill development course-Theory)	4	4	70	30	100
2	PW	402	Project Work – Orientation Classes	24	12	300	0	300
	Conducting classes for competitive exams, communicationskills, UGC / CSIR and NET / SLET examinations			12	-	-	-	-
			Total	44	20	440	60	500
Total Semesters				164	84	1530	670	2200

M.Sc. ZOOLOGY

SEMESTER - III								
S. No	Course	Code	Title of the Course	H/W	C	SEE	IA	Total Marks
1	CC	301	Cell Biology and Immunobiology	4	4	70	30	100
2		302	8(A) Genetics and Evolution	4	3	50	25	75
			8(B) Sustainable Practices in Poultry Farming					
3		303	9(A)Toxicology	4	3	50	25	75
			9(B) Forensic science					
4	P	304	Practical V (related to CC 8 & 9)	6	2	35	15	50
5	SOC	305	5(A) Bioanalytical Techniques-II	4	3	50	25	75
			5(B) Biostatistics and Bioinformatics					
6		306	6(A) Microbiology	4	3	50	25	75
			6(B) Techniques in Pathobiology					
7	P	307	Practical VI (related to SOC 5 & 6)	6	2	35	15	50
8	OOTC (Open Eelctive)	308	Open Online Transdisciplinary Course – 2 OR ZOO-308 Human Health and Infectious Diseases (Common paper for ZOO & ABT)	4	2	70	30	100
*	Seminar / tutorials / remedial classes and Quiz as part of internal assessment			4	-	-	-	-
			Total	36	22	410	190	600

SEMESTER - IV								
S. No	Course	Code	Title of the Course	H/W	C	SEE	IA	Total Marks
1	OOSDC	401	Open Online Skill Development Courses OR ZOO-401 (a): MOLECULAR BIOLOGY TECHNIQUES (Common paper for ZOO & ABT)	4	4	70	30	100
	SDC		ZOO-401(b): BIOINFORMATICS (Common paper for ZOO & ABT)	4	4	70	30	100
2	PW	402	Project Work – Orientation Classes	24	12	300	0	300
*	Conducting classes for competitive exams, communication skills, UGC / CSIR and NET / SLET examinations			12	-	-	-	-
			Total	44	20	440	60	500
Total Semesters				164	84	1530	670	2200

M.Sc ANIMAL BIO-TECHNOLOGY

SEMESTER – III								
S. No	Course	Code	Title of the Course	H/W	C	SEE	IA	Total Marks
1	CC	ABT 301	Cell Biology and Immunobiology	4	4	70	30	100
2		ABT 302	Drug Designing and Development	4	3	50	25	75
			Animal Genomics and Proteomics					
3		ABT 303	Toxicology	4	3	50	25	75
			Cancer Biology					
4	P	ABT 304	Practical V (related to CC 8 & 9)	6	2	35	15	50
5	SOC	ABT 305	Bio analytical techniques-II	4	3	50	25	75
			Biostatistics and Bioinformatics					
6		ABT 306	Microbiology	4	3	50	25	75
			Vaccine Biotechnology and Applications					
7	P	ABT 307	Practical VI (related to SOC 5 & 6)	6	2	35	15	50
8	OOTC	ABT 308	Open Online Transdisciplinary Course – 2	-	2	-	100	100
*	Seminar / tutorials / remedial classes and Quiz as part of internal assessment			4	-	-	-	-
		Total		36	22	410	190	600

SEMESTER - IV								
S. No	Course	Code	Title of the Course	H/W	C	SEE	IA	Total Marks
1	OOSDC	401	Open Online Skill Development Courses OR ABT-401 (a): MOLECULAR BIOLOGY TECHNIQUES (Common paper for ZOO & ABT) ABT-401(b): BIOINFORMATICS (Common paper for ZOO & ABT)	4	4	70	30	100
	SDC			4	4	70	30	100
2	PW	402	Project Work – Orientation Classes	24	12	300	0	300
*	Conducting classes for competitive exams, communication skills, UGC / CSIR and NET / SLET examinations			12	-	-	-	-
		Total		44	20	440	60	500
Total Semesters				164	84	1530	670	2200
