Annexure 2 M.Sc/MA. COURSE STRUCTURE BASED ON NEP 2020

4 years BSc (Hon) and M.Sc/MA part 1 course

Semester	**Core course (DSC) Major(science)**	**Core elective course (DSE) Major (science)**	**Minor**	**IAPC/Field work /dissertation Inter-intra faculty**	**Total credits**
Details	***Continue with that major subject selected in Bsc (max batch Size)***	***Choose any one from the basket of electives given by the dept teaching the selected major subject***	***Choose any one in sem 8 EXCEPT the one selected as Major DSC (preference should be given to that subject so as to attain for it 28 minor subject credits)***	***Compulsory***	
Credits	*12(3 papers of 4 credits* (3+1)	*04*(3+1)	*(04)*	*(02)*	*22*
Sem 7	Botany Organic Chemistry Microbiology Physics Zoology Economics (MA) Psychology (MA)	Botany Organic Chemistry Microbiology Physics Zoology Economics Psychology	Research methodology UNIT 1: Principles of Scientific Research UNIT 2: Data Management and Analysis UNIT 3: Scientific Communication PRACTICAL:	on the job training	22
Credits	*12(3 papers of 4 credits* (3+1)	*04* (3+1)	*Nil*	*(06)*	*22*
Sem 8	Botany Organic Chemistry Microbiology Physics Zoology Economics (MA) Psychology(MA)	Botany Organic Chemistry Microbiology Physics Zoology Economics Psychology	-	One field /research project related to major subject under mentorship of teacher	22

4 years research course

Semester	Core course (DSC) Major(science)	Core elective course (DSE) Major (science)	Minor	IAPC/Field work /dissertation Inter-intra faculty	Total credits
Details	***Continue with that major subject selected in first Year (max batch Size)***	***Choose any one from the basket of electives given by the dept teaching the selected major subject***	***Choose any one in sem 8 EXCEPT the one selected as Major DSC (preference should be given to that subject so as to attain for it 28 minor subject credits)***	***Compulsory***	
Credits	***10(2 papers of 4 credits+ 1 paper of 2 credit)***	***04***	***Sem 7 (04)***	***Sem7 (04)*** ***Sem8 (08)***	***22***
7	PAPER 2 **Cancer biology and exercise physiology** UNIT 1: Cellular physiology UNIT 2: cancer biology UNIT 3: exercise science PRACTICAL:	PAPER 1 Biochemistry and biotechnology UNIT 1: Thermodynamics UNIT 2: Metabolic pathways UNIT 3: Applied Biotechnology PRACTICAL:	Research methodology UNIT 1: Principles of Scientific Research UNIT 2: Data Management and Analysis UNIT 3: Scientific Communication PRACTICAL:	—----	22

	PAPER 3 **Developmental biology** UNIT 1: Basic concepts of embryonic development in non-chordates UNIT 2: Early Development UNIT 3: Morphogenesis and organogenesis in animals. PRACTICAL: PAPER 4: **SPECIAL CHARACTERISTICS OF NON CHORDATES & chordates** UNIT 1: Non- Chordates UNIT 2: Chordates				
8	PAPER 2 **APPLIED ZOOLOGY** UNIT 1: Physiological Tools for clinical diagnostics. UNIT 2: Modern Techniques UNIT 3: Bioinformatics PRACTICAL: PAPER 3 **Drug design and development** UNIT 1: drug Design UNIT 2: Preclinical and clinical studies UNIT 3: stem cell physiology PRACTICAL:	PAPER 1 endocrinology and neurophysiology UNIT 1: Vertebrate endocrinology UNIT 2: Reproductive physiology UNIT 3: Neurobiology PRACTICAL:	—----	on the job training/ One field /research project related to major subject under mentorship of your teacher	22

	PAPER 4 Climate Change and Sustainability UNIT 1: Climate change UNIT 2: Sustainable development				