

B.Sc. B.Ed. Session 2021-25
MANAV RACHNA UNIVERSITY
DEPARTMENT OF EDUCATION
B.Sc. B.Ed.

SEMESTER – 1										
SUBJECT CODES	SUBJECT NAME	**OFFERING DEPARTMENT	*COURSE NATURE (Hard/Soft/Workshop/NTCC)	COURSE TYPE (Core/Elective / University Compulsory)	L	T	P	O	NO. OF CONTACT HOURS PER WEEK	NO. OF CREDITS
CHH135-T	Atomic Structure and Bonding	APPLIED SCIENCE	HARD	CORE	3	1	0	0	6	4
CHH135-P	Atomic Structure and Bonding				0	0	2	0		
PHH121-T	Physics-I	APPLIED SCIENCE	HARD	CORE	3	1	0	0	6	4
PHH121-P	Physics-I				0	0	2	0		
EDH113-T	Diversity of Microbes and Thallophytes	EDU	HARD	CORE	3	0	0	0	5	4
EDH113-P	Diversity of Microbes and Thallophytes				0	0	2	0		
MAH117B	CALCULUS AND ANALYTICAL GEOMETRY-I	APPLIED SCIENCE	HARD	CORE	3	1	0	0	4	4
EDH114-T	Animal Diversity-I	EDU			3	0	0	0	5	
EDH114-P	Animal Diversity-I				0	0	2	0		
EDH102-T	Foundation of Education	EDU	HARD	CORE	3	0	0	0	5	4
EDH102-P	Foundation of Education				0	0	2	0		
MOOC-210-EDS-101	Developing of Soft Skills and Personality	EDU	MOOC	CORE	0	0	0	0	0	2
EDS107	Communicative English- I		SOFT		1	0	2	0		
CSW114B	Critical Understanding of ICT in Education-I	EDU	WORKSHOP	CORE	0	0	3	0	3	1.5
EDO144	Co-Curricular Activities	EDU	NTCC	UNIVERSITY COMPULSORY	0	0	0	2	2	0.5
CHH137	Environmental Science	APPLIED SCIENCE	NTCC	UNIVERSITY COMPULSORY	2	0	0	2	4	4
TOTAL (L-T-P-O/CONTACT HOURS/CREDITS)					15(PCM)/ 15(ZBC)	3(PCM)/ 1(ZBC)	11(PCM) / 13(ZBC)	4(PCM/ ZBC)	33(PCM/Z BC)	24 (PCM)/ 24(ZBC)

SEMESTER - 2										
SUBJECT CODES	SUBJECT NAME	**OFFERING DEPARTMENT	*COURSE NATURE (Hard/Soft/Workshop/NTCC)	COURSE TYPE (Core/Elective / University Compulsory)	L	T	P	O	NO. OF CONTACT HOURS PER WEEK	NO. OF CREDITS
CHH136-T	States of Matter and Nuclear Chemistry	APPLIED SCIENCE	HARD	CORE	3	1	0	0	6	4
CHH136-P	States of Matter and Nuclear Chemistry				0	0	2	0		
PHH122-T	Elasticity, Waves, Heat and Thermodynamics	APPLIED SCIENCE	HARD	CORE	3	1	0	0	6	4
PHH122-P	Elasticity, Waves, Heat and Thermodynamics				0	0	2	0		
EDH132-T	Bryophytes and Pteridophytes	EDU			3	0	0	0	5	
EDH132-P	Bryophytes and Pteridophytes				0	0	2	0		
MAH118B	NUMBER THEORY, THEORY OF EQUATIONS AND MATRICES	APPLIED SCIENCE	HARD	CORE	3	1	0	0	4	4
EDH131-T	Animal Diversity-II	EDU			3	0	0	0	5	
EDH131-P	Animal Diversity-II				0	0	2	0		
MAH119B-T	CALCULUS AND ANALYTICAL GEOMETRY-II	APPLIED SCIENCE	HARD	CORE	3	1	0	0	4	5
MAH120B	MATHS LAB				0	0	2	0	2	
EDS103	Creating An Inclusive Classroom	EDU	SOFT	CORE	1	0	2	0	3	2
EDH133-T	Learner and Learning Process	EDU	HARD	CORE	3	0	0	0	5	4
EDH133-P	Learner and Learning Process				0	0	2	0		
MOOC-18E-EDS-103	Better Spoken English/ Speaking Effectively	EDU	MOOC	CORE	0	0	0	2	0	2
EDS134	Communicative English-II		SOFT		1	0	2	0	3	
CSW115B	Critical Understanding of ICT-II	CST	WORKSHOP	CORE	0	0	3	0	3	1.5
EDW125	Drama and Art Education	EDU	WORKSHOP	CORE	0	0	3	0	3	1.5

EDN136	Project Report on Field Trip (Experimental School/Innovative Resources Centre, etc.)	EDU	NTCC	UNIVERSITY COMPULSORY	0	0	0	0	0	2
TOTAL (L-T-P-O/CONTACT HOURS/CREDITS)					17(PCM)/14(ZBC)	4(PCM)/1(ZBC)	18(PCM)/ZBC)	2(PCM)/ZBC)	41(PCM)/35(ZBC)	30(PCM)/25(ZBC)
Two weeks summer training (1.5 Credits)										

SEMESTER - 3										
SUBJECT CODES	SUBJECT NAME	**OFFERING DEPARTMENT	*COURSE NATURE (Hard/Soft/ Workshop/ NTCC)	COURSE TYPE (Core/Elective / University Compulsory)	L	T	P	O	NO. OF CONTACT HOURS PER WEEK	NO. OF CREDITS
CHH237-T	Organic Chemistry I	APPLIED SCIENCE	HARD	CORE	3	1	0	0	6	4
CHH237-P	Organic Chemistry I				0	0	2	0		
PHH226-T	Electricity and Electromagnetism	APPLIED SCIENCE	HARD	CORE	3	1	0	0	6	4
PHH226-P	Electricity and Electromagnetism				0	0	2	0		
EDH204-T	Gymnosperms and Reproduction in Angiosperms	EDU			3	0	0	0	5	
EDH204-P	Gymnosperms and Reproduction in Angiosperms				0	0	2	0		
MAH219B	Real Analysis	APPLIED SCIENCE	HARD	CORE	3	1	0	0	4	4
EDH205-T	Animal Diversity-III and Comparative Anatomy of Vertebrates	EDU	HARD	CORE	3	0	0	0	5	
EDH205-P	Animal Diversity-III and comparative Anatomy of Vertebrates				0	0	2	0		
EDH221-T	Basics of Biophysics	EDU	HARD	CORE	3	0	0	0	5	4
EDH221-P	Basics of Biophysics				0	0	2	0		
EDH216-T	Knowledge and Curriculum	EDU	HARD	CORE	3	0	0	0	5	4
EDH216-P	Knowledge and Curriculum				0	0	2	0		
EDS207	Gender, School and Society	EDU	SOFT	CORE	1	0	2	0	3	2
EDW208	Craft And Visual Arts	EDU	WORKSHOP	CORE	0	0	3	0	3	1.5
FLS101	Spanish-I	MRCFL	ELECTIVE	UNIVERSITY COMPULSORY	1	1	0	0	2	0
FLS102	German-I				1	1	0	0	2	
FLS103	French-I				1	1	0	0	2	
TOTAL (L-T-P-O/CONTACT HOURS/CREDITS)									34(PCM)/34(ZBC)	23.5(PCM)/23.5(ZBC)

SEMESTER - 4										
SUBJECT CODES	SUBJECT NAME	**OFFERING DEPARTMENT	*COURSE NATURE (Hard/Soft/ Workshop/ NTCC)	COURSE TYPE (Core/Elective / University Compulsory)	L	T	P	O	NO. OF CONTACT HOURS PER WEEK	NO. OF CREDITS
CHH238-T	Thermodynamics, Equilibrium and Solutions	APPLIED SCIENCE	HARD	CORE	3	1	0	0	6	4
CHH238-P	Thermodynamics, Equilibrium and Solutions				0	0	2	0		
CHH313-T	Organic Chemistry II	APPLIED SCIENCE	HARD	CORE	3	1	0	0	6	4
CHH313-P	Organic Chemistry II				0	0	2	0		
PHH227-T	Optics	APPLIED SCIENCE			3	1	0	0	6	
PHH227-P	Optics				0	0	2	0		
EDH224-T	Angiosperm Anatomy, Evolution and economic Botany	EDU	HARD	CORE	3	0	0	0	5	4
EDH224-P	Angiosperm Anatomy, Evolution and economic Botany				0	0	2	0		
MAH220B	Multivariate Calculus and Vector Calculus	APPLIED SCIENCE	HARD	CORE	3	1	0	0	4	4
MAH221B-T	PROBABILITY & STATISTICS	APPLIED SCIENCE	HARD	CORE	3	1	0	0	6	4
MAH221B-P	PROBABILITY & STATISTICS				0	0	2	0		
EDH225-T	Animal Physiology and Endocrinology	EDU			3	0	0	0	5	
EDH225-P	Animal Physiology and Endocrinology				0	0	2	0		
EDH122-T	Assessment For Learning	EDU	HARD	CORE	3	0	0	0	5	4
EDH122-P	Assessment For Learning				0	0	2	0		
EDS227	School Organization & Management	EDU	SOFT	CORE	1	0	2	0	3	2
MOOC-18E-EDN-205	Design Thinking- A Primer	EDU	MOOC	CORE	0	0	0	3	3	1.5
EDN 229	Street Play/ Skit/ Mime		Workshop		1	0	2	0		

MOOC-18E-EDS-204	Principles of Human Resource Management	MGT	MOOC	Elective	0	0	0	3	3	2
MCS231	Basics of Economics		SOFT		1	0	2	0		
MCS232	Introduction to Finance		SOFT		1	0	2	0		
FLS105	Spanish-II	MRCFL	ELECTIVE	UNIVERSITY COMPULSORY	1	1	0	0	2	0
FLS106	German-II				1	1	0	0		
FLS107	French-II				1	1	0	0		
TOTAL (L-T-P-O/CONTACT HOURS/CREDITS)					22(PCM)/19(ZBC)	5(PCM)/3(ZBC)	19(PCM)/ZBC)	6(PCM/ZBC)	52(PCM)/47(ZBC)	29.5(PCM)/25.5(ZBC)
Two weeks Community Contact internship (1.5credits)										
Under Choice based Credit system, a basket of electives will be offered from which, one elective will be taken by the student										

SEMESTER - 5										
SUBJECT CODES	SUBJECT NAME	**OFFERING DEPARTMENT	*COURSE NATURE (Hard/Soft/ Workshop/ NTCC)	COURSE TYPE (Core/Elective / University Compulsory)	L	T	P	O	NO. OF CONTACT HOURS PER WEEK	NO. OF CREDITS
CHH312-T	Transition Elements, Coordination Compounds and Chemical Kinetics	APPLIED SCIENCE	HARD	CORE	3	1	0	0	6	4
CHH312-P	Transition Elements, Coordination Compounds and Chemical Kinetics				0	0	2	0		
PHH330-T	Basic Electronics	APPLIED SCIENCE	HARD	CORE	3	1	0	0	6	4
PHH330-P	Basic Electronics				0	0	2	0		
EDH301-T	Plant Systematics and Angiosperm Phylogeny	EDU			3	0	0	0	5	
EDH301-P	Plant Systematics and Angiosperm Phylogeny				0	0	2	0		
MAH319B	DIFFERENTIAL EQUATIONS	APPLIED SCIENCE	HARD	CORE	3	1	0	0	4	4
EDH302-T	Ecology and Animal Behaviour	EDU			3	0	0	0	5	
EDH302	Ecology and Animal Behaviour				0	0	2	0		
EDH303-T	Cell Biology and Genetics	EDU	HARD	CORE	3	0	0	0	5	4
EDH303-P	Cell Biology and Genetics				0	0	2	0		
EDH214-T	Education in Contemporary India	EDU	HARD	CORE	3	0	0	0	5	4
EDH214-P	Education in Contemporary India				0	0	2	0		
EDH109-T	Pedagogy-I (Biological Sciences)	EDU	HARD	CORE ELECTIVE	3	0	0	0	5	4
EDH109-P	Pedagogy-I (Biological Sciences)				0	0	2	0		
EDH110-T	Pedagogy-I (Mathematics)				3	0	0	0		
EDH110-P	Pedagogy-I (Mathematics)				0	0	2	0		
EDW228	e-learning	EDU	WORKSHOP	CORE	0	0	3	0	3	1.5

EDW304	Yoga & Health Education	EDU	WORKSHOP	CORE	0	0	3	0	3	1.5
EDN305	Colloquium	EDU	NTCC	CORE	0	0	0	0	0	2
EDO209	Phase I (Field Engagement)	EDU	OUTCOME	CORE	0	0	0	0	0	2
TOTAL (L-T-P-O/CONTACT HOURS/CREDITS)					15(PCM)/18(ZBC)	3(PCM)/1(ZBC)	11(PCM)/15(ZBC)	0	29(PCM)/34(ZBC)	27(PCM)/31(ZBC)
Under Choice based Credit system, a basket of electives will be offered from which two electives will taken by the student										

SEMESTER - 6										
SUBJECT CODES	SUBJECT NAME	**OFFERING DEPARTMENT	*COURSE NATURE (Hard/Soft/Workshop/NTCC)	COURSE TYPE (Core/Elective / University Compulsory)	L	T	P	O	NO. OF CONTACT HOURS PER WEEK	NO. OF CREDITS
CHH314-T	Electrochemistry and Photochemistry	APPLIED SCIENCE	HARD	CORE	3	1	0	0	6	4
CHH314-P	Electrochemistry and Photochemistry				0	0	2	0		
PHH331-T	Relativity and Quantum Mechanics	APPLIED SCIENCE	HARD	CORE	3	1	0	0	6	4
PHH331-P	Relativity and Quantum Mechanics				0	0	2	0		
EDH310-T	Plant Physiology and Metabolism	EDU			3	0	0	0	5	
EDH310-P	Plant Physiology and Metabolism				0	0	2	0		
MAH320B	GROUPS AND RINGS	APPLIED SCIENCE	HARD	CORE	3	1	0	0	4	4
MAH321B-T	COMPLEX ANALYSIS & NUMERICAL ANALYSIS	APPLIED SCIENCE	HARD	CORE	3	1	0	0	6	4
MAH321B-P	COMPLEX ANALYSIS & NUMERICAL ANALYSIS				0	0	2	0		
EDH311-T	Developmental Biology and Applied Zoology	EDU			3	0	0	0	5	
EDH311-P	Developmental Biology and Applied Zoology				0	0	2	0		
PHH432-T	Atomic and Molecular Physics	APPLIED SCIENCE	HARD	CORE	3	1	0	0	6	4
PHH432-P	Atomic and Molecular Physics				0	0	2	0		
EDH128-T	Pedagogy-II (Physical Sciences)	EDU	HARD	CORE	3	0	0	0	5	4
EDH128-P	Pedagogy-II (Physical Sciences)				0	0	2	0		
EDW104	Reading And Reflection On Texts	EDU	WORKSHOP	CORE	0	0	3	0	3	1.5
EDO314	Phase-II Field Engagement	EDU	OUTCOME	CORE	0	0	0	2	0	2

TOTAL (L-T-P-O/CONTACT HOURS/CREDITS)					15(PCM)/1 2(ZBC)	4(PCM)/1(ZBC)	13(PCM) /11(ZBC)	2(PCM/Z BC)	34(PCM)/2 6(ZBC)	27.5 (PCM)/19.5 (ZBC)
EDO 413	Simulated Teaching- Pedagogy I	EDU	OUTCO ME	CORE	0	0	0	2	0	2
EDO 414	Simulated Teaching- Pedagogy II	EDU	OUTCO ME	CORE	0	0	0	2	0	2

Career Development Centre Modules will be offered

SEMESTER - 7										
SUBJECT CODES	SUBJECT NAME	**OFFERING DEPARTMENT	*COURSE NATURE (Hard/Soft/ Workshop/ NTCC)	COURSE TYPE (Core/Elective / University Compulsory)	L	T	P	O	NO. OF CONTACT HOURS PER WEEK	NO. OF CREDITS
EDN403	Reflective Journal	EDU	NTCC	CORE	0	0	0	2	0	2
EDO404	Phase-III School Internship-Pedagogy-I	EDU	OUTCOME	CORE	0	0	0	6	0	8
EDO405	Phase-III School Internship-Pedagogy-II	EDU	OUTCOME	CORE	0	0	0	6	0	8
EDO415	Action Research	EDU	OUTCOME	CORE	0	0	0	2	0	2
EDO416	Case Study	EDU	OUTCOME	CORE	0	0	0	2	0	2
TOTAL (L-T-P-O/CONTACT HOURS/CREDITS)					0	0	0	18	0	22

Career Development Centre Modules will be offered

SEMESTER - 8										
SUBJECT CODES	SUBJECT NAME	**OFFERING DEPARTMENT	*COURSE NATURE (Hard/Soft/Workshop/NTCC)	COURSE TYPE (Core/Elective / University Compulsory)	L	T	P	O	NO. OF CONTACT HOURS PER WEEK	NO. OF CREDITS
CHH315-T	Spectroscopy, Natural Products and Heterocyclics	APPLIED SCIENCE	HARD	CORE	3	1	0	0	6	4
CHH315-P	Spectroscopy, Natural Products and Heterocyclics				0	0	2	0		
PHH433-T	Nuclear and Solid State Physics	APPLIED SCIENCE	HARD	CORE	3	1	0	0	6	4
PHH433-P	Nuclear and Solid State Physics				0	0	2	0		
EDH410-T	Biochemistry , Plant Tissue culture and Biotechnology	EDU	HARD	CORE	3	0	0	0	5	
EDH410-P	Biochemistry , Plant Tissue culture and Biotechnology				0	0	2	0		
EDH411-T	Genetics and Palentology	EDU	HARD	CORE	3	0	0	0	5	
EDH411-P	Genetics and Palentology				0	0	2	0		
MAH401B	Linear Algebra	APPLIED SCIENCE	HARD	CORE	3	1	0	0	4	4
EDH402-T	Molecular Biology and Immunology	EDU			3	0	0	0	5	
EDH402-P	Molecular Biology and Immunology				0	0	2	0		
EDN412	Seminar	EDU	NTCC	CORE	0	0	0	2	0	2
EDS236	School leadership and Management	EDU	SOFT	ELECTIVE	1	0	2	0	3	2
MOOC-210-EDS-401	Educational Leadership									
EDS220	Peace and Value Education									
EDS221	Guidance and Counselling									
EDS222	Human Rights in Education									
EDS223	Environment and Education									
TOTAL (L-T-P-O/CONTACT HOURS/CREDITS)									19(PCM)/ 24(ZBC)	16(PCM)/ 20 (ZBC)

*COURSE NATURE	Hard course (H): A course having L-T-P and/or O component ; L(Lecture), T(Tutorial), P(Practical) and O(Outcome)
	Soft Course (S): A course aimed at development of a person's emotional, social, ethical, professional and creative potentials. The course shall have L-P and/or O component
	Workshop course(W): A completely 'hands on' course conducted in laboratory, aimed at developing application/ implementation/ designing skills of a person. The course shall have P component
	Non-Teaching Credit Course (N): The course involves no teaching and has P and O component. Shall include projects, seminars, dissertations etc.

**OFFERING DEPARTMENT NAMES		A course shall be assigned credits as under:
EDU	DEPARTMENT OF EDUCATION	One credit for each lecture hour;
MRCFL	MANAV RACHNA CENTRE OF FOREIGN LANGUAGES	One credit for each tutorial hour ;
CH	CHEMISTRY	One credit for each Outcome hour;
MGT	MANAGEMENT	Two credits for each workshop/ laboratory/practical/project session of 3 hours;
CS	COMPUTER SCIENCE	Ofor each laboratory or practical or project session of 2 hours
*** Electives are subject to change according to expertise available/ required.		