

**TAMIL NADU TEACHERS EDUCATION UNIVERSITY**

**CHENNAI – 600 097**

**INTEGRATED B.Sc.B.Ed. PROGRAMME**

**III – YEAR**

**NON – SEMESTER STRUCTURE**

III YEAR

**STRUCTURE OF FOUR YEAR INTEGRATED PROGRAMME B.Sc.B.Ed.  
MATHEMATICS**

**NON – SEMESTER**

**III - YEAR**

Part	Study Components – SUBJECT Title	Teaching Hours	Exam Hrs	Max. Marks		Total
				Int	Ext	
III	Core Paper: XIII Number theory	120	3	25	75	100
III	Core Paper: XIV Linear Programming	120	3	25	75	100
III	Core Paper: XV Graph Theory	120	3	25	75	100
III	Core Paper: XVI Numerical Methods	120	3	25	75	100
III	Core Paper: XVII Mechanics (Application of Mathematics)	120	3	25	75	100
III	Core Paper: XVIII Complex Analysis	120	3	25	75	100
III	Core Paper: XIX Operations Research	120	3	25	75	100
III	Core Paper: XX Combinatorics	120	3	25	75	100
III	Core Paper: XXI Fuzzy Mathematics	120	3	25	75	100
III	Core Paper: XXII Object Oriented Programming with C++	120	3	25	75	100
IV	Learning and Teaching	60	3	25	75	100
IV	Pedagogy of a school subject Part I (Methodology)	60	1(1/2)	15	35	50
IV	EPC 3 - Critical Understanding of ICT	30	-	50	-	50
	<b>Total</b>	<b>1350</b>				<b>1200</b>

**STRUCTURE OF FOUR YEAR INTEGRATED PROGRAMME B.Sc.B.Ed.  
PHYSICAL SCIENCE - PHYSICS**

**NON – SEMESTER**

**III - YEAR**

Part	Study Components – SUBJECT Title	Teaching Hours	Exam Hrs	Max. Marks		Total
				Int	Ext	
III	Core Paper- V – Optics	120	3	25	75	100
III	Core Paper- VI- Atomic Physics and spectroscopy	120	3	25	75	100
III	Core Paper -VII- Mathematical Physics	120	3	25	75	100
III	Core Paper VIII- Classical Mechanics and Quantum Mechanics	120	3	25	75	100
III	Core Paper -IX – Solid State Physics	120	3	25	75	100
III	Core Paper- X- Nuclear Physics	120	3	25	75	100
III	Core Paper- XI- Relativity and Space physics	120	3	25	75	100
III	Core Paper -XII- Programming in C with Physics applications	120	3	25	75	100
III	Core Practical- III	120	3	25	75	100
III	Core Practical- IV	120	3	25	75	100
IV	Learning and Teaching	60	3	25	75	100
IV	Pedagogy of a school subject Part I (Methodology)	60	1(1/2)	15	35	50
IV	EPC 3 - Critical Understanding of ICT	30	-	50	-	50
	<b>Total</b>	<b>1350</b>				<b>1200</b>

**STRUCTURE OF FOUR YEAR INTEGRATED PROGRAMME B.Sc.B.Ed.  
PHYSICAL SCIENCE - CHEMISTRY**

**NON – SEMESTER**

**III - YEAR**

Part	Study Components – SUBJECT Title	Teaching Hours	Exam Hrs	Max. Marks		Total
				Int	Ext	
III	Core Paper V- Inorganic Chemistry -I	120	3	25	75	100
III	Core Paper VI- Organic Chemistry -I	120	3	25	75	100
III	Core Paper VII- Physical Chemistry -I	120	3	25	75	100
III	Core Paper VIII Inorganic Chemistry - II	120	3	25	75	100
III	Core Paper IX- Organic Chemistry -II	120	3	25	75	100
III	Core Paper X- Physical Chemistry -II	120	3	25	75	100
III	Elective paper-I – Analytical Chemistry	120	3	25	75	100
III	Elective paper-II - Spectroscopy	120	3	25	75	100
III	Core Practical - III	240	6	80	120	200
IV	Learning and Teaching	60	3	25	75	100
IV	Pedagogy of a school subject Part I (Methodology)	60	1(1/2)	15	35	50
IV	EPC 3 - Critical Understanding of ICT	30	-	50	-	50
	<b>Total</b>	<b>1350</b>				<b>1200</b>

**STRUCTURE OF FOUR YEAR INTEGRATED PROGRAMME B.Sc.B.Ed.  
BIOLOGICAL SCIENCE - BOTANY**

**NON – SEMESTER**

**III - YEAR**

Part	Study Components – SUBJECT Title	Teaching Hours	Exam Hrs	Max. Marks		Total
				Int	Ext	
III	Core Paper - VI Cell Biology and Molecular Biology	120	3	25	75	100
III	Core Paper - VII Physiology and Biochemistry	120	3	25	75	100
III	Core Paper - VIII Genetics, Plant Breeding And Evolution	120	3	25	75	100
III	Core Paper - IX Plant Pathology	120	3	25	75	100
III	Core Paper - X Plant Ecology And Environmental Biology	120	3	25	75	100
III	Core Paper - XI Microbiology	120	3	25	75	100
III	Core Paper: XII Bio Technology	120	3	25	75	100
III	Core Paper - XIII Bio Techniques	120	3	25	75	100
III	Core Practical - III	120	3	25	75	100
III	Core Practical - IV	120	3	25	75	100
IV	Learning and Teaching	60	3	25	75	100
IV	Pedagogy of a school subject Part I (Methodology)	60	1(1/2)	15	35	50
IV	EPC 3 - Critical Understanding of ICT	30	-	50	-	50
	<b>Total</b>	<b>1350</b>				<b>1200</b>

**STRUCTURE OF FOUR YEAR INTEGRATED PROGRAMME B.Sc.B.Ed.  
BIOLOGICAL SCIENCE - ZOOLOGY**

**NON – SEMESTER**

**III - YEAR**

Part	Study Components – SUBJECT Title	Teaching Hours	Exam Hrs	Max. Marks		Total
				Int	Ext	
III	Core Paper- V – Developmental biology	120	3	25	75	100
III	Core Paper- VI- Evolution	120	3	25	75	100
III	Core Paper -VII- Animal Physiology	120	3	25	75	100
III	Core Paper VIII- Biochemistry	120	3	25	75	100
III	Core Paper -IX – Environmental Biology	120	3	25	75	100
III	Core Paper- X- Biostatistics	120	3	25	75	100
III	Core Paper- XI- Immunology	120	3	25	75	100
III	Core Paper -XII- Biotechnology	120	3	25	75	100
III	Core Practical - III	120	3	25	75	100
III	Core Practical - IV	120	3	25	75	100
IV	Learning and Teaching	60	3	25	75	100
IV	Pedagogy of a school subject Part I (Methodology)	60	1(1/2)	15	35	50
IV	EPC 3 - Critical Understanding of ICT	30	-	50	-	50
	<b>Total</b>	<b>1350</b>				<b>1200</b>