

Maths



Dr. B. R. AMBEDKAR UNIVERSITY-SRIKAKULAM
III B.Sc. (MATHEMATICS) SYLLABUS
STRUCTURE UNDER CHOICE BASED CREDITS SYSTEM
REVIEWED SYLLUBUS w.e.f. 2016-17)

Year	Seme-ster	Paper	Subject	Hrs.	Credits	IA	EA	Total
1	I	I	Differential Equations & Differential Equations Problem Solving Sessions	6	5	25	75	100
	II	II	Solid Geometry & Solid Geometry Problem Solving Sessions	6	5	25	75	100
2	III	III	Abstract Algebra & Abstract Algebra Problem Solving Sessions	6	5	25	75	100
	IV	IV	Real Analysis & Real Analysis Problem Solving Sessions	6	5	25	75	100
3	V	V	Ring Theory & Vector Calculus & Ring Theory & Vector Calculus Problem Solving Sessions	5	5	25	75	100
		VI	Linear Algebra & Linear Algebra Problem Solving Sessions	5	5	25	75	100
	VI	VII	Electives: (any one) VII-(A) Laplace Transforms VII-(B) Numerical Analysis VII-(C) Number Theory & Elective Problem Solving Sessions	5	5	25	75	100
		VIII	Cluster Electives: VIII-A-1: Integral Transforms VIII-A-2: Advanced Numerical Analysis VIII-A-3: <i>Project work</i> or VIII-B-1: Principles of Mechanics VIII-B-2: Fluid Mechanics VIII-B-3: <i>Project work</i> or VIII-C-1: Graph Theory VIII-C-2: Applied Graph Theory VIII-C-3: <i>Project work</i>	5	5	25	75	100
				5	5	25	75	100
				5	5	25	75	100

B. R. Ambedkar

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A.P. STATE COUNCIL OF HIGHER EDUCATION

B.A./B.Sc. MATHEMATICS

REVISED SYLLABUS FOR CORE COURSES

CBCS/ SEMESTER SYSTEM

(w.e.f. 2020-21 Admitted Batch)

CORE COURSES STRUCTURE

(Sem-I to Sem-IV)

Course	Subject	Hrs.	Credits	IA	ES	Total
Course -I	Differential Equations & Differential Equations Problem Solving Sessions	6	5	25	75	100
Course -II	Three dimensional analytical Solid geometry & Three dimensional analytical Solid Geometry Problem Solving Sessions	6	5	25	75	100
Course -III	Abstract Algebra & Abstract Algebra Problem Solving Sessions	6	5	25	75	100
Course -IV	Real Analysis & Real Analysis Problem Solving Sessions	6	5	25	75	100
Course -V	Linear Algebra & Linear Algebra Problem Solving Sessions	6	5	25	75	100


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electronics

ELECTRONICS SYLLBUS (CBCS) SEMESTER WISE
B.Sc ELECTRONICS COURSE STRUCTURE

2015-16

SEMESTER	SUBJECT	Hrs	Credits	IA	ES	TOTAL
FIRST YEAR						
I	BASIC CIRCUIT THEORY	4	4	25	75	100
	ELECTRONICS LAB – 1	2	2	0	50	50
II	ELECTRONIC DEVICES AND CIRCUITS	4	4	25	75	100
	ELECTRONICS LAB – 2	2	2	0	50	50
SECOND YEAR						
III	DIGITAL ELECTRONICS	4	4	25	75	100
	ELECTRONICS LAB – 3	2	2	0	50	50
IV	ANALOG & DIGITAL IC APPLICATIONS	4	4	25	75	100
	ELECTRONICS LAB – 4	2	2	0	50	50
THIRD YEAR						
V	MICROPROCESSOR (INTEL 8085)	4	4	25	75	100
	ELECTRONICS LAB – 5	2	2	0	50	50
	COMMUNICATION ELECTRONICS- 6A	4	4	25	75	100
	ELECTRONICS LAB – 6A	2	2	0	50	50
	CONSUMER ELECTRONICS- 6B	4	4	25	75	100



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	ELECTRONICS LAB – 6B	2	2	0	50	50
SEMESTER VI	ELECTRONIC INSTRUMENTATION – 7A (ELECTIVE) – 1	4	4	25	75	100
	ELECTRONICS LAB – 7A	2	2	0	50	50
	MICROCONTROLLER AND INTERFACE – 7B (ELECTIVE) – 2	4	4	25	75	100
	ELECTRONICS LAB – 7B	2	2	0	50	50
	MODERN COMMUNICATION SYSTEMS – 7C (ELECTIVE) – 3	4	4	25	75	100
	ELECTRONICS LAB – 7C	2	2	0	50	50

Cluster 1 (For Elective VII A)						
Paper VIII A 1	BASIC VLSI DESIGN	4	4	25	75	100
Practical VIII A 1	BASIC VLSI DESIGN LABORATORY	2	2	0	50	50
Paper VIII A 2	BIO MEDICAL INSTRUMENTATION	4	4	25	75	100
Practical VIII A 2	BIO MEDICAL INSTRUMENTATION LABORATORY	2	2	0	50	50
Paper VIII A 3	POWER ELECTRONICS	4	4	25	75	100
Practical VIII A 3	PROJECT	2	2	0	50	50


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Or Cluster 2 (For Elective VII B)						
Paper VIII B 1	EMBEDDED SYSTEMS & C LANGUAGE	4	4	25	75	100
Practical VIII B 1	EMBEDDED SYSTEMS & C LANGUAGE LABORATORY	2	2	0	50	50
Paper VIII B 2	ELECTRONIC CIRCUITS AND PCB DESIGNING	4	4	25	75	100
Practical VIII B 2	ELECTRONIC CIRCUITS AND PCB DESIGNING LABORATORY	2	2	0	50	50
Paper VIII B 3	COMPUTER NETWORKS	4	4	25	75	100
Practical VIII B 3	PROJECT	2	2	0	50	50

Or Cluster 3 (For Elective VII C)						
Paper VIII C 1	DIGITAL SIGNAL PROCESSING	4	4	25	75	100
Practical VIII C 1	DIGITAL SIGNAL PROCESSING LABORATORY	2	2	0	50	50
Paper VIII C 2	TRANSMISSION LINES, ANTENNA AND WAVE PROPAGATION	4	4	25	75	100
Practical VIII C 2	TRANSMISSION LINES, ANTENNA AND WAVE PROPAGATION LABORATORY	2	2	0	50	50
Paper VIII C 3	MOBILE APPLICATION PROGRAMMING	4	4	25	75	100
Practical VIII C 3	PROJECT	2	2	0	50	50

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2020-21
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4. DETAILS OF PAPER TITLES & CREDITS

Sem	Course no	COURSE NAME	Course type (T/L/P)	Hrs./ week	Credits	IA	ES	TOTAL
I	I	BASIC CIRCUIT THEORY & ELECTRONIC DEVICES & CIRCUITS	T	4	3	25	75	100
		ELECTRONICS LAB - 1	L	2	2	50	0	50
II	II	DIGITAL ELECTRONICS	T	4	3	25	75	100
		ELECTRONICS LAB - 2	L	2	2	50	0	50
III	III	ANALOG CIRCUITS & COMMUNICATION	T	4	3	25	75	100
		ELECTRONICS LAB - 3	L	2	2	50	0	50
IV	IV	MICROPROCESSOR & INTERFACING	T	4	3	25	75	100
		ELECTRONICS LAB - 4	L	2	2	0	50	50
	V	MICRO CONTROLLER & INTERFACING	T	3	3	25	75	100
		ELECTRONICS LAB - 5	L	2	2	50	0	50

Note: *Course type code: T: Theory, L: Lab, P: Problem solving


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Computer Science

R-18 - 2021-2022
Btu
SM
UPMR-18
Ft - R-18

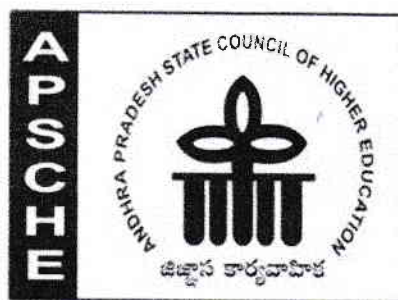
Dr. B. R. AMBEDKAR UNIVERSITY-SRIKAKULAM
III B.Sc. (Computer Science/Information Technology) SYLLABUS
STRUCTURE UNDER CHOICE BASED CREDITS SYSTEM
REVIEWED SYLLABUS w.e.f. 2016-17

Structure of Computer Science/Information Technology (IT) Syllabus

Semester	Paper	Subject	Hrs.	Credits	IA	ES	Total
FIRST YEAR							
SEMESTER I	I	Computer Fundamentals and Photoshop	4	3	25	75	100
		Photo Shop Lab	2	2	0	50	50
SEMESTER II	II	Programming in C	4	3	25	75	100
		Programming in C Lab	2	2	0	50	50
SECOND YEAR							
SEMESTER III	III	Object Oriented Programming Using Java	4	3	25	75	100
		Object Oriented Programming Using Java Lab	2	2	0	50	50
SEMESTER IV	IV	Data Structures	4	3	25	75	100
		Data Structures using Java Lab	2	2	0	50	50
THIRD YEAR							
SEMESTER V	V	DBMS	3	3	25	75	100
		DBMS Lab	2	2	0	50	50
	VI	Software Engineering	3	3	25	75	100
		Project- I	2	2	0	50	50
SEMESTER VI	VII (A/B/ C)	Elective-I					
		A. Operating Systems	3	3	25	75	100
		Operating Systems Lab	3	2	0	50	50
		B. Computer Networks	3	3	25	75	100
		Computer Networks Lab	3	2	0	50	50
		C. Web Technologies	3	3	25	75	100
		Web Technologies Lab	3	2	0	50	50
		Elective-II(Cluster A)					
	VIII Clust er - A- A1,A2 or Clust er-B- B1,B2 Or Clust er -C- C1,C2	A1. Foundations of Data Science	3	3	25	75	100
		Foundations of Data Science Lab (through R)	3	2	0	50	50
		A2. Big Data Technology	3	3	25	75	100
		Big Data Technology Lab (Hadoop)	3	2	0	50	50
		Elective-II(Cluster B)					
		B1. Distributed Systems	3	3	25	75	100
		Distributed Systems Lab	3	2	0	50	50
		B2. Cloud Computing	3	3	25	75	100
		Cloud Computing Lab	3	2	0	50	50
		Elective-II(Cluster C)					
		C1. PHP – MySQL & WordPress	3	3	25	75	100
		PHP-MySQL & Wordpress Lab	3	2	0	50	50
		C2. Advanced JavaScript : JQuery, Ajax, Angular JS & JSON	3	3	25	75	100
		Advanced JavaScript Lab	3	2	0	50	50
		Project – 2	5	5	25	75	100

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(A Statutory body of the Government of Andhra Pradesh)

3rd, 4th and 5th floors, Neeladri Towers, Sri Ram Nagar, 6th Battalion Road,
Atmakur(V), Mangalagiri(M), Guntur-522 503, Andhra Pradesh

Web: www.apsche.org **Email:** acapsche@gmail.com

REVISED SYLLABUS OF B.Sc. (COMPUTER SCIENCE/ INFORMATION TECHNOLOGY) UNDER CBCS FRAMEWORK WITH EFFECT FROM 2020-2021

PROGRAMME: THREE-YEAR B.Sc.

(B.Sc. Computer Science/ Information Technology (IT))

(With Learning Outcomes, Unit-wise Syllabus, References, Co-curricular Activities & Model Q.P.)

For Fifteen Courses of 1, 2, 3 & 4 Semesters)

(To be Implemented from 2020-21 Academic Year)

Structure of Computer Science /Information Technology (IT)

Programme: B.Sc. with Computer Science as one of the Core Subjects.

Discipline: Computer Science

Year	Semester	Paper Code	Subject	Hrs. per Week	Credits	IA	ES	Total
First Year	I	C1	Problem Solving in C	4	3	25	75	100
	I	C1-P	Problem Solving in C Lab	2	2		50	50
	II	C2	Data Structures using C	4	3	25	75	100
	II	C2-P	Data Structures using C Lab	2	2		50	50
Second Year	III	C3	Database Management System	4	3	25	75	100
	III	C3-P	Database Management System Lab	2	2		50	50
	IV	C4	Object Oriented Programming using Java	4	3	25	75	100
	IV	C4-P	Object Oriented Programming using Java Lab	2	2		50	50
	IV	C5	Operating Systems	4	3	25	75	100
	IV	C5-P	Operating Systems Lab using C/Java	2	2		50	50


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Munasaupeta-Srikakulam-532 401**

B.Sc. (Physics) (Maths Combinations)

Scheme of instruction and examination to be followed w.e.f. 2015-2016

S. No	Semester	Title of the paper	Instruction hrs/week	Duration of exam(hrs)	Max Marks (external)
Theory					
1	First	Paper I: Mechanics & Properties of Matter	4	3	75
2	Second	Paper II: Waves & Oscillations	4	3	75
3	Third	Paper III: Wave Optics	4	3	75
4	Fourth	Paper IV: Thermodynamics & Radiation Physics	4	3	75
5	Fifth	Paper V: Electricity, Magnetism & Electronics	4	3	75
		Paper VI: Modern Physics	4	3	75
6	Sixth	Paper VII: Elective (One)	4	3	75
		Paper VIII: Cluster Electives (Three)	4	3	75
Practicals					
1	First	Practical I	2	3	50
2	Second	Practical II	2	3	50
3	Third	Practical III	2	3	50
4	Fourth	Practical IV	2	3	50
5	Fifth	Practical V	2	3	50
6		Practical VI	2	3	50
7	Sixth	Practical VII	2	3	50
8		Practical VIII	2	3	50


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AP STATE COUNCIL OF HIGHER EDUCATION
B.Sc. PHYSICS SYLLABUS UNDER CBCS
[For Mathematics combinations]
w.e.f. 2020-21 (Revised in May 2020)

First Semester

Course I: Mechanics, Waves and Oscillations
Practical Course I (Lab-1)

Second Semester

Course II: Wave Optics
Practical Course II (Lab-2)

Third Semester

Course III: Heat and Thermodynamics
Practical Course III (Lab-3)

Fourth Semester

Course IV: Electricity, Magnetism and Electronics
Practical Course IV (Lab-4)

Course V: Modern Physics
Practical Course V (Lab-V)

B.Sc. PHYSICS COURSE STRUCTURE UNDER CBCS

<i>Year</i>	<i>Semester</i>	<i>Course</i>	<i>Title of the Course</i>	<i>Marks</i>	<i>No.ofHrs /Week</i>	<i>No.of Credits</i>
I	I	I	Mechanics, Waves and Oscillations	100	4	03
			Practical Course- I	50	2	02
	II	II	Wave Optics	100	4	03
			Practical Course – II	50	2	02
II	III	III	Heat and Thermodynamics	100	4	03
			Practical Course – III	50	2	02
	IV	IV	Electricity, Magnetism and Electronics	100	4	03
			Practical Course – IV	50	2	02
		V	Modern Physics	100	4	03
			Practical Course –V	50	2	02
Total No. of Courses : 05 (Five)						



Dr. B. R. AMBEDKAR UNIVERSITY-SRIKAKULAM
III B.Sc. (ZOOLOGY) SYLLABUS
STRUCTURE UNDER CHOICE BASED CREDITS SYSTEM
REVIEWED SYLLUBUS w.e.f. 2016-17

YEAR	SEMESTER	PAPER	TITLE	MARKS	CREDITS
I	I	I	Biology of Non-chordates	100	03
			Practical - I	50	02
	II	II	Biology of Chordates	100	03
			Practical - II	50	02
II	III	III	Cell biology, Genetics and Evolution	100	03
			Practical - III	50	02
	IV	IV	Embryology, Physiology and Ecology	100	03
			Practical - IV	50	02
III	V	V	Animal Biotechnology	100	03
			Practical - V	50	02
		VI	Animal Husbandry	100	03
			Practical - VI	50	02
	*Any one Paper from A, B and C ** Any one cluster from I, II and III	VII (A)*	Immunology	100	03
			Practical - VII (A)	50	02
		VII (B)*	Cellular Metabolism and Molecular Biology	100	03
			Practical - VII (B)	50	02
		VII (C)*	Bioinformatics	100	03
			Practical - VII (C)	50	02
		Cluster VIII-A**	Cluster Electives –VIII-A : Medical Diagnostics		
			1. Clinical Biochemistry	100	03
			2. Haematology	100	03
			3. Clinical Microbiology	100	03
			Practical – VIII: 1	50	02
			Practical – VIII: 2	50	02
		Cluster VIII-B**	Cluster Electives –VIII-B : Aquaculture		
			1. Principles of Aquaculture	100	03
			2. Aquaculture Management	100	03
			3. Postharvest Technology	100	03
			Practical – VIII: 1	50	02
			Practical – VIII: 2	50	02
		Cluster VIII-C**	Cluster Electives – VIII-C : Sericulture		
			1. Gen. Sericulture, Mulberry cultivation and Management	100	03
			2. Biology of Mulberry Silkworm and Silkworm rearing Technology	100	03
			3. Silk Technology, Silk	100	03

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			Marketing and Extension		
			Practical – VIII: 1	50	02
			Practical – VIII: 2	50	02
			Project Work	50	02

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Structure of ZOOLOGY Syllabus

(Under CBCS for 3-year B.Sc. Programme)

(With domain subject covered during the first 4 Semesters with 5 Courses)

YEAR	SEM	PAPER	TITLE	MARKS (100)		CREDITS
				MID SEMESTER	END SEMESTER	
I	I	I	Animal Diversity – I	25	75	04
			Biology of Non-Chordates			
			Practical - I	25	75	01
	II	II	Animal Diversity – II	25	75	04
			Biology of Chordates			
			Practical - II	25	75	01
II	III	III	Cell biology, Genetics, Molecular Biology & Evolution	25	75	04
			Practical - III	25	75	01
	IV	IV	Physiology, Cellular Metabolism & Embryology	25	75	04
			Practical - IV	25	75	01
		V	Immunology & Animal Biotechnology	25	75	04
			Practical - V	25	75	01


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Botany

Dr. B. R. AMBEDKAR UNIVERSITY-SRIKAKULAM
B.Sc. BOTANY SYLLABUS
STRUCTURE UNDER CHOICE BASED CREDITS SYSTEM
REVIEWED SYLLABUS w.e.f. 2016-17

Structure of Syllabus

<i>Year</i>	<i>Semester</i>	<i>Paper</i>	<i>Title</i>	<i>Hours</i>	<i>Marks</i>	<i>Credits</i>
I	I	I	Microbial Diversity , Algae and Fungi	4	100	03
			Practical –I	2	50	02
	II	II	Diversity Of Archaeogoniates & Anatomy	4	100	03
			Practical –II	2	50	02

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B.Sc. BOTANY SYLLABUS
STRUCTURE UNDER CHOICE BASED CREDITS SYSTEM
REVIEWED SYLLABUS w.e.f. 2016-17

Structure of Syllabus

<i>Year</i>	<i>Semester</i>	<i>Paper</i>	<i>Title</i>	<i>Hours</i>	<i>Marks</i>	<i>Credits</i>
II	III	III	Plant taxonomy & Embryology	4	100	03
			Practical –III	2	50	02
	IV	IV	Plant physiology & Metabolism	4	100	03
			Practical –IV	2	50	02


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APSCHE/ REVISION OF C.B.C.S – BOTANY COURSE W.E.F.2020-21

S. No.	Semester	Title of the Course (Paper)	Hours /week	Max. Marks (SEE)	Marks in CIA	Credits
1.	Sem.-I/ Course-1	Fundamentals of Microbes and Non-vascular Plants	04	75	25	03
	Course-1 Practical	Fundamentals of Microbes and Non-vascular Plants	03	Max. Marks-50 Internal assessment at Semester end		02
2.	Sem.-II/ Course-2	Basics of Vascular plants and Phytogeography	04	75	25	03
	Course-2 Practical	Basics of Vascular plants and Phytogeography	03	Max. Marks-50 External assessment at Semester end		02
3.	Sem.-III/ Course-3	Anatomy and Embryology of Angiosperms, Plant Ecology and Biodiversity	04	75	25	03
	Course-3 Practical	Anatomy and Embryology of Angiosperms, Plant Ecology and Biodiversity	03	Max. Marks-50 Internal assessment at Semester end		02
4.	Sem.-IV Course-4	Plant Physiology and Metabolism	03	75	25	03
	Course-4 Practical	Plant Physiology and Metabolism	03	Max. Marks-50 External assessment at Semester end		02
5.	Sem.- IV Course- 5	Cell Biology, Genetics and Plant Breeding	04	75	25	03
	Course-5 Practical	Cell Biology, Genetics and Plant Breeding	03	Max. Marks-50 External assessment at Semester end		02
6.	Sem.- V Course – 6 & 7	Domain related Skill Enhancement Courses (02)	03	75	25	03
		- Three (3) pairs of courses (each pair has 2 related courses) will be offered, student has to choose a pair of courses.	03	Max. Marks-50 Internal assessment at Semester end		02
			03	75	25	03
			03	Max. Marks-50 Internal assessment at Semester end		02


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APSCHE/ REVISION OF C.B.C.S – BOTANY COURSE W.E.F.2020-21

S. No.	Semester	Title of the Course (Paper)	Hours /week	Max. Marks (SEE)	Marks in CIA	Credits
1.	Sem.-I/ Course-1	Fundamentals of Microbes and Non-vascular Plants	04	75	25	03
	Course-1 Practical	Fundamentals of Microbes and Non-vascular Plants	03	Max. Marks-50 Internal assessment at Semester end		02
2.	Sem.-II/ Course-2	Basics of Vascular plants and Phytogeography	04	75	25	03
	Course-2 Practical	Basics of Vascular plants and Phytogeography	03	Max. Marks-50 External assessment at Semester end		02
3.	Sem.-III/ Course-3	Anatomy and Embryology of Angiosperms, Plant Ecology and Biodiversity	04	75	25	03
	Course-3 Practical	Anatomy and Embryology of Angiosperms, Plant Ecology and Biodiversity	03	Max. Marks-50 Internal assessment at Semester end		02
4.	Sem.-IV Course-4	Plant Physiology and Metabolism	03	75	25	03
	Course-4 Practical	Plant Physiology and Metabolism	03	Max. Marks-50 External assessment at Semester end		02
5.	Sem.- IV Course- 5	Cell Biology, Genetics and Plant Breeding	04	75	25	03
	Course-5 Practical	Cell Biology, Genetics and Plant Breeding	03	Max. Marks-50 External assessment at Semester end		02
6.	Sem.- V Course – 6 & 7	Domain related Skill Enhancement Courses (02)	03	75	25	03
		Three (3) pairs of courses (each pair has 2 related courses) will be offered, student has to choose a pair of courses.	03	Max. Marks-50 Internal assessment at Semester end		02
			03	75	25	03
			03	Max. Marks-50 Internal assessment at Semester end		

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AP STATE COUNCIL OF HIGHER EDUCATION

CBCS PATTERN FOR MICROBIOLOGY

B.Sc BIOTECHNOLOGY (CBCS) SYLLABUS

2020-21

Semester	Course Code	Title of course	Number of Credits	Number of teaching hrs	Marks		
					Internal	SEE	Total
I	BTT- 101	Microbiology and cell biology	3	5	25	75	100
I	BTP- 102	Microbiology and cell Biology lab	2	2	0	50	50
II	BTT- 201	Macromolecules and metabolism	3	5	25	75	100
II	BTP- 202	Macromolecules and enzymology lab	2	2	0	50	50
III	BTT-301	Biophysical Techniques	3	5	25	75	100
III	BTP-302	Metabolism and Biophysical Techniques lab	2	2	50	75	50
IV	BTT- 401	Immunology	3	5	25	75	100
IV	BTP- 402	Immunology lab	2	2	0	50	50
V	BTT- 501	Molecular Biology	4	5	25	75	100
V	BTP-502	Molecular Biology lab	2	2	0	50	50
V	BTT- 601	rDNA Technology (Elective theory)	3	5	25	75	100
V	BTP- 602	rDNA Technology (Elective Lab)	2	2	0	50	50
VI	*BTT-701	Plant and Animal Biotechnology	4	5	25	75	100
VI	*BTP-702	Plant and Animal Biotechnology Lab	2	2	0	50	50
VI	*BTT -703	Environmental Biotechnology (Elective Theory)	4	5	25	75	100
VI	*BTP- 704	Environmental Biotechnology (Elective Lab)	2	2	0	50	50
VI	*BTT-705	Industrial Biotechnology (Elective Theory)	4	5	25	75	100
VI	*BTP- 706	Industrial Biotechnology (Elective Lab)	2	2	0	50	50

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** Any one cluster from 801, 802 & 803	**BTT 801	1.Nutritional Biotechnology	100				
		2. Food Biotechnology	100				
		3. Metabolisms	100				
	**BTP 801	Food Biotechnology Practical 1	50				
		Environmental Biotechnology :Practical 2	50				
		Metabolisms :Practical 3	50				
	**BTT 802	1. Tissue Culture	100				
		2. Industrial Biotechnology	100				
		3. Environmental Biotechnology	100				
	**BTP 802	Tissue Culture Practical 1	50				
		Industrial Biotechnology Practical 2	50				
		Environmental Biotechnology Practical 3	50				
	**BTT 803	1. Cell Biology	100				
		2. Gene Biotechnology	100				
		3. Biostatistics	100				


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	**MBP 803	& Bioinformatics					
		1.Cell Biology Practical 1	50				
		2. Gene Biotechnology Practical 2	50				
		3 Biostatistics & Bioinformatics Practical 3	50				

*Any one elective paper from 701, 703 and 704.

** Cluster for 701 should be selected from 801, 802, 803.

Cluster for 703 should be selected from 802 (or) 803

Cluster for 705 should be selected from 801 (or) 803


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ALLOCATION OF CREDITS AT SUBJECT LEVEL

I B.Sc Bio-Technology Syllabus & Credits

Semester	Course Code	Title of course	Number of Credits	Number of teaching hrs	Marks		
					Internal	SEE	Total
I	BT 101	Microbiology and cell biology	4	4	25	75	100
I	BT 102	Microbiology and cell Biology Lab	2	3	25	75	100



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BIO-TECHNOLOGY (VOCATIONAL & REGULAR) SYLLABUS
STRUCTURE UNDER CHOICE BASED CREDITS SYSTEM
REVIEWED SYLLABUS w.e.f. 2016-17

Semester-III, Title of the Paper: Analytical techniques and Immunology

Semester	Course Code	Title of the course	Credits	Teaching Hrs./week	Marks		
					I	SEE	Total
III	BT 301	Theory: Analytical techniques & Immunology	4	4	25	75	100
III	BT 302	Practical: Analytical techniques & Immunology	3	3	25	75	100

Note: I = Internal; SEE = Semester End Exams



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Choice Based Credit System (CBCS) W.E.F 2015-16 Admitted Batch

B. Sc II year Bio-Technology (Vocational & Regular) Semester-IV Syllabus

Title of the Paper: Genetics, Molecular Biology & Recombinant DNA technology

Semester	Course Code	Title of the course	Credits	Teaching Hrs./week	Marks		
					I	SEE	Total
IV	BT 401	Theory: Genetics, Mol. Bio & rDNA technology	4	4	25	75	100
IV	BT 402	Practical: Genetics, Mol. Bio & rDNA technology	3	3	25	75	100

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Choice Based Credit System (CBCS)

B. Sc III year Bio-Technology Semester-V Syllabus

W.E.F 2015-16 Admitted Batch

Title of the Paper: Animal Biotechnology

Semester	Course Code	Title of the Course	Credits	Teaching Hours/ Week	Marks		
					Internal	*SEE	Total
V	BT601	Animal Biotechnology (Theory)	4	4	25	75	100
V	BT602	Animal Biotechnology (Practical)	3	3	25	75	100

***Semester End Exams**

ANDHRA PRADESH STATE COUNCIL OF HIGHER EDUCATION
(A Statutory body of the Government of Andhra Pradesh)

CBCS – UG SYLLABUS SUBJECT REVIEW COMMITTEE

(To be implemented from the Academic Year 2020-21)

PROGRAMME: Three-Year BCom (General and Computer Applications)

Domain Subject: Commerce

(Syllabus with Outcomes, Co-curricular Activities, References for Fifteen Courses of 1, 2, 3 & 4 Semesters)

Structure of COMMERCE Syllabus under CBCS for 3-year B Com Programme (with domain subject covered during the first 4 Semesters with 15 Courses)

Sl. No	Code	Sem	Courses	Name of Course (Each Course consists 5 Units with each Unit having 12 hours of class-work)	Hours/Week	Credits	Marks	
							Mid Sem	Sem End
1		I	1A	Fundamentals of Accounting (Gen & CA)	5	4	25	75
2		I	1B	Business Organization and Management (Gen & CA)	5	4	25	75
3		I	1C	Business Environment (Gen)/ Information Technology (CA)	5	4	25	75
4		II	2A	Financial Accounting (Gen & CA)	5	4	25	75
5		II	2B	Business Economics (Gen & CA)	5	4	25	75
6		II	2C	Banking Theory & Practice (Gen) / E-commerce and Web Designing (CA)	5	4	25	75
7		III	3A	Advanced Accounting (Gen & CA)	5	4	25	75
8		III	3B	Business Statistics (Gen & CA)	5	4	25	75
9		III	3C	Marketing (Gen)/ Programming with C & C++ (CA)	5	4	25	75
10		IV	4A	Corporate Accounting (Gen & CA)	5	4	25	75
11		IV	4B	Cost and Management Accounting (Gen & CA)	5	4	25	75
12		IV	4C	Income Tax (Gen & CA)	5	4	25	75
13		IV	4D	Business Laws (Gen & CA)	5	4	25	75
14		IV	4E	Auditing (Gen & CA)	5	4	25	75
15		IV	4F	Goods and Service Tax (Gen)/ Data Base Management System (CA)	5	4	25	75
Total					75	60	375	1125

(Gen & CA) B Com (General) and B Com (Computer Applications)


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**Revised Common Framework of CBCS for Colleges in Andhra Pradesh
(A.P. State Council of Higher Education)**

B.B.A - Semester – I

Sl. No.	Course	Name of the subject	Total Marks	Mid. Sem. Exam*	Sem. End Exam	Teaching Hours	Credits
1.	First Language	General English	100	25	75	4	3
2.	Second Language	(Tel/Hindi/Urdu/Sans/French/Arabic)	100	25	75	4	3
3.	Life skills	1. Human Values and Professional Ethics 2. Computer Applications 3. Statistics	50		50	2	2
4.	Skill Development Courses	1. Secretary ship 2. Insurance Promotion	50		50	2	2
5.	1A	Principal of management	100	25	75	5	4
6.	2A	Managerial Economics	100	25	75	5	4
7.	3A	Quantitative Methods for Managers	100	25	75	5	4
8.		Total	600	125	475	27	18

B.B.A -Semester – II

Sl. No.	Course	Name of the subject	Total Marks	Mid. Sem. Exam	Sem. End Exam	Teaching Hours	Credits
1.	First Language	General English	100	25	75	4	3
2.	Second Language	(Tel/Hindi/Urdu/Sans/French)	100	25	75	4	3
3.	Life skills	1. Indian Culture and Science 2. Information and Communication Technology (ICT) 3. Entrepreneurship Development (Any 1 of the 3)	50	—	50	2	2
4.	*Skill Development Courses	1. Agricultural Marketing 2. Business Communication (English) 3. Advertising 4. Logistics & Supply Chain	50 50		50 50	2 2	2 2
5.	1	Accounting for Managers	100	25	75	5	4
6.	2	Fundamentals of Marketing	100	25	75	5	4
7.	3	E- Commerce	100	25	75	5	4
8.		Two Months Social Immersion Internship	100	-	-	-	4
		Total	750	125	525	34 14	28 28
		Total	750	125	525		

B.B.A Semester – III

Sl No.	Course	Name of the subject	Total Marks	Mid. Sem. Exam	Sem. End Exam	Teaching Hours	Credits
1.	First Language	General English	100	25	75	4	3
2.	Second Language	(Tel/Hindi/Urdu/Sans/French)/Arabic)	100	25	75	4	3
3.	Life skills	1. Analytical Skills 2. Personality Enhancement 3. Health& Hygiene	50 50	— —	50 50	2 2	2 2
4.	Skill Development courses	Online Business Retailing	50	—	50	2	2
5.	1C	Organization Behavior	100	25	75	5	4
6.	2C	Human Resource Management	100	25	75	5	4
7.	3C	Financial management	100	25	75	5	4
		Total	650	125	525	29	24

B.B.A -Semester – IV

SL No.	Course	Name of the subject	Total Marks	Mid. Sem. Exam	Sem. End Exam	Teaching Hours	Credits
1.	1C	Training and Development	100	25	75	5	4
2.	2C	Business law	100	25	75	5	4
3.	3C	Micro, Small & Medium Enterprises Management	100	25	75	5	4
4.	4C	International Business	100	25	75	5	4
5.	5C	Cost&Management Accounting	100	25	75	5	4
6.	6C	Financial Services	100	25	75	5	4
7.		Corporate internship	100	-	-	-	4
		Total	700	125	375	25	24



Dr. B. R. AMBEDKAR UNIVERSITY-SRIKAKULAM
B.Com SYLLABUS
STRUCTURE UNDER CHOICE BASED CREDITS SYSTEM
REVIEWED SYLLABUS w.e.f. 2016-17

B.Com - Semester - I

Sl. No.	Course	Name of the subject	Total Marks	Mid. Sem. Exam*	Sem. End Exam	Teaching Hours**	Credits
1.	First Language	English	100	25	75	4	3
2.	Second Language	(Tel/Hindi/Urdu/Sans)	100	25	75	4	3
3.	Foundation Course -1	HVPE (Human Values & Professional Ethics)*	50	---	50	2	2
4.	Foundation Course- 2	Environmental Studies	50	---	50	2	2
5.	DSC 1 A	Fundamentals of Accounting-I	100	25	75	5	4
6.	DSC 2 A	Business Organization	100	25	75	5	4
7.	DSC 3 A	Business Economics-I	100	25	75	5	4
Total			600	125	475	27	22

#The marks split between formal test and co-curricular activities may be decided by the University concerned

@ Syllabus size shall be in accordance with the No. of teaching hours.

*HVPE may be taught by Telugu teachers.

B.Com - Semester - II

Sl. No.	Course	Name of the subject	Total Marks	Mid. Sem. Exam	Sem. End Exam	Teaching Hours**	Credits
1.	First Language	English	100	25	75	4	3
2.	Second Language	(Tel/Hindi/Urdu/Sans)	100	25	75	4	3
3.	Foundation Course -3	ICT-I (Information & communication Technology)	50	---	50	2	2
4.	Foundation Course-4	Communication & Soft Skills-I	50	---	50	2	2
5.	DSC 1 B	Fundamentals of Accounting-II	100	25	75	5	4
6.	DSC 2 B	Business Environment	100	25	75	5	4
7.	DSC 3-B	Business Economics-II	100	25	75	5	4
Total			600	125	475	27	22

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Dr. B. R. AMBEDKAR UNIVERSITY-SRIKAKULAM
B.Com. SYLLABUS
STRUCTURE UNDER CHOICE BASED CREDITS SYSTEM
REVIEWED SYLLABUS w.e.f. 2016-17

B.Com- Semester – III

Sl. No.	Course	Name of the subject	Total Marks	Mid. Sem. Exam	Sem. End Exam	Teaching Hours**	Credits
1.	First Language	English	100	25	75	4	3
2.	Second Language	(Tel/Hindi/Urdu/Sans)	100	25	75	4	3
3.	Foundation Course- 5	ICT-I (Information & communication Technology)	50	---	50	2	2
4.	Foundation Course- 6	Communication & Soft Skills-III	50	---	50	2	2
5.	DSC 1 C	Corporate Accounting	100	25	75	5	4
6.	DSC 2 C	Business Statistics	100	25	75	5	4
7.	DSC 3 C	Banking Theory & Practice	100	25	75	5	4
Total			600	125	475	27	22

B.Com -Semester – IV

Sl. No.	Course	Name of the subject	Total Marks	Mid. Sem. Exam	Sem. End Exam	Teaching Hours**	Credits
1.	Foundation Course	ICT-2 (Information & Communication Technology)	50	---	50	2	2
2.	Foundation Course	Analytical Skills	50	---	50	2	2
3.	Foundation Course	Entrepreneurship	50	---	50	2	2
4.	Foundation Course	Leadership Education	50	---	50	2	2
5.	DSC 1 D	Accounting for Service organizations	100	25	75	5	4
6.	DSC 2 D	Business Laws	100	25	75	5	4
7.	DSC 3 D	Income Tax	100	25	75	5	4
Total			500	75	425	23	20

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Table-5: B.Com -Semester – V

Sl. No.	Course	Name of the subject	Total Marks	Mid. Sem. Exam	Sem. End Exam	Teaching Hours**	Credits
1	Skill Based Course SBCE	University Choice : Bussiness Leadership	50	---	50	2	2
2.	DSC 1 E	5.2 Cost Accounting	100	25	75	5	4
3.	DSC 2 E	5.3 Indirect Taxes	100	25	75	5	4
4.	DSC 3 E	5.4 Commercial Geography	100	25	75	5	4
5.	Elective-DSC 1F/Inter-disp.	Cluster Electives -I 1. Corporate Accounting 5.5 Accounting & Auditing Standards 5.6 Accounting for Government Entities 5.7 Project Work: Application of Accounting & Auditing Standards in Companies /Internship in Govt. Depts. (Treasury, Local Bodies, Public Utilities, Govt. Corporations, etc.) (Or) 2. Banking & Financial Services 5.5 Central Banking 5.6 Rural and Farm Credit 5.7 Project Work: Rural Credit survey/Banking operations/Credit Appraisal	100	25	75	5	4
6.	Elective-DSC 2F /Inter-disp.	5.7 Project Work: Rural Credit survey/Banking operations/Credit Appraisal	100	25	75	5	4
7.	Elective-DSC 3F/Inter-disp.		100	25	75	5	4
Total			650	125	525		


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III B.Com. (GENERAL) SYLLABUS STRUCTURE UNDER CHOICE BASED CREDITS SYSTEM REVIEWED SYLLABUS w.e.f. 2016-17

Table-6: B.Com- Semester – VI

Sl. No.	Course	Name of the subject	Total Marks	Mid. Sem. Exam	Sem. End Exam	Teaching Hours**	Credits
1.	SBC G	6.1 Event Management	50	--	50	2	2
2.	DSC 1 G	6.2 Marketing	100	25	75	5	4
3.	DSC 2 G	6.3 Auditing	100	25	75	5	4
4.	DSC 3 G	6.4 Management Accounting	100	25	75	5	4
5.	Elective-DSC 1H/Inter-disp./Gen. Elec.	Cluster Electives -2 3A. Corporate Accounting 6.5 Financial Reporting 6.6 Emerging Areas in Accounting	100	25	75	5	4
6.	Elective-DSC 2H/Inter-disp./Gen. Elec.	6.7 Project Work: Financial Reporting practices in Companies/ Survey on Human Resource/ Environmental Accounting.	100	25	75	5	4
7.	Elective-DSC 3H/Inter-disp./Gen. Elec.	5A. Banking & Financial Services 6.5 Financial Services 6.6 Marketing of Financial Services 6.7 Project Work: Working with Financial Services Firms on Documentation for Sanction of Loans and financial Services	100	25	75	5	4
Total			600			30	24
Grand Total						164	134

Note:

1. Titles of a few Electives Streams are given for DSC- F (1F, 2F & 3F combined) at V Semester and the same titles are repeated for DSC – H (1H, 2H & 3H combined). Each Elective Stream consists of two theory papers and one project work for each semester. The total for V & VI semesters will be four theory papers and two project works under each stream. A student has to select **One Stream of Elective consisting of four theory papers and two projects** (together for V & VI semesters). That means, the student will continue the same elective in the VI semester also.

2. The colleges have to **implement original project work** which may consist of field survey/internship/case study/practical training also for the third respective elective papers in V & VI semester.

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B.Sc. Chemistry Revised Syllabus under CBCS

w.e.f. 2020-21

Structure of Chemistry Core Syllabus under CBCS

YEAR	SEMESTER	COURSE	TITLE	MARKS	CREDITS
I	I	I	Inorganic and Physical Chemistry	100	03
			Practical – I Analysis of SALT MIXTURE	50	02
	II	II	Organic and General Chemistry	100	03
			Practical – II Volumetric Analysis	50	02
II	III	III	Organic Chemistry and Spectroscopy	100	03
			Practical – III Organic preparations and IR Spectral Analysis	50	02
	IV	IV	Inorganic, Organic and Physical Chemistry	100	03
			Practical – IV Organic Qualitative analysis	50	02
		V	Inorganic and Physical Chemistry	100	02
			Practical-V Course Conductometric and Potentiometric Titrimetry	50	02



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III B.Sc. (CHEMISTRY) SYLLABUS
STRUCTURE UNDER CHOICE BASED CREDITS SYSTEM
REVIEWED SYLLABUS w.e.f. 2016-17

YEAR	SEMESTER	PAPER	TITLE	MARKS	CREDITS
I	I	I	Inorganic and Organic Chemistry	100	03
			Practical – I	50	02
	II	II	Physical and General Chemistry	100	03
			Practical – II	50	02
II	III	III	Inorganic and organic Chemistry	100	03
			Practical – III	50	02
	IV	IV	Spectroscopy and Physical Chemistry	100	03
			Practical – IV	50	02
III	V	V	Inorganic ,Organic and Physical Chemistry	100	03
			Practical – V	50	02
		VI	Inorganic ,Organic and Physical Chemistry	100	03
			Practical – VI	50	02
		VII (A)*	Elective	100	03
			Practical - VII A	50	02
		VII (B)*	Elective	100	03
			Practical - VII B	50	02
		VII (C)*	Elective	100	03
			Practical - VII C	50	02
	VI	VIII (A)**	Cluster Electives - I :	100	03
			VIII-A-1	100	03
			VIII-A-2	100	03
			VIII-A-3	50	02
				50	02
				50	02
				50	02
		VIII (B)**	Cluster Electives - II ::	100	03
			VIII-B-1	100	03
			VIII- B-2	100	03
			VIII-B-3	50	02
				50	02
				50	02
		VIII (C)**	Cluster Electives - III ::	100	03
			VIII-C-1	100	03
			VIII-C-2	100	03
			VIII-C-3	50	02
				50	02
				50	02



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III B.Sc. (CHEMISTRY) SYLLABUS

STRUCTURE UNDER CHOICE BASED CREDITS SYSTEM

REVIEWED SYLLABUS w.e.f. 2016-17

SEMESTER V

YEAR	SEMESTER	PAPER	TITLE	MARKS	CREDITS
III	V	V	Inorganic ,Organic and Physical Chemistry	100	03
			Practical – V	50	02
		VI	Inorganic ,Organic and Physical Chemistry	100	03
			Practical – VI	50	02



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B.B.A SYLLABUS
STRUCTURE UNDER CHOICE BASED CREDITS SYSTEM
REVIEWED SYLLABUS w.e.f. 2016-17

SEMESTER - I

Part	Subject	Hours	Credits	Internal Assessment	External Examination	Total
Part - I	English I	4	4	25	75	100
	Second Language I	4	4	25	75	100
Part - II	Management Process	6	6	25	75	100
	Managerial Economics	6	6	25	75	100
	Information Technology for Managers	6	6	25	75	100
Part - III	Foundation Course - I (Human Values & Professional Ethics)	3	2	25	75	100
	Skill Development - I (Communication & Soft Skills) - I	3	2	25	75	100
	Total	32	30	175	525	700


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Dr. B. R. AMBEDKAR UNIVERSITY-SRIKAKULAM
B.B.A SYLLABUS
STRUCTURE UNDER CHOICE BASED CREDITS SYSTEM
REVIEWED SYLLABUS w.e.f. 2016-17

Table-3: II B.B.A Semester – III

SL No.	Course	Name of the subject	Total Marks	Mid. Sem. Exam	Sem. End Exam	Teaching Hours	Credits
1.	First Language	English	100	25	75	4	3
2.	Second Language	(Tel/Hindi/Urdu/Sans)	100	25	75	4	3
3.	Foundation Course-5	ICT-2 (Information & communication Technology)	50	---	50	2	2
4.	Foundation Course-6	Communication & Soft Skills-2	50	---	50	2	2
5.	DSC 1C	Operations Management	100	25	75	5	4
6.	DSC 2C	Human Resource Management	100	25	75	5	4
7.	DSC 3C	Organization Behaviour	100	25	75	5	4
Total			600	125	475	27	22

Table-4: B.B.A -Semester – IV

SL No.	Course	Name of the subject	Total Marks	Mid. Sem. Exam	Sem. End Exam	Teaching Hours**	Credits
1.	Foundation Course-7	Communication & Soft Skills-3	50	---	50	2	2
2.	Foundation Course-8	Analytical Skills	50	---	50	2	2

3.	Foundation Course-9	Entrepreneurship	50	---	50	2	2
4.	Foundation Course-10	Leadership Education (LE)	50	---	50	2	2
5.	DSC 1D	Financial Management	100	25	75	5	4
6.	DSC 2D	Marketing Management	100	25	75	5	4
7.	DSC 3D	Business Ethics & Corporate Governance	100	25	75	5	4
Total			500	75	425	23	20

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