



# ANDHRA LOYOLA COLLEGE

**AUTONOMOUS :: VIJAYAWADA - 520 008**

**Established : 1954**

**A CHRISTIAN MINORITY COLLEGE WITH CONSTITUTIONALLY PROVIDED RIGHT OF ADMISSION  
(AN ISO 14001 : 2015 INSTITUTION)**

**THE ONLY COLLEGE IN BOTH THE TELUGU STATES TO HAVE BEEN RANKED AMONG  
THE TOP 150 COLLEGES BY NIRF SINCE THE INCEPTION OF THE RANKING IN 2017**

**SELECTED UNDER THE STAR COLLEGE SCHEME OF DBT AND FIST PROGRAMME OF DST, GOVT.OF INDIA  
SELECTED FOR ENHANCEMENT OF QUALITY AND EXCELLENCE UNDER RUSA BY MHRD, GOVT.OF INDIA**

## COURSE STRUCTURES

**A College Dedicated to All-Round Development of its Students**



## STRUCTURE OF THE COURSES [ODD SEMS-2020-2021]

ANDHRA LOYOLA COLLEGE[AUTONOMOUS], DEPARTMENT OF ENGLISH B.Sc./B.A/B.Com/B.B.A-Semesters I, III & V (Revised CBCS) STRUCTURE OF THE COURSES [ODD SEMESTERS-2020-2021]					
GENERAL ENGLISH COURSES					
Year	Semester	Course	Title of the Course	No. of Hrs/W	COURSE CODES
1	I	1	ENGLISH PRAXIS COURSE-1- A COURSE IN COMMUNICATION AND SOFT SKILLS	4	ENG111ACS
SKILL DEVELOPMENT COURSE					
1	I	SDC	OFFICE SECRETARY SHIP	2	SDC111OS
CERTIFICATE COURSE					
1	I	CC	ENGLISH ENRICHMENT AND CAREER DEVELOPMENT SKILLS	3	CC111ECD
2	III	3	ENGLISH FOR EMPOWERMENT-III	4	ENG233EE
ENGLISH LANGUAGE LAB					
2	III	LAB	GENERAL ENGLISH LANGUAGE LAB	2	ENG233(P)
FOUNDATION COURSES					
2	III	FC	COMMUNICATION AND SOFT SKILLS [CSS-2]	3	FOU244CSS2
COURSES: ENGLISH LITERATURE					
Year	Semester	Course	Title of the Course	No. of Hrs/W	
1	I	1	HISTORY OF ENGLISH LANGUAGE AND LITERATURE	5	ENG111HEL
2	III	3	BRITISH LITERATURE	5	ENG233BL
3	V	5	CULTURAL DIVERSITY, GENDER AND HUMAN RIGHTS	5	ENG355CD
		6	CONTEMPORARY INDIAN WRITINGS AND FILM STUDIES	5	ENG356CIW



## STRUCTURE OF THE COURSES [EVEN SEMS. -2020-2021]

ANDHRA LOYOLA COLLEGE[AUTONOMOUS], DEPARTMENT OF ENGLISH B.Sc./B.A/B.Com/B.B.A-Semesters I, III & V (Revised CBCS) STRUCTURE OF THE COURSES [EVEN SEMS. -2020-2021]					
GENERAL ENGLISH COURSES					
Year	Semester	Course	Title of the Course	No. of Hrs/W	COURSE CODES
1	II	2	ENGLISH PRAXIS COURSE II- A COURSE IN READING AND WRITING	4	ENG122CWR
SKILL DEVELOPMENT COURSES					
1	II	SDC	JOURNALISTIC REPORTING	2	SDC122JR
1	II	SDC	BUSINESS COMMUNICATION	2	SDC122BC
2	IV	4	ENGLISH FOR EMPOWERMENT-III(CSS-III)	4	ENG244EE
FOUNDATION COURSE					
2	IV	FC	COMMUNICATION AND SOFT SKILLS [CSS-2]	3	FOU244CSS2
CERTIFICATE COURSE					
I	II	CC	ENGLISH PROFICIENCY FOR COMMUNICATION SKILLS	3	CC122EPC
COURSES: ENGLISH LITERATURE					
Year	Semester	Course	Title of the Course	No. of Hrs/W	COURSE CODES
1	II	2	AN INTRODUCTION TO LITERARY CRITICISM & LITERARY THEORY	5	ENG122ILC
2	IV	4	LITERARY CROSS CURRENTS	5	ENG244LCC
3	VI	7	ENGLISH FOR LANGUAGE & LINGUISTICS	4	ENG367EL
3	VI	8-A	ENGLISH LANGUAGE TEACHING	4	ENG368C1ELT



3	VI	8-B	SECOND LANGUAGE ACQUISITION	2	ENG368C2SLA
3	VI	8-C	AN INTRODUCTION TO SOCIOLINGUISTICS	2	ENG368C3ILS



Mr. N. Ranga Babu

Head, Department of English

ANDHRA LOYOLA COLLEGE (AUTONOMOUS): VIJAYAWADA:8

DEPARTMENT OF TELUGU COURSES

COURSE STRUCTURE 2020-2021

<u>క్రమ.సం</u>	<u>సెమి</u>	<u>కోర్సు కోడ్</u>	<u>శీర్షిక</u>	<u>పీరియడ్లు/వారానికి</u>	<u>క్రెడిట్లు</u>
<u>I</u>	<u>I</u>	<u>TEL111PTK</u>	ప్రాచీన తెలుగు కవిత్వం	<u>4</u>	<u>3</u>
<u>II</u>	<u>II</u>	<u>TEL122ATS</u>	ఆధునిక తెలుగు సాహిత్యం	<u>4</u>	<u>3</u>
<u>III</u>	<u>III</u>	<u>TEL233PPG</u>	Poetry, Prose & Gen. Essay	<u>4</u>	<u>3</u>

<b>LSCs/ SDCs/ Certificate Courses</b>				
<b>LSC</b>	LSC 111 HVPE	HUMAN VALUES PROFESSIONAL ETHICS	2	2
<b>SDC</b>	SDC 121 PA	PERFORMING ARTS	2	2

K. S. Reddy

HOD

**ANDHRA LOYOLA COLLEGE (AUTONOMOUS): VIJAYAWADA:8**

**HINDI LANGUAGE  
COURSE STRUCTURE 2020-21**

<b>B.Sc. Hindi Department COURSE STRUCTURE</b>						
<b>Year</b>	<b>Semester</b>	<b>Course Code</b>	<b>Title of the Course</b>	<b>Marks</b>	<b>No.of Hrs/W</b>	<b>No.of Credits</b>
<b>1</b>	<b>I</b>	<b>HIN111PNG</b>	<b>Prose, Non-detailed &amp; Applied Grammar -I</b>	<b>100</b>	<b>4</b>	<b>3</b>
	<b>II</b>	<b>HIN122PNA</b>	<b>Prose, Non-detailed &amp; Applied Grammar -II</b>	<b>100</b>	<b>4</b>	<b>3</b>
<b>2</b>	<b>III</b>	<b>HIN233HLT</b>	<b>Poetry, History of Hindi Literature &amp; Translation</b>	<b>100</b>	<b>4</b>	<b>3</b>

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ANDHRA LOYOLACOLLEGE [AUTONOMOUS]: VIJAYAWADA:8

SANSKRIT LANGUAGE

COURSE STRUCTURE 2020 - 21

DEPARTMENT OF SANSKRIT

Courses offered by the Department

Theory

S.No.	Semester	Course Code	Title of the Course	No.of Hrs/W	No.of Credits
1	I	SKT111	Poetry , Prose & Grammar-1	4	3
2	II	SKT222	Poetry , Prose & Grammar-1I	4	3
3	III	SKT333	Drama , History Of Sanskrit Sanskrit Literature & Alankaras	4	3

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# ANDHRA LOYOLA COLLEGE (AUTONOMOUS)

## VIJAYAWADA- 520 008

### DEPARTMENT OF ECONOMICS - COURSE STRUCTURE

#### SEMESTER I, II, III IV, V, VI (REVISED CBCS)

2020-21					
ECONOMICS COURSE STRUCTURE					
SEM	CORE/ Foundation Course (FC) / Certificate Course	COURSE CODE	COURSE TITLE	No.of Hrs/W	No. of Credits
I	Core 1 - Theory	ECO111MEA	Micro Economic Anaysis	5	4
	SDC, If any	SDC111IP	Insurance Promotion	2	2
II	Core 2 - Theory	ECO122MEA	Macro Economic Anaysis	5	4
III	Core 3 - Theory	ECO233DE ECO244EDIAP ECO245SME	Development Economics	5	4
	GE, If any	SDC232FM	Financial Markets	2	2
IV	Core 4 - Theory	ECO244EDIAP	Economic Development in India and Andhra Pradesh	5	4
	Core 5 - Theory	ECO245SME	Statistical Methods for Economics	5	4
V	Core 5 - Theory	ECO355EDI	Economic Development and Indian Economy	5	4
	Core 6 - Theory	ECO356QTS	Quantitative Techniques and Statistical Applications	5	4
VI	Core 7 - Theory	ECO367PF	Public Finance	5	4
	Cluster A - Theory	ECO368C1PE	A-1: Public Economics	5	4
	Cluster B - Theory	ECO368C2IBS	A-2: Indian banking system	5	4
	Cluster C - Theory	ECO368C3RFC	A-3: Rural and Farm Credit	5	4

Dr. Baby Rani Bommadevara  
Head, Department of Economics



<b>ANDHRA LOYOLA COLLEGE (Autonomous), VIJAYAWADA</b>
<b>DEPARTMENT OF POLITICAL SCIENCE</b>
<b>COURSE STRUCTURE FOR THE SEMESTERS 2020-2021</b>

<b>SEMESTER</b>	<b>PAPER</b>	<b>NAME OF THE PAPER</b>	<b>Course Code</b>	<b>NO OF HOURS</b>	<b>NO OF CREDITS</b>
<b>I</b>	<b>I</b>	Introduction to Political Science	<b>POL/111</b>	<b>5</b>	<b>4</b>
<b>II</b>	<b>II</b>	Basic Organs of the government	<b>POL/122</b>	<b>5</b>	<b>4</b>
<b>III</b>	<b>III</b>	Indian Government And Politics	<b>POL/233</b>	<b>5</b>	<b>4</b>
<b>IV</b>	<b>IV</b>	Indian Political Process	<b>POL/244</b>	<b>5</b>	<b>4</b>
<b>V</b>	<b>V</b>	Indian Political Thought	<b>POL/355</b>	<b>5</b>	<b>4</b>
	<b>VI</b>	Western Political Thought	<b>POL/356</b>	<b>5</b>	<b>4</b>
<b>VI</b>	<b>VII</b>	Principals Of Public Administration	<b>POL/367</b>	<b>5</b>	<b>4</b>
					<b>4</b>

*d. Ummed Reddy*

# 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 2020-21 Academic Year)

**PROGRAMME: THREE-YEAR B.A.** (With History, Economics and PolSc., Disciplines)

### Domain Subject: History

(Syllabus with Outcomes, Co-curricular Activities, References & Model Q.P  
for Five Courses of 1, 2, 3 & 4 Semesters)

### Structure of HISTORY Syllabus under CBCS for 3-year B.A. Programme (with domain subject covered during the first 4 Semesters with 5 Courses)

Sl. No	Code	Sem	Courses 1, II, III, IV & V	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	I	Ancient Indian History & Culture (From Indus Valley Civil. to 13 Century A.D)	5	4	25	75
2		II	II	Medieval Indian History & Culture (1206 A.D To 1764 A.D)	5	4	25	75
3		III	III	Modern Indian History & Culture (1764-1947 A. D)	5	4	25	75
4		IV	IV	History & Culture of Andhra (from 1512 to 1956 AD)	5	4	25	75
5		IV	V	History Of Modern World (From 15th Cent. AD to 1945 AD)	5	4	25	75

6		<u>V - VI</u>		Tourism & Hospitality Management	5	4	25	75
7		<u>V</u>	<u>IV</u>	Tourism Guidance & Operation	5	4	25	75
8		<u>VI</u>		Cultural Tourism	5	4	25	75
9		<u>VI</u>		Popular markets of Andhra	5	4	25	75

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Dr. MOUVA SANKINIVASARAO,

ANDHRA LOYOLA COLLEGE(AUTONOMOUS) VIJAYAWADA-8

**COURSE STRUCTURE**

**DEPARTMENT : MATHEMATICS**

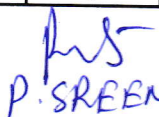
**YEAR : 2020-2021**

SEMESTER	COURSE CODE	TITLE OF THE COURSE	Hrs / Week	Credits
I	MAT111DE	Differential Equations	6	5
II	MAT122ASG	Analytical Solid Geometry	6	5
III	MAT233RA	Real Analysis	6	5
IV	MAT244MA	Modern Algebra	6	5
V	MAT355MT	Matrix Theory	5	5
	MAT356LA	Linear Algebra	5	5
VI	MAT367NT	Number Theory	5	5
	MAT368C1VC	Vector Calculus	5	5
	MAT368C2GT	Graph Theory	5	5
	MAT368C3NA	Numerical Analysis	5	5

*R. K. Rao*

# BSc Physics Course Structure for 2020-21

ANDHRA LOYOLA COLLEGE (AUTONOMOUS) VIJAYAWADA-8					
DEPARTMENT OF PHYSICS					
COURSE STRUCTURE FOR ODD & EVEN SEMESTERS OF 2020-21					
UNDER REVISED CBCS SYSTEM FOR BSC -MPC, MPCS, MPS					
Year	Semester	Course	Title of the Course	Number of HRS / week	Number of Credits
I BSc	1	1	Mechanics, waves and Oscillations Course code -PHY111MWO	4	4
			Practical course - I	2	1
		SDC	Electrical appliances Course code – SDC111EA	2	2
	2	2	Wave Optics Course code- PHY122WO	4	4
			Practical course – II	2	1
		SDC	Solar Energy- SDC122SE Course code	2	2
II BSc OLD Regulation	3	3	Wave Optics Course code - PHY233	3	3
			Practical Course – III	3	3
	4	4	Thermal Physics Course code - PHY244TPH	3	3
			Practical course – IV	3	3
III BSc OLD Regulation	5	6	Electricity & Magnetism (old pattern) Course code -- PHY355	3	3
			Practical course – IV	3	2
		7	Atomic, Molecular & Nuclear Physics Course code -- PHY356	3	3
			Practical course – VII	3	2
	6	8	Analog & Digital Electronics Course code – PHY367ADE	3	3
			Practical course – VIII	3	2
		9 (1)	Introduction to Microprocessors & Micro controllers Course code - PHY368C1IM	3	3
			Practical course – IX (1)	3	2
		9 (2)	Material Science – IX (2) Course code - PHY368C2MS	3	3
			Practical course – IX (2)	3	2
9 (3)	Electronic Instrumentation Course code – PHY368C3EI	3	3		
	Practical course – IX (2)	3	2		

  
 P. SREENIVASASTRIP  
 HOD PHYSICS

**DEPARTMENT OF CHEMISTRY**  
**COURSE STRUCTURE**  
**ACADEMIC YEAR (20-21)**

Year	Semester	Course	Title of the Course	Course code	Hrs/ W	No. of Credits
1	I	1	General, Physical and Inorganic chemistry	CHE111IPC	4	3
			Practical-I: Volumetric analysis	CHE111VA(P)	3	2
	II	2	Organic and General chemistry	CHE122OPC	4	3
			Practical-II: Analysis of salt mixture	CHE122MA(P)	3	2
2	III	3	Physical and Organic chemistry	CHE233POC	4	3
			Practical-III: Analysis of organic compounds	CHE233AOC(P)	3	2
	IV	4	Inorganic and Physical chemistry	CHE244IPC	4	3
			Practical-IV: Analytical skill	CHE244AS(P)	3	2
3	V	5	Organic chemistry and spectroscopy of organic compounds	CHE355OSC	3	3
			Lab	Practical-V: Physical chemistry	CHE355PI(P)	3
		6	Inorganic and physical chemistry	CHE356IPC	3	3
			Lab	Practical-VI: Instrumental methods of Analysis	CHE356IA(P)	3
	VI	7	Analytical methods of chemistry and general chemistry	CHE367AM	3	3
			Lab	Practical-VII: Analytical and Inorganic chemistry	CHE367AM(P)	3
		8 A	Organic spectroscopy & chemistry of natural products	CHE368C1OSC	3	3
			Lab	Practical-VIII A	368C1SOP(P)	3
		8 B	Mechanism and principle of organic synthesis	CHE368C2MPOS	3	3
			Lab	Practical-VIII B	CHE368C2MPOS(P)	3
		8 C	Pesticide, pharmaceutical and quantum chemistry	CHE368C3PQC	3	3
	Lab		Practical-VIII C	CHE368C3DCC(P)	3	2

*A.S.*  
 Ho D. Chemistry

**Andhra Loyola College**  
**Department of Statistics**  
**Course Structure for the academic year 2020-21**

Year	Semester	Course Code	Course Title	Hours per Week	No. of Credits
I	I	STA111DSP	Descriptive Statistics & Theory of Probability	4	3
		STA111DSP (P)	Descriptive Statistics & Theory of Probability Practicals	2	2
	II	STA122PD	Probability Distributions	4	3
		STA122PD (P)	Probability Distributions Practicals	2	2
II	III	STA233SMS	Statistical Methods and Exact Sampling Distributions	3	3
		STA233SMS (P)	Statistical Methods and Exact Sampling Distributions Practicals by Using MS-Excel	3	2
	IV	STA244SI	Statistical Inference	3	3
		STA244SI (P)	Statistical Inference Practicals by Using MS-Excel	3	2
III	V	STA355DES	Design of Experiments & Sample Surveys	3	3
		STA355DES (P)	Design of Experiments & Sample Surveys (P)	3	2
		STA356OR	Operations Research	3	3
		STA356OR (P)	Operations Research Practicals by Using SPSS (P)	3	2
		STA367AS	Applied Statistics	3	3
		STA367AS (P)	Applied Statistics (P)	3	2
		STA368C1SQC	Statistical Quality Control	3	3
		STA368C1SQC (P)	Statistical Quality Control Practicals by Using SPSS (P)	3	2

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	VI	STA368C2OT	Optimization Techniques	3	3
		STA368C2OT (P)	Optimization Techniques (P)	3	2
		STA368C3BSD	Basic Statistical Data Analysis Using R	3	3
		STA368C3BSD (P)	Basic Statistical Data Analysis Using R Practicals	3	2
		PRJ360STA	Project Work		3

**Course Structure for the academic year 2020-21**  
**For Big Data Analytics and Artificial Intelligence**

Year	Semester	Course Code	Course Title	Hours per Week	No. of Credits
I	I	STA111SM	Statistical Methods	4	3
		STA111SM (P)	Statistical Methods Practicals	2	2
	II	STA122BPT	Basic Probability Theory	4	3
		STA122BPT (P)	Basic Probability Theory Practicals	2	2
II	III	STA233PD	Probability Distributions	3	3
		STA233PD (P)	Probability Distributions Practicals (P)	3	2
	IV	STA244ETH	Basic Theory of Estimation & Testing of Hypothesis	3	3
		STA244ETH (P)	Basic Theory of Estimation & Testing of Hypothesis Practicals (P)	3	2
III	V	STA355AS	Applied Statistics	3	3
		STA355AS (P)	Applied Statistics Practicals	3	2

*D. Srinivasulu*

**ANDHRA LOYOLA COLLEGE (AUTONOMOUS) :: VIJAYAWADA**

**B.Sc., COMPUTER SCIENCE STRUCTURE & SYLLABUS**

**(W. E. F. 2020-2021)**



**DEPARTMENT OF COMPUTER SCIENCE**



Semester	Paper	Subject	Hrs	Credits	IA	ES	Total
<b>FIRST YEAR</b>							
<b>Semester I</b>	I	Problem Solving using Computers & Python Programming	4	3	50	50	100
		Python Lab	3	2	50	50	100
<b>Semester II</b>	II	Database Management Systems	4	3	50	50	100
		DBMS Lab	3	2	50	50	100
<b>SECOND YEAR</b>							
<b>Semester III</b>	III	Object Oriented Programming with Java	4	3	50	50	100
		Java Lab	3	2	50	50	100
<b>Semester IV</b>	IV	Digital Computer Organization and Introduction to Computer Architecture	4	3	50	50	100
		PHP Lab	3	2	50	50	100
<b>THIRD YEAR</b>							
<b>Semester V</b>	V	Principles of Operating System	4	3	50	50	100
		Linux Lab	3	2	50	50	100
	VI	Software Engineering	4	3	50	50	100
		Software Engineering Design Tools	3	2	50	50	100
<b>Semester VI</b>	VII	Data Structures	3	3	50	50	100
			3	2	50	50	50
		Data Structures Lab	3	3	50	50	100
			3	2	50	50	100
	VIII Cluster A	A1. Big Data Technology	3	3	50	50	100
		Big Data Technology lab (Hadoop)					
		A2. Cloud Computing					
		Cloud Computing Lab					
		A3. Foundations of Data Science					
		Foundations of Data Science Lab (R programming)					
	Project Work	3	2	50	50	100	
	VIII Cluster B	B1.PHP – MySql & Word press	3	3	50	50	100
		PHP-MySql & Word press Lab					
		B2. Internet Technologies					
Advanced JavaScript Lab							
B3. Computer Networks							
Computer Network Lab							
Project Work	3	2	50	50	100		

*[Signature]*  
 (S.A.B.NEHRU)

DEPARTMENT OF ELECTRONICS – COURSE STRUCTURE (2020 – 2021)					
B.Sc. (Maths, Computer Science, Electronics)					
Year	Semester	Course Code	Title of the Course	No. of Hrs/W	No. of Credits
I	I	ELE 111	NETWORK ANALYSIS AND ANALOG ELECTRONICS	4	3
		ELE 111 P	Practical - NETWORK ANALYSIS AND ANALOG ELECTRONICS	2	2
		ET ELE 111	FUNDAMENTALS OF ELECTRICAL AND ELECTRONIC COMPONENTS	4	3
		ET ELE 111 P	Practical - FUNDAMENTALS OF ELECTRICAL AND ELECTRONIC COMPONENTS	2	2
	II	ELE 122	LINEAR AND DIGITAL INTEGRATED CIRCUITS	4	3
		ELE 122 P	Practical - LINEAR AND DIGITAL INTEGRATED CIRCUITS	2	2
		ET ELE 122	PCB AND ELECTRONIC PRODUCT DESIGN	4	3
		ET ELE 122 P	Practical - PCB DESIGN	2	2
II	III	ELE 233	ELECTRONIC INSTRUMENTATION	4	3
		ELE 233 P	Practical - ELECTRONIC INSTRUMENTATION	2	2
		ET ELE 233	LED LIGHTING DESIGN FUNDAMENTALS AND TESTING	4	3
		ET ELE 233 P	Practical - LUMINAIRIES LAB	2	2
	IV	ELE 244	MICROPROCESSORS	4	3
		ELE 244 P	Practical - MICROPROCESSORS	2	2
		ET ELE 244	SOLID STATE LIGHTING APPLICATION	4	3
		ET ELE 244 P	Practical - SSL TESTING	2	2
III	V	ELE 355	MICROCONTROLLER AND INTERFACING	3	3
		ELE 355 P	Practical - MICROCONTROLLER & INTERFACING	3	2
		ELE 356	COMMUNICATION SYSTEMS	3	3
		ELE 356 P	Practical – COMMUNICATION LAB	3	2
	VI	ELE 367	ADVANCED MICROCONTROLLERS	3	3
		ELE 367 P	Practical - INTERNET OF THINGS(IoT)	3	2
		ELE 368A1	POWER ELECTRONICS	3	3
		ELE 368A1 P	Practical - POWER ELECTRONICS	3	2
		ELE 368A2	RENEWABLE ENERGY SOURCES	3	3
		ELE 368A2 P	Practical - RENEWABLE ENERGY SOURCES	3	2
		ELE 368A3	VLSI DESIGN	3	3
		ELE 368A3 P	Practical - VLSI DESIGN	3	2

*A. Sabin Kumar*  
 HOD, Electronics  
 Chairman, BOS

**DEPARTMENT OF ELECTRONICS – COURSE STRUCTURE (2020 – 2021)**

**B.Sc. Electronics Technology**

Year	Semester	Course Code	Title of the Course	No. of Hrs/W	No. of Credits	
I	I	ELE 111	NETWORK ANALYSIS AND ANALOG ELECTRONICS	4	3	
		ELE 111 P	Practical - NETWORK ANALYSIS AND ANALOG ELECTRONICS	2	2	
		ET ELE 111	FUNDAMENTALS OF ELECTRICAL AND ELECTRONIC COMPONENTS	4	3	
		ET ELE 111 P	Practical - ELECTRICITY AND ELECTRONIC COMPONENTS	2	2	
		ET ELE 111A	CONSUMER ELECTRONICS	4	3	
			ENGINEERING DRAWING			
	II	II	ELE 122	LINEAR AND DIGITAL INTEGRATED CIRCUITS	4	3
			ELE 122 P	Practical - LINEAR AND DIGITAL INTEGRATED CIRCUITS	2	2
			ET ELE 122	PCB AND ELECTRONIC PRODUCT DESIGN	4	3
			ET ELE 122 P	Practical - PCB DESIGN	2	2
			ET ELE 122A	PC MAINTENANCE AND TROUBLESHOOTING		
				WORKSHOP		
II	III	ELE 233	ELECTRONIC INSTRUMENTATION	4	3	
		ELE 233 P	Practical - ELECTRONIC INSTRUMENTATION	2	2	
		ET ELE 233	LED LIGHTING DESIGN FUNDAMENTALS AND TESTING	4	3	
		ET ELE 233 P	Practical - LUMINAIRIES LAB	2	2	
		ET ELE 233A	BASICS OF NETWORKS	4	3	
	IV	ELE 244	MICROPROCESSORS	4	3	
		ELE 244 P	Practical - MICROPROCESSORS	2	2	
		ET ELE 244	SOLID STATE LIGHTING APPLICATION	4	3	
		ET ELE 244 P	Practical - SSL TESTING	2	2	
		ET ELE 245	SOLAR PHOTO VOLTAIC TECHNOLOGY	4	3	
III	V	ELE 355	MICROCONTROLLER AND INTERFACING	3	3	
		ELE 355 P	Practical - MICROCONTROLLER AND INTERFACING	3	3	
		ELE 356	COMMUNICATION SYSTEMS	3	3	
		ELE 356 P	Practical - COMMUNICATION SYSTEMS	3	2	
		ELE 357	POWER ELECTRONICS	3	3	
		ELE 357 P	Practical - POWER ELECTRONICS	3	2	
		ELE 358	RENEWABLE ENERGY SOURCES	3	3	
		ELE 358 P	Practical - RENEWABLE ENERGY SOURCES LAB	3	2	
	VI	INTERNSHIP				

*N. Saleem Khan*  
 HOD, Electronics  
 Chairman, BOS

## Andhra Loyola College (Autonomous) : Vijayawada

### B. Sc., Maths, Statistics & Computer Science (Artificial Intelligence)

#### Structure and Syllabus (w.e.f 2020-2021)

Semester	Paper	Subject	Hrs	Credits	IA	ES	Total
<b>FIRST YEAR</b>							
<b>Semester I</b>	1	Programming using C	4	3	50	50	100
		C programming Lab	3	2	50	50	100
	2	Application Based programming in Python	4	3	50	50	100
		Python Lab	3	2	50	50	100
<b>Semester II</b>	3	Introduction to AI & ML	4	3	50	50	100
		Machine Learning in Python	3	2	50	50	100
	4	Database Management Systems	4	3	50	50	100
		MySQL Lab	3	2	50	50	100
<b>SECOND YEAR</b>							
<b>Semester III</b>	5	ICT-2	3	3	50	50	100
		ICT Lab	3	2	50	50	100
	6	Applied Machine learning	4	3	50	50	100
		Advanced Python Lab	3	2	50	50	100
	7	Object Oriented Programming with Java	4	3	50	50	100
		Java Lab	3	2	50	50	100
<b>Semester IV</b>	8	Theoretical ML	4	3	50	50	100
		<b>Lab</b>	3	2	50	50	100
	9	Statistical ML	4	3	50	50	100
		Advanced R Programming Lab	3	2	50	50	100
	10	Digital Computer Organization & Introduction to Computer System Architecture	4	3	50	50	100
		PHP Lab	3	2	50	50	100



## Andhra Loyola College (Autonomous): Vijayawada

### B. Sc., Mathematics, Statistics & Computer Science (Big Data Analytics)

#### Structure and Syllabus (w.e.f 2020-2021)

Semester	Paper	Subject	Hrs	Credits	IA	ES	Total
<b>FIRST YEAR</b>							
<b>Semester I</b>	1	Programming using C	4	3	50	50	100
		C programming Lab	3	2	50	50	100
	2	Database Management Systems	4	3	50	50	100
		MySql lab	3	2	50	50	100
<b>Semester II</b>	3	Data Visualization	4	3	50	50	100
		Table Lab	3	2	50	50	100
	4	Big Data Analytics	4	3	50	50	100
		Hadoob Lab	3	2	50	50	100
<b>SECOND YEAR</b>							
<b>Semester III</b>	5	Data Warehousing & Data Mining	4	3	50	50	100
		Mining Lab (Weka)	3	2	50	50	100
	6	Data Storage Technologies and Networks	4	3	50	50	100
		Data Storage Technologies Lab	3	2	50	50	100
	7	Object Oriented Programming with Java	4	3	50	50	100
		Java lab	3	2	50	50	100
<b>Semester IV</b>	8	Hadoop & Data Analysis	4	3	50	50	100
		R Programming lab	3	2	50	50	100
	9	Principles of Operating System	4	3	50	50	100
		Linux Lab	3	2	50	50	100
	10	Digital Computer Organization & Introduction to Computer System Architecture	4	3	50	50	100
		PHP Lab	3	2	50	50	100

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

<b>S. No.</b>	<b>Semester</b>	<b>Title of the Course (Paper)</b>	<b>COURSE CODES</b>	<b>Hours /week</b>	<b>Credits</b>
1.	SEM.-I/ Course-I	Fundamentals of Microbes and Non-vascular Plants	BOT-111-FMN	04	03
	Course-I Practical	Fundamentals of Microbes and Non-vascular Plants	BOT-111-FMN	03	02
2.	SEM.-II/ Course-2	Basics of Vascular plants and Phytogeography	BOT-122-BVP	04	03
	Course-2 Practical	Basics of Vascular plants and Phytogeography	BOT-122-BVP	03	02
3.	SEM.-III/ Course-3	Anatomy and Embryology of Angiosperms, Plant Ecology and Biodiversity	BOT-233- AEA	04	03
	Course-3 Practical	Anatomy and Embryology of Angiosperms, Plant Ecology and Biodiversity	BOT-233- AEA	03	02
4.	SEM.-IV Course-4	Plant Physiology and Metabolism	BOT-244-PPM	03	03
	Course- 4Practical	Plant Physiology and Metabolism	BOT-244-PPM	03	02
5.	SEM.- IV Course- 5	Cell Biology, Genetics and Plant Breeding	BOT-245-CGP	04	03
	Course- 5Practical	Cell Biology, Genetics and Plant Breeding	BOT-245-CGP	03	02
6.	<b>SEM -V</b> Course- 6-C	TISSUE CULTURE	BOT-356	03	03
	Course- 6-C- Practical	TISSUE CULTURE	BOT-356 -TC	03	02
	<b>SEM -V</b> Course- 7-C	MUSHROOM CULTIVATION	BOT-35-MC	03	03
	<b>Sem-V</b> Course- 6-C	MUSHROOM CULTIVATION	BOT-35-MC	03	02
	<b>SEM -I</b> SDC 1	<b>PLANT NURSERY</b>	BOT-I11-PN	2	2

SEM-2 SDC-2	<b>FRUIT AND VEGETABLE PRESERVATION</b>	BOT-122-FVP	2	2
SEM-2 CC	<b>MUSHROOM CULTIVATION</b>	BOT-122- MC	3	2



**ANDHRA LOYOLA COLLEGE (Autonomous), VIJAYAWADA**  
**DEPARTMENT OF MICROBIOLOGY**  
**COURSE STRUCTURE FOR A.Y: 2020-21**  
**DEPARTMENT OF MICROBIOLOGY**

**Structure of B.Sc Microbiology**

<b>2020-21</b>					
<b>DEPARTMENT</b>		<b>Microbiology</b>			
<b>SEM</b>	<b>CORE/ Foundation Course (FC) / Certificate Course</b>	<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>No.of Hrs/W</b>	<b>No. of Credits</b>
I	Core 1 - Theory	MIB111HMT	Introductory Microbiology & microbial diversity	4	3
	Core 1 - Lab	MIB111HMT(P)	Introductory Microbiology & microbial diversity	3	3
	FC, If any				
	GE If any				
	CC, If any				
II	Core 2 - Theory	MIB122MPB	Microbial Biochemistry & physiology	4	3
	Core 2 - Lab	MIB122MPB(p)	Microbial Biochemistry & physiology	4	3
	FC, If any				
	GE If any				
	CC, If any				
III	Core 3 - Theory	MIB233MMG	Microbial genetics & Molecular biology	4	3
	Core 3 - Lab	MIB233MMG(P)	Microbial genetics & Molecular biology	4	3
	FC, If any				
	GE If any				
	CC, If any				
IV	Core 4 - Theory				
	Core 4 - Lab				
	FC, If any	MIB244IMB	Immunology & Medical Microbiology	4	3
	GE If any	MIB244IMB(P)	Immunology & Medical Microbiology		
	CC, If any				
V	Core 5 - Theory	MIB355EAM	Environmental & Agricultural Microbiology	4	4

	Core 5 - Lab	MIB355EAM(P)	Environmental & Agricultural Microbiology	4	4
	Core 6 - Theory	MIB356FIM	Food and industrial Microbiology	4	4
	Core 6 - Lab	MIB356FIM(P)	Food and industrial Microbiology	4	4
VI	Core - Theory				
	Core 7 - Theory	MIB367MBT	Microbial biotechnology and its applications	4	4
	Core 7 - Lab	MIB367MBT(P)	Microbial biotechnology and its applications	4	4
	Cluster A - Theory	MIB368C1MDH	Microbial diagnosis In Health clinics	4	4
	Cluster A - Lab	MIB368C1MDH(P)	Microbial diagnosis In Health clinics	4	4
	Cluster B - Theory	MIB368C2MFP	Microbial quality control In Food and Pharmaceutics	4	4
	Cluster B - Lab	MIB368C2MFP(P)	Microbial quality control In Food and Pharmaceutics	4	4
	Cluster C - Theory	MIB368C3BFB	Biofertilizers & Biopesticides	4	4
	Cluster C - Lab	MIB368C3BFB(P)	Biofertilizers & Biopesticides	4	4

Dr. kBalachandra

**ANDHRA LOYOLA COLLEGE (AUTONOMOUS): VIJAYAWADA**

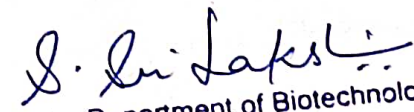
**DEPARTMENT: BIOTECHNOLOGY**

**ACADEMIC YEAR - 2020-21**

Year	Sem	Course	Title of the Course	Course Code	Hrs/W	No. of Credits
1	I	1	Microbiology	BIO111MB	4	3
		LAB	Microbiology(P)	BIO111MB(P)	3	2
	II	2	Macromolecules, enzymology and Metabolism	BIO122MEM	4	3
		LAB	Macromolecules, enzymology and Metabolism(P)	BIO122MEM(P)	3	2
2	III	3	Bioanalytical Tools	BTY233BAT	4	3
		LAB	Bioanalytical Tools(P)	BTY233BAT(P)	3	2
	IV	4	Immunotechnology	BTY244IMT	4	3
		LAB	Immunotechnology(P)	BTY244IMT(P)	3	2
3	V	5	Cell Biology & Genetics	BTY355CBG	3	3
		LAB	Cell Biology & Genetics(P)	BTY355CBG(P)	3	2
		6	Molecular Biology	BTY356MB	3	3
		LAB	Molecular Biology(P)	BTY356MB(P)	3	2
	VI	7	Computer applications, Biostatistics and Bioinformatics	BTY367CABB	3	3
		LAB	Computer applications, Biostatistics and Bioinformatics(P)	BTY367CABB(P)	3	2
		8a	Microbial Biotechnology	BTY368C1MBT	3	3
		LAB	Microbial Biotechnology(P)	BTY368C1MBT(P)	3	2
		8b	Plant and Animal Biotechnology	BTY368C2PAB	3	3
		LAB	Plant and Animal Biotechnology(P)	BTY368C2PAB(P)	3	2
		8c	rDNA technology	BTY368C3RDNA	3	3
		LAB	rDNA technology(P)	BTY368C3RDNA(P)	3	2

**VALUE ADDED COURSES**

	SEM	TYPE	Title of the Course	COURSE CODE	Hrs/W	No. of Credits
SDC	I	Skill Development	Bioinformatics & Biostatistics	SDC111BB	2	2
CC	I	Certificate Course	Technology in Biology-1	CC111TB	2	1
SDC	II	Skill Development	Genomics & Proteomics	SDS121GP	2	2
CC	II	Certificate Course	Technology in Biology-2	CC122TB	2	1

  
**Head of the Department of Biotechnology**  
**Andhra Loyola College (Autonomous)**  
**VIJAYAWADA - 520 008**

ANDHRA LOYOLA COLLEGE (AUTONOMOUS): 520008

DEPARTMENT OF FOOD TECHNOLOGY

COURSE STRUCTURE AY – 2020-21

Year	Sem	Course	Title of the Course	COURSE CODE	Hrs/W	No. of Credits
1	I	Paper 1	Food Chemistry	FTE111FC	4	3
		Lab	Food Chemistry and Food Nutrition	FTE111FCN (P)	2	2
		Paper 2	Food Biochemistry and Nutrition	FTE112FNB	4	3
		SDC	New Product Development	SDC111NPD	2	2
		CC	Food Fermentation Technology	CC111FFT	2	1
	II	Paper 3	Food Processing and Engineering Technology	FTE123FPT	4	3
		Lab	Principles of Food Chemistry	FTE122PFC (P)	2	2
		Paper 4	Food Additives and Toxicology	FTE124FAT	4	3
		SDC	Food Storage Techniques	SDC121FST	2	2
		SDC	Food Infestation Control	SDC122FIC	2	2
		CC	Home Based Catering	CC121HBC	2	1
2	III	Paper 5	Post Harvest Technology of Field Crops	FTE235PHT	4	5
		Paper 6	Dairy Technology	FTE236DT	4	3
		Lab	Dairy Technology	FTE234DT(P)	2	2
	IV	Paper 7	Technology of Oils & Fats	FTE247TOF	4	3
		Lab	Technology of Oils & Fats	FTE247TOF (P)	2	2
		Paper 8	Technology of Confectionery	FTE248TOC	4	3
		Lab	Technology of Confectionery	FTE248TOC (P)	2	2
3	V	Paper 9	Technology of Meat, Fish, Poultry and their Products	FTE357TMFP	4	3
		Lab	Technology of Meat, Fish, Poultry and their Products	FTE355TMFP (P)	2	2
		Paper 10	Baking Science and Technology	FTE358BST	4	3
		Lab	Baking Science and Technology	FTE356BST(P)	2	2
	VI	Paper 11	Food Safety and Quality Control	FTE369SCQ	4	3
		Lab	Food Safety and Quality Control	FTE367SCQ (P)	2	2
		Paper 12	Packaging Technology	FTE3610PT	4	3

Dr. KBale Chandra

**ANDHRA LOYOLA COLLEGE (AUTONOMOUS), VIJAYAWADA**  
**ZOOLOGY Syllabus COURSE STRUCTURE**  
**For the Academic Year 2020-2021**

YEAR	SEM	COURSE	COURSE CODE	COURSE TITLE	Hrs /wk	CRE DITS
I	I	I	ZOO111 ADN	ANIMAL DIVERSITY- I: BIOLOGY OF NON CHORDATES (T)	4	3
			ZOO111 ADN (P)	ANIMAL DIVERSITY- I: BIOLOGY OF NON CHORDATES (P)	2	2
	II	II	ZOO122 ADC	ANIMAL DIVERSITY-I I: BIOLOGY OF CHORDATES (T)	4	3
			ZOO122 ADC(P)	ANIMAL DIVERSITY-I I: BIOLOGY OF CHORDATES (P)	2	2
II	III	III	ZOO233 CGE	CYTOLOGY, GENETICS AND EVOLUTION(T)	4	3
			ZOO233 CGE(P)	CYTOLOGY, GENETICS AND EVOLUTION(P)	2	2
	IV	IV	ZOO244 EPE	EMBRYOLOG, PHYSIOLOGY & ECOLOGY(T)	4	3
			ZOO244 EPE(P)	EMBRYOLOG, PHYSIOLOGY & ECOLOGY(P)	2	2
III	V	V	ZOO355 ABT	ANIMAL BIOTECHNOLOGY(T)	3	3
			ZOO355 ABT(P)	ANIMAL BIOTECHNOLOGY(P)	3	2
		VI	ZOO356 ANH	ANIMAL HUSBANDRY(T)	3	3
			ZOO356 ANH(P)	ANIMAL HUSBANDRY(P)	3	2
	VI	VII	ZOO367 IM	Elective: IMMUNOLOGY(T)	3	3
			ZOO367 IM (P)	Elective: IMMUNOLOGY(P)	3	2
		VIII C1	ZOO368C1 PAC	Cluster Elective: AQUACULTURE PRINCIPLES OF AQUACULTURE(T)	3	3
			ZOO368C1 PAC(P)	Cluster Elective: AQUACULTURE PRINCIPLES OF AQUACULTURE (P)	3	2
		VIII C2	ZOO368C2 ACM	Cluster Elective: AQUACULTURE AQUACULTURE MANAGEMENT(T)	3	3
			ZOO368C2 ACM(P)	Cluster Elective: AQUACULTURE AQUACULTURE MANAGEMENT (P)	3	2
		VIII C3	ZOO368C3 PHT	Cluster Elective: AQUACULTURE POSTHARVEST TECHNOLOGY(T)	3	3
			ZOO368C3 PHT(P)	Cluster Elective: AQUACULTURE POSTHARVEST TECHNOLOGY(P)	3	2
	PART-B	PRJ360 ZOO4	ZOOLOGY PROJECT		3	



**Head of the Department of Zoology**  
**Andhra Loyola College (Autonomous)**  
**VIJAYAWADA - 520 008**

**ANDHRA LOYOLA COLLEGE (AUTONOMOUS)**  
**DEPARTMENT OF COMMERCE**  
**B.COM PROGRAMME STRUCTURE**

<b>2020-21</b>					
<b>DEPARTMENT</b>		<b>COMMERCE B.COM GENERAL</b>			
SEM	CORE/ Foundation Course (FC) / Certificate Course	COURSE CODE	COURSE TITLE	No.of Hrs/W	No. of Credits
1	Core 1 - Theory	COM111FOA	Fundamentals of Accounting-1	4 + 2	4
	Core 1 theory	COM111BOM	Business Organisation and Management	6	4
	core	COM111BENV	Business Environment	6	4
	core	COM111IT	Information Technology-1	4 + 2	4
	LSC, If any	LSC111HVPE	HVPE	2	2
	SDC, If any	SDC111OS	Office Secretaryship	2	2
	CC, If any	CC111TA	TALLY	2	1
II	Core 2 - Theory	COM122FA	Financial Accounting-2	4+2	4
	core	COM122BE	Business Economics-2	6	4
	core	COM121BTP	Banking Theory & Practice -1	6	4
	core	COM121EWD	E-Commerce and Web Designing	4+2	4
	Core 2 - Theory	CC121AST	Accounting Software Tally ERP 9	2	1
	SDC, If any	SDC121AD:	Advertising	2	2
	SDC, If any	SDC122LSC	Logistics and Supply Chain Management	2	2
	LSC, If any	LSC121ED	Entrepreneurship	2	2
III	Core 3 - Theory	COM231CA	Corporate Accounting-1	4 + 2	4
		COM231BST	Business Statistics-1	4 + 2	4
		COM231BTP	Banking Theory & Practice-1	6	4
	Core 3 - theory	COM231BM	Business Management	6	4
	FC If any				
	GE, If any				
	CC, If any				
IV	Core 4 - Theory	COM241ASo	Accounting for service organisations	4 + 2	4
		COM241BL	Business Law	4 + 2	4
		COM241ITP	Income Tax law and Practice	4 + 2	4
	Core 4 - theory	COM241EWD	E commerce& web Designing	6	4
	FC If any	FOU242CSS	Foundation course(CSS)-II		
	GE, If any				

	CC, If any				
V	Core 5 - Theory	COM111CA	Cost Accounting	6	4
		COM111HRM	Human Resource Management	6	4
		COM111MKT	Marketing	6	4
	Core 5 - Lab	COM111GST	Goods and Service Tax	6	4
	Core 6 - Theory	COM111ACA	Advanced Corporate Accounting	4 + 2	4
		COM111FM	Financial Markets	6	4
		COM111RM	Retail Management	6	4
	Core 6 - Lab	COM111FOA	Marketing of Services	6	4
VI	Core 7 - Theory	COM111MA	Management Accounting	4 + 2	4
	Core 7 - Lab	COM111AUD	Auditing	6	4
	core Theory	COM111CG	Commercial Geography	6	4
	Cluster A - Lab	COM111FM	Financial Management	6	4
	Cluster B - Theory	COM111EAA	Emerging Areas in Accounting	4 + 2	4
	Cluster B - Lab	COM111SMO	Stock Market Operations	6	4
	Cluster C - Theory	COM111GM	Global Marketing	6	4
	Cluster C - Lab	COM111AMM	Advertising & Media Management	6	4

## 2020-21 B. COM COMPUTERS

DEPARTMENT					
SEM	CORE/ Foundation Course (FC) / Certificate Course	COURSE CODE	COURSE TITLE	No.of Hrs/W	No. of Credits
1	Core 1 - Theory	COM111FOA	Fundamentals of Accounting-1	4 + 2	4
	Core 2-	COM111BOM	Business Organisation and Management	6	4
	Core 3	COM111BENV	Business Environment	6	4
	LSC, If any	COM111IT	Information Technology-1	4 + 2	4
	SDC, If any	SDC111OS	office secretaryship	2	
	CC, If any	CC111TA	TALLY	2	1
II	Core 2 - Theory	COM122FA	Financial Accounting-2	4+2	4
	core	COM122BE	Business Economics-2	6	4
	core	COM121BTP	Banking Theory & Practice -1	6	4
	core	COM121EWD	E-Commerce and Web Designing	4+2	4
	Core 2 - Theory	CC121AST	Accounting Software Tally ERP 9	2	1
	SDC, If any	SDC121AD:	Advertising	2	2
	SDC, If any	SDC122LSC	Logistics and Supply Chain Management	2	2
	LSC, If any	LSC121ED	Entrepreneurship	2	2

	CC, If any				
	CC, If any				
III	Core 3 - Theory	COM231CA	Corporate Accounting-1	4 + 2	4
		COM231BST	Business Statistics-1	4 + 2	4
		COM231BTP	Banking Theory & Practice-1	6	4
	Core 3 - theory	COM231BM	programming with C	4+2	4
	FC If any				
IV	Core 4 - Theory	COM241ASo	Accounting for service organisations	4 + 2	4
		COM241BL	Business Law	4 + 2	4
		COM241ITP	Income Tax law and Practice	4 + 2	4
	Core 4 - theory	COM241EWD	Programming with C++	6	4
V	FC If any	FOU242CSS	Foundation course(CSS)-II		
	Core 5 - Theory	COM354GST	Goods&Service Tax	6	4
	Core 5 - Lab	COM351CMA	cost Accounting	6	4
	Core 6 - Theory	COM353MS	Marketing	6	4
	Core 6 - Lab	COM352HRM	Human Resource Management	6	4
	core	COM356EW	E commerce& Web designing	6	4
	core	COM355DBM	Data Base Management System	6	4
	cluster				
	cluster				
	core	COM361MA	Management Accounting	6	4
	core	COM364AUD	Auditing	6	4
VI	Core 7 - Theory	COM362FM	Financial Management	6	4
	core	COM363CG	Commercial Geography	6	4
	core	COM365PHP	PHP&MY SQL	6	4
	core	COM366JA	Java	6	4
	Cluster B - Lab				
	Cluster C - Theory				
	Cluster C - Lab				



Dr B Syam Sundar  
HOD-Commerce  
Andhra Loyola College  
Vijayawada



## 2020-21

2020-21					
DEPARTMENT		BBA(GENERAL)			
SEM	CORE/ Foundatio n Course (FC) / Certificate Course	COURSE CODE	COURSE TITLE	No. of Hrs/W	No. of Credit s
I	Core 1 - Theory	Language	English	4	3
	Core 1 - Theory	LSC111HVPE	HVPE	2	2
	Core 1 - Theory	SDC111PR	Public Relations	2	2
	Core 1 - Theory	Core:BBA111POM	Principles of Management	5	4
	Core 1 - Theory	Core:BBA111BO	Business Organization	5	4
	Core 1 - Theory	Core:BBA111FA	Fundamentals of Accounting	5	4
	Core 1 - Theory	Core::BBA111BS	Business Statistics	5	4
	Core 1 - Theory	Core:BBA111IT	Information Technology	2	3
	Core 1 - Theory	CC111HM	Hotel Management	2	1
	Core 1 - Theory	CC112EM	Event Management	2	1
	II	Core 2 - Theory	Language	English	4
Core 2 - Theory		LSC121ICT	HTML Programming	2	2
Core 2 - Theory		SDC121AD	Advertising	2	2
Core 2 - Theory		SDC122BC	Business Communication	2	2
Core 2 - Theory		Core:BBA121ECS	Ethics and Corporate Social Responsibility	5	4
Core 2 - Theory		Core:BBA121BENV	Business Environment	5	4
Core 2 - Theory		Core:BBA121FA	Financial Accounting	5	4
Core 2 - Theory		Core:BBA121ME	Managerial Economics	5	4
Core 2 - Theory		Core:BBA121ECM	E-Commerce	4	2

	Core 2 - Theory	CC121TM	Tourism Management	2	2
III	Core 3 - Theory	Language	English	4	3
	Core 3 - Theory	LSC232EE	Environmental Education	2	2
	Core 3 - Theory	SDC232AS	Analytical skills	2	2
	Core 3 - Theory	SDC:232RT	Retailing	2	2
	Core 3 - Theory	Core:BBA231HR	Human Resource Management	5	4
	Core 3 - Theory	Core:BBA231OB	Organizational Behavior	5	4
	Core 3 - Theory	Core:BBA231FM	Financial Management	5	4
	Core 3 - Theory	Core:BBA231FMR	Fundamentals of Marketing	5	4
	Core 3 - Theory	Core:BBA231BR	Business Research	6	4
IV	Core 4 - Theory	CoreBBA241TD	Training and Development	5	4
	Core 4 - Theory	Core:BBA241BL	Business Law	5	4
	Core 4 - Theory	Core:BBA241MSM E	Micro Small and Medium Enterprises Management	5	4
	Core 4 - Theory	Core:BBA241IB	International Business	5	4
	Core 4 - Theory	CoreBBA241CMA	Cost and management accounting	5	4
	Core 4 - Theory	CoreBBA241FS	Financial Services	5	4
	Core 4 - Theory	Core:BBA241PM	Production Management	5	4
			NSS/NCC/SPORT/EC		2
V	Core 5 - Theory	BBA 351 IB	International Business	5	4
	Core 5 - Theory	BBA 351 BL	Business Laws	5	4
	Core 5 - Theory	BBA 351 TXT	Taxation	5	4
	Core 5 - Theory	BBA 351 LSM	Logistics and Supply Chain Management	5	4
	Core 5 - Theory	BBA 351 BM	Brand Management	5	4

	Core 5 - Theory	COM351GHRM	Elective-HR (Global Human Resource Management)	5	4
	Core 5 - Theory	COM356TD	Elective-HR (Training and Development)	5	4
	Core 5 - Theory	COM355MS	Elective-MARKETING (Marketing of Services)	5	4
	Core 5 - Theory	COM356RM	Elective-MARKETING (Retail Marketing)	5	4
VI	Core 6 - Theory	BBA362BS	Business Strategy	5	4
	Core 6 - Theory	BBA367MSE	Medium and Small Scale Enterprise Management	5	4
	Core 6 - Theory	BBA363PEM	Project Evaluation and Management	5	4
	Core 6 - Theory	BBA364WM	Warehouse Management	5	4
	Core 6 - Theory	BBA 361SDM	Sales and Distribution Management	5	4
	Core 6 - Theory	COM365TM	Elective-HR (Talent Management)	5	4
	Core 6 - Theory	COM366IR	Elective-HR (Industrial Relations)	5	4
	Core 6 - Theory	COM366AM	Elective-MARKETING (Advertising and Media Management)	5	4
	Core 6 - Theory	COM365MKT	Elective-MARKETING (Global Marketing)	5	4

  
T.JAGADISH

Head, Department of Business Administration

Chairman, Board of Studies

Department	AVIATION MANAGEMENT		I, III & V SEMESTERS : 2020-2021			
Course Structure						
Year	Semester	Category	Course Code	Course Title	Hrs/W	Credits
1	I	COURSE 1	BBA111ACS	Airline Customer Service	5	4
		COURSE 2	BBA111IAC	Introduction to Air Cargo	5	4
		COURSE 3	BBA111FAM	Fundamentals Of Aviation Management	5	4
		COURSE 4	BBA111ATI	Airlines Travel & Tourism Industry	5	4
2	III	COURSE 5	BBA231BS	Business Statistics	4	4
		Course 6 -	BBA231OB	Organisational Behaviour	4	4
		Course 7	BBA231ARO	Airports & Ramp Operations	4	4
		COURSE 8	BBA231ATC	Air Traffic Controls	4	4
		COURSE 9	BBA231AMM	Aircraft Maintenance Management	4	4
		COURSE 10	BBA231ATS	Air Transportation Safety & Security	4	4
		SDC	BBA231CT	Culinary Tourism (CC)	2	2
		LSC	BBA231MT	MICE Tourism (SDC)	2	2
3	V	Course 11 - Theory	BBA351BL	Business Laws	5	4
		Course 12 - Theory	BBA351IR	Industrial Relations	5	4
		Course 13 - Theory	BBA351TFAE	Travel Formalities & Airport Essentials	5	4
		Course 14 - Theory	BBA351ATFO	Air Transport & Flight Operations	5	4
		Course 14- Theory	BBA351MAP	Managing Airports- An International Perspective	5	4
		Course 16 - Theory	BBA351ASO	Awareness of Aviation Security & On board Emergenc	5	4

Department	AVIATION MANAGEMENT		II/IV/VI SEMESTERS : 2020-2021				
Course Structure							
Year	Semester	Category	Course Code	Course Title	Hrs/W	Credits	
1	II	COURSE 1	BBA121AOS	Airport Operations	5	4	
		COURSE 2	BBA121ACM	Aircargo Management	5	4	
		COURSE 3	BBA121AMM	Airlines & Airport Marketing Management	5	4	
		COURSE 4	BBA121TAO	Travel Agency Operations	5	4	
2	IV	COURSE 5	BBA241APH	Aviation Psychology & Human Factor	4	4	
		Course 6 -	BBA241STC	Serving the Travel Customers	4	4	
		Course 7	BBA241ANP	Airline Networking & Planning & Scheduling	4	4	
		COURSE 8	BBA241ASM	Aviation Security Management	4	4	
3	VI	INTERNSHIP		FOUR MONTH INTERNSHIP		12	

*Signature*

**ANDHRA LOYOLA COLLEGE (AUTONOMOUS)****BBA LOGISTICE MAMAGEMENT****COURSE STRUCTURE****Academic Year 2020-21****SEMESTER I**

S.No	CODE	NAME OF THE COURSE	CREDITS	MARKS	
				CIA	SEM END
1	Eng111ACS	LANGUAGE - I ENGLISH	3	50	50
2	BBA111FL	FUNDAMENTALS OF LOGISTICS	4	50	50
3	BBA111POM	PRINCIPLES OF MANAGEMENT	4	50	50
4	BBA111BO	BUSINESS ORGANIZATION	4	50	50
5	BBA111MM	MATERIALS MANAGEMENT	4	50	50
6	BBA111WD	WAREHOUSING & DISTRIBUTION CENTRE OPERATIONS	4	50	50
		<b>TOTAL CREDITS</b>	23		

**SEMESTER II**

1	Eng121ACS	LANGUAGE - I ENGLISH	3	50	50
2	BBA121BST	BUSINES STATISTICS	4	50	50
3	BBA121FF	FRIEGHT FORWARDING	4	50	50
4	BBA121FIM	FORECASTING & INVENTORY MANAGEMENT	4	50	50
5	BBA121ST	SURFACE TRANSPORTATION	4	4	50
6	BBA121OB	ORGANISATION BEHAVIOUR	4	50	50
		<b>TOTAL CREDITS</b>	23	50	50

ANDHRA LOYOLA COLLEGE (AUTONOMOUS)

BBA LOGISTICE MAMAGEMENT

COURSE STRUCTURE

Academic Year 2020-21

**SEMESTER III**

S.No	CODE	NAME OF THE COURSE	CREDITS	MARKS	
				CIA	SEM END
1	BBA231MIS	MIS FOR LOGISTICS	4	50	50
2	BBA231ILM	INTERNATIONAL LOGISTICS MANAGEMENT	4	50	50
3	BBA231MM	MARKETING MANAGEMENT	4	50	50
4	BBA231RLE	RETAIL LOGISTICS AND E COMMERCE	4	50	50
5	BBA231ENE	ENVIRONMENTAL STUDIES	4	50	50
6	BBA231LL	LINER LOGISTICS	4	50	50
		<b>TOTAL CREDITS</b>	24		
<b>SEMESTER IV</b>					
1	BBA241PTL	PORT TERMINAL LOGISTICS	4	50	50
2	BBA241CG	COMMERCIAL GEOGRAPHY	4	50	50
3	BBA241LND	LOGISTICS NETWORK DESIGN	4	50	50
4	BBA241LOG	LOGISTICS 4.0	4	50	50
5	BBA241FMO	FIRST MILE OPERATIONS	4	50	50
6	BBA241LMO	LAST MILE OPERATIONS	4	50	50
		<b>TOTAL CREDITS</b>	24		

  
HEAD OF THE DEPARTMENT

Department		B.Sc H&HA		I, III & V SEMESTERS : 2020-21			
Course Structure							
Year	Semester	Category	Course Code	Course Title	Hrs/W	Credits	
1	I	COURSE 1		Food & Beverage service	4	4	
				Food & Beverage Service Practical	2	2	
		COURSE 2		Housekeeping	4	4	
				Housekeeping Practical	2	2	
		COURSE 3		Cookery & Kitchen	4	4	
					Food Production Practical-I	2	2
		COURSE 4		Front Office	4	4	
				Front Office Practical-I	2	2	
2	III	COURSE 9		Beverage Service Operations	4	4	
				Food & Beverage Service Practical III	2	2	
		COURSE 10		Linen & Laundry Operations	4	4	
				Housekeeping Practical-III	2	2	
		COURSE 11		Indian Cooking & Menu planning	4	4	
				Food Production Practical-III	2	2	
		COURSE 12		Specialized Front Office	4	4	
					Front Office Practical-III	2	2
		3	V			Advance Culinary Preparation	5
				Food Production Practical	4	2	
				Food & Beverage Management	5	4	
				Accommodation Management	5	4	
				Bar Management	5	4	
				Sales & Marketing Management	4	4	
					Tourism Management	4	4

Department		B.Sc H&HA		II/IV/VI SEMESTERS : 2020-21		
Course Structure						
Year	Semester	Category	Course Code	Course Title	Hrs/W	Credits
1	II	COURSE 5		Food Service Operations	4	4
				Food & Beverage Service Practical	2	2
		COURSE 6		Housekeeping Operations	4	4
				Housekeeping Practical-II	2	2
		COURSE 7		Meat & Sauce Cookery	4	4
2	IV			Food Production Practical-II	2	2
				Room's Division	4	4
		COURSE 8		Front Office Practical-II	2	2
		SDC 01		Health & Hygiene	2	2
		SDC 02		Fruit & Vegetable preparation	2	2
					Industrial Exposure Training	900
Old Structure						
3	VI	INTERNSHIP		On job Specialization Training	900	48

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**ANDHRA LOYOLA COLLEGE (AUTONOMOUS)****BMS E COMMERCE OPERATIONS****COURSE STRUCTURE****Academic Year 2020-21****SEMESTER I**

S.No	CODE	NAME OF THE COURSE	CREDITS	MARKS	
				CIA	SEM END
1	Eng111ACS	LANGUAGE - I ENGLISH	3	50	50
2	BMS111POM	PRINCIPLES OF MANAGEMENT	4	50	50
3	BMS111AFS	ANALYSING FINANCIAL ACCOUNTING STSTEMENTS	4	50	50
4	BMS111IM	INVENTORY MANAGEMENT	4	50	50
5	BMS111IE	INTRODUCTION TO E COMMERCE LOGISTICS	4	50	50
6	BMS111BO	BUSINESS ORGANISATION	4	50	50
		<b>TOTAL CREDITS</b>	<b>23</b>		

**SEMESTER II**

1	BMS121ME	MANAGERIAL ECONOMICS	4	50	50
2	BMS121BENV	BUSINESS ENVIRONMENT	4	50	50
3	BMS121MM	MARKETING MANAGEMENT	4	50	50
4	BMS121WM	WAREHOUSE MANAGEMENT	4	4	50
5	BMS121MH	MATERAIL HANDILING	4	50	50
6	BMS121FMO	FIRST MILE OPERATIONS	4	50	50
		<b>TOTAL CREDITS</b>	<b>24</b>	<b>50</b>	<b>50</b>

  
HEAD OF THE DEPARTMENT



**ANDHRA LOYOLA COLLEGE (AUTONOMOUS)**  
**DEPARTMENT OF AGRICULTURE AND RURAL DEVELOPMENT**  
**COURSE STRUCTURE (1<sup>st</sup> & 2<sup>nd</sup> SEMESTERS) (2020-21)**

**SEMESTER-I**

S.No.	COURSE TITLE	CODE	SEM	CREDITS	THEORY	LAB
1	English		I	4	4	0
2	Fundamentals of Agronomy	AGRO101	I	3	2	1
3	Fundamentals of Plant Biochemistry and Soil Science	BICM101	I	3	2	1
4	Fundamentals of Agriculture Economics	AECO141	I	2	2	0
5	Fundamentals of Horticulture	HORT181	I	3	2	1
6	Rural Sociology, Educational Psychology and Human Values	AEXT 191	I	2	2	0
7	HVPE	LS-1	I	2	2	0
8	Vermicompost Production	SDC-1	I	2	1	1
9	MSPA	CERTIFICATE	I	2	1	1

**MSPA: Minimum Supporting Price for Agriculture crops in Andhra Pradesh**

**SEMESTER-II**

S.No.	COURSE TITLE	CODE	SEM	CREDITS	THEORY	LAB
1	English		II	4	4	0
2	Introductory Agrometeorology and Climate Change	AGRO 103	II	3	2	1
3	Fundamentals of Genetics	GPBR 111	II	3	2	1
4	Fundamentals of Entomology-1	ENTO 131	II	3	2	1
5	Soil and Water conservation engineering	AENG 151	II	3	2	1
6	Fundamentals of Plant Pathology -I	PATH 171	II	3	2	1
7	COMPUTER	LS-2	II	2	2	0
8	Mushroom Cultivation	SDC-2	II	2	1	1



Andhra Loyola College: Vijayawada (Autonomous)

Course Structure-Paramedical and Hospital Administration

S.No	SEM	Course Code	Course Title	No of Hours	No of Credits
1	I	PMV111BPB	Basic Principles of Biochemistry	5	5
2	I	PMV111BPH	Basic Principles of Hematology & Pathology	5	5
3	I	PMV111SPM	Social & Preventive Medicine	5	5
4	I	PMV111HAP	Human Anatomy & Physiology	5	5
5	II	PMV122BPB	Basic Principles of Biochemistry	3	3
6	II	PMV122BHP	Basic Principles of Haematology & Pathology	3	3
7	II	PMV121HAA	Hospital Awareness & Administration	3	3
8	II	PMV122HAP	Human Anatomy & Physiology	3	3
9	II	PMV122BPB (P)	Basic Principles of Biochemistry	3	2
10	II	PMV122BHP (P)	Basic Principles of Haematology & Pathology	3	2
11	II	PMV121HAA (P)	Hospital Awareness & Administration	3	2
12	II	PMV122HAP (P)	Human Anatomy & Physiology	3	2



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Dept. of Paramedical & Health Admin

Andhra Loyola Colleg

(AUTONOMOUS)

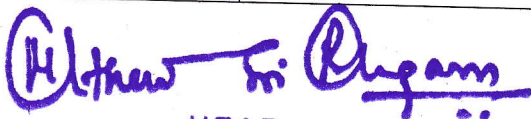
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Andhra Loyola College: Vijayawada (Autonomous)

Course Structure-Paramedical and Hospital Administration

S.No	SEM	Course Code	Course Title	No of Hours	No of Credits
1	III	PMV231RDE	Radiology Diagnostic Equipment	5	5
2	III	PMV231IMGT	Imaging Technology	5	5
3	III	PMV231IMM	Introduction of Medical Microbiology	5	5
4	III	PMV231RPD	Radiation Physics & Physics For Diagnostic Radiology	5	5
5	IV	PMV241PA	Principles Of Anesthesia	3	3
6	IV	PMV244AT	Anesthesia Technology -II	3	3
7	IV	PMV242BAT	Basic Anesthetic Techniques	3	3
8	IV	PMV243AT	Anesthesia Technology -I	3	3
9	IV	PMV241AT (P)-1	Principles of Anesthesia & Basic Anesthetic Techniques	3	2
10	IV	PMV242AT (P)-2	Anesthesia Technology-I & II	3	2
11	IV	PMV243RPIT(P)-3	Radiation Physics & Imaging Technology	3	2
12	IV	PMV244GM (P)-4	General Microbiology	3	2
13	IV	PMV245 IT (P)-5	Imaging Technology	3	2



HEAD

Dept. of Paramedical & Health Admin  
Andhra Loyola College  
(AUTONOMOUS)  
VIJAYAWADA-520008.



Andhra Loyola College-Vijayawada(Autonomous)  
Department of Botany-PG-Course Structure

SNo	SEM	Course Code	Course Title	Hours/Week	Credits
1	I	MAT112RA	REAL ANALYSIS	4	4
2	I	MAT113DE	ORDINARY DIFFERENTIAL EQUATIONS	4	4
3	I	MAT113CP	C-PROGRAMMING	4	4
4	I	MAT111AL	ALGEBRA	4	4
5	I	MAT111PR (P)	PRACTICAL	6	4
6	I	MAT112CP (P)	C-PROGRAMMING LAB	6	4
7	I	MAT111FC	FOUNDATION COURSE (APPLICATION OF MATHS)	2	2
8	I	MAT111QA	GENERAL ELECTIVE (Quantitative Aptitude)	2	2

SNo	SEM	Course Code	Course Title	Hours/Week	Credits
1	II	MAT121CA	COMPLEX ANALYSIS	4	4
2	II	MAT122NM	NUMERICAL METHODS	4	4
3	II	MAT123PD	PARTIAL DIFFERENTIAL EQUATIONS	4	4
4	II	MAT124LT	LATTICE THEORY	4	4
5	II	MAT125GT	GRAPH THEORY	4	4
6		MAT126RA	REAL ANALYSIS - II	4	4
7		MAT121NM (P)	NUMERICAL METHODS LAB	3	2
8		MAT121SC	SEMINAR COURSE	2	2
9	II	MAT121GE (VR)	GENERAL ELECTIVE (VERBAL REASONING)	2	2

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SNo	SEM	Course Code	Course Title	Hours/Week	Credits
1	III	MAT231CA	COMMUTATIVE ALGEBRA - I	5	5
2	III	MAT232FA	FUNCTIONAL ANALYSIS -	5	5
3	III	MAT233FS	FUZZY SETS AND APPLICATIONS	4	3
4	III	MAT234CAL	COMPLEX ANALYSIS	5	5
5	III	MAT235LT	LATTICE THEORY	4	3
6	III	MAT231RO C	RESEARCH ORIENTED COURSE	5	4

SNo	SEM	Course Code	Course Title	Hours/Week	Credits
1	IV	MAT241CA	COMMUTATIVE ALGEBRA- II	5	4
2	IV	MAT242OT	OPERATOR THEORY	5	4
3	IV	MAT243MI	MEASURE AND INTEGRATION	5	4
4	IV	MAT244NT	ALGEBRAIC NUMBER THEORY	5	4
5	IV	MAT244ACT	ALGEBRAIC CODING THEORY	5	4
6	IV	MAT241ROC	RESEARCH ORIENTED COURSE	3	3

*Madhavi*

**ANDHRA LOYOLA COLLEGE (Autonomous):: VIJAYAWADA-8**

**DEPARTMENT OF PHYSICS**

**M.Sc. PROGRAMME STRUCTURE (UNDER CBCS) (2020-21)**

Subjects	SEM I		SEM II		SEM III		SEM IV	
	Hrs/W	Credits	Hrs/W	Credits	Hrs/W	Credits	Hrs/W	Credits
<b>Foundation courses</b>								
<b>Subject related FC</b>	4	2						
<b>Core Papers</b>								
<b>Core 1</b>	4+3	4+2	4+3	4+2	4+3	4+2	4+3	4+2
<b>Core 2</b>	4+3	4+2	4+3	4+2	4+3	4+2	4+3	4+2
<b>Core 3</b>	4+3	4+2	4+3	4+2	4+3	4+2	4+3	4+2
<b>Core 4</b>	4+3	4+2	4+3	4+2				
<b>Skill Based Subject Elective 1</b>					3+3	3+2	3+3	3+2
<b>Skill Based Subject Elective 2</b>					3+3	3+2	3+3	3+2
<b>Seminar Course</b>			4	2				
<b>General Electives (Interdisciplinary)</b>	4	2	4	2				
<b>Research Oriented Course</b>					3	3	3	3
<b>Project Work/Industry Internship</b>					To be done during summer vacation between II and III Semesters			5
<b>Hrs/W(Academic Credits)</b>	36	28	36	28	36	31	36	36
<b>Extension Activities (Non Academic Credits) ALANA</b>				2				
<b>OVERALL CREDITS</b>					125			

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**ANDHRA LOYOLA COLLEGE (Autonomous):: VIJAYAWADA-8**

**DEPARTMENT OF PHYSICS**

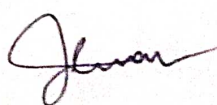
**M.Sc. PROGRAMME STRUCTURE (UNDER CBCS) (2020-21)**

<b>ACADEMIC FRAMEWORK FOR PG COURSE IN SCIENCES (NON-PROFESSIONAL)</b>				
<b>Name of the Program Courses</b>	<b>Semester 1</b>	<b>Semester 2</b>	<b>Semester 3</b>	<b>Semester 4</b>
<b>Foundation courses</b>				
1. Subject related FC	Concepts for Physicists			
2. Extension activity				
<b>Core Courses</b>				
1.	Mathematical Methods for Physicists	Statistical Mechanics	Atomic Physics	Molecular Physics
2.	Classical Mechanics	Advanced Quantum Mechanics	Nuclear & Particle Physics-I	Nuclear & Particle Physics-II
3.	Quantum Mechanics	Solid State Physics	Properties of Solids	Advances in materials Science
4.	Electronics	EM Theory Lasers and Optics		
<b>Skill based subject elective-I</b>			Glass Science and Technology/Thin film technology	Analytical Techniques/Solar energy & Photovoltaic Aspects
<b>Skill based subject elective-II</b>			Dielectrics , Ferroelectrics & High Temperature Super Conductors/ Radiation Physics	C-Programming and Computational Methods/ Renewable Energy
<b>Seminar Course</b>		Seminar		
<b>General Electives (Interdisciplinary courses)</b>	Physics of everyday life/ Medical Imaging Techniques	Radiation Hazards, Evaluation and Control/ Energy Management		
<b>Research oriented Courses</b>			Material Science*	Material Science*
<b>Project Work/Industry Immersion module</b>				
<b>Final Credits</b>	36+28	36+28	36+31	36+31+5+2

*Jhavar*

**ANDHRA LOYOLA COLLEGE (Autonomous):: VIJAYAWADA-8**  
**DEPARTMENT OF PHYSICS**  
**M.Sc. PROGRAMME STRUCTURE (UNDER CBCS)**  
**SEMESTER I (2020-21)**

S.No.	Course	Title	Hours /week	No of Credits	CIA	SE	Total
1	Foundation Course	Concepts for Physicists	4	2	50	50	100
2	Core Course	Mathematical Methods for Physicists	4	4	50	50	100
3	Core Course	Classical Mechanics	4	4	50	50	100
4	Core Course	Quantum Mechanics	4	4	50	50	100
5	Core Course	Electronics	4	4	50	50	100
6	General Elective	Physics of Everyday life / Medical Imaging Techniques	4	2	50	50	100
7	Practical course 1	General Physics-I	3	2	50	50	100
8	Practical course 2	General Physics-II	3	2	50	50	100
9	Practical course 3	General Electronics	3	2	50	50	100
10	Practical course 4	Digital Electronics	3	2	50	50	100
			36	28	550	450	1000





**ANDHRA LOYOLA COLLEGE (Autonomous) :: VIJAYAWADA-8**  
**DEPARTMENT OF PHYSICS**  
**M.Sc. PROGRAMME STRUCTURE (UNDER CBCS)**

**SEMESTER II (2020-21)**

S. No.	Course	Title	Hours/week	No of Credits	CI A	SE	Total
1	Core Course	Statistical Mechanics	4	4	50	50	100
2	Core Course	Advanced Quantum Mechanics	4	4	50	50	100
3	Core Course	Solid state Physics	4	4	50	50	100
4	Core Course	EM Theory, Lasers & Optics	4	4	50	50	100
5	Seminar Course	Student Activity	4	2	50	50	100
6	General Elective	Energy Management/Radiation Hazards Evaluation & Control	4	2	50	50	100
7	Practical course 1	Advanced Physics & Optics - I	3	2	50	50	100
8	Practical course 2	Advanced Physics & Optics-II	3	2	50	50	100
9	Practical course 3	Operational Amplifiers-I	3	2	50	50	100
10	Practical course 4	Operational Amplifiers-II	3	2	50	50	100
11	Extension Activity	Lab to School/School to Lab	45(Off campus)	2			
			36	30	500	500	1000

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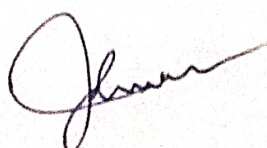
**ANDHRA LOYOLA COLLEGE (Autonomous):: VIJAYAWADA-8**  
**DEPARTMENT OF PHYSICS**  
**M.Sc. PROGRAMME STRUCTURE (UNDER CBCS)**  
**SEMESTER III (2020-21)**

S.No	Course	Title	Hours /week	No of Credits	CIA	SE	Total
1	Core Course	Atomic Physics	4	4	50	50	100
2	Core Course	Nuclear & Particle Physics - I	4	4	50	50	100
3	Core Course	Properties of Solids	4	4	50	50	100
4	Skill Based Electives	Glass Science & Technology/Thin film technology	3	3	50	50	100
5	Skill Based Electives	Dielectrics, Ferroelectrics & High Temperature Super Conductors/ Radiation Physics	3	3	50	50	100
6	Practical course 1	Material Science -I	3	2	50	50	100
7	Practical course 2	Material Science -II	3	2	50	50	100
8	Practical course 3	Preparation and Characterisation of Binary glass	3	2	50	50	100
9	Practical course 4	Micro Processor - I	3	2	50	50	100
10	Practical course 5	Micro Processor -II	3	2	50	50	100
11	Research Oriented Course	Material Science	3	3	50	50	100
			36	31	550	550	1100

*John*

**ANDHRA LOYOLA COLLEGE (Autonomous):: VIJAYAWADA-8**  
**DEPARTMENT OF PHYSICS**  
**M.Sc. PROGRAMME STRUCTURE (UNDER CBCS)**  
**SEMESTER IV (2020-21)**

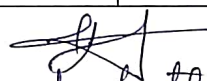
S.No	Course	Title	Hours /week	No of Credits	CIA	SE	Total
1	Core Course	Molecular Physics	4	4	50	50	100
2	Core Course	Nuclear & Particle Physics - II	4	4	50	50	100
3	Core Course	Advances in materials Science	4	4	50	50	100
4	Skill Based Electives	Analytical Techniques/Solar Energy & Photovoltaic Aspects	3	3	50	50	100
5	Skill Based Electives	Computational Methods & C programming/Renewable Energy	3	3	50	50	100
6	Practical course 1	C-Programming	3	2	50	50	100
7	Practical course 2	Numerical Methods & Programming	3	2	50	50	100
8	Practical course 3	Condensed Matter Physics	3	2	50	50	100
9	Practical course 4	Nuclear & Particle Physics	3	2	50	50	100
10	Practical course 5	Thermodynamic & Thermoacoustic Properties of materials	3	2	50	50	100
11	Research Oriented Course	Material Science	3	3	50	50	100
			36	31	550	550	1100



2020-21						
DEPARTMENT						
	SEM	CORE/ Foundation Course (FC)/ Certificate Course	COURSE CODE	COURSE TITLE	No. of Hrs/W	No. of Credits
NEW CBCS	I	Core 1 - Theory	CHE111GC	General chemistry	4	4
		Core 1 - Lab	CHEP111GC(P1)	General chemistry practical-I	3	2
		Core 2- Theory	CHE112IC	Inorganic chemistry	4	4
		Core 2-Lab	CHEP112OC(P2)	Organic chemistry practical-1	3	2
		Core 3- Theory	CHE113OC	Organic chemistry	4	4
		Core 3-Lab	CHEP113IC(P3)	Inorganic chemistry Practical-1	3	2
		Core 4- Theory	CHE114PC	Physical chemistry	4	4
		Core 4-Lab	CHEP114PC(P4)	Physical chemistry Practical-1	3	2
		FC	CHE111FC	Concepts of chemistry	4	2
	GE	CHE111EC(GE)	Environmental chemistry	4	2	
	II	Core 1 - Theory	CHE121GC	General chemistry	4	4
		Core 1 - Lab	CHE121OC(P1)	Organic chemistry Practical -2A	3	2
		Core 2- Theory	CHE122IC	Inorganic Chemistry	4	4
		Core 2-Lab	CHE122OC(P2)	Organic chemistry practical -2B	3	2
		Core 3- Theory	CHE123OC	Organic Chemistry	4	4
Core 3-Lab		CHE123IC(P3)	Inorganic Chemistry Practical -2	3	2	
Core 4- Theory		CHE124PC	Physical Chemistry	4	4	
Core 4-Lab		CHE124PC(P4)	Physical Chemistry Practical -2	3	2	
GE		CHE121GE(ES)	Environmental studies	4	2	
	Seminar Course	CHE121SC	Seminar	4	2	
	Extension activity	ALANA	Community service	-	2	

Head of the Department  
Department of Chemistry

OLD CBCS	III	Core 1 - Theory	CHE231OS	Organic Synthesis -I	4	4
		Core 1 - Lab	CHEP231(P1)	Three step synthesis	3	2
		Core 2- Theory	CHE232OR	Oxidations ,Reductions & Protecting groups	4	4
		Core 2-Lab	CHEP232(P2)	Analysis of organic binary mixture	3	2
		Core 3- Theory	CHE233OS	Organic spectroscopy-I	4	4
		Core 3-Lab	CHEP233(P3)	Spectral Charecterisation of Organic Compounds	3	2
		SBSE 1-Theory	CHE234IA / CHE234IC	Instrumental methods of analysis / Industrial chemistry	3	3
		SBSE 1-lab	CHEP234(P4)	Instrumental methods of analysis practical / Industrial chemistry practical	3	2
		SBSE 2-Theory	CHE235PA / CHE235 NC	Pharmaceutical Analysis / Nanochemistry-1	3	3
		SBSE 2-lab	CHEP235(P5)	Pharmaceutical Analysis Practical / Nanochemistry practical	3	2
	ROC	CHE231ROC	Research Oriented Course	3	3	
	IV	Core 1 - Theory	CHE241OS	Organic synthesis-2	4	4
		Core 1 - Lab	CHEP241FS(P1)	Four step synthesis	3	2
		Core 2- Theory	CHE242MR	Molecular rearrangements,pericyclic ,photochemistry	4	4
		Core 2-Lab	CHEP242PB(P2)	Preparations based on named reactions	3	2
		Core 3- Theory	CHE243OC	Organo metallic chemistry and heterocyclic chemistry	4	4
		Core3-Lab	CHEP243EO(P3)	Estimation of organic compounds	3	2
		SBSE 1-Theory	CHE244OS / CHE244 GC	Advanced organic spectroscopy / Green chemistry	3	3
		SBSE 1-lab	CHEP244SC(P4)/ CHEP244GC (P4)	Spectral Charecterisation of Organic Compounds / Green chemistry practicals	3	2
SBSE 2-Theory		CHE245NP / CHE245NC	Natural products and antibiotics / Nanochemistry-2	3	3	
SBSE 2-lab		CHEP245NP(P5) / CHEP245NC (P5)	Natural products practical / Nanochemistry practicals	3	2	
ROC	CHE241ROC	Research Oriented Course	3	3		
Project work	CHE241SP	Summer Project	-	4		

  
 Head of the Department  
 P. Gr - Chemistry

ANDHRA LOYOLA COLLEGE (AUTONOMOUS); VIJAYAWADA

DEPARTMENT: M.Sc BIOTECHNOLOGY

ACADEMIC YEAR - 2020-21

Semester 1

Course Type	Title of the Course	COURSE CODE	Hrs/W	No. of Credits
Foundation Course	Essentials for Biotechnology	BTY111FC	4	4
Core course I	Cell Biology & Genetics	BTY111CBG	4	4
Core course II	Biochemistry	BTY112BC	4	4
Core course III	Microbiology	BTY113MB	4	4
Core course IV	Bioinstrumentation	BTY114BI	4	4
Core Practical I	Cell Biology & Genetics	BTY111CBG(P)	3	2
Core Practical II	Biochemistry	BTY112BC(P)	3	2
Core Practical III	Microbiology	BTY113MB(P)	3	2
Core Practical IV	Bioinstrumentation	BTY114BI(P)	3	2
Seminar Course	Seminar Course	BTY111SC	4	2
General Elective	Applied Biotechnology	BTY111GE	4	2

Semester 2

Course Type	Title of the Course	COURSE CODE	Hrs/W	No. of Credits
Core course I	Molecular Biology	BTY121MB	4	4
Core course II	Enzymology	BTY122EM	4	4
Core course III	Biostatistics & Bioinformatics	BTY123BB	4	4
Core course IV	Food Biotechnology	BTY124FB	4	4
Core Practical I	Molecular Biology	BTY121MB(P)	3	2
Core Practical II	Enzymology	BTY122EM(P)	3	2
Core course III	Biostatistics & Bioinformatics	BTY123BB(P)	3	2
Core course IV	Food Biotechnology	BTY124FB(P)	3	2
Seminar Course	Seminar Course	BTY122SC	4	2
General Elective	Forensic Science	BTY122GE	4	2
Extension Activity	ALANA	-	-	4

*S. Sridhar*

Head of the Department of Biotechnology  
Andhra Loyola College (Autonomous)  
VIJAYAWADA - 520 008

Semester 3				
Course Type	Title of the Course	COURSE CODE	Hrs/W	No. of Credits
Core course I	Genetic Engineering	BTY231GE	4	4
Core course II	Immunology And Immunotechnology	BTY232IT	4	4
Core course III	Genomics And Proteomics	BTY233GP	4	4
Skill Based Subject Elective-1	Industrial Biotechnology	BTY234IB	4	4
Skill Based Subject Elective-2	Environmental Biotechnology	BTY235EB	4	4
Core Practical I	Genetic Engineering (P)	BTY231 (P)	3	2
Core Practical II	Immunology And Immuno Technology (P)	BTY232 (P)	3	2
Core Practical III	Genomics And Proteomics (P)	BTY233 (P)	3	2
Skill Based Subject Elective-1	Industrial Biotechnology (P)	BTY234 (P)	3	2
Skill Based Subject Elective-2	Environmental Biotechnology (P)	BTY235 (P)	3	2
RESEARCH ORIENTED COURSE	Research Oriented Course	BTY231ROC	3	3
Summer Project	-	-	-	4
Semester 4				
Course Type	Title of the Course	COURSE CODE	Hrs/W	No. of Credits
Core course I	Plant Biotechnology	BTY241PB	4	4
Core course II	Animal Biotechnology	BTY242AB	4	4
Core course III	Entrepreneurship And Management In Biotechnology	BTY243EMB	4	4
Skill Based Subject Elective-1	Marine Biotechnology	BTY244MB	3	3
Skill Based Subject Elective-2	Medical Biotechnology	BTY245MB	3	3
RESEARCH ORIENTED COURSE	Research Oriented Course	BTY241ROC	3	3
Core Practical I	Plant Biotechnology	BTY241 (P)	3	2
Core Practical II	Animal Biotechnology (P)	BTY242 (P)	3	2
Core Practical III	Entrepreneurship And Management In Biotechnology (P)	BTY243 (P)	3	2
Skill Based Subject Elective-1	Marine Biotechnology (P)	BTY244 (P)	3	2
Skill Based Subject Elective-2	Medical Biotechnology (P)	BTY245 (P)	3	2
	Final Project	BTY241 P		4

*S. Sri Lakshmi*

Head of the Department of Biotechnology  
Andhra Loyola College (Autonomous)  
VIJAYAWADA - 520 008

**ANDHRA LOYOLA COLLEGE (AUTONOMOUS): VIJAYAWADA**

**DEPARTMENT: M.Sc BIOTECHNOLOGY**

**ACADEMIC YEAR - 2018-19**

**Semester 1**

Course Type	Title of the Course	COURSE CODE	Hrs/W	No. of Credits
Foundation Course	Essentials for Biotechnology	BTY111FC	4	4
Core course I	Cell Biology & Genetics	BTY111CBG	4	4
Core course II	Biochemistry	BTY112BC	4	4
Core course III	Microbiology	BTY113MB	4	4
Core course IV	Bioinstrumentation	BTY114BI	4	4
Core Practical I	Cell Biology & Genetics	BTY111CBG(P)	3	2
Core Practical II	Biochemistry	BTY112BC(P)	3	2
Core Practical III	Microbiology	BTY113MB(P)	3	2
Core Practical IV	Bioinstrumentation	BTY114BI(P)	3	2
Seminar Course	Seminar Course	BTY111SC	4	2
General Elective	Applied Biotechnology	BTY111GE	4	2

**Semester 2**

Course Type	Title of the Course	COURSE CODE	Hrs/W	No. of Credits
Core course I	Molecular Biology	BTY121MB	4	4
Core course II	Enzymology	BTY122EM	4	4
Core course III	Biostatistics & Bioinformatics	BTY123BB	4	4
Core course IV	Food Biotechnology	BTY124FB	4	4
Core Practical I	Molecular Biology	BTY121MB(P)	3	2
Core Practical II	Enzymology	BTY122EM(P)	3	2
Core course III	Biostatistics & Bioinformatics	BTY123BB(P)	3	2
Core course IV	Food Biotechnology	BTY124FB(P)	3	2
Seminar Course	Seminar Course	BTY122SC	4	2
General Elective	Forensic Science	BTY122GE	4	2



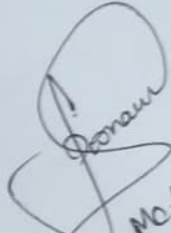
Semester 3				
Course Type	Title of the Course	COURSE CODE	Hrs/W	No. of Credits
Core course I	Genetic Engineering	BTY231GE	4	4
Core course II	Immunology And Immunotechnology	BTY232IT	4	4
Core course III	Genomics And Proteomics	BTY233GP	4	4
Core course IV	Industrial Biotechnology	BTY234IB	4	4
Core course V	Environmental Biotechnology	BTY235EB	4	4
RESEARCH ORIENTED COURS	Research Oriented Course	BTY231ROC	3	3
Core Practical I	Genetic Engineering (P)	BTY231 (P)	3	2
Core Practical II	Immunology And Immuno Technology (P)	BTY232 (P)	3	2
Core Practical III	Genomics And Proteomics (P)	BTY233 (P)	3	2
Core Practical IV	Industrial Biotechnology (P)	BTY234 (P)	3	2
Core Practical V	Environmental Biotechnology (P)	BTY235 (P)	3	2
Semester 4				
Course Type	Title of the Course	COURSE CODE	Hrs/W	No. of Credits
Core course I	Plant Biotechnology	BTY241PB	4	4
Core course II	Animal Biotechnology	BTY242AB	4	4
Core course III	Entrepreneurship And Management In Biotechnology	BTY243EMB	4	4
Core course IV	Marine Biotechnology	BTY244MB	3	3
Core course V	Medical Biotechnology	BTY245MB	3	3
RESEARCH ORIENTED COURS	Research Oriented Course	BTY241ROC	3	3
Core Practical I	Plant Biotechnology	BTY241 (P)	3	2
Core Practical II	Animal Biotechnology (P)	BTY242 (P)	3	2
Core Practical III	Entrepreneurship And Management In Biotechnology (P)	BTY243 (P)	3	2
Core Practical IV	Marine Biotechnology (P)	BTY244 (P)	3	2
Core Practical V	Medical Biotechnology (P)	BTY245 (P)	3	2
	Final Project	BTY241 P		4

*V. Kavitha.*

YEAR-2020-2021

SEMESTER I

Sl. No	Subject Code	Subject Title	Internal Marks	External Marks	Total Marks	Hours Per Week	No. of Credits / Week
1	Foundation Course	Basics of OS (UNIX & LINUX)	50	50	50	----	2
2	MCA10117	Programming and Problem Solving	50	50	100	4	4
3	MCA10217	Discrete Mathematical Structures	50	50	100	4	4
4	MCA10317	Computer Organization	50	50	100	4	4
5	MCA10417	Introduction to Internet Programming	50	50	100	4	4
6	MCA10517	Accounting Financial Management	50	50	100	4	4
7	MCA10617	General Elective Soft Skills	50	50	100	4	2
8	MCA107P17	C Programming Lab	50	50	100	6	3
9	MCA108P17	Internet Programming Lab	50	50	100	6	3
Total			450	450	900	36	30

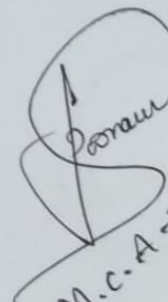
  
MCA-HeD

ANDHRA LOYOLA COLLEGE (AUTONOMOUS)  
DEPARTMENT OF MCA  
II SEMESTER DETAIL SYLLABUS

Year -2020-2021

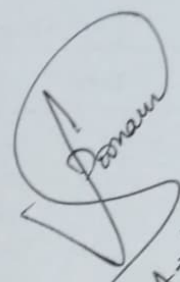
SEMESTER II

Sl. No	Subject Code	Subject Title	Internal Marks	External Marks	Total Marks	Hours Per Week	No. of Credits/ Week
1	Foundation Course	Communication Skills	50	50	50	----	2
2	MCA20117	Data Structures	50	50	100	4	4
3	MCA20217	Object Oriented Programming	50	50	100	4	4
4	MCA20317	Operating Systems	50	50	100	4	4
5	MCA20417	Database Management System	50	50	100	4	4
6	MCA20517	Computer Networks	50	50	100	4	4
7	MCA20617	General Elective Office Automation	50	50	100	4	2
8	MCA207P17	Data Structures Lab	50	50	100	6	3
9	MCA208P17	DBMS Lab	50	50	100	6	3
<b>Total</b>			<b>450</b>	<b>450</b>	<b>900</b>	<b>36</b>	<b>30</b>

  
 M.C.A. - HoD

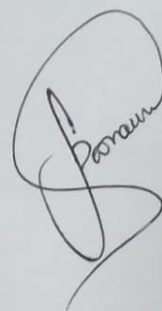
## SEMESTER -III

Sl. No	Subject Code	Subject Title	Internal Marks	External Marks	Total Marks	Hours Per Week	No. of Credits/Week
1	MCA30117	Cryptography & Network Security	50	50	100	4	4
2	MCA30217	Advanced JAVA	50	50	100	4	4
3	MCA30317	Object Oriented Software Engineering	50	50	100	4	4
4	MCA30417	Operations Research	50	50	100	4	4
5	MCA30517	Programming in Python	50	50	100	4	4
6	MCA306P17	Python Lab	50	50	100	6	3
7	MCA307P17	Advanced Java Lab	50	50	100	6	3
8	MCA308P17	Seminar		50	50	3	2
<b>Total</b>			<b>350</b>	<b>400</b>	<b>750</b>	<b>35</b>	<b>28</b>

  
 P. S. Panwar  
 MCA-HOD

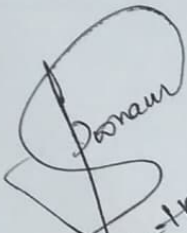
**SEMESTER IV**

Sl. No	Subject Code	Subject Title	Internal Marks	External Marks	Total Marks	Hours Per Week	No. of Credits/ Week
1	MCA40117	Computer Graphics	50	50	100	4	4
2	MCA40217	Open Source Technologies	50	50	100	4	4
3	MCA40317	Data mining & Data Warehouse	50	50	100	4	4
4	MCA40417	Android Application Development	50	50	100	4	4
5	MCA405.117	Enterprise Resource Planning					
	MCA405.217	Compiler Design					
	MCA405.317	Software Testing					
6	MCA406P17	Data Mining Lab	50	50	100	6	3
7	MCA407P17	Android App Lab	50	50	100	6	3
8	MCA40817	Project Planning & Mini Project & Mini Project		50	100	3	2
<b>Total</b>			<b>350</b>	<b>400</b>	<b>750</b>	<b>35</b>	<b>28</b>



**SEMESTER V**

Sl. No	Subject Code	Subject Title	Internal Marks	External Marks	Total Marks	Hours Per Week	No. of Credits/ Week
1	MCA50117	Data Sciences	50	50	100	4	4
2	MCA50217	Design and Analysis of Algorithms	50	50	100	4	4
3	MCA50317	Dot Net Programming	50	50	100	4	4
4	MCA50417	Artificial Intelligence	50	50	100	4	4
5	MCA505.117	Robotics					
	MCA505.217	IoT					
	MCA505.317	Block Chain Technologies					
	MCA505.417	Cyber Crimes and Cyber Laws					
6	MCA506P17	Data Science Lab	50	50	100	6	3
7	MCA507P17	Dot Net Programming Lab	50	50	100	6	3
8	MCA508P17	Mini Project		50	50	3	2
<b>Total</b>			<b>350</b>	<b>400</b>	<b>750</b>	<b>35</b>	<b>28</b>


  
 MCA-HPD

## SEMESTER VI

### Major Project: Credits

#### Objectives:

1. To explore the knowledge of students in technical domain and application domain.
0. To get an experience to develop software in the corporate domain.

  
M.C.A-HOD

2020-21

## COURSE STRUCTURE

COURSES	SEMESTER I	SEMESTER II	SEMESTER III	SEMESTER IV
Foundation Course				
BUSINESS FUNDAMENTALS	4(2)			
Extension Activity		45(2) (AFTER COLLEGE HOURS)		
Core Courses				
1	4(3)	5(4)	3(3)	3(3)
2	5(4)	5(4)	5(4)	5(4)
3	5(4)	5(4)	5(4)	5(4)
4	5(4)	5(4)	5(4)	5(4)
5	4(3)	4(3)	5(4)	5(4)
6	5(4)	4(3)	5(4)	5(4)
7	4(3)	4(3)	5(4)	5(4)
8	----	----		
Communication Skills	—	----	—	
General Electives	4(2)	4(2)		
GENERIC ELECTIVE			3(2)	3(2)
Research Oriented Course			----	
Project Work / Comprehensive viva			0(2)	0(4)
	36(29)	36(29)	36(31)	36(33)
Total credits = 122				



## Semester II

Code	Courses	Lecture /week	Elective	Internal Marks	External Marks	No.of Credits
MBA201	Marketing Management	5	Core	50	50	4
MBA 202	HumanResource Management	5	Core	50	50	4
MBA 203	Financial Management	5	Core	50	50	4
MBA 204	Operation Research	5	Core	50	50	4
MBA 205	Entrepreneurship : Theory and Practice	4	Core	50	50	3
MBA 206	Business Research Methods	4	Core	50	50	3
MBA 207	Project Management	4	core	50	50	3
MBA 208	General Elective-2	4		50	50	2
BA 209	Extension Activity	0	-		100	2
<b>Total for II Semester</b>		<b>36</b>	<b>-</b>	<b>400</b>	<b>500</b>	<b>29</b>

### III-SEMESTER

Paper Code	Paper Title Generic core course	Teaching Hours/ week			Core / Elective	Internal Marks	External Marks	No. of Credits
		Lecture	Tutorial	Practical				
MBA301	Strategic Management	1	1	1	Core	50	50	3
<b>FUNCTIONAL SPECIALISATIONS</b> (Choose any 6 elective courses out of 5 Specializations having 5 courses each as shown in Table-1)								
MBA302 MKT – MBA 306 MKT	Marketing	6X5=30HOURS (18L +6T+6P)			Electives	6X50	6X50	6X4=24
MBA302 HRMOB - MBA306 HRMOB	HRM & OB							
MBA302 FIN - MBA306 FIN	Finance							
MBA302OPS- 306OPS)	Operations							
MBA302ENT- 306ENT)	Entrepreneurship							
MBA307	Project Work	-	-	-			50	2
<b>Generic Elective Courses (Choose any one out of three courses)</b>								
MBA308	Leadership	1	1	1	Elective-1	50	50	2
MBA 309	Creativity & Innovation	1	1	1	Elective-2	-	-	-
MBA310 MOOCS /NCFM/IRDA/NISM	Any online course related to MBA from the authentic sources	1	1	1	Elective-3	A PASS CERTIFICATE WITH 50% MARKS		-
<b>TOTAL FOR III SEMESTER</b>		<b>20</b>	<b>8</b>	<b>8</b>	<b>-</b>	<b>400</b>	<b>450</b>	<b>31</b>

**Note: Candidates are encouraged to opt for MBA310 (MOOCS and other certificate courses).**

### IV SEMESTER

Paper Code	Paper Title Generic core Course	Teaching Hours/ week			Core / Elective	Internal Marks	External Marks	No. of Credits
		Lecture	Tutorial	Practical				
MBA401	International Business	1	1	1	Core	50	50	3

#### ADVANCED SPECIALISATIONS

(Choose any 6 elective courses out of 5 Specializations having 5 courses each as shown in Table-2)

MBA402 MKT - MBA 406 MKT	Marketing	6 X 5 = 30 HOURS (18L +6T+6P)	Electives	6 X 50	6 X 50	6 X 4=24
MBA402 HRMOB -MBA406 HRMOB	HRM & OB					
MBA402 FIN - MBA406 FIN	Finance					
MBA408	Comprehensive Viva-voce					

#### GENERIC ELECTIVE COURSES (Choose any One out of Three courses)

MBA 409	Employability Skills Lab	1	1	1	Elective-1	50	50	2
MBA 410	Selling & Negotiation Skills Lab	1	1	1	Elective-2	50	50	2
MBA 4121	Statistical Software Applications Lab	1	1	1	Elective-3	50	50	2
<b>TOTAL FOR IV SEMESTER</b>		<b>20</b>	<b>8</b>	<b>8</b>		<b>400</b>	<b>500</b>	<b>33</b>

*A. Medhura*