Lovely Faculty of Technology and Sciences

Curriculum and Syllabus

Bachelor of Computer Applications

UNDER CHOICE BASED FLEXIBLE CREDIT SYSTEM / ELECTIVE SYSTEM

(For students admitted from 2018-19 onwards)

Offering Department:*School of Computer Application*

Section I
Program Information

Program Code: P124 **Program Name:** Bachelor of Computer Applications
Program Batch: 2021

This Bachelor Degree program offered by Lovely Professional University in the School of Computer Application has a minimum duration of 3 years and is offered under Semester system through Regular mode. It is a Standalone program based on Credit system.

The medium of Instruction in this program is English

A. Program Educational Objectives

Sr.No.	Objective
1	Become successful professional using expertise and experience in information technology
2	Those employed in industry will demonstrate professional advancement through significant technical accomplishment.
3	Those who continue their formal education will achieve a higher degree or other advanced certification.

B. Program Outcomes

Sr.No.	Outcome	Heading	Description
1	PO1	Domain Knowledge	Ability to apply exploration to study and analyze problems in different areas of information technology.
2	PO2	Employability	Ability to get employment opportunities in corporate/government/private sectors or to be a successful entrepreneur
3	PO3	Modern tool usage	Ability to use the modern programming languages, tools, techniques and skills necessary for design, develop and deploy software based applications.
4	PO4	Analysis & design of complex problems	Ability to apply knowledge of computer science concepts, principles & techniques to solve various computing problems.
5	PO5	Societal Impact	Acquire and apply advanced knowledge of concepts and participate in sustainable development.
6	PO6	Professionalism	Ability to Manage time well, demonstrate an appropriate level of preparedness and maintain a high standard for personal and professional demeanor, accepting responsibility and accountability for words and actions
7	PO7	Research Problem Solving	Ability to assimilate, evaluate and present research results objectively

C. Program Specific Outcomes

Sr.No.	Outcome	Description
1	PSO1	Ability to analyze, interpret and present findings effectively using mathematical and communication skills.
2	PSO2	Ability to effectively apply the computer science concepts to analyze, design and develop cost effective, efficient and secure solutions to the societal problems.
3	PSO3	Amalgamate knowledge of information technology and computational tools for simulation.
4	PSO4	Understand the fundamentals and applications of programming, data structures, databases, networking, mobile computing, information security and data analysis.

Section-II-B
Program Scheme

Program Code & Name:**P124::BCA**

System: **Semester**   Year of Admission: **2021**   Duration in Years: **3**

		Term 1					P124-1-2021
S.No	**Course Code**	**Course Title**	**L**	**T**	**P**	**Credit**	**Nature**
1	CAP170	FUNDAMENTALS OF INFORMATION TECHNOLOGY	3	0	0	3	DSC
2	CAP171	FUNDAMENTALS OF INFORMATION TECHNOLOGY- LABORATORY	0	0	2	1	DSC
3	CAP172	PROGRAMMING METHODOLOGIES	3	0	0	3	DSC
4	CAP173	PROGRAMMING METHODOLOGIES-LABORATORY	0	0	2	1	DSC
5	CHE110	ENVIRONMENTAL STUDIES	2	2	0	4	DSC
6	MTH136	DISCRETE STRUCTURES	3	1	0	4	DSC
7	PEL200	ENGLISH COMMUNICATION SKILLS	3	1	0	4	LCS
Total			**14**	**4**	**4**	**20**	

		Term 2					P124-2-2021
S.No	**Course Code**	**Course Title**	**L**	**T**	**P**	**Credit**	**Nature**
1	CAP200	DATABASE MANAGEMENT SYSTEMS	3	0	0	3	DSC
2	CAP202	OBJECT ORIENTED PROGRAMMING	3	0	0	3	DSC
3	CAP256	COMPUTER NETWORKS	3	0	0	3	DSC
4	CAP257	COMPUTER NETWORKS-LABORATORY	0	0	2	1	DSC
5	CAP268	COMPUTER SYSTEM ARCHITECTURE	3	0	2	4	DSC
6	CAP280	DATABASE MANAGEMENT SYSTEMS-LABORATORY	0	0	2	1	DSC
7	CAP281	OBJECT ORIENTED PROGRAMMING-LABORATORY	0	0	2	1	DSC
8	PEL201	ADVANCED ENGLISH COMMUNICATION SKILLS	4	0	0	4	LCS
Total			**16**	**0**	**8**	**20**	

		Term 3					P124-3-2021
S.No	**Course Code**	**Course Title**	**L**	**T**	**P**	**Credit**	**Nature**
1		GENERIC ELECTIVE 1	3	1	0	4	OEM
2		SKILL ENHANCEMENT COURSE 1	2	2	0	4	SEC
3	CAP213	PRINCIPLES OF OPERATING SYSTEMS	4	0	0	4	DSC
4	CAP214	FUNDAMENTALS OF WEB PROGRAMMING	3	0	0	3	DSC
5	CAP267	DATA STRUCTURES	3	0	0	3	DSC
6	CAP282	DATA STRUCTURES-LABORATORY	0	0	2	1	DSC
7	CAP283	FUNDAMENTALS OF WEB PROGRAMMING-LABORATORY	0	0	2	1	DSC
8	MGN231	PROJECT	0	0	8	4	PRC
Total			**15**	**3**	**12**	**24**	

		Term 4					P124-4-2021
S.No	**Course Code**	**Course Title**	**L**	**T**	**P**	**Credit**	**Nature**
1		GENERIC ELECTIVE 2	3	1	0	4	OEM
2		GENERIC ELECTIVE 3	3	1	0	4	OEM
3		SKILL ENHANCEMENT COURSE 2	2	2	0	4	SEC

			L	T	P	Credit	Nature
4		SPECIALIZATION ELECTIVE 1	2	0	4	4	DSE
5	CAP314	PRINCIPLES OF SOFTWARE ENGINEERING	4	0	0	4	DSC
6	CAP378	ARTIFICIAL INTELLIGENCE	3	0	0	3	DSC
7	CAP379	ARTIFICIAL INTELLIGENCE-LABOROTARY	0	0	2	1	DSC
Total			**17**	**4**	**6**	**24**	

Term 5 (For those students who opt for course work)							P124-5-2021
S.No	**Course Code**	**Course Title**	**L**	**T**	**P**	**Credit**	**Nature**
1		GENERIC ELECTIVE 4	3	1	0	4	OEM
2		SKILL ENHANCEMENT COURSE 3	2	0	4	4	SEC
3		SPECIALIZATION ELECTIVE 2	2	0	4	4	DSE
4		SPECIALIZATION ELECTIVE 3	2	0	4	4	DSE
5	CAP368	SEMINAR ON SUMMER TRAINING	0	0	8	4	SMN
Total			**9**	**1**	**20**	**20**	

Term 5 (For those students who opt for industrial internship)							P124A-5-2021
S.No	**Course Code**	**Course Title**	**L**	**T**	**P**	**Credit**	**Nature**
1	CAP368	SEMINAR ON SUMMER TRAINING	0	0	8	4	SMN
2	CAP449	INDUSTRY CO-OP PROJECT	0	0	32	16	PRJ
Total			**0**	**0**	**40**	**20**	

Term 6 (For those students who opt for course work)							P124-6-2021
S.No	**Course Code**	**Course Title**	**L**	**T**	**P**	**Credit**	**Nature**
1		SKILL ENHANCEMENT COURSE 4	2	0	4	4	SEC
2		SPECIALIZATION ELECTIVE 4	2	0	4	4	DSE
3	CAP463	PROJECT	0	0	16	8	PRJ
Total			**4**	**0**	**24**	**16**	

Term 6 (For those students who opt for industrial internship)							P124A-6-2021
S.No	**Course Code**	**Course Title**	**L**	**T**	**P**	**Credit**	**Nature**
1	CAP451	INDUSTRIAL TRAINING	0	0	32	16	TCF
Total			**0**	**0**	**32**	**16**	

S.No	**Course Code**	**Course Title**	**L**	**T**	**P**	**Credit**
1	ACC103	FINANCIAL ACCOUNTING	3	1	0	4
2	ACC204	COST ACCOUNTING	3	1	0	4
3	ACC210	CORPORATE ACCOUNTING	3	1	0	4
4	ACC310	ADVANCED COST ACCOUNTING	3	1	0	4
5	BSL101	BUSINESS LAW	3	1	0	4
6	BSL102	COMPANY LAW	3	1	0	4
7	BSL301	INCOME TAX LAW AND PRACTICE	3	1	0	4
8	BSL304	GOODS AND SERVICES TAX (GST) AND CUSTOMS LAWS	3	1	0	4
9	CAP438	SOFTWARE TESTING	2	0	4	4
10	CAP441	CURRENT TRENDS AND TECHNOLOGIES	4	0	0	4
11	CAP460	FUNDAMENTALS OF PYTHON	2	0	4	4

S.No	Course Code	Course Title	L	T	P	Credit
12	CAP512	OPEN SOURCE WEB APPLICATION DEVELOPMENT	2	0	4	4
13	CAP951	SOFTWARE PROJECT MANAGEMENT	3	0	2	4
14	ECE281	ARDUINO FOR THE BEGINEERS	3	0	2	4
15	ECE282	INTRODUCTION TO IOT WITH NODEMCU	3	0	2	4
16	ECE283	IINTRODUCTION TO EMBEDDED SYSTEMS WITH PYTHON	3	0	2	4
17	ECE284	RASPBERRY PI FOR THE BEGINEERS	3	0	2	4
18	ECO113	BUSINESS ECONOMICS	3	1	0	4
19	FIN302	FUNDAMENTALS OF FINANCIAL MANAGEMENT	3	1	0	4
20	MGN101	BUSINESS ORGANISATION AND MANAGEMENT	3	1	0	4
21	MGN251	SPREADSHEET MODELLING	2	2	0	4
22	MGN358	E-COMMERCE	3	1	0	4
23	MKT201	PRINCIPLES OF MARKETING	3	1	0	4
24	MKT309	DIGITAL MARKETING	1	3	0	4
25	MKT312	SELLING SKILLS	2	2	0	4
26	PEA204	ANALYTICAL SKILLS	2	2	0	4
27	PEA208	ADVANCED ANALYTICAL SKILLS	2	2	0	4
28	PES209	SOFT SKILLS	2	2	0	4

Specialization Electives

S.No	Course Code	Course Title	L	T	P	Credit	Specialization
1	ACC103	FINANCIAL ACCOUNTING	3	1	0	4	ACCOUNTING
2	ACC204	COST ACCOUNTING	3	1	0	4	ACCOUNTING
3	ACC210	CORPORATE ACCOUNTING	3	1	0	4	ACCOUNTING
4	ACC310	ADVANCED COST ACCOUNTING	3	1	0	4	ACCOUNTING
5	CAP460	FUNDAMENTALS OF PYTHON	2	0	4	4	APPLICATION DEVELOPMENT
6	CAP512	OPEN SOURCE WEB APPLICATION DEVELOPMENT	2	0	4	4	APPLICATION DEVELOPMENT
7	PEA204	ANALYTICAL SKILLS	2	2	0	4	APPLICATION DEVELOPMENT
8	PES209	SOFT SKILLS	2	2	0	4	APPLICATION DEVELOPMENT
9	CAP482	DATA EXPLORATION AND PREPARATION	2	0	4	4	DATA SCIENCE
10	CAP483	DATA VISUALIZATION	2	0	4	4	DATA SCIENCE
11	CAP484	DESCRIPTIVE ANALYTICS	2	0	4	4	DATA SCIENCE
12	CAP485	PREDCTIVE ANALYTICS	2	0	4	4	DATA SCIENCE
13	CAP472	FUNDAMENTALS OF GAME DEVELOPMENT	2	0	4	4	GAMING
14	CAP473	GAME DEVELOPMENT USING UNITY ENGINE	2	0	4	4	GAMING
15	CAP474	GAME DEVELOPMENT USING UNREAL ENGINE	2	0	4	4	GAMING
16	CAP475	ARTIFICIAL INTELLIGENCE FOR GAME DEVELOPMENT	2	0	4	4	GAMING
17	ECO113	BUSINESS ECONOMICS	3	1	0	4	GENERAL MANAGEMENT

		Specialization Electives					
S.No	**Course Code**	**Course Title**	**L**	**T**	**P**	**Credit**	**Specialization**
18	FIN302	FUNDAMENTALS OF FINANCIAL MANAGEMENT	3	1	0	4	GENERAL MANAGEMENT
19	MGN101	BUSINESS ORGANISATION AND MANAGEMENT	3	1	0	4	GENERAL MANAGEMENT
20	MGN358	E-COMMERCE	3	1	0	4	GENERAL MANAGEMENT
21	CAP441	CURRENT TRENDS AND TECHNOLOGIES	4	0	0	4	GOVERNMENT JOBS
22	PEA204	ANALYTICAL SKILLS	2	2	0	4	GOVERNMENT JOBS
23	PEA208	ADVANCED ANALYTICAL SKILLS	2	2	0	4	GOVERNMENT JOBS
24	PES209	SOFT SKILLS	2	2	0	4	GOVERNMENT JOBS
25	CAP441	CURRENT TRENDS AND TECHNOLOGIES	4	0	0	4	HIGHER STUDIES
26	PEA204	ANALYTICAL SKILLS	2	2	0	4	HIGHER STUDIES
27	PEA208	ADVANCED ANALYTICAL SKILLS	2	2	0	4	HIGHER STUDIES
28	PES209	SOFT SKILLS	2	2	0	4	HIGHER STUDIES
29	ECE281	ARDUINO FOR THE BEGINEERS	3	0	2	4	INTERNET OF THINGS
30	ECE282	INTRODUCTION TO IOT WITH NODEMCU	3	0	2	4	INTERNET OF THINGS
31	ECE283	IINTRODUCTION TO EMBEDDED SYSTEMS WITH PYTHON	3	0	2	4	INTERNET OF THINGS
32	ECE284	RASPBERRY PI FOR THE BEGINEERS	3	0	2	4	INTERNET OF THINGS
33	BSL101	BUSINESS LAW	3	1	0	4	LAW AND TAXATION
34	BSL102	COMPANY LAW	3	1	0	4	LAW AND TAXATION
35	BSL301	INCOME TAX LAW AND PRACTICE	3	1	0	4	LAW AND TAXATION
36	BSL304	GOODS AND SERVICES TAX (GST) AND CUSTOMS LAWS	3	1	0	4	LAW AND TAXATION
37	CAP486	MOBILE APP DEVELOPMENT WITH FLUTTER	2	0	4	4	MOBILE APPLICATIONS DEVELOPMENT
38	CAP487	MOBILE APP DEVELOPMENT WITH REACT NATIVE	2	0	4	4	MOBILE APPLICATIONS DEVELOPMENT
39	CAP488	MOBILE APP DEVELOPMENT WITH NATIVESCRIPT	2	0	4	4	MOBILE APPLICATIONS DEVELOPMENT
40	CAP489	MOBILE APP DEVELOPMENT FRAMEWORKS	2	0	4	4	MOBILE APPLICATIONS DEVELOPMENT
41	CAP495	WIRELESS AND MOBILE NETWORK	3	0	2	4	NETWORKING AND SECURITY
42	CAP496	CRYPTOGRAPHY AND SECURITY RISK MANAGEMENT	3	0	2	4	NETWORKING AND SECURITY
43	CAP497	CYBER SECURITY AWARENESS	2	0	4	4	NETWORKING AND SECURITY
44	CAP498	DIGITAL FORENSICS	2	0	4	4	NETWORKING AND SECURITY
45	MGN251	SPREADSHEET MODELLING	2	2	0	4	SALES AND MARKETING
46	MKT201	PRINCIPLES OF MARKETING	3	1	0	4	SALES AND MARKETING
47	MKT309	DIGITAL MARKETING	1	3	0	4	SALES AND MARKETING
48	MKT312	SELLING SKILLS	2	2	0	4	SALES AND MARKETING
49	CAP438	SOFTWARE TESTING	2	0	4	4	SERVICE MANAGEMENT

S.No	Course Code	Course Title	L	T	P	Credit	Specialization
		Specialization Electives					
50	CAP951	SOFTWARE PROJECT MANAGEMENT	3	0	2	4	SERVICE MANAGEMENT
51	PEA204	ANALYTICAL SKILLS	2	2	0	4	SERVICE MANAGEMENT
52	PES209	SOFT SKILLS	2	2	0	4	SERVICE MANAGEMENT
53	CAP916	FRONT-END WEB UI FRAMEWORKS AND TOOLS	2	0	4	4	WEB DEVELOPMENT
54	CAP917	FRONT-END JAVASCRIPT FRAMEWORKS	2	0	4	4	WEB DEVELOPMENT
55	CAP918	MULTIPLATFORM MOBILE APP	2	0	4	4	WEB DEVELOPMENT
56	CAP919	SERVER SIDE DEVELOPMENT WITH NODE.JS	2	0	4	4	WEB DEVELOPMENT

Scheme Nature Description	
Name	**Description**
DSC	Discipline Core
DSE	Discipline Elective
LCS	Language & Communication Skills
OEM	Open Minor/Open Elective
PRC	Community Development Project
PRJ	Project (including Capstone Project and Research Project)
SEC	SKILL ENHANCEMMENT
SMN	Seminar
TCF	Training Compulsory – Full term

Section-III
Course Mappings

A. PO/PSOs Mapping with Core Courses

Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
PEL201	ADVANCED ENGLISH COMMUNICATION SKILLS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
PEL200	ENGLISH COMMUNICATION SKILLS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
MTH136	DISCRETE STRUCTURES	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
CHE110	ENVIRONMENTAL STUDIES	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
CAP451	INDUSTRIAL TRAINING	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CAP379	ARTIFICIAL INTELLIGENCE-LABOROTARY	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CAP378	ARTIFICIAL INTELLIGENCE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CAP283	FUNDAMENTALS OF WEB PROGRAMMING-LABORATORY	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CAP282	DATA STRUCTURES-LABORATORY	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CAP281	OBJECT ORIENTED PROGRAMMING-LABORATORY	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CAP280	DATABASE MANAGEMENT SYSTEMS-LABORATORY	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CAP268	COMPUTER SYSTEM ARCHITECTURE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
CAP267	DATA STRUCTURES	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CAP257	COMPUTER NETWORKS-LABORATORY	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
CAP256	COMPUTER NETWORKS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
CAP214	FUNDAMENTALS OF WEB PROGRAMMING	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CAP202	OBJECT ORIENTED PROGRAMMING	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CAP200	DATABASE MANAGEMENT SYSTEMS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CAP173	PROGRAMMING METHODOLOGIES-LABORATORY	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CAP172	PROGRAMMING METHODOLOGIES	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CAP171	FUNDAMENTALS OF INFORMATION TECHNOLOGY-LABORATORY	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
CAP170	FUNDAMENTALS OF INFORMATION TECHNOLOGY	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

B. PO/PSOs Mapping with Elective Courses

Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
PES209	SOFT SKILLS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
PEA208	ADVANCED ANALYTICAL SKILLS	Y	Y	Y	Y	Y	Y	Y	Y	Y		
PEA204	ANALYTICAL SKILLS	Y	Y	Y	Y	Y	Y	Y	Y	Y		
MKT312	SELLING SKILLS	Y	Y	Y	Y	Y	Y	Y	Y	Y		
MKT309	DIGITAL MARKETING	Y	Y	Y	Y	Y	Y	Y	Y	Y		
MKT201	PRINCIPLES OF MARKETING	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
MGN358	E-COMMERCE	Y	Y	Y	Y	Y	Y	Y	Y	Y		

Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
MGN251	SPREADSHEET MODELLING	Y	Y	Y	Y	Y	Y	Y	Y	Y		
MGN101	BUSINESS ORGANISATION AND MANAGEMENT	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
FIN302	FUNDAMENTALS OF FINANCIAL MANAGEMENT	Y	Y	Y	Y	Y	Y	Y	Y	Y		
ECO113	BUSINESS ECONOMICS	Y	Y	Y	Y	Y	Y	Y	Y	Y		
ECE284	RASPBERRY PI FOR THE BEGINEERS	Y	Y	Y	Y	Y	Y	Y	Y	Y		
ECE283	IINTRODUCTION TO EMBEDDED SYSTEMS WITH PYTHON	Y	Y	Y	Y	Y	Y	Y	Y	Y		
ECE282	INTRODUCTION TO IOT WITH NODEMCU	Y	Y	Y	Y	Y	Y	Y	Y	Y		
ECE281	ARDUINO FOR THE BEGINEERS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
CAP951	SOFTWARE PROJECT MANAGEMENT	Y	Y	Y	Y	Y	Y	Y	Y	Y		
CAP919	SERVER SIDE DEVELOPMENT WITH NODE.JS	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y
CAP918	MULTIPLATFORM MOBILE APP	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CAP917	FRONT-END JAVASCRIPT FRAMEWORKS	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y
CAP916	FRONT-END WEB UI FRAMEWORKS AND TOOLS	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y

Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
CAP512	OPEN SOURCE WEB APPLICATION DEVELOPMENT	Y	Y	Y	Y	Y	Y	Y	Y	Y		
CAP498	DIGITAL FORENSICS	Y	Y	Y	Y	Y	Y	Y	Y	Y		
CAP497	CYBER SECURITY AWARENESS	Y	Y	Y	Y	Y	Y	Y	Y	Y		
CAP496	CRYPTOGRAPHY AND SECURITY RISK MANAGEMENT	Y	Y	Y	Y	Y	Y	Y	Y	Y		
CAP495	WIRELESS AND MOBILE NETWORK	Y	Y	Y	Y	Y	Y	Y	Y	Y		
CAP489	MOBILE APP DEVELOPMENT FRAMEWORKS	Y	Y	Y	Y	Y	Y	Y	Y	Y		
CAP488	MOBILE APP DEVELOPMENT WITH NATIVESCRIPT	Y	Y	Y	Y	Y	Y	Y	Y	Y		
CAP487	MOBILE APP DEVELOPMENT WITH REACT NATIVE	Y	Y	Y	Y	Y	Y	Y	Y	Y		
CAP486	MOBILE APP DEVELOPMENT WITH FLUTTER	Y	Y	Y	Y	Y	Y	Y	Y	Y		
CAP485	PREDCTIVE ANALYTICS	Y	Y	Y	Y	Y	Y	Y	Y	Y		
CAP484	DESCRIPTIVE ANALYTICS	Y	Y	Y	Y	Y	Y	Y	Y	Y		
CAP483	DATA VISUALIZATION	Y	Y	Y	Y	Y	Y	Y	Y	Y		
CAP482	DATA EXPLORATION AND PREPARATION	Y	Y	Y	Y	Y	Y	Y	Y	Y		

Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
CAP475	ARTIFICIAL INTELLIGENCE FOR GAME DEVELOPMENT	Y	Y	Y	Y	Y	Y	Y	Y	Y		
CAP474	GAME DEVELOPMENT USING UNREAL ENGINE	Y	Y	Y	Y	Y	Y	Y	Y	Y		
CAP473	GAME DEVELOPMENT USING UNITY ENGINE	Y	Y	Y	Y	Y	Y	Y	Y	Y		
CAP472	FUNDAMENTALS OF GAME DEVELOPMENT	Y	Y	Y	Y	Y	Y	Y	Y	Y		
CAP460	FUNDAMENTALS OF PYTHON	Y	Y	Y	Y	Y	Y	Y	Y	Y		
CAP441	CURRENT TRENDS AND TECHNOLOGIES	Y	Y	Y	Y	Y	Y	Y	Y	Y		
CAP438	SOFTWARE TESTING	Y	Y	Y	Y	Y	Y	Y	Y	Y		
BSL304	GOODS AND SERVICES TAX (GST) AND CUSTOMS LAWS	Y	Y	Y	Y	Y	Y	Y	Y	Y		
BSL301	INCOME TAX LAW AND PRACTICE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
BSL102	COMPANY LAW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
BSL101	BUSINESS LAW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
ACC310	ADVANCED COST ACCOUNTING	Y	Y	Y	Y	Y	Y	Y	Y	Y		
ACC210	CORPORATE ACCOUNTING	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
ACC204	COST ACCOUNTING	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
ACC103	FINANCIAL ACCOUNTING	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	