

Code	Nomenclature	Code	Nomenclature
PCC	Program Core Course	L : T : P	Lecture : Tutorial : Practical
PEC	Program Elective Course	ESE	External Semester Evaluation
OE	Open Elective	MSE	Mid Semester Evaluation
SEM	Seminar	IA	Internal Assessment (Assignment/Paper Review/ Viva voce/Punctuality)
DW	Dissertation Work	ISE	Internal Semester Evaluation
AUC	Audit Course	ISE=MSE (35 marks) + IA (15 marks)	

1 <sup>st</sup> Semester										
S. No.	Course Type	Course Code	Course Name	Hours			Credits	Marks		
				L	T	P		ISE	ESE	Total
1	PCC	MCSE1121	Mathematical Foundations of Computer Science	3	-	-	3	50	50	100
2	PCC	MCSE1221	Advanced Computer Networks	3	-	-	3	50	50	100
3	PCC	MCSE1321	Advanced Data Structures and Algorithms	3	-	-	3	50	50	100
4	PEC	MCSE1421	Advanced Operating System	3	-	-	3	50	50	100
5	PEC	PEC1XX21	Program Elective-I	3	-	2	4	50	50	100
6	PCC	MCSE1521	Research Methodology and IPR	2	1	-	3	50	50	100
7	PCC	MCSE1221L	Advanced Computer Networks Lab	-	-	2	1	50	50	100
8	PCC	MCSE1321L	Advanced Data Structures and Algorithms Lab.	-	-	2	1	50	50	100
<b>Total:</b>				<b>24</b>			<b>21</b>	<b>400</b>	<b>400</b>	<b>800</b>

2 <sup>nd</sup> Semester										
S. No.	Course Type	Course Code	Course Name	Hours			Credits	Marks		
				L	T	P		ISE	ESE	Total
1	PCC	MCSE2121	Information Security	3	-	-	3	50	50	100
2	PCC	MCSE2221	High Performance Computing Architecture	3	-	2	4	50	50	100
3	PCC	MCSE2321	Machine Learning	3	-	-	3	50	50	100
4	PEC	PEC2XX21	Program Elective-II	3	-	2	4	50	50	100
5	PEC	PEC2XX21	Program Elective-III	3	-	2	4	50	50	100
6	PCC	MCSE2121L	Information Security Lab	-	-	2	1	50	50	100
8	PCC	MCSE2321L	Machine Learning Lab	-	-	2	1	50	50	100
<b>Total:</b>				<b>25</b>			<b>20</b>	<b>350</b>	<b>350</b>	<b>700</b>

3 <sup>rd</sup> Semester										
S. No.	Course Type	Course Code	Course Name	Hours			Credits	Marks		
				L	T	P		ISE	ESE	Total
1	PCC	MCSE3121	Soft Computing	3	-	-	3	50	50	100
2	PEC	PEC3XX21	Program Elective-IV	3	-	2	4	50	50	100
3	PEC	PEC3XX21	Program Elective-V	3	-	2	4	50	50	100
4	OE	OE3X21	Open Elective-I	2	-	2	3	50	50	100
5	DW	MCSE3221	Dissertation Phase-I	-	2	6	5	50	100	150
6	PCC	MCSE3121L	Soft Computing Lab	-	-	2	1	50	50	100
7	SEM	MCSE3321	Technical Seminar	-	-	-	1	50	-	50
8	AUC	AU3X21	Audit Course	2	-	-	-	50	-	50
<b>Total:</b>				<b>29</b>			<b>21</b>	<b>400</b>	<b>350</b>	<b>750</b>

4 <sup>th</sup> Semester										
S. No.	Course Type	Course Code	Course Name	Hours			Credits	Marks		
				L	T	P		ISE	ESE	Total
1	DW	MCSE4121	Dissertation Phase-II	-	3	20	13	100	200	300
<b>Total:</b>				<b>23</b>			<b>13</b>	<b>100</b>	<b>200</b>	<b>300</b>

Total Credits: 75

<b>Elective-I (PEC1XX21)</b>	
<b>Course Code</b>	<b>Course Title</b>
PEC11121	Data Warehousing and Multi-Dimensional Modelling
PEC11221	Digital Image Processing
PEC11321	Software Architecture
PEC11421	Embedded Systems
PEC11521	Wireless and Mobile Networks

<b>Elective-II and Elective-III (PEC2XX21)</b>	
<b>Course Code</b>	<b>Course Title</b>
PEC21121	Graph Theory
PEC21221	Sensor Networks and IOT
PEC21321	Advanced Computer Graphics
PEC21421	Software Metrics and Quality Management
PEC21521	Data Science with Python
PEC21621	Pattern Recognition
PEC21721	Multimedia Technology
PEC21821	Cloud Computing
PEC21921	Optimization Techniques
PEC22021	Big Data Analytics
PEC22121	Logic Programming
PEC22221	Secure Software Design and Enterprise Computing

<b>Elective-IV and Elective-V (PEC3XX21)</b>	
<b>Course Code</b>	<b>Course Title</b>
PEC31121	Software Verification and Validation Testing
PEC31221	IOT Application and Communication Protocols
PEC31321	Deep Learning
PEC31421	Software Defined Networks
PEC31521	Big Data Processing Frameworks
PEC31621	Natural Language Processing
PEC31721	Block Chain Technology
PEC31821	Parallel Programming and Models
PEC31921	Social Network Data Analytics
PEC32021	Agile Software Development
PEC32121	Special Topics in Computer Science
PEC32221	MOOC

<b>Open Elective</b>	
<b>Course Code</b>	<b>Course Title</b>
OE3121	Python Programming
OE3221	E-Commerce and Cyber Laws
OE3321	Business Analytics

<b>Audit Course (contents as per AICTE model curriculum)</b>	
<b>Course Code</b>	<b>Course Title</b>
AU3121	English for research paper writing
AU3221	Value Education
AU3321	Constitution of India
AU3421	Disaster Management