

**Galgotias University**  
**School of Computing Science and Engineering**  
**Curriculum MCA & MCA IOP 2022-24**

**Program Structure of Bridge Course for MCA**

Semester I									
Sl. No	Course Code	Name of the Course					Assessment Pattern		
			L	T	P	C	IA	MTE	ETE
S No.	Course Code	Course Name	L	T	P	C	20	30	50
1	MCAN1011	Introduction to Information Technology	2	0	0	2	20	30	50
2	MCAN1012	Fundamentals of Digital Computers	2	0	0	2	20	30	50
<b>Total Credits</b>						<b>4</b>			

**Program Structure of MCA and MCA Specializations**

Semester I									
S No.	Course Code	Name of the Course					Assessment Pattern		
			L	T	P	C	IA	MTE	ETE
1	MCAN1110	Problem Solving and Computer Programming	2	0	0	2	20	30	50
2	MCAN1120	Discrete Mathematics	3	0	0	3	20	30	50
3	MCAN1130	Operating System with Linux	3	0	0	3	20	30	50
4	MCAN1140	Database Management System	3	0	0	3	20	30	50
5	MCAN1150	Data Communication & Networking	3	0	0	3	20	30	50
6	MCAN1160	Research Methodology & IPR	2	0	0	2	20	30	50
7	MCAN1001	Technical Training-I	0	0	2	1	100		
8	MCAS1171	Problem Solving Techniques Lab	0	0	4	2	50		50
9	MCAN1131	Operating System with Linux Lab	0	0	2	1	50		50
10	MCAN1141	Database Management System Lab	0	0	2	1	50		50
11	MCAN1151	Data Communication & Networking Lab	0	0	2	1	50		50
12	SLMC5011	English Proficiency and Aptitude Building -I			4	2	50		50
<b>Total Credits (MCA)</b>						<b>24</b>			
13		Specialize Core Theory-I	3	0	0	3	20	15	30
14		Specialize Core Lab -I	0	0	2	1	15		20
<b>Total Credits (MCA Spl)</b>						<b>28</b>			

Semester II									
Sl No	Course Code	Name of the Course					Assessment Pattern		
			L	T	P	C	IA	MTE	ETE
1	MCAN1210	Object Oriented Programming with Java	3	0	0	3	20	30	50
2	MCAN1240	Software Engineering and Testing	3	0	0	3	20	30	50
3	MCAN1250	<b>Programming with Python</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>20</b>	30	50
4	MCAN1260	Data structure	3	0	0	3	20	30	50
5	MCAN1270	<b>Web Technologies PBL</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>20</b>	<b>15</b>	<b>30</b>
6	MCAN1280	<b>Computer Graphics</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>20</b>	<b>30</b>	<b>50</b>
7	SLMC5012	English Proficiency and Aptitude Building – 2	0	0	4	2	100		
8	MCAN5555	Project-I /Term Paper-I	0	0	0	2	100		
9	MCAN1211	Object Oriented Programming with Java Lab	0	0	2	1	100		
10	MCAN1241	<b>Software Engineering and Testing Lab</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>100</b>		
11	MCAN1251	<b>Programming with Python Lab</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>100</b>		
12	MCAN1261	Data structure Lab	0	0	2	1	100		
13	MCAN1271	<b>Web Technologies PBL Lab</b>	0	0	4	2	35		
<b>Total Credits (MCA)</b>						<b>26</b>			
		Specialize Core Theory -II	3	0	0	3	20	15	30
15		Specialize Core Lab-II	0	0	2	1	35		
<b>Total Credits (MCA Spl)</b>						<b>30</b>			

Semester III									
Sl No	Course Code	Name of the Course					Assessment Pattern		
			L	T	P	C	IA	MTE	ETE
1	MCAN2310	<b>Android App Development PBL</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>20</b>	<b>15</b>	<b>30</b>
2	MCAN2311	Android App Development PBL	0	0	4	2	35		
3		PE	3	0	0	3	20	30	50
4	MCAN2330	Design & Analysis of Algorithm	3	0	0	3	20	30	50
5	MCAN2420	<b>Web Development using Python</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>20</b>	<b>30</b>	<b>50</b>
6	SLMC5013	Campus to Corporate	0	0	4	2	100		
7	MCAN2351	Technical Training-II	0	0	2	1	100		

	MCAN6666	Project-II / Term Paper-II	0	0	0	2	100		
8	MCAN2331	<b>Design &amp; Analysis of Algorithm Lab</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>100</b>		
9		PE Lab	0	0	2	1	100		
10	MCAN2333	Industry Internship	0	0	0	4	100		
	MCAN2421	<b>Web Development using Python Lab</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>100</b>		
		<b>Total Credits (MCA)</b>				<b>25</b>			
11		Specialize Core Theory-III	3	0	0	3	20	15	30
12		Specialize Core Lab-III	0	0	2	1	35		
		<b>Total Credits (MCA Spl)</b>				<b>29</b>			

Program Elective (PE) for III sem									
Sl No	Course Code	Name of the Course					Assessment Pattern		
			L	T	P	C	IA	MTE	ETE
1	MCAN2320	Artificial Intelligence	3	0	0	3	20	30	50
2	MCAN2321	Artificial Intelligence Lab	0	0	2	1	100		
3	MCAN2350	<b>Internet of Things</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>20</b>	<b>30</b>	<b>50</b>
4	MCAN2351	<b>Internet of Things Lab</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>100</b>		

Semester IV									
Sl No	Course Code	Name of the Course					Assessment Pattern		
			L	T	P	C	IA	MTE	ETE
1	MCAN2410	NPTEL COURSE	3	0	0	3	20	30	50
2									
3	MCAN9900	Major Project	0	0	0	20	50		50
		<b>Total Credits (MCA)</b>				<b>23</b>			
		<b>Total Credits (MCA Spl)</b>				<b>23</b>			

### MCA Specializations Bucket

Sl No	Course Code	Name of the Course	MCA IOP Bucket	SEM
			1	MCAE1112
2	MCAE1121	Cryptography and Network Security	CNCS	
3	MCAE1131	Cloud Computing	CC	
4	MCAE1141	Java Script	WDS	
5	MCAE2412	Machine learning	DA	II
6	MCAE2322	Security Threats and Trends	CNCS	
7	MCAE1232	Cloud Organization & Architecture	CC	
8	MCAE1241	User Interface Design	WDS	
9	MCAE2351	Data analysis, handling & Visualization	DA	III
10	MCAE2421	Ethical Hacking	CNCS	
11	MCAE2332	Fundamentals of Virtualization, Cloud Security & Management	CC	
12	MCAE2442	Advance Web Application Development	WDS	

Credits	I	II	III	IV	TOTAL
MCA	24	26	25	23	98
MCA IOP	28	30	29	23	110

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