

# Indian Institute of Information Technology Pune

## Curriculum Structure and Detailed Syllabus (Computer Science and Engineering)

Semester III						Semester IV							
S.No	Course Type	Course Name	L	T	P	Credits	S.No	Course Type	Course Name	L	T	P	Credits
1	BSC	Ordinary Differential Equation and Multivariate Calculus	2	1	0	3	1	HSMC	Professional Communication Skill	1	0	0	1
2	BSC	Science of Living System	3	0	0	3	2	BSC	Vector calculus and Partial Differential Equations	2	1	0	3
3	MLC	Engineering Ethics & Management	1	0	0	1	3	SC1	Computer Organization and Architecture	3	0	0	3
4	HSMC	Innovation	1	0	0	1	4	SC2	Data Communications	3	0	0	3
5	SC1	Object Oriented Programming & Methodologies	3	1	2	5	5	LC	Programming Laboratory - I (JAVA)	0	0	4	2
6	SC2	Microprocessor Techniques	3	0	2	4	6	SC3	Principles of Programming Languages	3	0	0	3
7	SC3	Analysis and Design of Algorithms	3	0	2	4	7	SC4	Data Base Management Systems	3	0	2	4
8	SC4	Python Programming	2	0	2	3	8	SC5	Theory of Computations	3	0	0	3
9	EAA	Yoga Course*	1*	0	0	0	9	EAA	Yoga Course*	1*	0	0	0
<b>Total Engagement / Credits</b>			<b>28/24</b>			<b>Total Engagement / Credits</b>			<b>26/22</b>				
Semester V						Semester VI							
S.No	Course Type	Course Name	L	T	P	Credits	S.No	Course Type	Course Name	L	T	P	Credits
1	SC1	Operating Systems	3	0	2	4	1	SC1	Computer Networks	3	0	2	4
2	SC2	Elective - 1	3	0	0	3	2	SC2	Cloud Computing	3	0	2	4
3	HSMC	Industrial Economics	2	0	0	2	3	SC3	Big Data and Analytics	3	0	0	3
4	SC3	Computer Graphics and Multimedia	3	0	2	4	4	SC4	Software Engineering	3	0	2	4
5	BSC	Probability and Statistics	3	0	0	3	5	SC5	Elective - 2	3	0	0	3
6	MIP	Minor Project -I	0	0	2	1	6	MIP	Minor Project -II	0	0	4	2
7	LC	Programming Laboratory-II (DOT NET)	0	0	2	1	7	HSMC	Entrepreneurship Studies	1	0	0	1
8	IT	Internship <sup>s</sup>	0	0	0	1	8	LLC	LLC	1	0	0	1
9	LLC	LLC	1	0	0	1							
<b>Total Engagement / Credits</b>			<b>22/20</b>			<b>Total Engagement / Credits</b>			<b>27/22</b>				
Semester VII						Semester VIII							
S.No	Course Type	Course Name	L	T	P	Credits	S.No	Course Type	Course Name	L	T	P	Credits
1	SC1	Compiler Design	3	0	2	4	1	SC1	Modelling and Simulation	3	0	0	3
2	IOLC	Open Elective 1	3	0	0	3	2	IDOE	Open Elective 2	3	0	0	3
3	SC2	Cryptography and Network Security	3	0	0	3	3	SC2	Elective -4	3	0	0	3
4	SC3	Digital Image Processing	3	0	2	4	4	HSMC	Elective -5	3	0	0	3
5	SC4	Artificial Intelligence	3	0	0	3	5	MAP	Major Project -final			18	9
6	SC5	Elective -3	3	0	0	3							
7	MAP	Major Project -Part I	0	0	2	1							
8	SBC	Internship <sup>s</sup>	0	0	0	1							
<b>Total Engagement / Credits</b>			<b>24/22</b>			<b>Total Engagement / Credits</b>			<b>30/21</b>				

Elective -1
Advanced UNIX Programming Android Application and Development Web Engineering Soft Computing
Elective -2
Routing and Switching Geographical Information System Mobile Computing Natural Language Processing
Elective -3
Embedded System Pattern Recognition VLSI & Embedded Systems Wireless Sensor Network

Elective -4
Information Storage & Management Machine Learning Distributed Systems Robotics & Industrial Automation
Elective -5
Introduction to Business Analytics Foundation of Computational Finance E-Commerce Principles of Management
Open Elective - 1
Mobile and Ad-Hoc Networks Computer Aided Signal Processing Optimization Techniques
Open Elective - 2
Speech and Language Technologies Neural Networks Information Retrieval Systems

List Of Abbreviation	
	Title
BSC	Basic Science Course
MLC	Mandatory Learning Course
SC	Subject Core
HSMC	Humanities/Social Sciences/Management Course
IDOE	Inter Discipline Open Elective
MIN	Minor Project
IT	Internship
MAP	Major Project

\$ - To be carried out in summer vacation between 4th - 5th and 6th - 7th sem and to be shown in grade card of 5th and 7th the sem  
\*To be conducted beyond office hours and Only for 2016-20 batch

