

# Pandit Deendayal Petroleum University

## Outline for Computer Engineering w.e.f. 2018

SEM1	Credit	L-T-P	SEM2	Credit	L-T-P	SEM3	Credit	L-T-P	SEM4	Credit	L-T-P
Maths I	4		Maths II	4		Data & File Structure	4	4-0-0	Computer Networks	4	4-0-0
Chemistry	4		Physics	4		Database Management System	4	3-1-0	Computer Organization & Programming	4	3-1-0
Basic Electronics	3		Elements of electrical Engg.	3		Discrete Mathematics	4	3-1-0	Design & Analysis of Algorithms	4	4-0-0
Elements of Mechanical Engg.	3		Elements of Civil Engg.	3		Maths III	4	3-1-0	Numerical & Statistical Methods	4	3-1-0
Communication skills	2		Workshop	1		Digital Logic Design	4	3-1-0	Object Oriented Concepts & Programming	3	3-0-0
Social Science & Humanities	1		Engineering Graphics	2							
Computing Lab 1 (C Prog.)	1		Environmental Studies	1		Database Management System LAB	1	0-0-2	Computer Networks LAB	1	0-0-2
						Digital Logic Design LAB	1	0-0-2	Design & Analysis of Algorithms LAB	1	0-0-2
NSS/Sports/NCC	1		NSS/Sports/NCC	1		Data & File Structure LAB	1	0-0-2	Object Oriented Concepts & Programming LAB	1	0-0-2

SEM 1 Total Credit	19
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SEM 2 Total Credit	19
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CSSI	1
SEM 3 Total Credit	24
Hrs.	26

SEM 4 Total Credit	22
Hrs.	25

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SEM5	Credit	L-T-P	SEM6	Credit	L-T-P	SEM7	Credit	L-T-P	SEM8	Credit	L-T-P
Operating System	4	4-0-0	Artificial Intelligence	4	4-0-0	Optimization Techniques	3	3-0-0	Comprehensive Project II*	19	0-0-38
Theory of Computation	4	3-1-0	Distributed System	3	3-0-0	Machine Learning	4	4-0-0	Seminar	3	0-0-6
Web Technology	3	3-0-0	System Software & Compiler Design	4	4-0-0	Project Mngt.	3	3-0-0	Elective V*		3-0-0
Software Engineering	3	3-0-0	Wireless Technology & Mobile Computing	4	4-0-0	Mini Project	4	0-0-8	Elective VI*		3-0-0
Information Security	3	3-0-0	Elective I	3	3-0-0	Elective III	3	3-0-0			
Principles of Economics	3	3-0-0	Elective II	3	3-0-0	Elective IV	3	3-0-0			
Operating System LAB	1	0-0-2	Artificial Intelligence LAB	1	0-0-2	Machine Learning LAB	1	0-0-2			
Web Technology LAB	1	0-0-2	System Software LAB	1	0-0-2						
Information Security LAB	1	0-0-2	Distributed System LAB	1	0-0-2						

Industrial Orientation	1
SEM 5 Total Credit	24
Hrs.	26

Industrial Training	2
SEM 6 Total Credit	24
Hrs.	27

SEM 7 Total Credit	23
Hrs.	26

SEM 7 Total Credit	22
Hrs.	22*

Elective I & II	Credit	L-T-P	Category
Advanced Computer Architecture	3	3-0-0	System
Embedded System	3	3-0-0	System
Computer Graphics	3	3-0-0	Application
Natural Language Processing	3	3-0-0	Data Science
Data Warehousing and Data Mining	3	3-0-0	Data Science
Principles of Programming language	3	3-0-0	Theory & Algorithm
Data Communication & Coding	3	3-0-0	Communication System
Wireless Sensor Networks	3	3-0-0	Communication System
Cryptography & Network Security	3	3-0-0	Security

Elective III & IV	Credit	L-T-P	Category
Cloud Computing	3	3-0-0	System
Advanced Operating System	3	3-0-0	System
Image Processing	3	3-0-0	Application
Data Compression	3	3-0-0	Application
Biometrics	3	3-0-0	Application
Semantic Web & Social Network	3	3-0-0	Data Science
Big Data Analytics	3	3-0-0	Data Science
Software Testing Methodologies	3	3-0-0	Theory & Algorithms
Internet of Things	3	3-0-0	Communication System
Vehicular Networks	3	3-0-0	Communication System
Cyber Security	3	3-0-0	Security

Elective V & VI	Credit	L-T-P	Category
Smart Energy Management System	3	3-0-0	Application
Green Computing	3	3-0-0	Application
Human Computer Interaction	3	3-0-0	Application
Multimedia Systems	3	3-0-0	Application
Pattern Recognition	3	3-0-0	Data Science
Information Retrieval System	3	3-0-0	Data Science
Optimization Techniques	3	3-0-0	Theory & Algorithm
Security in IOT	3	3-0-0	Security
Block chain Technology	3	3-0-0	Security

### TOTAL CREDITS

177
Plus Open Elective 3 credit
180

	Options for SEM 8 Project work	Credit
*1	Comprehensive Project with Industry	19
*2	Major Project (Industry) with two subjects	13+3+3
*3	Major Project (University) with two subjects	13+3+3

Open Elective	Credit	L-T-P
Advanced Java	3	3-0-0
Programming with Python	3	3-0-0