Indian Institute of Information Technology, Allahabad

Department of Information Technology

UG curriculum

(With effect from July 2018)

Total Credit : 160

Semester 1 Total Credit : 20					
Sl.No.	Course Name	Code	Type	Credit	L-T-P
1	Physics		Core	4	2–1–1
2	Linear Algebra		Core	4	3–1–0
3	Introduction to Programming		Core	4	2–1–1
4	Fundamentals of Electrical & Electronics Engg.		Core	4	2–1–1
5	Professional Communication		Core	2	1–0–1
6	Principles of Management		Core	2	1–1–0
					11–10–08
	Total			20	29

Semester 2 Total Credit : 22					
Sl.No.	Course Name	Code	Type	Credit	L-T-P
1	Discrete Mathematical Structures		Core	4	3–1–0
2	Univariate and Multivariate Calculus		Core	4	3–1–0
3	Computer Organization and Architecture		Core	4	2–1–1
5	Data Structures		Core	4	2–1–1
6	Principles of Communication Engineering		Core	4	2–1–1
7	Principle of Economics		Core	2	2–0–0
					14–10–06
	Total			22	30

Semester 3 Total Credit : 20					
Sl.No.	Course Name	Code	Type	Credit	L-T-P
1	Probability and Statistics		Hard	4	3–1–0
2	Theory of Computation		Hard	4	2–1–1
3	Object Oriented Methodologies		Hard	4	2–1–1
4	Operating System		Hard	4	2–1–1
5	Introduction to Finance		Hard	2	2–0–0
6	Introduction to Marketing		Hard	2	1–0–1
					12–08–08
	Total			20	28

Semester 4 Total Credit : 20					
Sl.No.	Course Name	Code	Type	Credit	L-T-P
1	Design and Analysis of Algorithms		Hard	4	2–1–1
2	Principles of Programming Language		Hard	4	2–1–1
3	Computer Networks		Hard	4	2–1–1
4	Software Engineering		Hard	4	2–1–1
5	Database Management System		Hard	4	2–1–1
					10–10–10
Total				20	30

Semester 5 Total Credit : 24					
Sl.No.	Course Name	Code	Type	Credit	L-T-P
1	Network Security		Hard	4	2–1–1
2	Graphics and Visual Computing		Hard	4	2–1–1
3	Introduction to Machine Learning		Hard	4	2–1–1
4	Image and Video Processing		Hard	4	2–1–1
5	Artificial Intelligence		Hard	4	2–1–1
6	Mini Project - I		Soft	4	0–1–3
					10–12–16
Total				24	30 (+8)

Semester 6 Total Credit : 22					
Sl.No.	Course Name	Code	Type	Credit	L-T-P
1	Data Mining		Hard	4	2–1–1
2	Mini Project - II		Soft	6	0–1–5
3	Elective		Soft	4	2–1–1
4	Elective		Soft	4	2–1–1
5	Elective		Soft	4	2–1–1
					08–10–18
Total				22	24(+12)

Semester 7 Total Credit : 16					
Sl.No.	Course Name	Code	Type	Credit	L-T-P
1	Mini Project - III		Soft	8	0–1–7
2	Elective		Soft	4	2–1–1
3	Elective		Soft	4	2–1–1
					04–06–18
Total				16	12(+16)

Semester 8 Total Credit : 16					
Sl.No.	Course Name	Code	Type	Credit	L-T-P
1	Project		Soft	12	0–2–10
2	Elective		Soft	4	2–1–1
					02–06–22
Total				16	16(+24)

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Note:

1. A candidate can earn a maximum of 24 credits in any semester through regular registration.
2. Mini Project grades shall not be counted against any specialization.
3. While choosing courses for elective, a minimum of 16 credits should be chosen from IT department ONLY.
4. Extra-curriculum electives will be run only on Saturday and Sunday.
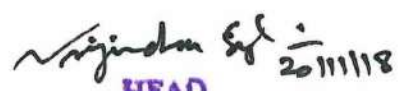
Electives of Different Baskets								
Basket Name	S1	S2	S3	S4	S5	S6	S7	S8
Machine Learning	Convex Optimization	Pattern Recognition	Probabilistic ML & Graphical Model	Information Retrieval	Advance Data Analytics	Natural Language Processing	Deep Learning	
Image and Visual Analytics	Computer Vision	Visual Recognition	Computational AstroPhysics	Biometrics	Pattern Recognition	Data Compression	Document Image Analysis	Remote Sensing and GIS
Software Engineering	Software Requirements Engineering	Agile Software Engineering	Software Design & Architecture	Software Quality Management	Software Testing and Quality Assurance	Software Security	Software Metrics	Software Process Management
Human Computer Interaction	Virtual Reality	Advanced Graphics & Animation	Pattern Recognition	Computer Vision	Visual Recognition	Soft Computing	Cognition & Cognitive Processes Modelling	Principles of Interaction Design
Robotics & AI	Robotics & Industrial Automation	Robot Motion Planning	Deep Learning	Soft Computing	Virtual Reality	Computer Vision	Pattern Recognition	
Information Security	Cryptography	Intrusion Detection System	Principles of Cyber Security	Information Security & Management	Computer Forensics	Blockchain & Cryptocurrency	Database Security	

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Networks	Wireless Sensor Networks	Wireless Networks	Mobile Computing	Internet Protocols	Network Operating System	Mobile Data Management	Information Security & Management	
Cognition & Recognition	Cognition & Cognitive Processes Modelling	Computer Vision	Visual Recognition	Probabilistic ML & Graphical Model	Natural Language Processing	Cognitive Computing	Advanced Data Analytics	
Systems	Parallel Computing	Compiler Design	Real Time Operating System	Cyber Physical Systems	Distributed Systems	Network Science	Formal Methods & Applications	

Extra-Curriculum Basket				
Basket Name	Infmn.	B1	B2	B3
First Semester	**+ 4 credits may be earned from these basket**	**Athletics/Yoga**	**Indian Languages**	
Second Semester	**+ 2 credits may be earned from these basket**	**Sports**		
Third Semester	**+ 4 credits may be earned from these basket**	**Foreign Languages**		
Fourth Semester	**+ 4 credits may be earned from these basket**	**Programming Languages (eg.MATLAB, R)**		

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