

International Institute of Information Technology Hyderabad
Course offerings in 2024-25 Semester I (Monsoon) - V1-22 Jun, 24

CD - Course Discription -Programme Requirement; Institute Requirement

**AD - Area Code - MA-Maths; CS-Comp Sci; EC-Electronics, CG-Cognitive Science;
HS-Human Sci; SC-Science; OE-Open Elective; CL-Compu. Linguistics; OT-Others**

L-T-P-C: (Lecture hours - Tutorial hours - Practical Hours) per week - Credits

H1-1st Half of the Semester; H2-2nd Half of the Semester; H-1 Class per week with full Semester

PG Programmes					
CD	AD	Course Code	Course Name	Credits	Faculty Name(s)
M.Tech I year I Semester - CSE & CSIS					
Pr	CS	CS1.304	Data Structures & Algorithms for Problem Solving	3-0-2-6	Kshitij Gajjar + Lini Thomas
Pr	MA	MA6.301	Maths for Computer Science 1-Probability and Statistics (H1)	3-1-0-2	Naresh Manwani
Pr	MA	MA6.302	Maths for Computer Science 2 - Linear Algebra (H2)	3-1-0-2	Pawan Kumar
Pr	CS	CS6.302	Software Systems Development	3-0-2-4	Deepak Gangadharan + Rahul Mishra
Pr	CS	CS3.304	Advanced Operating Systems	3-1-0-4	P. Krishna Reddy
Total 12-1-5-18					
M.Tech II year I Semester – CSE					
Pr	CS		Bouquet Core	3-1-0-4	
Pr	CS		Bouquet Core	3-1-0-4	
Pr	OT		Area Elective	3-1-0-4	
Pr	CS		Breadth Elective/Project/ Independent Study	3-1-0-4	
Total 12-4-0-16					
* At most 4 credits can be converted to Project/Independent Study in lieu of course credits(66)					
M.Tech II year I Semester – CSIS					
Pr	CS	CS8.501	Research in Information Security	3-1-0-4	Ashok Kumar Das + Srinathan K
Pr	CS	CS3.402	Advanced Computer Networks	3-1-0-4	Ankit Gangwal
Pr	CS		Bouquet Elective	3-1-0-4	
Pr	CS		Area/CS/IT Elective	3-1-0-4	
Total 12-4-0-16					
M.Tech I Year I Semester – CASE					
Pr	SE	CE1.501	Structural Dynamics	3-1-0-4	Sunitha Palissery
Pr	CS	CS0.301	Computer Problem Solving	3-1-0-4	Shatrunjay Rawat
Pr	SE	CE4.501	Finite Element Methods	3-1-0-4	Jofin George
Pr	SE	CE1.502	Structural Engineering Design Studio	3-1-0-4	Shubham Singhal
Pr	SE	CE0.501	Theory of Elasticity	3-1-0-4	Pravin Kumar Venkat Rao
Total 15-5-0-20					
M.Tech II Year I Semester – CASE					
Pr	CS	CE9.609	IoT Workshop	3-1-0-4	Sachin Chaudhari + Nagamanikandan Govindan + TBD
Pr	CE		CASE Elective-4	3-1-0-4	

Pr	CE		CASE Elective-5	3-1-0-4	
Pr	CE		CASE Elective-6	3-1-0-2	
			Total 12-4-0-14		
M.Tech I Year I Semester – Product Design and Management					
Pr	CS	CS6.302	Software Systems Development	3-1-0-4	Deepak Gangadharan + Rahul Mishra
Pr	CS	CS9.501	User Research Methods (H2)	3-1-0-2	Priynaka Srivastava
Pr	PD	PD1.301	Design Thinking - Research to Define (H1)	3-1-0-2	Raman Saxena
Pr	PD	PD1.401	Design Thinking - Idea to Evaluate (H2)	3-1-0-2	Raman Saxena
Pr	PD	PD2.401	Product Management 101 (H1)	3-1-0-2	Ramesh Swaminathan
Pr	PD	PD2.421	Business Fundamentals	3-1-0-4	Himanshu
Pr			Bridge / Technology / Systems Elective	3-1-0-4	
Pr	OT	PD9.601	PDM-Seminar	0 Cr	Guest Speakers
			Total 15-5-2-16		
M.Tech II Year I Semester – Product Design and Management					
Pr	PD	PD9.403	PDM Project-3	12 Cr	
Pr	PD		Technology / Systems / Open Elective	3-1-0-4	
			Total 4-1-0-16		
Electives offering in Monsoon 2024					
		CNO	CName	Credits	Faculty Name(s)
Electives for CND Students					
		SC1.310	Open Quantum Systems and Quantum Thermodynamics	3-1-0-4	Samyadeb Bhattacharya
		SC1.421	Introduction to Quantum Field Theory (40)	3-1-0-4	Diganta Das + Monalisa Patra
		SC2.401	Topics in Nanosciences	3-1-0-4	Tapan Kumar Sau
		SC1.415	Physics of Early Universe	3-1-0-4	Diganta Das
Electives for CLD Students					
		CS4.406	Information Retrieval & Extraction	3-1-0-4	Rahul Mishra
		EC5.408	Speech Signal Processing	3-1-0-4	Anil Kumar Vuppala
		CG1.402	Intro to Cognitive Science	3-1-0-4	Vishnu Sreekumar
		CL2.405	Speech Analysis and Linguistics	3-1-0-4	Chiranjeevi Yarra
ECE Electives (Also applicable as CSE/Open Electives)					
Note for UG ECE/ECD Students: Please read carefully the guidelines for choosing of ECE Electives before registering.					
Signal Processing & Communications Stream					
		EC5.410	Information Theory	3-1-0-4	Arti Yardi
		CS7.404	Digital Image Processing	3-1-0-4	Anoop M Namboodiri
		EC5.408	Speech Signal Processing	3-1-0-4	Anil Kumar Vuppala
		CS7.403	Statistical Methods in AI	3-1-0-4	Ravi Kiran S
		EC5.407	Wireless Communications	3-1-0-4	Praful Mankar
		EC5.406	Signal Detection and Estimation Theory	3-1-0-4	Santosh Nannuru
		EC5.411	Modern Coding Theory	3-1-0-4	Prasad Krishnan
VLSI and Embedded Systems Stream					
		EC2.407	Design for Testability	3-1-0-4	Usha Gogineni (Guest Faculty)
		EC2.409	Principles of Semiconductor Devices	3-1-0-4	Aftab Hussain
		EC2.408	Digital VLSI Design	3-1-0-4	Zia Abbas
		EC1.202	Bioinstrumentation and Devices	3-1-0-4	Anshu Sarje

		CS2.501	Advanced Computer Architecture	3-1-0-4	Suresh Purini
			Energy Efficient Circuits System	3-1-0-4	Zia Abbas + Abhishek Pullela
Robotics Stream					
		CS7.503	Mobile Robotics	3-1-0-4	K Madhava Krishna
		CS7.404	Digital Image Processing	3-1-0-4	Anoop M Namboodiri
		EC4.401	Robotics: Dynamics and Control	3-1-0-4	Nagamanikandan Govindan
		CS7.403	Statistical Methods in AI	3-1-0-4	Ravi Kiran S
Electives for PG CASE students					
		CS4.408	Spatial Informatics	3-1-0-4	Rajan Krishnan Sundara
		CE1.607	Earthquake Resistant Design of Masonry Structures	3-1-0-4	P Pravin Kumar Venkat Rao
		CE1.604	Advanced Design of Steel Structures	3-1-0-4	Sunitha Palissery
		CS9.428	Environmental Science & Technology	3-1-0-4	Ramachandra Prasad Pillutla
		CE9.600	CASE Seminar	0-2-0-2	Shubham Singhal & Jofin George
			Structural Safety of Built Infrastructure	3-1-0-4	Jofin George
			Retrofit of Existing Infrastructure	0-2-0-2	Shubham Singhal
Electives for M.Tech PDM students - Open electives for other students - Max 20 students only					
Design Elective		PD1.501	Human Computer Interaction (H2)	3-1-0-2	Raman Saxena
Business Electives		CS9.429	Design for Social Innovation	3-1-0-4	Ramesh Loganathan + Ramana Gogula
		PD2.501	Product Marketing	3-1-0-4	Ravi Warrior
Bouquet Courses - Registration Limit: 150					
Theory					
		CS1.405	Modern Complexity Theory (100)	3-1-0-4	Ashok Kumar Das
		CS1.402	Principles of Programming Languages (100)	3-1-0-4	Mrityunjay + Venkatesh Choppella
Systems					
		CS3.401	Distributed Systems (100)	3-1-0-4	Kishore Kothapalli
		CS3.402	Advanced Computer Networks (150)	3-1-0-4	Ankit Gangwal
Artificial Intelligence					
		CS7.403	Statistical Methods in AI (200)	3-1-0-4	Ravi Kiran S
		CS4.406	Information Retrieval & Extraction (100)	3-1-0-4	Rahul Mishra
		CS7.501	Advanced NLP (100)	3-1-0-4	Manish Srivastava
		CS4.405	Data Analytics I (100)	3-1-0-4	Krishna Reddy Polepalli
IT + X					
		CG1.402	Intro to Cognitive Science (50)	3-1-0-4	Vishnu Sreekumar
		CS4.408	Spatial Informatics (50)	3-1-0-4	Rajan Krishnan Sundara
CPS					
		CS3.502	Real-Time Embedded Systems	3-1-0-4	Deepak Gangadharan
CSE/Open Electives					
		CS8.501	Research in Information Security	3-0-1-4	Ashok Kumar Das + Srinathan K
			Blockchain and Web3 Development (Max: 40 Students)	3-1-0-4	Ankit Gangwal
		CS9.428	Environmental Science & Technology (Open Elective)	3-1-0-4	Ramachandra Prasad Pillutla
		CG3.401	Introduction to Neural and Cognitive Modeling	3-1-0-4	Bapiraju Surampudi

	CG3.402	Behavioral Research & Experimental Design (50)	3-1-0-4	Vinoo Alluri
	CE5.502	Hydrological modelling and Software Development (40) (Open Elective)	3-1-0-4	Rehana Shaik
		Software Quality Engineering	3-1-0-4	Raghu Reddy Y
	CS7.504	Fairness, Privacy and Ethics in AI (Max:40)	3-1-0-4	Sujit P Gujar
	CS9.429	Design for Social Innovation	3-1-0-4	Ramesh Loganathan + Ramana Gogula
	CS7.601	Deep Learning: Theory and Practices (Max: 50)	3-1-0-4	Naresh Manwani
	CG1.403	Learning and Memory (Max 70)	3-1-0-4	Bhaktee Dongaonkar
	CL2.405	Speech Analysis and Linguistics	3-1-0-4	Chiranjeevi Yarra
	EC5.411	Modern Coding Theory	3-1-0-4	Lalitha Vadlamani
	CS2.501	Advanced Computer Architecture	3-1-0-4	Suresh Purini
	MA8.401	Topics in Applied Optimization (Open Elective)	3-1-0-4	Pawan Kumar
	CG9.600	Cognitive Science Seminar	0 Cr	Vishnu Sreekumar + Bhaktee Dongaonkar
	CS3.306	Algorithms and Operating Systems (Open Elective) Only for UG ECE/D students	3-1-0-4	Lini Teresa Thomas
	EC5.412	Foundations for Signal Processing and Communication (Open for MS&PhD students)	3-1-0-4	Praful Mankar + Arti Yardi
Math Electives (Random selection) Maximum no. of students for the following courses is: 50 each)				
	CS1.407	Entropy and Information	3-1-0-4	Indranil Chakrabarty
	MA8.401	Topics in Applied Optimization	3-1-0-4	Pawan Kumar

Date:22-06-2024

**Sd/-
Dean (Academics)**