

# International Institute of Information Technology Hyderabad

## Course offerings in 2024-25 Semester I (Monsoon) - V3-20 July, 24

### UG Programmes

**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**

CD	AD	Course No	Course Name	Credits (L-T-P-C)	Faculty Name(s)
<b>B.Tech I year I Semester - CSE&amp;CSD</b>					
Pr	MA	MA5.101	Discrete Structures	3-1-0-4	Srinathan K + Shantanav Chakraborty
Pr	CS	CS0.101	Computer Programming	3-1-3-5	Girish Varma + Charu Sharma + <b>TBD</b>
Pr	EC	EC2.101	Digital Systems and Microcontrollers	3-1-3-5	Anshu Sarje + Harikumar K + Anil Kumar Vuppala
Pr	MA	MA4.101	Real Analysis	3-1-0-4	Samyadeb Bhattacharya + Abhishek Deshpande
In	HS	OC2.101	Arts-1 ( <b>H1</b> )	2-0-0-2	Saroja T K (Coordinator)
In	HS	OC3.101	Value Education-1 ( <b>H</b> )	0-2-0-2	Shatrunjay Rawat (Coordinator)
In	HS	OC1.101	Sports-1	0-2-0-1	Physical Education Centre
<b>Total 14-8-6-23</b>					
<b>B.Tech I year I Semester - ECE&amp;ECD</b>					
Pr	MA	EC5.101	Networks, Signals and Systems	3-1-0-4	Prasad Krishnan + Aftab Hussain
Pr	CS	CS0.101	Computer Programming	3-1-3-5	Girish Varma + Charu Sharma + <b>TBD</b>
Pr	EC	EC2.101	Digital Systems and Microcontrollers	3-1-3-5	Anshu Sarje + Harikumar K + Anil Kumar Vuppala
Pr	MA	MA4.101	Real Analysis	3-1-0-4	Samyadeb Bhattacharya + Abhishek Deshpande
Pr	CS	EC2.102	Electronic Workshop-1 ( <b>H2</b> )	2-0-3-2	Praful Mankar + Sachin Chaudhari
In	HS	OC2.101	Arts-1 ( <b>H1</b> )	2-0-0-2	Saroja T K (Coordinator)
In	HS	OC3.101	Value Education-1 ( <b>H</b> )	0-2-0-2	Shatrunjay Rawat (Coordinator)
In	HS	OC1.101	Sports-1	0-2-0-1	Physical Education Centre
<b>Total 16-8-9-25</b>					
<b>B.Tech I year I Semester – CND</b>					
Pr	MA	MA5.101	Discrete Structures	3-1-0-4	Srinathan K + Shantanav Chakraborty
Pr	CS	CS0.101	Computer Programming	3-1-3-5	Girish Varma + Charu Sharma + <b>TBD</b>
Pr	EC	EC2.101	Digital Systems and Microcontrollers	3-1-3-5	Anshu Sarje + Harikumar K + Anil Kumar Vuppala
Pr	MA	MA4.101	Real Analysis	3-1-0-4	Samyadeb Bhattacharya + Abhishek Deshpande

Pr	SC	SC4.101	Computing in Sciences-1(H2)	2-0-3-2	Deva Priyakumar
In	HS	OC2.101	Arts-1 (H1)	2-0-0-2	Saroja T K (Coordinator)
In	HS	OC3.101	Value Education-1 (H)	0-2-0-2	Shatrunjay Rawat (Coordinator)
In	HS	OC1.101	Sports-1	0-2-0-1	Physical Education Centre
<b>Total 16-8-9-25</b>					

#### B.Tech I year I Semester – CLD

Pr	MA	MA5.101	Discrete Structures	3-1-0-4	Srinathan K + Shantanav Chakraborty
Pr	CS	CS0.101	Computer Programming	3-1-3-5	Girish Varma + Charu Sharma + TBD
Pr	EC	EC2.101	Digital Systems and Microcontrollers	3-1-3-5	Anshu Sarje + Harikumar K + Anil Kumar Vuppala
Pr	CS	CL1.101	Introduction to Linguistics-1	3-1-0-4	Rajakrishnan P Rajkumar
In	HS	OC2.101	Arts-1 (H1)	2-0-0-2	Saroja T K (Coordinator)
In	HS	OC3.101	Value Education-1 (H)	0-2-0-2	Shatrunjay Rawat (Coordinator)
In	HS	OC1.101	Sports-1	0-2-0-1	Physical Education Centre
<b>Total 14-8-6-23</b>					

#### B.Tech I year I Semester – CHD

Pr	MA	MA5.101	Discrete Structures	3-1-0-4	Srinathan K + Shantanav Chakraborty
Pr	CS	CS0.101	Computer Programming	3-1-3-5	Girish Varma + Charu Sharma + TBD
Pr	EC	EC2.101	Digital Systems and Microcontrollers	3-1-3-5	Anshu Sarje + Harikumar K + Anil Kumar Vuppala
Pr	HS	HS4.102	Making of the Contemporary India	3-1-0-4	Aniket Alam
Pr	HS	HS7.101	Human Sciences Lab-1 (H2)	3-1-0-2	Anirban Dasgupta
In	HS	OC2.101	Arts-1 (H1)	2-0-0-2	Saroja T K (Coordinator)
In	HS	OC3.101	Value Education-1 (H)	0-2-0-2	Shatrunjay Rawat (Coordinator)
In	HS	OC1.101	Sports-1	0-2-0-1	Physical Education Centre
<b>Total 17-9-6-25</b>					

#### B.Tech I year I Semester – CGD

Pr	MA	MA5.101	Discrete Structures	3-1-0-4	Srinathan K + Shantanav Chakraborty
Pr	CS	CS0.101	Computer Programming	3-1-3-5	Girish Varma + Charu Sharma + TBD
Pr	EC	EC2.101	Digital Systems and Microcontrollers	3-1-3-5	Anshu Sarje + Harikumar K + Anil Kumar Vuppala
Pr	GS	GS0.101	Spatial Thinking and Practice	3-1-0-4	KS Rajan
In	HS	OC2.101	Arts-1 (H1)	2-0-0-2	Saroja T K (Coordinator)
In	HS	OC3.101	Value Education-1 (H)	0-2-0-2	Shatrunjay Rawat (Coordinator)
In	HS	OC1.101	Sports-1	0-2-0-1	Physical Education Centre
<b>Total 14-8-6-23</b>					

#### B.Tech II year I Semester - CSE/CSD

Pr	MA	MA6.101	Probability and Statistics	3-1-0-4	Tejas Bodas
Pr	CS	CS1.301	Algorithm Analysis and Design	3-1-0-4	Suryajith Chillara
Pr	CS	CS3.301	Operating Systems and Networks	3-1-0-4	Karthik Vaidhyanathan
Pr	CS	CS1.302	Automata Theory (H1)	3-1-0-2	Shantanav Chakraborty
Pr	CS	CS4.301	Data and Applications (H2)	3-1-0-2	Ponnurangam Kumaraguru

Pr	EC	EC3.202	Embedded Systems Workshop ( <b>H</b> )	1-0-3-3	Abhishek Srivastava + Zia Abbas
Pr	SC	SC1.110	Science 1	3-1-0-4	Prabhakar B + Harjinder Singh
In	HS	OC1.103	Sports-3	0-2-0-1	Physical Education Centre
			<b>Total 19-8-3-24</b>		

#### LE-CSD-2K24 I year I Semester

Pr	MA	MA6.101	Probability and Statistics	3-1-0-4	Tejas Bodas
Pr	CS	CS1.301	Algorithm Analysis and Design	3-1-0-4	Suryajith Chillara
Pr	CS	CS3.301	Operating Systems and Networks	3-1-0-4	Karthik Vaidhyanathan
Pr	CS	CS1.302	Automata Theory ( <b>H1</b> )	3-1-0-2	Shantanav Chakraborty
Pr	CS	CS4.301	Data and Applications ( <b>H2</b> )	3-1-0-2	Ponnurangam Kumaraguru
In	HS	OC1.101	Sports-1	0-2-0-1	Physical Education Centre
			<b>Total 15-7-0-17</b>		

#### B.Tech II year I Semester - ECE/ECD

Pr	MA	MA6.102	Probability and Random Processes	3-1-0-4	Gowtham Kurri
Pr	EC	EC5.201	Signal Processing	3-1-3-5	Chiranjeevi Yarra + Santosh Nannuru
Pr	EC	EC5.202	Systems Thinking	3-1-0-4	Spandan Roy + Vinod PK
Pr	EC	EC2.201	VLSI Design	3-1-0-4	Abhishek Srivastava
Pr	SC	SC1.110	Science 1	3-1-0-4	Prabhakar B + Harjinder Singh
In	HS	OC1.103	Sports-3	0-2-0-1	Physical Education Centre
			<b>Total 15-7-3-22</b>		

#### LE-ECD-2K24 I year I Semester

Pr	MA	MA6.102	Probability and Random Processes	3-1-0-4	Gowtham Kurri
Pr	EC	EC5.201	Signal Processing	3-1-3-5	Chiranjeevi Yarra + Santosh Nannuru
Pr	EC	EC5.202	Systems Thinking	3-1-0-4	Spandan Roy + Vinod PK
Pr	EC	EC2.201	VLSI Design	3-1-0-4	Abhishek Srivastava
Pr	SC	SC1.110	Science 1	3-1-0-4	Prabhakar B + Harjinder Singh
In	HS	OC1.101	Sports-1	0-2-0-1	Physical Education Centre
			<b>Total 15-7-3-22</b>		

#### B.Tech II year I Semester –CND

Pr	MA	MA6.102	Probability and Random Processes	3-1-0-4	Gowtham Kurri
Pr	CS	SC1.203	Quantum Mechanics	3-1-0-4	Subhadip Mitra
Pr	CS	SC3.101	Introduction to Biology	3-1-0-4	Vinod PK
Pr	CS	SC4.110	Science Lab I ( <b>H1</b> )	0-0-3-2	Tapan Sau + Prabhakar B
Pr	CN S	CS1.301	Algorithm Analysis and Design	3-1-0-4	Suryajith Chillara
Pr	CS	CS1.302	Automata Theory ( <b>H1</b> )	3-1-0-2	Shantanav Chakraborty
Pr	CS	CS4.301	Data and Applications ( <b>H2</b> )	2-0-3-2	Ponnurangam Kumaraguru
In	HS	OC1.103	Sports-3	0-2-0-1	Physical Education Centre
			<b>Total 17-7-6-23</b>		

#### B.Tech II year I Semester –CLD

Pr	MA	MA6.101	Probability and Statistics	3-1-0-4	Tejas Bodas
Pr	CS	CL2.203	Language and Society	3-1-0-4	Aditi Mukherjee
Pr	CS	CL3.202	Computational Linguistics II: Comp Semantics and Discourse parsing	3-1-0-4	Rajakrishnan P Rajkumar + Parameswari Krishnamurthy
Pr	CS	CS1.301	Algorithm Analysis and Design	3-1-0-4	Suryajith Chillara
Pr	CS	CS1.302	Automata Theory ( <b>H1</b> )	3-1-0-2	Shantanav Chakraborty

Pr	CS	CS4.301	Data and Applications (H2)	3-1-0-2	Ponnurangam Kumaraguru
In	HS	OC1.103	Sports-3	0-2-0-1	Physical Education Centre
<b>Total 15-7-0-21</b>					

**B.Tech II year I Semester –CHD**

Pr	MA	MA6.101	Probability and Statistics	3-1-0-4	Tejas Bodas
Pr	HS	HS0.216	Thinking and Knowing in the Human Sciences - III	3-1-0-4	Anirban Dasgupta + Aakansha Natani
Pr	HS	HS0.202	Thinking and Knowing in the Human Sciences - II	3-1-0-4	Aniket Alam
Pr	CS	CS1.301	Algorithm Analysis and Design	3-1-0-4	Suryajith Chillara
Pr	CS	CS4.301	Data and Applications (H2)	2-0-3-2	Ponnurangam Kumaraguru
Pr	CS	CS1.302	Automata Theory (H1)	3-1-0-2	Shantanav Chakraborty
In	HS	OC1.103	Sports-3	0-2-0-1	Physical Education Centre
<b>Total 17-7-3-21</b>					

**B.Tech III year I Semester – CSE**

Pr	CS		Bouquet Course – 1	3-1-0-4	
OT	SC		Science Elective – 1	3-1-0-4	
OT	HS		HSS Elective-1	3-1-0-4	
OT	OE		Open Elective-1	3-1-0-4	
Pr	CS		CSE-Honours-1 (Optional)	0-2-6-2	
<b>Total 12-6-6-16/18</b>					

**B.Tech III year I Semester - CSD**

Pr	CS		Bouquet Course – 1	3-1-0-4	
OT	SC		Science Elective – 1	3-1-0-4	
OT	HS		HSS Elective-1	3-1-0-4	
OT	OE		Open Elective-1	3-1-0-4	
PR	CS		Stream Elective-1	3-1-0-4	
Pr	CS		CSE-Honours-1	0-2-6-2	
<b>Total 15-7-6-22</b>					

**LE-CSD-2K23 II year I Semester**

Pr	CS		Bouquet Course – 1	3-1-0-4	
OT	SC		Science Elective – 1	3-1-0-4	
OT	HS		HSS Elective-1	3-1-0-4	
OT	OE		Open Elective-2	3-1-0-4	
PR	CS		Stream Elective-1	3-1-0-4	
Pr	CS	CS9.302	CSE-Honours-1	0-2-6-2	
<b>Total 15-7-6-22</b>					

**B.Tech III year I Semester – ECE**

Pr	EC		Stream Foundation-2	3-1-0-4	
Pr	EC		Stream Elective-1	3-1-0-4	
OT	OE		Open Elective-1	3-1-0-4	
OT	HS		HSS Elective-1	3-1-0-4	
Pr	MA		Maths Elective	3-1-0-4	
Pr	EC		ECE-Honours-1 (Optional)	0-2-6-2	
<b>Total 15-7-6-20/22</b>					

**B.Tech III year I Semester – ECD and LED-2K23 II year I Semester**

Pr	EC		Stream Foundation-2	3-1-0-4	
Pr	EC		Stream Elective-1	3-1-0-4	
OT	OE		Open Elective-1	3-1-0-4	
Pr	MA		Maths Elective	3-1-0-4	

OT	HS		HSS Elective-1	3-1-0-4	
Pr	EC		ECE-Honours-1	0-2-6-2	
<b>Total 15-7-6-22</b>					
<b>B.Tech III year I Semester – CND</b>					
Pr	CS	CS3.301	Operating Systems and Networks	3-1-0-4	Karthik Vaidhyanathan
Pr	SC	SC2.304	Spectroscopy(H1)	3-1-0-2	M Krishnan
Pr	SC	SC2.305	Chemical Kinetics and Reaction Dynamics (H2)	3-1-0-2	Harjinder Singh
Pr	SC	SC3.202	Bioinformatics (H1)	3-1-0-2	Nita Parkeh
Pr	SC	SC3.203	Systems Biology (H2)	3-1-0-2	Vinod PK
Pr	CS		CS Elective - 1	3-1-0-4	
Pr	SC	SC9.302	CNS Honors - 1	0-2-6-2	
Pr	SC	SC9.600	CCNSB seminar - 1	0 Cr	Abhishek Deshpande
<b>Total 12-6-6-18</b>					
<b>B.Tech III year I Semester – CLD</b>					
Pr	CS	CS3.301	Operating Systems and Networks	3-1-0-4	Karthik Vaidhyanathan
Pr	CL	CS7.501	Advanced NLP	3-1-0-4	Manish Shrivastava
Pr	CL	CL9.302	CL-Honours-1	0-2-6-2	
Pr	SC	SC1.110	Science 1	3-1-0-4	Prabhakar B + Harjinder Singh
Pr	CS		CS Elective-1	3-1-0-4	
OT	HS		HSS Elective - 1	3-1-0-4	
<b>Total 15-7-6-22</b>					
<b>B.Tech III year I Semester – CHD</b>					
Pr	CS	CS3.301	Operating Systems and Networks	3-1-0-4	Karthik Vaidhyanathan
Pr	HS	HS0.303	Applied Ethics	3-1-0-4	Ashwin Jayanti
Pr	SC	SC1.110	Science 1	3-1-0-4	Prabhakar B + Harjinder Singh
Pr	CS		CS Elective-1	3-1-0-4	
OT	HS		HSS Elective-2	3-1-0-4	
Pr	HS	HS9.302	HS-Honours-1	0-2-6-2	
<b>Total 15-7-6-22</b>					
<b>B.Tech IV year I Semester - CSE</b>					
Pr	CS	CS9.401/ CS9.402	BTP II / CSE-Honours Project III	0-2-6-2	
Pr	HS	HS0.203a &HS0.203b	Basics of Ethics (H1&H2)	3-1-0-2	Ashwin Jayanti (H1) + Ramesh Dheeravath (H2)
Pr	CS		Bouquet Core-4	3-1-0-4	
Pr	OE		Open Elective-3	3-1-0-4	
Pr	OE		Open Elective-4	3-1-0-4	
<b>Total 12-6-6-16</b>					
<b>B.Tech IV year I Semester - CSD</b>					
Pr	CS	CS9.402	CSE-Honours Project III	0-2-6-2	
Pr	HS	HS0.203a &HS0.203b	Basics of Ethics (H1&H2)	3-1-0-2	Ashwin Jayanti (H1) + Ramesh Dheeravath (H2)
Pr	CS		Stream Elective-3	3-1-0-4	
Pr	CS		Bouquet Core-4	3-1-0-4	
Pr	OE		Open Elective-3	3-1-0-4	
Pr	OE		Open Elective-4	3-1-0-4	
<b>Total 15-7-6-20</b>					
<b>LE-CSD-2K22 III year I Semester</b>					
Pr	CS	CS9.402	CSE-Honours Project III	0-2-6-2	

Pr	HS	HS0.203a &HS0.203b	Basics of Ethics ( <b>H1&amp;H2</b> )	3-1-0-2	Ashwin Jayanti (H1) + Ramesh Dheeravath (H2)
Pr	CS		Stream Elective-3	3-1-0-4	
Pr	CS		Bouquet Core-4	3-1-0-4	
Pr	OE		Open Elective-4	3-1-0-4	
Pr	OE		Open Elective-5	3-1-0-4	
			<b>Total 15-5-6-20</b>		

#### **B.Tech IV year I Semester - ECE**

Pr	EC	EC9.401/ EC9.402	BTP II/ECE-Honours Project III	0-2-6-2	
Pr	HS	HS0.203a &HS0.203b	Basics of Ethics ( <b>H1&amp;H2</b> )	3-1-0-2	Ashwin Jayanti (H1) + Ramesh Dheeravath (H2)
Pr	EC		Stream Elective-3	3-1-0-4	
Pr	OE		Open Elective-3	3-1-0-4	
OT	SC		Science Elective-1	3-1-0-4	
			<b>Total 12-4-6-16</b>		

#### **B.Tech IV year I Semester – ECD and LED-2K22 III year I semester**

Pr	EC	EC9.402	ECE-Honours Project III	0-2-6-2	
Pr	EC		Stream Elective-4	3-1-0-4	
Pr	EC		Stream Elective-5	3-1-0-4	
Pr	OE		Open Elective-3	3-1-0-4	
OT	SC		Science Elective-1	3-1-0-4	
In	HS	HS0.203a &HS0.203b	Basics of Ethics ( <b>H1&amp;H2</b> )	3-1-0-2	Ashwin Jayanti (H1) + Ramesh Dheeravath (H2)
			<b>Total 15-7-6-20</b>		

#### **B.Tech IV year I Semester – CND**

Pr	SC	SC9.402	CNS-Honours Project III	0-2-6-2	
Pr	SC		CNS Elective-3	3-1-0-4	
Pr	CS		CS Elective-3	3-1-0-4	
Pr	CS		CS Elective-4	3-1-0-4	
In	HS	HS0.203a &HS0.203b	Basics of Ethics ( <b>H1&amp;H2</b> )	3-1-0-2	Ashwin Jayanti (H1) + Ramesh Dheeravath (H2)
Pr	SC	SC9.600	CCNSB Seminar-3	0 Cr	Abhishek Deshpande
			<b>Total 12-6-6-16</b>		

#### **B.Tech IV year I Semester – CLD**

Pr	CL	CL9.402	CL-Honours Project III	0-2-6-2	
Pr	CL		CL Stream Elective-2	3-1-0-4	
Pr	CL		CL Stream Elective-3	3-1-0-4	
Pr	CS		CS Elective-3	3-1-0-4	
Pr	HS	HS0.203a &HS0.203b	Basics of Ethics ( <b>H1&amp;H2</b> )	3-1-0-2	Ashwin Jayanti (H1) + Ramesh Dheeravath (H2)
Pr	OE		Open Elective-2	3-1-0-4	
			<b>Total 15-7-6-20</b>		

#### **B.Tech IV year I Semester – CHD**

Pr	HS	HS9.402	HS-Honours Project-3	0-2-6-2	
OT	HS		HSS Elective-4	3-1-0-4	
OT	HS		HSS Elective-5	3-1-0-4	
Pr	MA		Maths Elective	3-1-0-4	
Pr	CS		CS Elective-4	3-1-0-4	
Pr	OE		Open Elective-3	3-1-0-4	
			<b>Total 15-7-6-22</b>		

<b>B.Tech V year I Semester – CSD (LE-CSD-2K21-IV year I Semester)</b>					
Pr	CS	CS9.605	Thesis	12 Cr	
In	OT	OC9.600	Institute Seminar	1 Cr	
<b>Total 13 credits</b>					
<b>B.Tech V year I Semester – ECD (LE-ECD-2K21-IV year I Semester)</b>					
Pr	EC	EC9.605	Thesis	12 Cr	
In	OT	OC9.600	Institute Seminar	1 Cr	
<b>Total 13 credits</b>					
<b>B.Tech V year I Semester – CLD</b>					
Pr	CL	CL9.605	Thesis	12 Cr	
In	OT	OC9.600	Institute Seminar	1 Cr	
<b>Total 13 credits</b>					
<b>B.Tech V year I Semester – CND</b>					
Pr	SC	SC9.605	Thesis	12 Cr	
OT	OT		Open Elective 1	3-1-0-4	
Pr	SC	SC9.600	CCNSB seminar - 5	0 Cr	
<b>Total 3-1-0-16</b>					
<b>B.Tech V year I Semester – CHD</b>					
Pr	HS	HS9.605	Thesis	12 Cr	
In	OT	OC9.600	Institute Seminar	1 Cr	
<b>Total 13 credits</b>					
<b>PG Programmes</b>					
CD	AD	Course Code	Course Name	Credits	Faculty Name(s)
<b>M.Tech I year I Semester - CSE &amp; CSIS</b>					
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	Rahul Mishra + Sai Anirudh
Pr	CS	CS3.304	Advanced Operating Systems	3-1-0-4	P. Krishna Reddy
<b>Total 12-1-5-18</b>					
<b>M.Tech II year I Semester – CSE</b>					
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	
<b>Total 12-4-0-16</b>					
* At most 4 credits can be converted to Project/Independent Study in lieu of course credits(66)					
<b>M.Tech II year I Semester – CSIS</b>					
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	
<b>Total 12-4-0-16</b>					
<b>M.Tech I Year I Semester – CASE</b>					

Pr	SE	CE1.501	Structural Dynamics	3-1-0-4	Sunitha Palissery
Pr	CS	CS0.301	Computer Problem Solving	3-1-3-4	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
		<b>Total 15-5-0-20</b>			

#### 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	
		<b>Total 12-4-0-14</b>			

#### M.Tech I Year I Semester – Product Design and Management

Pr	CS	CS6.302	Software Systems Development	3-1-0-4	Rahul Mishra + Sai Anirudh
Pr	CS	CS9.501	User Research Methods (H2)	3-1-0-2	Priyanka 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 Warudkar
Pr			Bridge / Technology / Systems Elective	3-1-0-4	
Pr	OT	PD9.601	PDM-Seminar	0 Cr	Guest Speakers
		<b>Total 15-5-2-16</b>			

#### 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	
		<b>Total 4-1-0-16</b>			

### Electives offering in Monsoon 2024

		CNO	CName	Credits	Faculty Name(s)
<b>Electives for CND Students</b>					
		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
<b>Electives for CLD Students</b>					
		CS4.406	Information Retrieval & Extraction	3-1-0-4	Rahul Mishra
		CG1.402	Intro to Cognitive Science	3-1-0-4	Vishnu Sreekumar
		CL2.405	Speech Analysis and Linguistics	3-1-0-4	Chiranjeevi Yarra
<b>ECE Electives (Also applicable as CSE/Open Electives)</b>					

**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
	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
<b>VLSI and Embedded Systems Stream</b>					
		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
		CS2.501	Advanced Computer Architecture	3-1-0-4	Suresh Purini
		EC2.410	CMOS References and Regulators	3-1-0-4	Zia Abbas + Abhishek Pullela
<b>Robotics Stream</b>					
		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
<b>Electives for PG CASE students</b>					
		GS2.401	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
		CE1.610	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
		CE1.620	Structural Safety of Built Infrastructure (H1)	3-1-0-2	Jofin George
		CE1.621	Retrofit of Existing Infrastructure (H2)	3-1-0-2	Shubham Singhal
		GS3.403	Geospatial Technology for Disaster Risk Modelling	3-1-0-4	Kiran Chand Thumaty and Rehana Shaik
<b>Electives for M.Tech PDM students</b>					
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 + Arjun Rajashekhar	
	PD2.501	Product Marketing	3-1-0-4	Ravi Warrior	
<b>Bouquet Courses - Registration Limit: 150</b>					
<b>Theory</b>					
		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
<b>Systems</b>					
		CS3.401	Distributed Systems (100)	3-1-0-4	Kishore Kothapalli
		CS3.402	Advanced Computer Networks (150)	3-1-0-4	Ankit Gangwal
<b>Artificial Intelligence</b>					
		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 Shrivastava
		CS4.405	Data Analytics I (100)	3-1-0-4	Krishna Reddy Polepalli
<b>IT + X</b>					
		CG1.402	Intro to Cognitive Science (50)	3-1-0-4	Vishnu Sreekumar
		GS2.401	Spatial Informatics (50)	3-1-0-4	Rajan Krishnan Sundara
<b>CSE/Open Electives</b>					
		CS8.501	Research in Information Security	3-0-1-4	Ashok Kumar Das + Srinathan K

	CS3.405	Blockchain and Web3 Development ( <b>Max: 40 Students</b> )	3-1-0-4	Ankit Gangwal
	CG3.401	Introduction to Neural and Cognitive Modeling	3-1-0-4	Bapiraju Surampudi
	CG3.402	Behavioral Research & Experimental Design ( <b>50</b> )	3-1-0-4	Vinoo Alluri
	M24Temp8	Software Quality Engineering	3-1-0-4	Raghu Reddy Y
	CS7.504	Fairness, Privacy and Ethics in AI ( <b>Max:40</b> )	3-1-0-4	Sujit P Gujar
	CS9.429	Design for Social Innovation	3-1-0-4	Ramesh Loganathan + Arjun Rajashekhar
	CG1.403	Learning and Memory ( <b>Max 70</b> )	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	Prasad Krishnan
	CS2.501	Advanced Computer Architecture	3-1-0-4	Suresh Purini
	CG9.600	Cognitive Science Seminar	0 Cr	Priyanka Srivastava + Bapi Raju
	EC5.412	Foundations for Signal Processing and Communication ( <b>Open for MS&amp;PhD students</b> )	3-1-0-4	Praful Mankar + Arti Yardi
	CS9.440	Introduction to Remote Sensing	3-1-0-4	RC Prasad
	CS1.504	Quantum Information Theory	3-1-0-4	Siddhartha Das
	CS9.428	Environmental Science & Technology	3-1-0-4	Ramachandra Prasad Pillutla

#### **Open Electives Only for UG Students**

	CS3.306	Algorithms and Operating Systems ( <b>Open Elective) Only for UG ECE/D students</b> )	3-1-0-4	Lini Teresa Thomas
	CE5.502	Hydrological modelling and Software Development ( <b>40 (Open Elective)</b> )	3-1-0-4	Rehana Shaik
	GS3.403	Geospatial Technology for Disaster Risk Modelling ( <b>Open Elective</b> )	3-1-0-4	Kiran Chand Thumaty and Rehana Shaik
	PD1.501	Human Computer Interaction ( <b>H2</b> )	3-1-0-2	Raman Saxena
	PD2.501	Product Marketing	3-1-0-4	Ravi Warrior

#### **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

#### **Science Electives (Random selection) Max. no of students for each course is given in the brackets**

	SC3.321	Biomolecular Structure Interaction & Dynamics ( <b>35</b> ) <b>Prerequisites: ABA, GSC or equivalent</b>	3-1-0-4	B.Gopalakrishnan
	SC1.310	Open Quantum Systems and Quantum Thermodynamics ( <b>40</b> )	3-1-0-4	Samyadeb Bhattacharya
	SC1.421	Introduction to Quantum Field Theory ( <b>40</b> )	3-1-0-4	Diganta Das + Monalisa Patra
	SC2.401	Topics in Nanosciences ( <b>60</b> )	3-1-0-4	Tapan Kumar Sau
	SC2.309	Chemistry Topics for Engineers ( <b>120</b> )	3-1-0-4	Tapan Kumar Sau + Prabhakar B
	SC1.415	Physics of Early Universe ( <b>50</b> )	3-1-0-4	Diganta Das

#### **Humanities Electives for UG3 & UG4 (Random selection) Max. no of students for each course is 40**

		HS1.210	Music Workshop <b>(30)</b>	3-1-0-4	Saroja T K
		HS1.208	Introduction to Film Studies	3-1-0-4	Sushmita Banerji
		HS3.201	Introduction to History	3-1-0-4	Isha Dubey
		HS2.202	Intro to Psychology	3-1-0-4	Priyanka Srivastava
		HS4.201	Introduction to Politics	3-1-0-4	Aakansha Natani
		HS0.214	Introduction to Philosophy	3-1-0-4	Saurabh Todariya
		HS5.202	Introduction to Economics	3-1-0-4	Anirban Dasgupta
		HS1.303	Readings from Hindi Literature	3-1-0-4	Harjinder Singh
		HS8.201	Gender and Society	3-1-0-4	Sushmita Banerji
		HS2.303	Work, Entrepreneurship and Technology in Contemporary Societies	3-1-0-4	Rajorshi Ray

**Sd/-**

**Date:22-06-2024**

**Dean (Academics)**