

SR UNIVERSITY
Department of Civil Engineering
R25 Course Structure

I SEM						
S. No.	Course Code	Course	L	R	P	C
1	25MAT310BS107	Calculus and Differential Equations	3	1	0	3.5
2	25EEE312ES103	Electrical and Electronics Engineering	3	1	2	4.5
3	25SCI312BS104	Applied Physics and Chemistry for Civil Engineering	3	1	2	4.5
4	25MEC104ES104	Product Design Studio	1	0	4	3
5	25HUM300HS102	Ancient Knowledge and Constitution of India	3	0	0	3
Total			13	3	8	18.5
II SEM						
S. No.	Course Code	Course	L	R	P	C
1	25CIV310PC101	Engineering Mechanics	3	1	0	3.5
2	25CIV312PC102	Building Technology and Architectural Planning	3	1	2	4.5
3	25MAT310BS109	Probability and Statistics	3	1	0	3.5
4	25MAT310BS108	Linear Algebra and Numerical Methods	3	1	0	3.5
5	25SCI202BS106	Computational Chemistry and Biology	2	0	2	3
6	25HUM204HS101	Life Skills: Entrepreneurship, Language, Communication and Personality	2	0	4	4
7		Hobbies, Co-Curricular and Extra-Curricular Elective	0	0	2	1
Total			16	4	10	23
III SEM						
S. No.	Course Code	Course	L	R	P	C
1	25CIV302PC201	Concrete Technology	3	0	2	4
2	25CIV312PC202	Strength of Materials	3	1	2	4.5
3	25CIV312PC203	Fluid Mechanics and Hydraulic Machines	3	1	2	4.5
4	25CIV312PC204	Surveying and Geomatics	3	1	2	4.5
5	25CIV312PC205	Soil Mechanics	3	1	2	4.5
Total			15	4	10	22
IV SEM						
S. No.	Course Code	Course	L	R	P	C
1	25CIV302PC206	Design of Reinforced Concrete	3	0	2	4
2	25CIV310PC207	Structural Analysis	3	1	0	3.5
3	25CIV312ES201	Environmental Engineering and Design	3	1	2	4.5
4	25CIV310PC208	Hydrology and water Resources Engineering	3	1	0	3.5
5	25CAI214ES210	Problem Solving using Python	2	1	4	4.5
6	25CIV302PC209	Highway Engineering	3	0	2	4
Total			17	4	10	24

V SEM						
S. No.	Course Code	Course	L	R	P	C
1	25CIV310PC301	Design of Steel Structure	3	1	0	3.5
2	25CIV310ES301	Solid Waste Management	3	1	0	3.5
3		Open Elective - I	3	0	0	3
4	25CIV312ES302	Estimation and Project Management	3	1	2	4.5
5	25CIV200HS301	Sustainability and Ethical Innovation	2	0	0	2
6	25CIV002PR401	Undergraduate Research in Civil Engineering	0	0	2	1
7	25HUM006HS202	Quantitative Aptitude and Logical Reasoning	0	0	6	3
Total			14	3	10	20.5
VI SEM						
S. No.	Course Code	Course	L	R	P	C
1	25CIV310PC302	Foundation Engineering	3	1	0	3.5
2	25CIV312ES303	AI for Civil Engineering	3	1	2	4.5
3		Open Elective - II	3	0	0	3
4	25HUM104HS201	Critical Thinking and Interpersonal Skills	1	0	4	3
5		Program Elective - I	2	1	4	4.5
6	25CIV310PC310	Repair and Rehabilitation	3	1	0	3.5
Total			15	4	10	22
VII SEM						
S. No.	Course Code	Course	L	R	P	C
1	25CIV010PR402	Capstone Project	0	0	10	5
2		Program Elective - II	3	1	2	4.5
3		Program Elective - III	3	1	2	4.5
4		Program Elective - IV	3	0	0	3
5		Open Elective -III	3	0	0	3
Total			12	2	14	20
Or						
1	25CIV040PR403	Industrial Project/R&D Project/Industry Internship/Start-up/Externship	0	0	40	20
Total			0	0	40	20
VIII SEM						
S. No.	Course Code	Course	L	R	P	C
1	25CIV040PR404	Major Project/Industrial Project/R&D Project/Industry Internship/Start-up/Externship	0	0	40	20
Total			0	0	40	20

Program Electives						
S. No.	Course Code	Course	L	R	P	C
Program Elective - I						
1	25CIV214PE401	Revit Architecture	2	1	4	4.5
2	25CIV214PE402	Design with E-Tabs	2	1	4	4.5
Program Elective - II						
1	25CIV312PE403	Satellite Data Analysis	3	1	2	4.5
2	25CIV312PE404	Sensors for Buildings	3	1	2	4.5
Program Elective - III						
1	25CIV312PE405	Construction Equipment and Management	3	1	2	4.5
2	25CIV312PE406	Intelligent Transport Systems	3	1	2	4.5
Program Elective - IV						
1	25CIV300PE407	Prestressed Concrete	3	0	0	3
2	25CIV300PE408	Airports, Railways and Ports Engineering	3	0	0	3
Robotics and Automation Specialization						
Specialization Core						
1	25MEC302SC202	Robotics and Automation	3	0	2	4
2	25MEC302SC302	Robotic System Design	3	0	2	4
Specialization Elective - I (Robotics and Automation)						
1	25MEC300SE303	Sensors and Control for Robotics	3	0	0	3
2	25MEC300SE304	AI in Robotics	3	0	0	3
Specialization Elective - II (Robotics and Automation)						
1	25MEC300SE403	Robotics Operating System	3	0	0	3
2	25MEC300SE404	Machine Vision and Safety	3	0	0	3
Honors (I, II, III, IV)						
Semester - III						
1	25CIV400HN401	Contracts, Claims and Disputes Management	4	0	0	4
2	25CIV400HN402	Project Planning Scheduling and Control	4	0	0	4
Semester - V						
3	25CIV400HN403	Lean Construction and Productivity Improvement	4	0	0	4
Semester - VI						
4	25CIV400HN404	Construction Finance Management	4	0	0	4
Minors (I, II, III, IV)						
Semester-III						
1	25CIV400MN401	Civil Engineering Materials	4	0	0	4
Semester-IV						
2	25CIV400MN402	Watershed Management	4	0	0	4
Semester-V						
3	25CIV400MN403	Remote Sensing and GIS	4	0	0	4
Semester-VI						
4	25CIV400MN404	Quantity Surveying	4	0	0	4
Hobbies, Co-Curricular and Extra-Curricular (HCE) Electives						
S. No.	Course Code	Course	L	R	P	C

1	25HUM002AU401	Community Engagement and Social Responsibility through NSS	0	0	2	1
2	25HUM002AU402	Leadership and Collaboration through Student Clubs	0	0	2	1
3	25HUM002AU403	Physical Education and Sports for Holistic Development	0	0	2	1
4	25HUM002AU404	Experiential Learning through Internships	0	0	2	1
5	25HUM002AU405	Skill Enrichment and Creativity through Hobby Activities	0	0	2	1
6	25HUM002AU406	Visual Storytelling and Documentation through Photography	0	0	2	1
7	25HUM002AU407	Skill Acceleration and Applied Learning through Boot Camps	0	0	2	1
8	25HUM002AU408	Indian Classical Music	0	0	2	1
9	25HUM002AU409	Classical and Folk Dance Traditions of India	0	0	2	1
10	25HUM002AU410	Traditional Indian Culinary Practices	0	0	2	1
In Special Cases Open Electives, Program Electives, Specialization Electives may be considered						

Flexible Courses for Open Electives and Professional Electives						
S. No.	Course Code	Course	L	R	P	C
1	25HUM202CR401	Industry Certification	2	0	2	3
2	25HUM300CR402	Professional Skill Development	3	0	0	3
3	25HUM300CR403	Self-Paced Learning	3	0	0	3
Minor Courses offered by NEST						
S.No.	Course Code	Course	L	R	P	C
1	25BUS400MN401	Startup Garage	4	0	0	4
2	25BUS400MN402	Startup Launch and Business Operation	4	0	0	4
3	25BUS400MN403	Digital Marketing Strategy	4	0	0	4
4	25BUS400MN404	Growth Hacking	4	0	0	4
Open Electives						
S. No.	Course Code	Course	L	R	P	C
1	25CAI202OE401	Fundamentals of Database Management Systems	2	0	2	3
2	25CAI202OE402	Fundamentals of Data Structures	2	0	2	3
3	25CAI202OE403	Analysis and Design of Algorithms	2	0	2	3
4	25ECE300OE404	Principles of Communication	3	0	0	3
5	25ECE300OE405	Sensors and Transducers	3	0	0	3
6	25ECE300OE406	Design for Social Impact	3	0	0	3
7	25EEE300OE407	Introduction to Electric Vehicle Technologies	3	0	0	3
8	25EEE202OE408	Introduction to PLC Programming	2	0	2	3

CSE

ECE

EEE

9	25MEC300OE409	Operations Research	3	0	0	3	ME
10	25MEC300OE410	3D Printing	3	0	0	3	
11	25MEC300OE411	Renewable Energy Resources	3	0	0	3	
12	25MEC104OE412	Workshop Practices	1	0	4	3	
13	25CIV300OE413	Disaster Management	3	0	0	3	CE
14	25CIV300OE414	Pollution and Control Engineering	3	0	0	3	
15	25CIV300OE415	Smart Cities	3	0	0	3	
16	25BUS300OE416	Digital Marketing	3	0	0	3	SoB
17	25BUS300OE417	Startup Launch and Ecosystems	3	0	0	3	
18	25BUS300OE418	Finance for Engineers	3	0	0	3	
19	25SCI202OE419	Space Physics	2	0	2	3	Basic Science
20	25SCI202OE420	Nanomaterials and Technology	2	0	2	3	
21	25SCI202OE421	AI for Drug Discovery	2	0	2	3	
22	25MAT300OE422	Integral Transforms and Partial Differential Equations	3	0	0	3	Math
23	25MAT300OE423	Optimization Techniques	3	0	0	3	
24	25HUM202OE424	LSRW Language Skills	2	0	2	3	English
25	25HUM300OE425	Learning How to Learn	3	0	0	3	
26	25HUM300OE426	German for Professionals	3	0	0	3	
27	25HUM300OE427	Japanese Language and Culture	3	0	0	3	
28	25HUM300OE428	Spanish for Global Work Place	3	0	0	3	
29	25NCC300OE429	NCC Foundation course	3	0	0	3	NCC
30	25NCC300OE430	NCC Basic course	3	0	0	3	
31	25NCC300OE431	NCC Advanced Course	3	0	0	3	
In Special Cases Open Electives may be considered as Program Electives							
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In Special Cases Program Electives may be considered as Specialization Electives							
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In Special Cases Specialization Electives may be considered as Open Electives							
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Assistant Dean Academics
CIVIL, SR University

HOD
CIVIL, SR University