



# SRINIVAS UNIVERSITY

## COLLEGE OF ENGINEERING & TECHNOLOGY

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### DEPARTMENT OF CIVIL ENGINEERING OFFERS B.TECH IN CIVIL ENGINEERING

#### About Course:

Srinivas University's Bachelor of Technology in Civil Engineering (B.Tech.) program nurtures and develops students as young & dynamic engineers. The program lays emphasis on preparing students to become competent Civil Engineers with latest technological knowledge as per global needs by building their capabilities, sound technical knowledge, skills and attitude. Bachelor of Technology in Civil Engineering (B.Tech.) program is a four-year graduate programme. The aim of the Bachelor of Technology in Civil Engineering (B.Tech.) program is to prepare students for successful careers in the field of Civil Engineering as per International Standards and to prepare students to become responsible and contributing members of the community. The Dept. of Civil Engineering has a team of highly qualified and dedicated faculty members along with experienced supporting staffs, state of the art laboratories, multimedia classrooms, digital online library facilities and good infrastructure which provides a healthy and professional environment for the pursuit of academic excellence.

**Duration:** 4 years, Eight semesters.

**Eligibility:** Pass in 10 + 2 / 12th Standard with 45% marks (40% in case of candidate belonging to SC/ST category)

#### Vision and Mission:

##### Vision

To create technically sound, Dynamic, Skilful, Innovative Civil Engineers, imbued with good entrepreneurial and human virtues, who are quality conscious, efficient and who will be the leaders in building safe, sustainable world for the future generations.

##### Mission:

Providing Uncompromising Standard of Excellence in Technical Teaching to the students with an excellent Academic Environment to acquire comprehensive knowledge in the Civil Engineering, reinforced with opportunities to develop Skill, Personality, Entrepreneurship Qualities and Ethical Values

#### Special Features of the Programme:

- Industry oriented syllabus with special focus on experimental learning.
- Seminars, Technical Talks and Interactions with industrial experts.
- Innovations in examination system with opportunity for personal seeing of evaluated papers.
- Opportunity to take Structural Engineering / Construction Management Specialization.
- Placement support and research-oriented projects for every student.
- Focus on smart skill development & training on Civil Engineering practices.

## Program Educational Objectives:

- To prepare students to meet the industrial requirements at global level competitiveness.
- To develop the students analytical skills to enable them to understand real world problems and formulate solutions.
- To impart basic education to students in the areas of Structural Design, Proof Checking and Analysis of Structures that will enable them to take up higher studies in these areas.
- To allow students to work in teams through group project works and seminars and thus help them achieve interpersonal and communication skills.
- To inculcate the habit of lifelong learning, adherence to ethics in profession, concern for environmental and regard for good professional practices.

## Career Opportunities:

Civil Engineers have opportunities in construction / contracting / consultancy companies, valuation sectors like banks and insurance companies, government departments like Municipalities, Public Work Departments, Ministry of Housing, Ministry of Transportation, Electricity and Water Authority Departments, Urban Development or Town Planning Departments, Real Estate Agencies, National Highway Authority, etc. Now a day Civil Engineers are also finding suitable placements in the field of construction materials manufacturing fields and marketing of the civil engineering products.

- Further Opportunity to pursue M.Tech.
- Opportunity to appear for GATE/Engineering Services and other competitive Exams.

## Unique Features:

The Department has been recognized as Research and Development Centre by Srinivas University for carrying out Research activities leading to Ph.D. Degrees. The department offers UG program namely, B.Tech.(Civil Engineering). The sanctioned student strength of B.Tech. Civil Engineering is 60.

Being under a private university we had a feasibility to form our own syllabus. We have approached several industrialists and have framed the syllabus according to the industry requirements

The students of the department will undergo internship in various reputed organizations all over the country. Students participate in various National and International level competitions regularly. The department possesses the state of the art research facilities to support our academic programs and research. Several projects of the students have been funded by the Government of Karnataka.

Our department has a distinguished record in both teaching and research. Faculty members have excellent academic credentials and are highly regarded. They have publications at National and International levels.

## Programme Structure

SEMESTER 1		SEMESTER 2	
S. No.	Subject	S. No	Subject
1	Engineering Physics of Materials	1	Engineering Chemistry of Materials
2	Computer Software Concept & Programming	2	Information Communication & Computation Technology

3	Elements of Electrical & Electronics	3	Elements of Mechanical and Civil Engineering
4	Quantitative Techniques in Engineering –I/II	4	Quantitative Techniques in Engineering –I/ II
5	Lab on Engineering Physics of Materials	5	Lab on Engineering Chemistry of Materials
6	Electrical & Electronics Lab	6	Computer Aided Engineering Drawing Lab
7	Lab on Computer Programming	7	Lab on Spreadsheet Programming
8	Technical English (ESEP – Xlanz)	8	Professional English ( ESEP – Xlanz)
9	Principles of Environmental Studies	9	Constitution & Professional Ethics
10	Kannada/ Co-curricular Activities/Sports (ESEP)	10	Kannada/ Co-curricular Activities/Sports (ESEP)
<b>SEMESTER 3</b>		<b>SEMESTER 4</b>	
<b>S. No</b>	<b>Subject</b>	<b>S. No</b>	<b>Subject</b>
1	Numerical Techniques and Integral Transforms	1	Probability Theory and Statistical Methods
2	Strength of Materials	2	Structural Analysis - I
3	Fluid Mechanics	3	Hydraulics & Hydraulic Machines
4	Principles of Civil Engineering Surveying & Advanced Techniques	4	Concrete Technology & Building Materials
5	Earth Science Laboratory	5	Fluid Mechanics Laboratory
6	Civil Engineering Material Testing Laboratory	6	Building Construction Practice Laboratory
7	Civil Engineering Surveying Practice Laboratory	7	Concrete Technology Laboratory
8	Civil Engineering ISAP (Information Search Analysis and Presentation) Laboratory	8	Basic Soil Mechanics Laboratory
9	ESEP-Xlanz	9	ESEP-Xlanz
10	Co-Curricular Activities/ Sports (ESEP)	10	Co-Curricular Activities/ Sports (ESEP)
<b>SEMESTER 5</b>		<b>SEMESTER 6</b>	
<b>S. No</b>	<b>S. No</b>	<b>S. No</b>	<b>Subject</b>
1	Structural Analysis -II	1	Advanced Design of RC Structures
2	Design of RCC Structural Elements	2	Environmental Engineering
3	Core Elective-1	3	Core Elective-2
4	Optional /Soft Elective	4	Open Elective - 1
5	Construction Technology Laboratory	5	Mini Project Work/Rivet Architecture
6	Civil CAD Laboratory	6	Highway Material Testing Laboratory
7	Geotechnical Engineering Laboratory	7	Extensive Survey Project
8	Civil IPR	8	Patent Analysis
9	ESEP-Xlanz	9	ESEP-Xlanz
10	Co-Curricular Activities/ Sports (ESEP-A)	10	Co-Curricular Activities/ Sports (ESEP-A)
<b>SEMESTER 7</b>		<b>SEMESTER 8</b>	
<b>S.No</b>	<b>Subject</b>	<b>S.No</b>	<b>Subject</b>
1	Design & Drawing of Steel Structures	1	Seminar
2	Core Elective-3	2	Internship
3	Core Elective-4	3	Project (with patent Application)
4	Open Elective-2	4	ESEP–ABC Skill Trainer(optional)
5	Environmental Engineering & Water Quality Testing Laboratory		
6	Quantity Surveying Laboratory		
7	Project Phase I		
8	Computer Aided Design Structural Laboratory		
9	ESEP-Xlanz		
10	Co-curricular Activities/ Sports (ESEP-A)		

### Electives:

<b>SEMESTER 5</b>		<b>SEMESTER 6</b>	
Core Elective –1	Optional /Soft Elective	Core Elective –2	Open Elective -1

S. No.	Subject	S. No.	Subject	S. No.	Subject	S. No.	Subject
1	Geo -Technical Engineering	1	Management & Entrepreneurship	1	Transportation Engineering	1	Occupation Health & Safety in Construction Industry
2	Substructure Construction Technology	2	Principles of Architecture	2	Pavement Design	2	Air Pollution & Control
3	Advanced Soil Mechanics	3	Principles of Construction Management	3	Highway Geometric Design	3	Web 2.0
4	Soil Structure Interaction	4	Principles of Town Planning & Urban Development	4	Urban Transport Planning	4	Designing Embedded Systems
5	Soil & Rock Mechanics	5	Ground Improvement Techniques	5	Reinforced Earth Structures	5	Cryptography and Network Security
						6	Python Application Programming
						7	Total Quality Management
						8	Micro – Electromechanical Systems.

SEMESTER 7		SEMESTER 7	
Core Elective –3		Core Elective –4	
S.No.	Subject	S.No.	Subject
1	Quantity Surveying	1	Pre-Stressed Concrete
2	Quantity Analysis & Quality Control	2	Design of Bridges
3	Solid Waste Management	3	Finite Element Analysis
4	Sustainable Development in Civil Engineering	4	Structural Dynamics
5	Advanced Concrete Technology	5	Earthquake Resistant Structures
6	Water Resources Management	6	Matrix Method of Structural Analysis
7	Industrial Waste Water Treatment	7	Advanced Foundation Design
8	Contract Procedures & Arbitration	8	Reinforced Earth Structures
9	Building Services, Facilities, Planning & Management	9	Theory of Plates & Shells



**College of Engineering & Technology**

**CREATING INNOVATORS**



**SRINIVAS UNIVERSITY**

**Educating the Next Generation**