


# SHAHEED BHAGAT SINGH STATE TECHNICAL CAMPUS, FEROZEPUR

## PROGRAMME OUTCOMES

Engineering graduates will be able to:

- a **Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- b **Problem analysis:** Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- c **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- d **Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- e **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
- f **The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- g **Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- h **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- i **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- j **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- k **Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- l **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

  
Director  
Shaheed Bhagat Singh  
State Technical Ca:  
Ferozepur

## PROGRAMME SPECIFIC OUTCOMES (PSO'S)

### ❖ Chemical Engineering

The graduates will be able to:

**PSO1 Chemical Engineering Practice:** An ability to demonstrate and apply knowledge of various Chemical Engineering Unit operations and Processes.

**PSO2 Chemical Process analysis and Control:** An ability to understand and apply working knowledge of Chemical Technologies to analyze, model, control, and simulate Chemical Engineering processes and systems.

**PSO3 Design of Chemical Engineering processes:** An ability to design a process equipment and process plant to meet desired needs within realistic constraints like economic, safety and system and process sustainability.

### ❖ Computer Science & Engineering

The graduates will have:

**PSO1 – Problem Solving Aptitude and Foundation of Data Structures:** Ability to apply mathematical methodologies to solve computation task, model real world problem suitable data structures and algorithms on appropriate platform.

**PSO2 – Foundations of Software Development:** Ability to understand the structure and development and methodologies of software systems. Familiarity and practical competence with a broad range of platforms using appropriate DBMS/RDBMS.

**PSO3 – Communication Technologies and Networks:** Ability to understand different communication technologies, their security aspects and ability to deploy networks at small and medium organizations.

### ❖ Electronics and Communication Engineering

The graduates will be able to:

**PSO1** State, design and test Analog and Digital Electronic Devices/Systems by applying fundamentals of Electronics & Communication Engineering.

**PSO2** Design and analyze a communication system by selecting an appropriate technology.

**PSO3** Analyze the problem and demonstrate their abilities to use modern Engineering tools, softwares & equipments to find creative and innovative solution keeping in mind its societal and environmental effect.

### ❖ Electrical Engineering

**PSO1** Graduates will have ability to model and solve real life problems using skills, knowledge, software and hard ware platforms, taking into account environment and social concerns.

**PSO2** Graduates will have the ability to participate and succeed in competitive examinations like GATE, job recruitment examinations etc.

### ❖ Mechanical Engineering

**PSO1** The Mechanical Engineering Graduates will achieve excellence in design work, thermal engineering and manufacturing systems by acquiring knowledge in mathematics, science and designing principles.

**PSO2** Graduate will develop an approach to analyze, interpret and provide solutions to multi-disciplinary problems of Manufacturing and allied Industries.

**PSO3** Graduates will learn managerial skills to work effectively as a team and in society by following strong ethical and environmental principles.

  
Director  
Shahed Bhagat Singh  
State Technical Campus  
Ferozapur  


## Course Outcomes (COs)

The **Course Outcomes (CO's)** and the curriculum of different syllabus schemes of the departments of the institute have been disseminated on the institute website shared via weblink: <http://sbsstc.ac.in/syllabusScheme2015.php>

007/18/2020  
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