Shree Santkrupa Institute of Engineering and Technology

Department of Basic Sciences And Humanities

Academic Year: 2018-19 (As per A Group)

Semester: I

Sr. No.	Course Code	Course Name	Lecture	Tutorial	Practical	Credit
1	BTBS101	Engineering Mathematics- I	3	1	-	4
2	BTBS102/BTBS202	Engineering Physics	3	1	-	4
3	BTES103/BTES203	Engineering Graphics	2	-	-	2
4	BTHM104/BTHM204	Communication Skills	2	-	-	2
5	BTES105/BTES205	Energy and Environment Engineering	2	-	-	2
6	BTES106/BTES206	Basic Civil and Mechanical Engineering	2	-	-	Audit
7	BTBS107L/BTBS207L	Engineering Physics Lab	-	-	2	1
8	BTES108L/BTES208L	Engineering Graphics Lab	-	-	4	2
9	BTHM109L/BTHM209L	Communication Skills Lab.	-	-	2	1

Semester: II

Sr. No.	Course Code	Course Name	Lecture	Tutorial	Practical	Credit
1	BTBS201	Engineering Mathematics- II	3	1	-	4
2	BTBS202/BTBS102	Engineering Chemistry	3	1	-	4
3	BTES203/BTES103	Engineering Mechanics	2	1	-	3
4	BTES204/BTES104	Computer Programming in C	2	-	-	2
5	BTES205/BTES105L	Workshop Practices	-	-	4	2
6	BTES206/BTES106	Basic Electrical and Electronics Engineering	2	-	-	Audit
7	BTES207L/BTES107L	Computer Programming Lab	-	-	2	1
8	BTBS208L/BTBS108L	Engineering Chemistry Lab	-	-	2	1
9	BTES209L/BTES109L	Engineering Mechanics Lab	-	-	2	1
10	BTES210P	Mini Project	-	-	2	1

Course Outcomes

Semster : I	
Course Name	**Engineering Mathematics- I**

Course Code		BTBS101
Course Outcome No	Course Outcome Statement	By the end of the course, student will be able to:
CO 1	Apply the matrix technique (Linear algebra) to find solutions of system of linear equations arising in many engineering problem	
CO 2	Demonstrate the concept partial derivatives and their applications to Maxima/ Minima , series expansion of multi valued functions.	
CO 3	Compute Jacobian of functions of several variables and their applications to engineering problems	
CO 4	Identify and sketch curves in various coordinate system.	
CO 5	Evaluate multiple integrals and their applications to area and volume.	
Semster : I		
Course Name		Engineering Physics
Course Code		BTBS102/BTBS202
Course Outcome No	Course Outcome Statement	By the end of the course, student will be able to:
CO 1	Understand types of oscillations and their implications, ultrasonics and dielectric to role of Shock waves in various fields in engineering	
CO 2	Explain interference & polarization of light, working principle of lasers & fiber optics	
CO 3	Apply & demonstrate principle of electron optics, nuclear physics and quantum mechanics.	
CO 4	Identify types of crystals & crystal planes using miller indices,experimental approach.	
CO 5	Analyze structures, relations, parameters and properties of magnetic, superconducting and semiconducting materials	
Semster : I		
Course Name		Engineering Graphics
Course Code		BTES103/BTES203
Course Outcome No	Course Outcome Statement	By the end of the course, student will be able to:
CO 1	Use of drawing instruments effectively for drawing and dimensioning	
CO 2	Use drawing codes,symbols and conventions as per IS-SP46 in engineering drawing	
CO 3	Explain conventions and methods of engineering drawing.	
CO 4	Apply concept of projections of points,lines,planes,solids and section of solids	
CO 5	Construct isometric and orthographic views of given objects.	
Semster : I		
Course Name		Communication Skills
Course Code		BTHM104/BTHM204
Course Outcome No	Course Outcome Statement	By the end of the course, student will be able to:
CO 1	Remember concept of communication skill and its process.	
CO 2	Explain verbal and non-verbal communication.	
CO 3	Overcome mother tongue influence and demonstrate neutral accent while expressing English.	
CO 4	Recognize types of tense and common errors.	
CO 5	Develop writing context with presentations, public speaking, report writing and business correspondence.	
Semster : I		
Course Name		Energy and Environment Engineering

Course Code		BTES105/BTES205
Course Outcome No	Course Outcome Statement	By the end of the course, students will be able to:
CO 1	Demonstrate the Conventional power plants, their advantages and disadvantages.	
CO 2	Demonstrate the Renewable power plants, its advantages and disadvantages.	
CO 3	Energy conservation: Scope for energy conservation and its benefits Energy Conservation Principle.	
CO 4	Determine the sources, effects, and control measures of air pollution.	
CO 5	Determine the sources, effects, and control measures of water, noise, and soil pollution.	
Semster : I		
Course Name		Basic Civil and Mechanical Engineering
Course Code		BTES106/BTES206
Course Outcome No	Course Outcome Statement	By the end of the course, students will be able to:
CO 1	Determine various Civil Engineering materials & choose suitable materials among various options.	
CO 2	Determine and apply principles of surveying to solve engineering problems.	
CO 3	Discover various Civil Engineering structural components.	
CO 4	Demonstrate the types and working principles of power plants.	
CO 5	Demonstrate the various types of IC engines and working principles.	
Semster : I		
Course Name		Engineering Physics Lab
Course Code		BTBS107L/BTBS207L
Course Outcome No	Course Outcome Statement	By the end of the course, student will be able to:
CO 1	Remember and understand fundamentals of optics, quantum mechanics and advanced materials.	
CO 2	Apply different methods and characterization techniques to solve problems.	
CO 3	Analyze structures, relations, parameters and properties.	
CO 4	Determine the width of narrow slits, spacing between close rulings using lasers and appreciate the accuracy in measurements.	
CO 5	Determine the band gap, hall coefficient and mobility for a semiconductor.	
Semster : I		
Course Name		Engineering Graphics Lab
Course Code		BTES108L/BTES208L
Course Outcome No	Course Outcome Statement	By the end of the course, student will be able to:
CO 1	Use of drawing instruments effectively for drawing and dimensioning	
CO 2	Use drawing codes,symbols and conventions as per IS-SP46 in engineering drawing	
CO 3	Explain conventions and methods of engineering drawing.	
CO 4	Apply concept of projections of points,lines,planes,solids and section of solids	
CO 5	Construct isometric and orthographic views of given objects.	
Semster : I		
Course Name		Communication Skills Lab.

Course Code		BTHM109L/BTHM209L
Course Outcome No	Course Outcome Statement	By the end of the course, student will be able to:
CO 1	Introduce phonemic symbols.	
CO 2	Articulate sound in English with proper manner.	
CO 3	Introduce ownself and friends.	
CO 4	Participate in debate and group discussion.	
CO 5	Acquire presentation and interview skills.	
	Semster : II	
Course Name		**Engineering Mathematics- II**
Course Code		**BTBS201**
Course Outcome No	**Course Outcome Statement**	**By the end of the course, students will be able to:**
CO 1	Discuss the need and use of complex variables to find roots ,to separate complex quantities and to establish relation between circular and hyperbolic functions.	
CO 2	Solve first and higher order differential equations and apply them as a mathematical modeling in electric and mechanical systems.	
CO 3	Determine Fourier series representation of periodic functions over different intervals.	
CO 4	Demonstrate the concept of vector differentiation and interpret the physical and geometrical meaning of gradient, divergence &curl in various engineering streams..	
CO 5	Utilize the principles of vector integration to transform line integral to surface integral , surface to volume integral using Green‟s, Stoke‟s and Gauss divergence	
	Semster : II	
Course Name		**Engineering Chemistry**
Course Code		**BTBS202/BTBS102**
Course Outcome No	**Course Outcome Statement**	**By the end of the course, the students will be able to:**
CO 1	Define the importance of water in industrial & domestic use.	
CO 2	Explain basic terms of phase rule.	
CO 3	Apply knowledge for the manufacture & testing of the metals.	
CO 4	Define fuels & explain its properties	
CO 5	make use of electrochemistry in industry.	
	Semster : II	
Course Name		**Engineering Mechanics**
Course Code		**BTES203/BTES103**
Course Outcome No	**Course Outcome Statement**	**By the end of the course, student will be able to:**
CO 1	Illustrate free body diagram and calculate the reactions necessary to ensure static equilibrium.	
CO 2	Discuss the effect of friction in static and dynamic conditions.	
CO 3	Analyse and solve different problems of kinematics	
CO 4	Analyse and solve different problems of kinetics	
CO 5	Analyse and solve different problems of work,power & energy	
	Semster : II	
Course Name		**Computer Programming in C**

Course Code		BTES204/BTES104
Course Outcome No	Course Outcome Statement	By the end of the course, student will be able to:
CO 1	Explain the process of programming, algorithms and flowchart	
CO 2	Illustrate the data types, Operators and Expressions in C programming	
CO 3	Develop program Control Flow using conditional statement and functions	
CO 4	Develop C Program using arrays	
CO 5	Develop C Program using structures and pointers.	
Semster : II		
Course Name		**Workshop Practices**
Course Code		**BTES205/BTES105L**
Course Outcome No	Course Outcome Statement	By the end of the course, student will be able to:
CO 1	Define basic tools used at engineering workshop.	
CO 2	Recognize tools, work material and measuring instruments useful for fitting, welding, carpentry and plumbing practice	
CO 3	Handle tools and instruments and use them to prepare simple models	
CO 4	Realizethe engineering drawing and use them to prepare models	
CO 5	Know the importance of machine in mechanical engineering	
Semster : II		
Course Name		**Basic Electrical and Electronics Engineering**
Course Code		**BTES206/BTES106**
Course Outcome No	Course Outcome Statement	By the end of the course, students will be able to:
CO 1	Define basic principles of electrical engineering.	
CO 2	Identify measuring instruments and measurement of electrical quantities	
CO 3	Define basic concept of Diodes and Circuits	
CO 4	Explain the Semiconductor Devices and Applications	
Semster : II		
Course Name		**Computer Programming Lab**
Course Code		**BTES207L/BTES107L**
Course Outcome No	Course Outcome Statement	By the end of the course, student will be able to:
CO 1	Explain the execution of programs written in C language	
CO 2	Develop the C program using given algorithm	
CO 3	Develop the C program using various operators	
CO 4	Design programs with conditional Operators, loops, function, arrays, structure etc	
CO 5	Design programs that perform different mathematical operations.	
Semster : II		
Course Name		**Engineering Chemistry Lab**

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Course Code		BTBS208L/BTBS108L
Course Outcome No	Course Outcome Statement	By the end of the course, the students will be able to:
CO 1	Develop the importance of water in industrial and domestic uses.	
CO 2	Find the content present in water.	
CO 3	Explain viscocity of liquids.	
CO 4	Make use of conductometric titrations.	
CO 5	Identity contents present in coal.	
Semster : II		
Course Name		**Engineering Mechanics Lab**
Course Code		**BTES209L/BTES109L**
Course Outcome No	**Course Outcome Statement**	**By the end of the course, student will be able to:**
CO 1	Construct free body diagram and calculate the reactions necessary to ensure static equilibrium.	
CO 2	Study the effect of friction in static and dynamic conditions.	
CO 3	Analyse and solve different problems of kinematics	
CO 4	Analyse and solve different problems of kinetics	
CO 5	Analyse and solve different problems of work,power & energy	
Semster : II		
Course Name		**Mini Project**
Course Code		**BTES210P**
Course Outcome No	**Course Outcome Statement**	**By the end of the course, student will be able to:**
CO 1	State the aim and objectives for the project.	
CO 2	Construct and conduct the tests on the product .	
CO 3	Analyze the results of the tests.	
CO 4	Discuss the findings, draw conclusions, and modify the product, if necessary.	