

363, Arcot Road, Kodambakkam, Chennai – 24 Approved by AICTE & Affiliated to Anna University email Id: principal@msec.edu.in

Mebsite : www.msec.edu.in

DEPARTMENT OF HUMANITIES AND SCIENCE (B.E. CIVIL ENGINEERING)

REGULATION – 2013 COURSE OUTCOMES (CO)

HS6151-Technical English-I - [C101]

wide vocabulary range, organizing their ideas logically on a topics.		
Write cohesively and coherently and flawlessly avoiding grammatical errors, using a wide vocabulary range, organizing their ideas logically on a topics. C101.3 Read different genres of texts adopting various reading strategies C101.4 Listen/view and comprehend different spoken discourses/excerpts in different accents. C101.5 Ability to speak/write elaborately on the ideas and opinions relevant in different		listances using appropriate communicative strategies.
C101.4 Listen/view and comprehend different spoken discourses/excerpts in different accents. C101.5 Ability to speak/write elaborately on the ideas and opinions relevant in different	C101 2	Write cohesively and coherently and flawlessly avoiding grammatical errors, using a
accents. C101.5 Ability to speak/write elaborately on the ideas and opinions relevant in different	C101.3	
	C101.4	accents.
	C101.5	

MA6151-Mathematics-I [C102]

C102.1	To find eigenvalues,eigenvectors,canonical form and inverse of a matrix.
2122.0	Acquire the knowledge of infinite and finite series and their convergence.
C102.2	Acquire the knowledge of minimo de aviolence of given curves using
C102.3	Evaluate radius of curvature, evolute and envelope of given curves using
	1 11 1
	differential calculus.
C102 4	Examine the concepts of functions of several variables and to find extremum
	value of a given to trace the curve and find area, volume using multiple
C102.5	value of a given function. Develop an ability to trace the curve and find area , volume using multiple
	integrals.

PH6151-Engineering Physics-I [C103]

C103.1	Basics of crystals and their properties and applications in fields of engineering.
C103.2	Basics of physics related to properties of matter, and they will apply these fundamental principles to solve practical problems related to materials used for engineering applications.
C103.3	Concept of sound production and application in the field of construction
C103.4	Dual nature of matter and its applications Their uses in communications.
C103.5	Production of laser and optical fibres. Their uses in communications.

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MEENAKSHI SUNDARARAJAN ENGINEERING COLLEGE

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DEPARTMENT OF HUMANITIES AND SCIENCE (B.E. CIVIL ENGINEERING)

CY6151 -Engineering Chemistry – I (C104)

C104.1	Understand the Principles of polymer chemistry and engineering applications of polymers.
C104.2	Understand the basic concepts of , thermodynamics and their importance.
C104.3	Know the basic concepts of Analytical techniques and their importance.
C104.4	Understand knowledge in Industrial importance of Phase rule and alloys.
C104.5	Know the concept of nanomaterials and its applications

GE6151-Computer Programming-[C105]

04054	Explain the basic organization of computers, the number systems and write the
C105.1	Explain the basic organization of computers, the number systems are
	pseudo code for algorithms and flow chart.
C105.2	Develop C programming fundamentals, looping statements and solve
	problems
C105.3	Develop C programs for arrays and strings
C105.4	Use functions with pass by value and reference, pointers in programs
C105.5	Develop codings in C for structures and unions with storage classes and
	preprocessor

GE6152- Engineering Graphics [C106]

C106.1	Familiarize with the fundamentals and standards of Engineering drawings and Perform freehand sketching of basic geometrical constructions and multiple views of objects.
C106.2	Draw orthographic projections of lines and plane surfaces.
C106.3	Draw projections of solids
C106.4	Draw projection of sectioned solids and development of surfaces.
C106.5	Visualize and project isometric and perspective sections of simple solids.

GE6161 - Computer Practices Laboratory - (C107)

C107.1	Develop C programs for simple applications making use of basic constructs, arrays function, recursion, pointers, structures and strings
C107.2	Design applications using sequential and random access file processing
C107.3	Develop C programs involving structures union.

GE6162 – Engineering Practices Laboratory — (C108)

C108.1	Study and practice on machine tools and their operations
C108.2	Practice on carpentry tools, components and pipe connections including plumbing work
C108.3	Demonstrate wiring for a simple residential house, identify the ratings of
IOD -	Demonstrate wiring for a simple residential house, identify the ratings of PRINCIPAL MEENAKSHI SUNDARAMARKAM MEENAKSHI SUNDARAMARKAM MEENAKSHI SUNDARAMARKAM CHENNAI-600 024
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DEPARTMENT OF HUMANITIES AND SCIENCE (B.E. CIVIL ENGINEERING)

	various appliances like Fluorescent tube, incandescent lamp, etc.
C108.4	Calculate the different Electrical quantities, measure the energy consumption using single phase energy meter, measure the resistance to earth of an electrical equipment.
C108.5	Analyze the characteristics of basic electronic devices
C108.6	Elaborate on the components, gates, soldering practices

GE6163 - Physics and Chemistry Laboratory – I (C109)

C109.1	The hands on exercises undergone by the students will help them to apply physics principles of optics.
C109.2	Gain knowledge about thermal physics to evaluate engineering properties of materials.
C109.3	Outfitted with hands-on knowledge in the quantitative chemical analysis of polymer and acid based related parameters.
C109.4	Basic idea about pH and conductometric titration.

HS6251-Technical English-II [C110]

C110.1	Speak convincingly, express their opinions clearly, initiate a discussion, negotiate,
	argue using appropriate communicative.
C110.2	Write effectively and persuasively and produce different types of writing such as narration, description, exposition and argument as well as creative, critical,
	analytical and evaluative writing.
C110.3	Bood different genres of texts, infer implied meanings and critically analyse and
C110.3	evaluate them for ideas as well as for method of presentation.
	evaluate them for ideas as well as the large evaluate critically and infer
C110.4	Listen/view and comprehend different spoken excerpts critically and infer
0	and implied meanings
	Ability to speak/write elaborately on the ideas and opinions relevant in different
C110.5	
	situations.

MA6251-Mathematics-II - [C111]

tit to work some integral theorems in a vector field.
Estimate vector identities and interpret some integral theorems in a vector field.
Develop on ability to solve ordinary differential equations.
Examine the concepts of Laplace transformation and solve differential
tions with given boundary conditions
Identify and construct analytic function and application of conformal
mapping.
Apply complex integration to evaluate contour integrals.

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PH6251 – Engineering Physics–II – [C112]

	F110201 = 1.19
C112.1	Conducting materials using wave mechanics. Semiconducting materials and their application in engineering field.
C112.2	
C112.3	Properties of magnetic and superconducting materials.
C112.4	Significance of dielectric and its application in the field of engineering. Upcoming new engineering materials and their applications in engineering fields.
C112.5	Opcoming new said

CY6251 – Engineering Chemistry –II – [C113]

	CY6251 - Engineering
	Understand water treatment techniques will facilitate better understanding of understand water treatment techniques will facilitate better understanding of understand water treatment techniques will facilitate better understanding of understand water treatment techniques will facilitate better understanding of understand water treatment techniques will facilitate better understanding of understand water treatment techniques will facilitate better understanding of understand water treatment techniques will facilitate better understanding of understand water treatment techniques will facilitate better understanding of understand water treatment techniques will facilitate better understanding of understand water treatment techniques will facilitate better understanding of understand water treatment techniques will facilitate better understanding of understand water treatment techniques will facilitate better understanding of understand water treatment techniques will facilitate better understanding of understand water treatment techniques will be understand the understand techniques will be understand to the understand techniques will be understand to the understand the understand techniques will be understand to
C113.1	Understand water treatment techniques will technique understand water treatment techniques will be principled and the principle understand water treatment to the principle unde
	engineering processes and appropriately electrochemistry, electrochemistry, electrochemistry,
C113.2	Gain knowledge about with the principles of corrosion control.
	emi and applications in Principles of corrosion control.
C113.3	emf and applications of emf measurements Gain basic knowledge in Principles of corrosion control. Understand fundamental concepts of Fuels and combustion Understand fundamental concepts of Fuels and its applications.
C113.4	Understand fundamental concepts of Fuels and constant Cons
C113.5	Acquire knowledge in various strangs

GE6262- Basic Electrical and Electronics Engineering- [C114]

	Able to understand the basic theorems used in electrical circuits and the different		
GE62	GE6262- Basic Electrical and Electronics Engineering-[CT14]		
	Text to understand the basic site		
C114.1	Able to understand the components. Able to understand the principle of operation, construction and working Able to understand the principle of operation, construction and working		
21112	Able to understand the principle of operation,		
C114.2	Able to understand the phone function of electrical machines. Ability to understand electronics componenents operation, characteristics and		
	function of the understand electronics componentials operation,		
C114.3	Ability to understand		
	its applications.		
C114.4	its applications. Able to understand the design, principles of digital electronics circuits. Able to impart the knowledge of various communication systems.		
C114.5	Able to impart the knowledge of various some		
C114.5	7.5. Lawies [C115]		

GE6253 - Engineering Mechanics - [C115]

	to a register mechanics and solve problems
C115.1	Enumerate the basic concepts of particle mechanics and solve problems Enumerate the basic of concepts of rigid body under static equilibrium and
C115.2	Enumerate the basic of concepts and solve problems Solve problems Determine the centroid of a line, areas, and volumes, center of mass of body The fine tipe of composite areas
C115.3	and moment of filefula of companions of particles
C115.4	Solve problems involving kinematics and kinetics of particles Solve problems involving kinetics of rigid bodies with and without friction
C115.5	Solve problems involving kinds

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GE6261 – Computer Aided Drafting and Modeling Laboratory-[C116]

	the chiefe	
At the end of the course, the student will be able to		
C116.2	Ability to design various structures using various commands Ability to draw the detailing of the structures using various commands	
C116.3	The students get knowledge about the different types of roof finishes	
C116.4	The students get knowledge about the 3D modeling of the structures. The students get knowledge about the 3D modeling of the structures in a easy way.	
C116.5	Ability to get knowledge about the drafting of the structures in a easy way.	
	L	

GE6262 - Physics and Chemistry Laboratory – II-[C117]

C117.1	Ability to test materials by using their knowledge of applied physics principles in
0117.1	entice and properties of matter
C117.2	Assess the behaviour of columns, beams and failures of materials
C117.3	Conversant with hands-on knowledge in the quantitative chemical analysis of water quality related parameters
C117.4	Gain good knowledge about corrosion measurement

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Website: www.msec.edu.in DEPARTMENT OF HUMANITES AND SCIENCE (BE COMPUTER SCIENCE AND ENGINEERING) **REGULATION - 2013**

HS6151- Technical English I [C101]

	1130131-1001111011-13
C101.1	Speak clearly, confidently, comprehensibly, and communicate with one or many listeners using appropriate communicative strategies.
C101.2	Write cohesively and coherently and flawlessly avoiding grammatical errors, using a wide vocabulary range, organizing their ideas logically on a topics.
C101.3	Read different genres of texts adopting various reading strategies
C101.4	Listen/view and comprehend different spoken discourses/excerpts in different accents.
C101.5	Ability to speak/write elaborately on the ideas and opinions relevant in different situations.
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MA6151- Mathematics - I [C102]

C102.1	To find eigen values, eigenvectors, canonical form and inverse of a matrix.
C 102.1	Acquire the knowledge of infinite and finite series and their convergence .
C102.2	Acquire the knowledge of filling and mass
0102	Evaluate radius of curvature, evolute and envelope of given curves using differential
C102.3	1 10-4
010210	Examine the concepts of functions of several variables and to find extremum value of a
C102.4	given function.
C 102.4	given random.
C102.5	Develop an ability to trace the curve and find area , volume using multiple integrals.
C 102.5	

PH6151- Engineering Physics - I [C103]

	FH0101 2.19.11
C103.1	Basics of crystals and their properties and applications in fields of engineering. Basics of physics related to properties of matter, and they will apply these fundamental problems related to materials used for engineering
C103.2	applications.
C103.3	Concept of sound production and application in the field of construction
C103.4	Dual nature of matter and its applications
C103.5	Production of laser and optical fibres. Their uses in communications.

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C104.4	Understanding knowledge in Industrial importance of Phase rule and alloys.
C104.5	Know the concept of nanomaterials and its applications.

GE6151- Computer Programming [C105]

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C105.1	Explain the basic organization of computers, the number systems and write the pseudo code for algorithms and flow chart.
C105.2	Develop C programming fundamentals, looping statements and solve problems.
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C105.4	Use functions with pass by value and reference, pointers in programs.
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GE6152- Engineering Graphics [C106]

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	Draw projections of solids.
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	Draw projection of sectioned solids and development of surfaces.
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0100	the expective sections of simple solids.
C106.5	Visualize and project isometric and perspective sections of simple solids.

GE6161- Computer Practices Laboratory [C107]

	Develop C programs for simple applications making use of basic constructs, arrays function, recursion, pointers, structures and strings. Design applications using sequential and random access file processing.
1.107.2	
C107.3	Develop C programs involving structures union.

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DEPARTMENT OF HUMANITES AND SCIENCE (BE COMPUTER SCIENCE AND ENGINEERING) **GE6162- Engineering Practices Laboratory [C108]**

C108.1	Study and practice on machine tools and their operations.
C108.2	Practice on carpentry tools, components and pipe connections including plumbing work.
C108.3	Demonstrate wiring for a simple residential house, identify the ratings of various appliances like Fluorescent tube, incandescent lamp, etc.
C108.4	Calculate the different Electrical quantities, measure the energy consumption using single phase energy meter, measure the resistance to earth of an electrical equipment.
C108.5	Analyze the characteristics of basic electronic devices.
C108.6	Elaborate on the components, gates, soldering practices.

GE6163 - Physics & Chemistry laboratory-I [C109]

C109.1	The hands on exercises undergone by the students will help them to apply physics principles of optics.
C109.2	Gain knowledge about thermal physics to evaluate engineering properties of materials.
C109.3	Outfitted with hands-on knowledge in the quantitative chemical analysis of polymer and acid based related parameters.
C109.4	Basic idea about pH and conductometric titration.

HS6251- Technical English - II [C110]

C110.1	Speak convincingly, express their opinions clearly, initiate a discussion, negotiate, argue using appropriate communicative.
C110.2	Write effectively and persuasively and produce different types of writing such as narration, description, exposition and argument as well as creative, critical, analytical and evaluative writing.
C110.3	Read different genres of texts, infer implied meanings and critically analyze and evaluate them for ideas as well as for method of presentation.
C110.4	Listen/view and comprehend different spoken excerpts critically and infer unspoken and implied meanings.
C110.5	Ability to speak/write elaborately on the ideas and opinions relevant in different situations.

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DEPARTMENT OF HUMANITES AND SCIENCE (BE COMPUTER SCIENCE AND ENGINEERING) MA6251- Mathematics-II [C111]

C111.1	Estimate vector identities and interpret some integral theorems in a vector field.
C111.2	Develop an ability to solve ordinary differential equations.
C111.3	Examine the concepts of Laplace transformation and solve differential equations with given boundary conditions.
C111.4	Identify and construct analytic function and application of conformal mapping.
C111.5	Apply complex integration to evaluate contour integrals.

PH6251- Engineering Physics - II [C112]

C112.1	Conducting materials using wave mechanics.
C112.2	Semiconducting materials and their application in engineering field.
C112.3	Properties of magnetic and superconducting materials.
C112.4	Significance of dielectric and its application in the field of engineering.
C112.5	Upcoming new engineering materials and their applications in engineering fields.

CY6251- Engineering Chemistry-II [C113]

C113.1	Understand water treatment techniques will facilitate better understanding of engineering processes and applications for further learning.
C113.2	Gain knowledge about with the principles electrochemistry, electrochemical cells, emf and applications of emf measurements.
C113.3	Gain basic knowledge in Principles of corrosion control.
C113.4	Understand fundamental concepts of Fuels and combustion
C113.5	Acquire knowledge in various energy sources and its applications.

CS6201-Digital Principles And System Design [C114]

C114.1	To understand different methods used for the simplification of Boolean functions
C114.2	To understand and design a system that uses combinational logic for the given specification. Simulate combinational logic systems using verilog or VHDL

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	(BE COMPUTER SCIENCE AND ENGINEERING)	
C114.3	To understand and design synchronous sequential system for the given specification. Simulate sequential logic systems using verilog or VHDL	
	To design and implement Asynchronous sequential system for the given specification	
C114.5	To design and implement memory accessing systems and systems using PLA, PAL	

CS6202 -Programming and Data Structures -I [C115]

C115.1	Develop Programs using functions and Pointers
C115.2	Explain the File handling concept in C language.
C115.3	Discuss about the various Linear Data Structure Operations and applications using ADT.
C115.4	Explain the various algorithms for sorting and searching
C115.5	Demonstrate the indexing techniques in data structures.

GE6262 - Physics & Chemistry laboratory-II [C116]

Ability to test materials by using their knowledge of applied physics principles in optics and properties of matter
Assess the behaviour of columns, beams and failures of materials
Conversant with hands-on knowledge in the quantitative chemical analysis of water quality related parameters
Gain good knowledge about corrosion measurement

CS 6211 Digital Laboratory [C117]

C117.1	Analyse the characteristics of logic gates
C117.2	Elaborate on the components , gates, code converters.
C117.3	Analyse,design and implement sequential logic circuits

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DEPARTMENT OF HUMANITES AND SCIENCE (BE COMPUTER SCIENCE AND ENGINEERING)

CS6212- Programming and Data Structures Laboratory I - [C118]

	CS6212- Programming and Data Structures Laboratory 1 - [C118]
C118.1	Develop simple C Programs using pointers and Functions
C118.2	Develop C program for Linear data structure operations and File Manipulation concepts.
C118.3	Develop programs using various sorting algorithms and searching methods.

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DEPARTMENT OF HUMANITIES AND SCIENCE BE (ELECTRONICS AND COMMUNICATION ENGINEERING)

REGULATION - 2013 HS6151 - Technical English I [C101]

	1130131 - Technical English (C101)	
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MA6151 - Mathematics I [C102]

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C102.5	Develop an ability to trace the curve and find area, volume using multiple integrals.

PH6151 - Engineering Physics I [C103]

C103.1	Basics of crystals and their properties and applications in fields of engineering
C103.2	Basics of physics related to properties of matter, and they will apply these fundamental principles to solve practical problems related to materials used for engineering applications.
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CV6151 - Engineering Chemistry L [C104]

	C10151 - Engineering Chemistry I [C104]
C104.1	Understand the Principles of polymer chemistry and engineering applications of Polymers.
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C104.3	Know the basic concepts of Analytical techniques and their importance.
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GE6151 – Computer Programming [C105]

C105.1	Explain the basic organization of computers, the number systems and write the pseudo code for algorithms and flow chart.
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GE6162 – Engineering Practices Laboratory [C108]

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C109.3	Outfitted with hands-on knowledge in the quantitative chemical analysis of polymer and acid based related parameters.
C109.4	Have basic idea about pH and conductometric titration.

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C110.5	Ability speak/write elaborately on the ideas and opinions relevant in different situations.

MA6251 - Mathematics - II [C111]

MA6251 - Mathematics - II [C111]	
Estimate vector identities and interpret some integral theorems in a vector field.	
Develop an ability to solve ordinary differential equations.	
Examine the concepts of Laplace transformation and solve differential equations with given boundary conditions	
Identify and construct analytic function and application of conformal mapping.	
Apply complex integration to evaluate contour integrals.	

PH6251 – Engineering Physics - II [C112]

Conducting materials using wave mechanics.
Semiconducting materials and their application in engineering field.
Branatics of magnetic and superconducting materials.
Significance of dielectric and its application in the field of engineering.
Upcoming engineering materials and their applications in engineering fields.

CY6251 - Engineering Chemistry - II [C113]

CY6251 – Engineering Chemistry – II [C113]	
C113.1	Understand water treatment techniques will facilitate better understanding of
	in a processes and applications for further learning.
C113.2	Gain knowledge about with the principles electrochemistry, electrochemical cells, strict
0113.2	and applications of emf measurements.
C113.3	Gain basic knowledge in Principles of corrosion control.
	Understand fundamental concepts of Fuels and combustion.
C113.4	Understand fundamental concepts of ruels and services times the services to th
C113.5	Acquire knowledge in various energy sources and its applications.
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Website: www.msec.edu.in DEPARTMENT OF HUMANITIES AND SCIENCE BE (ELECTRONICS AND COMMUNICATION ENGINEERING)

EC6201 - Electronic Devices [C114]

EC6201 – Electronic Devices [C114]
Understand the working of semiconductor diode and it's voltage and current
characteristics.
Understand the basic operation of BJT amplifiers and their voltage and current
Understand the basic operation of different types of FET amplifiers and their voltage
and current characteristics
and current characteristics Understand the basic operation of special semiconductor devices, their characteristics
and applications
Understand the basic principles of power devices and display devices , their
characteristics and applications.

EE6201 - Circuit Theory [C115]

	EE6201 - Circuit Meory (5 110) least read parameters using mesh and	
C115.1	Apply basic Kirchoff laws to solve the various electrical parameters using mesh and	
	l alal analysis	
C115.2	Understand and apply various network theorems to solve the various electrical	
	peremotors for a given circuit.	_
C115.3	Understand the concept of resonance inductance and coupled circuits.	
C113.3	of circuits with passive components using laplace	
C115.4	Analyse the time response of circuits with passive components using laplace	
	transformation.	_
C115.5	Understand the concepts in three phase system in star and delta configuration.	_
0110.0		

GE6262 - Physics & Chemistry Laboratory - II [C116]

C116.1	Ability to test materials by using their knowledge of applied physics principles in optics and properties of matter.
C116.2	Assess the behaviour of columns, beams and failures of materials.
C116.3	Conversant with hands-on knowledge in the quantitative chemical analysis of water quality related parameters.
C116.4	Gain good knowledge about corrosion measurement.

EC6211 - Circuits and Devices Laboratory [C117]

	EC6211 – Circuits and Devices Laboratory [C117]
C117.1	Analyze the characteristics of basic electronic devices
0117.1	, many26 and entertain
C117.2	Design RL and RC circuits.
0447.0	Verify Thevinin & Norton theorem KVL & KCL, and Super Position Theorems.
C117.3	Venity Thevinin & Norton theorem KVE & ROE, and Super Figure 1



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DEPARTMENT OF HUMANITIES AND SCIENCE (B.E. ELECTRICAL AND ELECTRONICS ENGINEERING)

REGULATION - 2013 COURSE OUTCOMES (CO)

HS6151-Technical English-I - [C101]

	Speak clearly, confidently, comprehensibly, and communicate with one or many
	listeners using appropriate communicative strategies.
C101.2	Write cohesively and coherently and flawlessly avoiding grammatical errors, using a wide vocabulary range, organizing their ideas logically on a topics.
C101.3	Read different genres of texts adopting various reading strategies
C101.4	Listen/view and comprehend different spoken discourses/excerpts in different accents.
	Ability to speak/write elaborately on the ideas and opinions relevant in different situations.

MA6151-Mathematics-I [C102]

	To find eigenvalues, eigenvectors, canonical form and inverse of a matrix.
	Acquire the knowledge of infinite and finite series and their convergence.
	Evaluate radius of curvature, evolute and envelope of given curves using differential calculus.
1	Examine the concepts of functions of several variables and to find extremum value of a given function.
	Develop an ability to trace the curve and find area, volume using multiple integrals.

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DEPARTMENT OF HUMANITIES AND SCIENCE (B.E. ELECTRICAL AND ELECTRONICS ENGINEERING)

PH6151-Engineering Physics-I [C103]

	Basics of crystals and their properties and applications in fields of engineering.
	Basics of physics related to properties of matter, and they will apply these fundamental principles to solve practical problems related to materials used for engineering applications.
C103.3	Concept of sound production and application in the field of construction
	Dual nature of matter and its applications
C103.5	Production of laser and optical fibres. Their uses in communications.

CY6151 -Engineering Chemistry - I (C104)

Understand the Principles of polymer chemistry and engineering applications of polymers
Understand the Principles of polyhier chemistry and oliginary
Understand the basic concepts of, thermodynamics and their importance.
K now the basic concepts of Analytical techniques and their importance.
Understand knowledge in Industrial importance of Phase rule and alloys.
Know the concept of nanomaterials and its applications

GE6151-Computer Programming-[C105]

C105.1	Explain the basic organization of computers, the number systems and write the pseudo
C105.1	1. for algorithms and flow chart.
C105.2	Develop C programming fundamentals, looping statements and solve problems
C105.3	Develop C programs for arrays and strings
C105.4	Use functions with pass by value and reference, pointers in programs
C105.5	Develop codings in C for structures and unions with storage classes and preprocessor

GE6152- Engineering Graphics [C106]

C106.1	Familiarize with the fundamentals and standards of Engineering drawings and Perform freehand sketching of basic geometrical constructions and multiple views of objects.
C106.2	Draw orthographic projections of lines and plane surfaces.
C106.3	Draw projections of solids
C106.4	Draw projection of sectioned solids and development of surfaces.
C106.5	Visualize and project isometric and perspective sections of simple solids.

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Website: www.msec.edu.in DEPARTMENT OF HUMANITIES AND SCIENCE (B.E. ELECTRICAL AND ELECTRONICS ENGINEERING)

GE6161 - Computer Practices Laboratory - (C107)

C107.1	Develop C programs for simple applications making use of basic constructs, arrays
	function, recursion, pointers, structures and strings
C107.2	Design applications using sequential and random access file processing
C107.3	Develop C programs involving structures union.

GE6162 - Engineering Practices Laboratory - (C108)

C108.1	Study and practice on machine tools and their operations
C108.2	Practice on carpentry tools, components and pipe connections including plumbing work
C108.3	Demonstrate wiring for a simple residential house, identify the ratings of various appliances like Fluorescent tube, incandescent lamp, etc.
C108.4	Calculate the different Electrical quantities, measure the energy consumption using single phase energy meter, measure the resistance to earth of an electrical equipment.
C108.5	Analyze the characteristics of basic electronic devices
C108.6	Elaborate on the components, gates, soldering practices

GE6163 - Physics and Chemistry Laboratory - I (C109)

C109.1	The hands on exercises undergone by the students will help them to apply physics principles of optics.
C109.2	Gain knowledge about thermal physics to evaluate engineering properties of materials.
C109.3	Outfitted with hands-on knowledge in the quantitative chemical analysis of
	polymer and acid based related parameters.
C109.4	Basic idea about pH and conductometric titration.

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DEPARTMENT OF HUMANITIES AND SCIENCE (B.E. ELECTRICAL AND ELECTRONICS ENGINEERING)

HS6251-Technical English-II [C110]

Speak convincingly, express their opinions clearly, initiate a discussion, negotiate,
Speak convincingly, express their opinions even by
argue using appropriate communicative. Write effectively and persuasively and produce different types of writing such as Write effectively and persuasively and argument as well as creative, critical,
argue using appropriately and produce different types of within
Write effectively and persuasively and p
marration, description, exposition and angular
analytical and evaluative writing.
analytical and evaluative with the implied meanings and critically analyse and
analytical and evaluative writing. Read different genres of texts, infer implied meanings and critically analyse and evaluate them for ideas as well as for method of presentation.
evaluate them for ideas as well as for method of presentational layand infer
evaluate them for record different spoken excerpts critically and infor
evaluate them for ideas as well as for method of presented. Listen/view and comprehend different spoken excerpts critically and infer
unspoken and implied meanings.
unspoken and implicit also cretally on the ideas and opinions relevant in different
unspoken and implied meanings. Ability to speak/write elaborately on the ideas and opinions relevant in different
situations.

MA6251-Mathematics-II - [C111]

	Estimate vector identities and interpret some integral theorems in a vector field.
C111.1	Estimate vector identities and interpret some integral diversity of the second
C111.2	1 1:11:tr. to golve ordinary differential equations.
C111.3	Examine the concepts of Laplace transformation and solve differential
01111	distribution boundary conditions.
C111.4	Identify and construct analytic function and application of conformal
011111	- uning
C111.5	Apply complex integration to evaluate contour integrals.
CITI.5	p tppi) company

PH6251 - Engineering Physics-II - [C112]

C112.1	Conducting materials using wave mechanics.
C112.2	Semiconducting materials and their application in engineering field.
C112.3	Properties of magnetic and superconducting materials.
C112.4	Significance of dielectric and its application in the field of engineering.
C112.5	Upcoming new engineering materials and their applications in engineering fields.

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DEPARTMENT OF HUMANITIES AND SCIENCE (B.E. ELECTRICAL AND ELECTRONICS ENGINEERING)

CY6251 – Engineering Chemistry –II – [C113]

C113.1	Understand water treatment techniques will facilitate better understanding of engineering processes and applications for further learning.
C113.2	Gain knowledge about with the principles electrochemistry, electrochemical cells, emf and applications of emf measurements.
C113.3	Gain basic knowledge in Principles of corrosion control.
C113.4	Understand fundamental concepts of Fuels and combustion
C113.5	Acquire knowledge in various energy sources and its applications.

GE6251-Basic civil and Mechanical-[C114]

C114.1	Appreciate the Civil and Mechanical Engineering components of Projects.
Market School State of the Stat	Appreciate the Civil and vicentament Engineering compensation of construction
C114.2	Explain the usage of construction material and proper selection of construction
	materials.
C114.3	Measure distances and area by surveying.
C114.4	Identify the components used in power plant cycle. Demonstrate working principles
	of petrol and diesel engine.
C114.5	Elaborate the components of refrigeration and Air conditioning cycle

EE6201-Circuit Theory -[C115]

EE0201-Circuit Theory -[C115]	
C115.1	Apply basic kirchoffs laws to solve the various electrical parameters using mesh
	and nodal analysis
C115.2	Understand and apply various network theorems to solve the various electrical
	parametrs for a given circuit
C115.3	Understand the concept of resonance inductance and coupled circuits.
C115.4	Analyse the time response of circuits with passive components using laplace
DESCRIPTION OF THE	transformation.
C115.5	Understand the concepts in three phase system in star and delta configuration

GE6262 - Physics and Chemistry Laboratory - II-[C116]

C116.1	Ability to test materials by using their knowledge of applied physics principles in optics
	and properties of matter
C116.2	Assess the behaviour of columns, beams and failures of materials
C116.3	Conversant with hands-on knowledge in the quantitative chemical analysis of water
	quality related parameters
C116.4	Gain good knowledge about corrosion measurement

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Website: www.msec.edu.in DEPARTMENT OF HUMANITIES AND SCIENCE (B.E. ELECTRICAL AND ELECTRONICS ENGINEERING)

GE6263-Computer programming Laboratory-[C117]

GE6263-Computer programming Laboratory-[C117]
Use shell commands.
Design of implement unix shell scripts
Write and execute C programs and Unix

EE6211-Electrical Circuit Laboratory--[C118]

EE6211-Electrical Circuit Laboratory-[C110]	
C118.1	Apply KCL, KVL and network theorms to simple and complex circuits. Apply KCL, KVL and network theorms to simple and complex circuits.
C118.2	Apply KCL, KVL and network theorms to simple and company of RC circuit. Demonstrate the working of CRO and determine the time constant of RC circuit. Determine frequency response of RLC circuits and use MATLAB to simulate Determine frequency response of RLC circuits and use MATLAB to simulate.
	Determine frequency response of RLC circuits and use 1
C118.3	series, parallel resonant circuit, low pass, high pass filter. Use MATLAB to simulate three phase balanced, unbalanced circuit and measure
C118.4	Use MATLAB to simulate three phase balanced, and allowed power in three phase circuit by two watt meter methods.
	power in three phase circuit by two watt meter methods. Determine h,parameters of two port networks and calibrate single phase energy
C118.5	meter.

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DEPARTMENT OF HUMANITIES AND SCIENCE (B.TECH. INFORMATION TECHNOLOGY)

REGULATION – 2013 COURSE OUTCOMES(CO)

HS6151-Technical English -I [C101]

C101.1	Speak clearly, confidently, comprehensibly, and communicate with one or many
	listeners using appropriate communicative strategies
C101.2	Write cohesively and coherently and flawlessly avoiding grammatical errors, using a
	wide vocabulary range, organizing their ideas logically on a topics.
C101.3	Read different genres of texts adopting various reading strategies
C101.4	Listen/view and comprehend different spoken discourses/excerpts in different accents
C101.5	Ability to speak/write elaborately on the ideas and opinions relevant in different
	situations.

MA6151-Mathematics - I [C102]

C102.1	To Find eigenvalues, eigenvectors, canonical form and inverse of a matrix.
C102.2	Acquire the knowledge of infinite and finite series and their convergence.
C102.3	Evaluate radius of curvature, evaluate and envelope of given curves using differential calculus.
C102.4	Examine the concepts of functions of several variables and to find extremum value of a given function.
C102.5	Develop an ability to trace the curve and find area , volume using multiple integrals

PH6151-Engineering Physics - I [C103]

C103.1	Basics of crystals and their properties and applications in fields of engineering.
C103.2	Basics of physics related to properties of matter, and they will apply these fundamental principles to solve practical problems related to materials used for engineering applications
C103.3	Concept of sound production and application in the field of construction
C103.4	Dual nature of matter and its applications
C103.5	Production of laser and optical fibres. Their uses in communications.

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DEPARTMENT OF HUMANITIES AND SCIENCE (B.TECH. INFORMATION TECHNOLOGY)

CY6151-Engineering Chemistry - I [C104]

C104.1	Understand the Principles of polymer chemistry and engineering applications of polymers
C104.2	Understand the basic concepts of , thermodynamics and their importance
C104.3	Know the basic concepts of Analytical techniques and their importance
C104.4	Understand knowledge in Industrial importance of Phase rule and alloys.
C104.5	Know the concept of nanomaterials and its applications.

GE6151-Computer Programming [C105]

C105.1	Explain the basic organization of computers, the number systems and write the pseudo code for algorithms and flow chart.
C105.2	Develop C programming fundamentals, looping statements and solve problems
C105.3	Develop C programs for arrays and strings
C105.4	Use functions with pass by value and reference, pointers in programs
C105.5	Develop coding in C for structures and unions with storage classes and pre-processor

GE6152-Engineering Graphics [C106]

C106.1	Familiarize with the fundamentals and standards of Engineering drawings and Perform freehand sketching of basic geometrical constructions and multiple views of objects.
C106.2	Draw orthographic projections of lines and plane surfaces.
C106.3	Draw projections of solids
C106.4	Draw projection of sectioned solids and development of surfaces.
C106.5	Visualize and project isometric and perspective sections of simple solids.

GE6161-Computer Practices Laboratory [C107]

C107.1	Develop C programs for simple applications making use of basic constructs, arrays function, recursion, pointers, structures and strings
	function, recursion, pointers, structures and strings
C107.2	Design applications using sequential and random access file processing
C107.3	Develop C programs involving structures and union.

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DEPARTMENT OF HUMANITIES AND SCIENCE (B.TECH. INFORMATION TECHNOLOGY)

GE6162-Engineering Practices Laboratory [C108]

	Study and practice on machine tools and their operations
C108.2	Practice on carpentry tools, components and pipe connections including plumbing work
	Demonstrate wiring for a simple residential house, identify the ratings of various
C100.3	appliances like Fluorescent tube, incandescent lamp, etc.
C108.4	Calculate the different Electrical quantities, measure the energy consumption using single
	phase energy meter, measure the resistance to earth of an electrical equipment.
C108.5	Analyse the characteristics of basic electronic devices
C108.6	Elaborate on the components, gates, soldering practices

GE6163-Physics and Chemistry Laboratory – I [C109]

C100 1	The hands on exercises undergone by the students will help them to apply physics
C 109.1	
	principles of optics
C109.2	Students will gain knowledge about thermal physics to evaluate engineering properties of
	materials
C 109.5	The students will be outfitted with hands-on knowledge in the quantitative chemical
	analysis of polymer and acid based related parameters.
C109.4	Students have basic idea about pH and conduct metric titration.

HS6251-Technical English-II [C110]

	The state of the s	
C110.1	Speak convincingly, express their opinions clearly, initiate a discussion, negotiate, argue	
	Hising appropriate communicative.	
C110.2	Write effectively and persuasively and produce different types of writing such as narration,	
	description, exposition and argument as well as creative, critical, analytical and evaluative	
0110.2		
	writing.	
04400	Read different genres of texts, infer implied meanings and critically analyse and evaluate	
C110.3	tham for indust as well as ful filetified of procentation.	
C110.4	Listen/view and comprehend different spoken excerpts critically and infer unspoken and	
	implied meanings.	
	implied meanings.	
C110.5	Ability to speak/write elaborately on the ideas and opinions relevant in different situations.	
MAG251-Mathematics - II [C111]		

MA6251-Mathematics - II [C111]

C111.1	Estimate vector identities and interpret some integral theorems in a vector field.
C111.2	Develop an ability to solve ordinary differential equations.
C111.3	to the state of the state of the differential equations with given
	boundary conditions.
C111.4	Identify and construct analytic function and application of conformal mapping.
C111.5	Apply complex integration to evaluate contour integrals.
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DEPARTMENT OF HUMANITIES AND SCIENCE (B.TECH. INFORMATION TECHNOLOGY)

PH6251-Engineering Physics – II [C112]

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C112.1	conducting materials using wave mechanics
C112.2	semiconducting materials and their application in engineering field.
C112.3	properties of magnetic and superconducting materials.
C112.4	significance of dielectric and its application in the field of engineering.
C112.5	upcoming new engineering materials and their applications in engineering fields.

CY6251-Engineering Chemistry – II [C113]

At the end of the course, the student will be able to

At the end of the course, the student will be use to	
C113.1	Understand water treatment techniques will facilitate better understanding of engineering
	processes and applications for further learning
C113.2	Gain knowledge about with the principles electrochemistry, electrochemical cells, emf and
	applications of emf measurements.
C113.3	Gain basic knowledge in Principles of corrosion control.
C113.4	Understand fundamental concepts of Fuels and combustion.
C113.5	Acquire knowledge in various energy sources and its applications

CS6201-Digital Principles and System Design [C114]

C114.1	To understand different methods used for the simplification of Boolean functions
C114.2	To understand and design a system that uses combinational logic for the given specification.
	Simulate combinational logic systems using Verilog or VHDL
C114.3	To understand and design synchronous sequential system for the given specification.
	Simulate sequential logic systems using Verilog or VHDL.
C114.4	To design and implement Asynchronous sequential system for the given specification.
C114.5	To design and implement memory accessing systems and systems using PLA, PAL.

CS6202-Programming and Data Structures - I [C115]

C115.1	Develop Programs using functions and Pointers
	Explain the File handling concept in C language.
C115.3	Discuss about the various Linear Data Structure Operations and applications using ADT.
C115.4	Explain the various algorithms for sorting and searching.
C115.5	Demonstrate the indexing techniques in data structures.

GE6262-Physics & Chemistry Laboratory - II [C116]

C116 1	Test materials by using their knowledge of applied physics principles in optics and properties of matter.
0110.1	properties of matter.
C116.2	Assess the behaviour of columns, beams and failures of materials.

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DEPARTMENT OF HUMANITIES AND SCIENCE (B.TECH. INFORMATION TECHNOLOGY)

Cor	nversant with hands-on knowledge in the quantitative chemical analysis of water quality ated parameters.
C116.3 rela	ated parameters.
C116.4 Ga	in good knowledge about corrosion measurement

IT6211-Digital Laboratory [C117]

C117.1 Analyse the characteristics of logic gates	
C147.2 Elaborate on the components, gates, code converters.	
C117.2 Elaborate on the company of the C117.3 Analyse, design and implement sequential logic circuits	
CTT7.3 Analyse, design and impress	

IT6212-Programming and Data Structures Laboratory - I [C118]

	IT6212-Programming and Data Structures Laboratory
	- inc pointers and Functions
C118.1 Det	relop simple of regulation data structure operations and File Manipulation concepts
C118.2 Dev	velop C program for Linear data structure operations and File Manipulation concepts velop C program for Linear data structure operations and searching methods.
C118.3 Dev	velop programs using various sorting algorithms and searching methods.

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DEPARTMENT OF HUMANITIES AND SCIENCE
(BE MECHANICAL ENGINEERING)
REGULATION – 2013

COURSE OUTCOMES

HS6151- Technical English I [C101]

	1100101-1001111001-10011110	
C101.1	Speak clearly, confidently, comprehensibly, and communicate with one or many listeners using appropriate communicative strategies.	
C101.2	Write cohesively and coherently and flawlessly avoiding grammatical errors, using a wide vocabulary range, organizing their ideas logically on a topics.	
C101.3	Read different genres of texts adopting various reading strategies	
C101.4	Listen/view and comprehend different spoken discourses/excerpts in different accents.	
C101.5	Ability to speak/write elaborately on the ideas and opinions relevant in different situations.	

MA6151- Mathematics - I [C102]

C102.1	To find eigen values, eigenvectors, canonical form and inverse of a matrix.
C102.2	Acquire the knowledge of infinite and finite series and their convergence .
	Evaluate radius of curvature, evolute and envelope of given curves using differential
C102.3	calculus
	Examine the concepts of functions of several variables and to find extremum value of a
C102.4	given function.
	Develop an ability to trace the curve and find area , volume using multiple integrals.
C102.5	Develop an ability to trade the carry

PH6151- Engineering Physics - I [C103]

	Filotot Liiginos C
C103.1	Basics of crystals and their properties and applications in fields of engineering. Basics of physics related to properties of matter, and they will apply these fundamental
C103.2	Basics of physics related to properties of matter, and they the applications applications.
C103.3	Concept of sound production and application in the field of construction
C103.4	Dual nature of matter and its applications
C103.5	Production of laser and optical fibres. Their uses in communications.
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Website: www.msec.edu.in
DEPARTMENT OF HUMANITIES AND SCIENCE
(BE MECHANICAL ENGINEERING)

CY6151- Engineering Chemistry – I [C104]

Understand the Principles of polymer chemistry and engineering applications of polymers.
Understanding the basic concepts of , thermodynamics and their importance.
Know the basic concepts of Analytical techniques and their importance.
Understanding knowledge in Industrial importance of Phase rule and alloys.
Know the concept of nanomaterials and its applications.

GE6151- Computer Programming [C105]

C105.1	Explain the basic organization of computers, the number systems and write the pseudo code for algorithms and flow chart.
C105.2	Develop C programming fundamentals, looping statements and solve problems.
C105.3	Develop C programs for arrays and strings.
C105.4	Use functions with pass by value and reference, pointers in programs.
C105.5	Develop coding's in C for structures and unions with storage classes and pre- processor.

GE6152- Engineering Graphics [C106]

C106.1	Familiarize with the fundamentals and standards of Engineering drawings and Perform freehand sketching of basic geometrical constructions and multiple views of objects.
C106.2	Draw orthographic projections of lines and plane surfaces.
C106.3	Draw projections of solids.
C106.4	Draw projection of sectioned solids and development of surfaces.
C106.5	Visualize and project isometric and perspective sections of simple solids.

GE6161- Computer Practices Laboratory [C107]

	ii di an engling uso of basic constructs, arrays
G107.1	Develop C programs for simple applications making use of basic constructs, arrays function, recursion, pointers, structures and strings.
C107.2	Design applications using sequential and random access file processing.
C107.3	Develop C programs involving structures union.

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GE6162- Engineering Practices Laboratory [C108]

	Study and practice on machine tools and their operations.
C108.2	Practice on carpentry tools, components and pipe connections including plumbing work.
C108.3	Demonstrate wiring for a simple residential house, identify the ratings of various appliances like Fluorescent tube, incandescent lamp, etc.
C108.4	Calculate the different Electrical quantities, measure the energy consumption using single phase energy meter, measure the resistance to earth of an electrical equipment.
C108.5	Analyze the characteristics of basic electronic devices.
C108.6	Elaborate on the components, gates, soldering practices.
C108.6	Elaborate on the components, gates, soldering pressure

GE6163 - Physics & Chemistry laboratory-I [C109]

	the same shortes
C109.1	The hands on exercises undergone by the students will help them to apply physics principles of optics.
	principles of epities of materials
C109.2	Gain knowledge about thermal physics to evaluate engineering properties of materials.
	the supplied that it is a shamical analysis of polymer
C109.3	Outfitted with hands-on knowledge in the quantitative chemical analysis of polymer
0100.0	and acid based related parameters.
C109.4	Basic idea about pH and conductometric titration.
	Dadio idea de se pr

HS6251- Technical English - II [C110]

C110.1	Speak convincingly, express their opinions clearly, initiate a discussion, negotiate, argue using appropriate communicative.
C110.2	Write effectively and persuasively and produce different types of writing such as narration, description, exposition and argument as well as creative, critical, analytical and evaluative writing.
	and critically analyse and
C110.3	avaluate them for ideas as well as for method of presentation.
C110.4	Listen/view and comprehend different spoken excerpts critically and infer unspoken
C110.4	and implied meanings
	Ability to speak/write elaborately on the ideas and opinions relevant in different
C110.5	Ability to speak/write elaborately of the lacas and opinions.

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MA6251- Mathematics-II [C111]

Estimate vector identities and interpret some integral theorems in a vector field.
Develop an ability to solve ordinary differential equations.
Examine the concepts of Laplace transformation and solve differential equations with
riven boundary conditions
Identify and construct analytic function and application of conformal mapping.
Apply complex integration to evaluate contour integrals.

PH6251- Engineering Physics - II [C112]

	1110201 2113
C112.1	Conducting materials using wave mechanics.
C112.2	Semiconducting materials and their application in engineering field.
C112.3	Properties of magnetic and superconducting materials.
C112.4	Significance of dielectric and its application in the field of engineering.
C112.5	Upcoming new engineering materials and their applications in engineering fields.
	Opcoming new engages

CY6251- Engineering Chemistry-II [C113]

C 10231- Engineering of
Understand water treatment techniques will facilitate better understanding of engineering processes and applications for further learning.
engineering processes and applications for relative to a second control of the second co
Gain basic knowledge in Principles of corrosion control.
Understand fundamental concepts of Fuels and combustion
Acquire knowledge in various energy sources and its applications.

GE6252- Basic Electrical & Electronics Engineering [C114]

Able to understand the basic theorems used in electrical circuits and the different componenets.
Able to understand the principle of operation, construction and working function of electrical machines.
Ability to understand electronics componenents operation, characteristics and its applications.
Able to understand the design, principles of digital electronics circuits.
Able to impart the knowledge of various communication systems.

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GE6253- Engineering Mechanics [C115]

C115.1	Enumerate the basic concepts of particle mechanics and solve problems
C115.2	Enumerate the basic of concepts of rigid body under static equilibrium and solve problems
C115.3	Determine the centroid of a line, areas, and volumes, center of mass of body and
0110.0	moment of inertia of composite areas
C115.4	Solve problems involving kinematics and kinetics of particles
C115.5	Solve problems involving kinetics of rigid bodies with and without friction

GE6261- COMPUTER AIDED DRAFTING AND MODELING LABORATORY[C116]

Ability to design various structures using AutoCAD
Ability to draw the detailing of the structures using various commands
The students get knowledge about the different types of roof finishes
The students get knowledge about the 3D modeling of the structures.
Ability to get knowledge about the drafting of the structures in a easy way.

GE6262 - Physics & Chemistry laboratory-II [C117]

C117.1	Ability to test materials by using their knowledge of applied physics principles in optics and properties of matter.
C117.2	Assess the behaviour of columns, beams and failures of materials
C117.3	Conversant with hands-on knowledge in the quantitative chemical analysis of water quality related parameters
C117.4	Gain good knowledge about corrosion measurement

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