TERNA ENGINEERING COLLEGE				
DEPARTMENT OF GENERAL ENGINEERNG				
SEMESTER	SUBJECT CODE	SUBJECT	CO/LO	CO / LO STATEMENT
SEM I	FEC101	Applied Mathematics-I		
			CO1	Apply the concepts of complex numbers to the engineering problems.
			CO2	Apply the knowledge of nth order derivatives of standard functions to engineering problems.
			CO3	1. Apply the principles of basic operations of matrices to the engineering problems.
			CO4	Apply the basic principles of partial differentiation to engineering problems.
			CO5	Apply concepts of partial differentiation (maxima and minima, Jacobian), expansion of functions as an application of successive differentiation.
	FEC102	Applied Physics – I	CO6	1. Apply SCILAB programming techniques to model problems based on solution of simultaneous linear algebraic equations.
			CO1	Apply the concepts of crystallography and to use XRD techniques for analysis of crystal structure
			CO2	Apply the knowledge of Quantum mechanics to uncertainty principle and motion of free particle.
			CO3	To comprehend the basic concepts of semiconductor physics and apply the same to electronic devices.
			CO4	Apply the knowledge of superconductivity to SQUID and Magnetic levitation.
			CO5	Apply the reasons for Acoustic defects and use this in the proper design of a Hall/Auditorium
	FEC103	Applied Chemistry – I	CO6	Use the knowledge of Piezoelectric and Magnetostriction effect for production of ultrasonic waves and its application in various fields
			CO1	Apply the knowledge of types of hardness of water and its estimation.
			CO2	Apply the knowledge of various softening and disinfecting methods.
			CO3	Apply the knowledge of various polymers, their synthesis, properties and uses along with their fabrication techniques.
			CO4	Apply the knowledge of thermodynamics in studying different chemical systems in equilibrium obeying Gibb's phase rule.
			CO5	Apply the knowledge of lubricants, types, properties and mechanisms to avoid frictional resistance.
	FEC104	Engineering Mechanics	CO6	Demonstrate the knowledge of Portland cement and carbon nanomaterials.
			CO1	Illustrate the concept of force, moment and apply the same along with the concept of equilibrium in two and three dimensional systems with the help of FBD.
			CO2	Demonstrate the understanding of Centroid and its significance and locate the same.
			CO3	Correlate real life application to specific type of friction and estimate required force to overcome friction.
			CO4	Establish relation between velocity and acceleration of a particle and analyse the motion by plotting the relation
			CO5	Illustrate different types of motions and establish Kinematic relations for a rigid body
			CO6	Analyse body in motion using force and acceleration, work-energy, impulse-momentum principles
	FEC105	Basic Electrical Engineering	CO1	To evaluate D.C. circuits using network theorems.
			CO2	To evaluate 1-Φ AC circuits.
			CO3	To illustrate constructional features and operation of 1-Φ transformer.
			CO4	To evaluate 3-Φ AC circuits.
			CO5	To illustrate working principle of DC machines.
			CO6	To conduct experiments on D.C. circuits and AC circuits.
	FEC106	Environmental Studies	CO1	Illustrate Depleting Nature of Environmental Resources, Global Environmental Crisis, Ecosystem concept.
			CO2	Adapt to 3R (Reuse, Recovery, Recycle).
			CO3	Study different control measures related to Environmental Pollution.
			CO4	Illustrate and analyse various Case Studies related to Environmental Legislation.
			CO5	Demonstrate the working of Renewable energy sources & Equipments.
			CO6	Illustrate the Techniques of Disaster Management and Green Building.
	FEL101	Basic Workshop Practice - I	CO1	Students will be able to identify differend fitting tools.
			CO2	Students will be able to use tools, setting of tools and porform operations.
			CO3	Students will be able identy different forging tools.
			CO4	Students will be able to Understand forging process.
			CO5	Students will be able to identify differend Welding Tools.
			CO6	Student will be able to set welding tools and perform different operations.
SEM II	FEC201	Applied Mathematics-II	CO1	Apply the concepts of First Order and first degree Differential equation to the engineering problems.
			CO2	Apply the concepts of Higher Order Linear Differential equation to the engineering problems.
			CO3	Apply concepts of Beta and Gamma function to the engineering Problems.
			CO4	Apply SCILAB programming techniques to solve differential equation to model complex engineering activities.
			CO5	Apply concepts of Double integral of different coordinate systems to the engineering problems.
			CO6	Apply concepts of triple integral of different coordinate systems to the engineering problems
	FEC202	Applied Physics – II	CO1	Comprehend principles of interference and diffraction.
			CO2	Illustrate the principle,construction and working of various LASERs and its applications.
			CO3	Identify various applications of optical fibres.
			CO4	Comprehend the concepts of electrodynamics and Maxwell's equations and their use in telecommunication systems.
			CO5	Apply the concepts of electromagnetism in focusing systems and CRO.
			CO6	Comprehend the significance of nanoscience and nanotechnology,its applications
	FEC203	Applied Chemistry – II	CO1	Identify types of corrosion and factors affecting it related to problems affecting all industries.
			CO2	Identify different types of corrosion control methods to study corrosion control in various industries.
			CO3	Apply the knowledge of different types of fuels, including their production and refining methods and combustion mechanisms.
			CO4	Illustrate composition and properties of different types of alloys and the process of powder metallurgy
			CO5	Illustrate princpales of green chemistry.
			CO6	Illustrate properties and applications of different types of composite materials.
	FEC204	Engineering Drawing	CO1	Apply the basic principles of projections in 2D drawings.
			CO2	Apply the basic principles of projections in converting 3D view to 2D drawing.
			CO3	Read a given drawing.
			CO4	Visualize an object from the given two views.
			CO5	Use CAD tool to draw different views of a 3D object.
			CO6	Use CAD tool to draw an object in 3D.
	FEC205	Structured Programming Approach	CO1	Illustrate the basic terminology used in computer programming.
			CO2	Illustrate the concept of data types, variables and operators using C.
			CO3	Design and Implement control statements and looping constructs in C.
			CO4	Apply function concept on problem statements.
			CO5	Demonstrate the use of arrays, strings, structures and files handling in C.
			CO6	Demonstrate the dynamics of memory by the use of pointers to construct various data structures.
		Communication Skills	CO1	Understand and evaluate information they listen to and express their ideas with greater clarity
			CO2	Speak and respond effectively along the various channels of communication in a business organization
			CO3	Speak convincingly before an audience with the help of an expanded vocabulary and enhanced digital content

	FEC206		CO4	Read and summarize effectively
			CO5	Communicate through result oriented writing both within and outside the organization.
			CO6	Write a set of effective and easy to understand technical description, instructions and convey the same using global information technology
	FEL201	**Basic Workshop Practice - II**	CO1	Students will be able to identify differend Carpentry tools.
			CO2	Students will be able to use carpentry tools, setting of tools and porform operations.
			CO3	Students will be able understant different parts of lathe machine.
			CO4	Students will be able to Understand different operations performed on lathe machine.
			CO5	Students will be able to understand differnet electrical wiring diagrams.
			CO6	Student will be able connect different connections on electrical board