



Sree Chitra Thirunal College of Engineering

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Consolidated Course Outcomes Report

| Batch | Sno | Subject | CO | Topic | Bloom's taxonomy level |
|------------|----------------------------------|----------------------------|--|--|------------------------|
| BT 2K20 | 1 | PROGRAMMING IN C | CO1 | Explain hardware and software components of a computer system. Design flowcharts and algorithms to solve computational problems. | Understanding(U) |
| | | | CO2 | Illustrate basic C programming constructs. | Applying(P) |
| | | | CO3 | Design programs using arrays | Applying(P) |
| | | | CO4 | Design programs using functions and recursion | Applying(P) |
| | | | CO5 | Implement C programs using pointers | Applying(P) |
| | | | CO6 | Apply file concept to develop related programs | Applying(P) |
| | 2 | DIFFERENTIAL EQUATIONS | CO1 | Explain the theory of derivatives and integrals of vector valued functions. | Understanding(U) |
| | | | CO2 | Apply calculus of vector valued function in the evaluation of integrals, surface integral and volume integrals. | Applying(P) |
| | | | CO3 | Solve homogeneous and non-homogeneous linear differential equation with constant coefficients | Applying(P) |
| | | | CO4 | Explain the concept of Laplace transform and Fourier Transform | Understanding(U) |
| | | | CO5 | Solve ordinary differential equation using Laplace Transform. | Applying(P) |
| | 3 | ENGINEERING CHEMISTRY | CO1 | Describe the basic concepts of electrochemistry and corrosion to explore its possible applications in various engineering fields. | Understanding(U) |
| | | | CO2 | Interpret the spectral data from spectroscopic techniques like UV-Visible, IR, NMR and its applications or predict the Spectral data of a given structure. | Understanding(U) |
| | | | CO3 | Outline the principle, classification, instrumentation, procedure and applications of TGA, DTA, Column Chromatography, TLC, Gas Chromatography, HPLC and SEM analytical instruments. | Understanding(U) |
| | | | CO4 | Explain the basics of stereochemistry, its application and structure properties and applications of polymers | Understanding(U) |
| | | | CO5 | Discuss the quality of water (based on hardness, DO) and water treatment methods (sewage and municipal) to develop skills for treating wastewater. | Understanding(U) |
| | 4 | ENGINEERING MECHANICS | CO1 | Recall principles and theorems related to rigid body mechanics. | Understanding(U) |
| | | | CO2 | Identify and describe the components of system of forces acting on the rigid body. | Applying(P) |
| | | | CO3 | Apply the conditions of equilibrium to various practical problems involving different force system. | Applying(P) |
| | | | CO4 | Choose appropriate theorems, principles or formulae to solve problems of mechanics. | Applying(P) |
| | | | CO5 | Solve problems involving rigid bodies, applying the properties of distributed areas and masses. | Applying(P) |
| | 5 | PROFESSIONAL COMMUNICATION | CO1 | Develop vocabulary and language skills relevant to engineering as a profession. | Applying(P) |
| | | | CO2 | Analyze a variety of textual content. | Analyzing(A) |
| | | | CO3 | Create effective technical presentations. | Create(C) |
| | | | CO4 | Discuss a given technical/non-technical topic in a group setting and arrive at generalizations/consensus. | Understanding(U) |
| | | | CO5 | Identify drawbacks in listening patterns and apply listening techniques for specific needs. | Applying(P) |
| | | | CO6 | Create professional and technical documents that are clear and adhering to all the necessary conventions. | Create(C) |
| 6 | Basics of Mechanical Engineering | CO1 | The students may be able to understand and explain the principle and working of the IC Engines. | Understanding(U) | |
| | | CO2 | The students may be able to understand and explain the principle and working of the thermal and hydraulic devices | Understanding(U) | |
| | | CO3 | The students may be able to understand and explain the principle and working of the different manufacturing processes. | Understanding(U) | |
| | | | CO1 | Recall the role of civil engineer in society and to relate the various disciplines of Civil Engineering. | Understanding(U) |

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| | 7 | BASICS OF CIVIL & MECHANICAL ENGINEERING | CO2 | Explain different types of buildings, building components, building materials and building construction | Understanding(U) |
| | | | CO3 | Describe the importance, objectives and principles of surveying. | Understanding(U) |
| | | | CO4 | Summarise the basic infrastructure services MEP, HVAC, elevators, escalators and ramps | Understanding(U) |
| | | | CO5 | Discuss the Materials, energy systems, water management and environment for green buildings. | Understanding(U) |
| | 8 | ENGINEERING CHEMISTRY LAB | CO1 | Synthesize of UF resin and PF resin | Applying(P) |
| | | | CO2 | Interpret the IR spectra and NMR spectra of simple organic compounds | Understanding(U) |
| | | | CO3 | Estimate the Water Quality parameters (Hardness, DO, pH, Conductivity, Fe content) | Applying(P) |
| | | | CO4 | Analyse and accurately determine the concentration of analyte in a given sample using conventional analytical laboratory techniques (Potentiometric Titration, Colorimetric, Iodometric Titrations, Complexometric Titration) | Applying(P) |
| | 9 | CIVIL & MECHANICAL WORKSHOP | CO1 | Name the different tools and devices used for civil engineering measurements and explain the uses | Understanding(U) |
| | | | CO2 | Demonstrate the steps involved in basic civil engineering activities like setting out operation and levelling | Understanding(U) |
| | | | CO3 | Choose methods and materials required for basic civil engineering activities like masonry work and plumbing | Understanding(U) |