



NADAR SARASWATHI COLLEGE OF ENGINEERING & TECHNOLOGY



Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai
Vadapudupatti, Annanji (po), Theni - 625 531,
Tamilnadu, India.

DEPARTMENT OF CIVIL COS

S.NO	YEAR/SEM	COURSE NAME	COURSE CODE	COURSE OUTCOME
1	1/1	HS8151 COMMUNICATIVE ENGLISH	C101.1	Read articles of a general kind in magazines and newspapers.
			C101.2	Participate effectively in informal conversations; introduce themselves and their friends and express opinions in English.
			C101.3	Comprehend conversations and short talks delivered in English
			C101.4	Write short essays of a general kind and personal letters and emails in English
2		MA8151 ENGINEERING MATHEMATICS - I	C102.1	Use both the limit definition and rules of differentiation to differentiate functions.
			C102.2	Apply differentiation to solve maxima and minima problems.
			C102.3	Evaluate integrals both by using Riemann sums and by using the Fundamental Theorem of Calculus
			C102.4	Apply integration to compute multiple integrals, area, volume, integrals in polar coordinates, in addition to change of order and change of variables
			C102.5	Evaluate integrals using techniques of integration, such as substitution, partial fractions and integration by parts.
			C102.6	Determine convergence/divergence of improper integrals and



NADAR SARASWATHI COLLEGE OF ENGINEERING & TECHNOLOGY



Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai
Vadapudupatti, Annanji (po), Theni - 625 531,
Tamilnadu, India.

	1/1			evaluate convergent improper integrals.
			C102.7	Apply various techniques in solving differential equations
3		PH8151 ENGINEERING PHYSICS	C103.1	The students will gain knowledge on the basics of properties of matter and its applications.
			C103.2	The students will acquire knowledge on the concepts of waves and optical devices and their applications in fibre optics.
			C103.3	The students will have adequate knowledge on the concepts of thermal properties of materials and their applications in expansion joints and heat exchangers.
			C103.4	The students will get knowledge on advanced physics concepts of quantum theory and its applications in tunneling microscopes
			C103.5	The students will understand the basics of crystals, their structures and different crystal growth techniques.
4		CY8151 ENGINEERING CHEMISTRY	C104.1	The knowledge gained on engineering materials, fuels, energy sources and water treatment techniques will facilitate better understanding of engineering processes and applications for further learning.
			C105.1	Develop algorithmic solutions to simple computational problems



NADAR SARASWATHI COLLEGE OF ENGINEERING & TECHNOLOGY



Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai
Vadapudupatti, Annanji (po), Theni - 625 531,
Tamilnadu, India.

5	1/1	GE8151 PROBLEM SOLVING AND PYTHON PROGRAMMING	C105.2	Read, write, execute by hand simple Python programs.
			C105.3	Structure simple Python programs for solving problems
			C105.4	Decompose a Python program into functions.
			C105.5	Represent compound data using Python lists, tuples, dictionaries.
			C105.6	Read and write data from/to files in Python Programs.
6	I/I	GE8152 ENGINEERING GRAPHICS	C106.1	Familiarize with the fundamentals and standards of Engineering graphics
			C106.2	Perform freehand sketching of basic geometrical constructions and multiple views of objects.
			C106.3	Project orthographic projections of lines and plane surfaces.
			C106.4	Draw projections and solids and development of surfaces.
			C106.5	Visualize and to project isometric and perspective sections of simple solids.
7		GE8161 PROBLEM SOLVING AND PYTHON PROGRAMMING LABORATORY	C107.1	Write, test, and debug simple Python programs.
			C107.2	Implement Python programs with conditionals and loops
			C107.3	Develop Python programs step-wise by defining functions and calling them.
			C107.4	Use Python lists, tuples, dictionaries for representing compound data.
			C107.5	Read and write data from/to files in Python.



NADAR SARASWATHI COLLEGE OF ENGINEERING & TECHNOLOGY



Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai
Vadapudupatti, Annanji (po), Theni - 625 531,
Tamilnadu, India.

8		BS8161 PHYSICS AND CHEMISTRY LABORATORY	C108.1	Apply principles of elasticity, optics and thermal properties for engineering applications.
9	1/II	HS8251 TECHNICAL ENGLISH	C201.1	Read technical texts and write area- specific texts effortlessly
			C201.2	Listen and comprehend lectures and talks in their area of specialisation successfully
			C201.3	Speak appropriately and effectively in varied formal and informal contexts.
			C201.4	Write reports and winning job applications.
10		MA8251 ENGINEERING MATHEMATICS - II	C202.1	Eigen values and eigenvectors, diagonalization of a matrix, Symmetric matrices, Positive definite matrices and similar matrices.
			C202.2	Gradient, divergence and curl of a vector point function and related identities
			C202.3	Evaluation of line, surface and volume integrals using Gauss, Stokes and Green's theorems and their verification.
			C202.4	Analytic functions, conformal mapping and complex integration.
			C202.5	Laplace transform and inverse transform of simple functions, properties, various related theorems and application to differential equations with constant coefficients.
			C203.1	the students will have knowledge on the thermal performance of buildings,



NADAR SARASWATHI COLLEGE OF ENGINEERING & TECHNOLOGY



Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai
Vadapudupatti, Annanji (po), Theni - 625 531,
Tamilnadu, India.

11	I/II	PH8252 PHYSICS FOR INFORMATION SCIENCE	C203.2	the students will acquire knowledge on the acoustic properties of buildings,
			C203.3	the students will get knowledge on various lighting designs for buildings,
			C203.4	the students will gain knowledge on the properties and performance of engineering materials, and
			C203.5	the students will understand the hazards of buildings.
12		BE8251 BASIC ELECTRICAL AND ELECTRONICS ENGINEERING	C204.1	ability to identify the electrical components and explain the characteristics of electrical machines.
			C204.2	ability to identify electronics components and understand the characteristics
13		GE8291 ENVIRONMENTAL SCIENCE AND ENGINEERING	C205.1	Environmental Pollution or problems cannot be solved by mere laws. Public participation is an important aspect which serves the environmental Protection. One will obtain knowledge on the following after completing the course
			C205.2	Public awareness of environmental is at infant stage.
			C205.3	Ignorance and incomplete knowledge has lead to misconceptions
			C205.4	Development and improvement in std. of living has lead to serious environmental disasters
			C206.1	illustrate the vectorial and scalar representation of forces and moments



NADAR SARASWATHI COLLEGE OF ENGINEERING & TECHNOLOGY



Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai
Vadapudupatti, Annanji (po), Theni - 625 531,
Tamilnadu, India.

14	I/II	GE8292 OBJECTIVES: ENGINEERING MECHANICS	C206.2	analyse the rigid body in equilibrium
			C206.3	evaluate the properties of surfaces and solids
			C206.4	calculate dynamic forces exerted in rigid body
			C206.5	determine the friction and the effects by the laws of friction
15		GE8261 ENGINEERING PRACTICES LABORATORY	C207.1	Fabricate carpentry components and pipe connections including plumbing works.
			C207.2	Use welding equipments to join the structures
			C207.3	Carry out the basic machining operations
			C207.4	Make the models using sheet metal works
			C207.5	Illustrate on centrifugal pump, Air conditioner, operations of smithy, foundary and fittings
			C207.6	Carry out basic home electrical works and appliances
			C207.7	Measure the electrical quantities
			C207.8	Elaborate on the components, gates, soldering practices
16	II/III	CE8211 COMPUTER AIDED BUILDING DRAWING	C208.1	The students will be able to draft the plan, elevation and sectional views of the buildings, industrial structures, and framed buildings using computer softwares.
			C301.1	Understand how to solve the given standard partial differential equations.
			C301.2	Solve differential equations using Fourier series analysis which plays a vital



NADAR SARASWATHI COLLEGE OF ENGINEERING & TECHNOLOGY



Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai
Vadapudupatti, Annanji (po), Theni - 625 531,
Tamilnadu, India.

17		MA8353 TRANSFORMS AND PARTIAL DIFFERENTIAL EQUATIONS		role in engineering applications.
			C301.3	Appreciate the physical significance of Fourier series techniques in solving one and two dimensional heat flow problems and one dimensional wave equations.
			C301.4	Understand the mathematical principles on transforms and partial differential equations would provide them the ability to formulate and solve some of the physical problems of engineering.
			C301.5	Use the effective mathematical tools for the solutions of partial differential equations by using Z transform techniques for discrete time systems.
18	II/III	CE8301 STRENGTH OF MATERIALS I	C302.1	Understand the concepts of stress and strain, principal stresses and principal planes.
			C302.2	Determine Shear force and bending moment in beams and understand concept of theory of simple bending.
			C302.3	Calculate the deflection of beams by different methods and selection of method for determining slope or deflection..
			C302.4	Apply basic equation of torsion in design of circular shafts and helical springs,
			C302.5	Analyze the pin jointed plane and space trusses



NADAR SARASWATHI COLLEGE OF ENGINEERING & TECHNOLOGY



Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai
Vadapudupatti, Annanji (po), Theni - 625 531,
Tamilnadu, India.

19		CE8302 FLUID MECHANICS	C303.1	Get a basic knowledge of fluids in static, kinematic and dynamic equilibrium.
			C303.2	Understand and solve the problems related to equation of motion.
			C303.3	Gain knowledge about dimensional and model analysis.
			C303.4	Learn types of flow and losses of flow in pipes.
			C303.5	Understand and solve the boundary layer problems.
20		CE8351 SURVEYING	C304.1	The use of various surveying instruments and mapping
			C304.2	Measuring Horizontal angle and vertical angle using different instruments
			C304.3	Methods of Leveling and setting Levels with different instruments
			C304.4	Concepts of astronomical surveying and methods to determine time, longitude, latitude and azimuth
			C304.5	Concept and principle of modern surveying..
21	II/III	CE8391 CONSTRUCTION MATERIALS	C305.1	Compare the properties of most common and advanced building materials.
			C305.2	understand the typical and potential applications of lime, cement and aggregates
			C305.3	know the production of concrete and also the method of placing and making of concrete elements.



NADAR SARASWATHI COLLEGE OF ENGINEERING & TECHNOLOGY



Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai
Vadapudupatti, Annanji (po), Theni - 625 531,
Tamilnadu, India.

			C305.4	understand the applications of timbers and other materials
			C305.5	Understand the importance of modern material for construction.
22		CE8392 ENGINEERING GEOLOGY	C306.1	Will be able to understand the importance of geological knowledge such as earth, earthquake, volcanism and the action of various geological agencies.
			C306.2	Will get basics knowledge on properties of minerals.
			C306.3	Gain knowledge about types of rocks, their distribution and uses.
			C306.4	Will understand the methods of study on geological structure.
			C306.5	Will understand the application of geological investigation in projects such as dams, tunnels, bridges, roads, airport and harbor
22		CE8311 CONSTRUCTION MATERIALS LABORATORY	C307.5	The students will have the required knowledge in the area of testing of construction materials and components of construction elements experimentally.
23	II/III	CE8361 SURVEYING LABORATORY	C308.1	Students completing this course would have acquired practical knowledge on handling basic survey instruments including Theodolite, Tacheometry, Total Station and GPS and have adequate knowledge to carryout Triangulation and Astronomical surveying including general field marking for various



NADAR SARASWATHI COLLEGE OF ENGINEERING & TECHNOLOGY



Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai
Vadapudupatti, Annanji (po), Theni - 625 531,
Tamilnadu, India.

				engineering projects and Location of site etc.
24		HS8381 INTERPERSONAL SKILLS/LISTENING AND SPEAKING	C309.1	Listen and respond appropriately.
			C309.2	Participate in group discussions
			C309.3	Make effective presentations
			C309.4	Participate confidently and appropriately in conversations both formal and informal
25	II/IV	MA8491 NUMERICAL METHODS	C401.1	Understand the basic concepts and techniques of solving algebraic and transcendental equations.
			C401.2	Appreciate the numerical techniques of interpolation and error approximations in various intervals in real life situations.
			C401.3	Apply the numerical techniques of differentiation and integration for engineering problems.
			C401.4	Understand the knowledge of various techniques and methods for solving first and second order ordinary differential equations.
			C401.5	Solve the partial and ordinary differential equations with initial and boundary conditions by using certain techniques with engineering applications.
		CE8401 CONSTRUCTION	C402.1	know the different construction techniques and structural systems
			C402.2	Understand various techniques and practices on masonry construction, flooring, and roofing.



NADAR SARASWATHI COLLEGE OF ENGINEERING & TECHNOLOGY



Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai
Vadapudupatti, Annanji (po), Theni - 625 531,
Tamilnadu, India.

26	II/IV	TECHNIQUES AND PRACTICES	C402.3	Plan the requirements for substructure construction.
			C402.4	Know the methods and techniques involved in the construction of various types of super structures
			C402.5	Select, maintain and operate hand and power tools and equipment used in the building construction sites.
27		CE8402 STRENGTH OF MATERIALS II	C403.1	Determine the strain energy and compute the deflection of determinate beams, frames and trusses using energy principles.
			C403.2	Analyze propped cantilever, fixed beams and continuous beams using theorem of three moment equation for external loadings and support settlements.
			C403.3	find the load carrying capacity of columns and stresses induced in columns and cylinderS
			C403.4	Determine principal stresses and planes for an element in three dimensional state of stress and study various theories of failure
			C403.5	Determine the stresses due to Unsymmetrical bending of beams, locate the shear center, and find the stresses in curved beams.
28		CE8403 APPLIED HYDRAULIC ENGINEERING	C404.1	Apply their knowledge of fluid mechanics in addressing problems in open channels.
			C404.2	Able to identify a effective section for flow in different cross sections.
			C404.3	To solve problems in uniform, gradually and



NADAR SARASWATHI COLLEGE OF ENGINEERING & TECHNOLOGY



Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai
Vadapudupatti, Annanji (po), Theni - 625 531,
Tamilnadu, India.

	II/IV			rapidly varied flows in steady state conditions.
			C404.4	Understand the principles, working and application of turbines.
			C404.5	Understand the principles, working and application of pumps.
			C405.2	The effect of admixtures on properties of concrete
			C405.3	The concept and procedure of mix design as per IS method
			C405.4	The concept and procedure of mix design as per IS method
			C405.5	The importance and application of special concretes.
30	CE8491 SOIL MECHANICS		C406.1	classify the soil and assess the engineering properties, based on index properties.
			C406.3	Understand the stress concepts in soils
			C406.3	Understand and identify the settlement in soils.
			C406.4	Determine the shear strength of soil
			C406.5	Analyze both finite and infinite slopes.
31	CE8481 STRENGTH OF MATERIALS LABORATORY		C407.1	The students will have the required knowledge in the area of testing of materials and components of structural elements experimentally.
32		CE8461 HYDRAULIC ENGINEERING LABORATORY		C408.1
				C408.2
			C409.1	Write different types of essays



NADAR SARASWATHI COLLEGE OF ENGINEERING & TECHNOLOGY



Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai
Vadapudupatti, Annanji (po), Theni - 625 531,
Tamilnadu, India.

33		HS8461 ADVANCED READING AND WRITING	C409.2	Write winning job applications
			C409.3	Read and evaluate texts critically.
			C409.4	Display critical thinking in various professional contexts.
34	III/V	CE8501 DESIGN OF REINFORCED CEMENT CONCRETE ELEMENTS	C501.1	Understand the various design methodologies for the design of RC elements.
			C501.2	Know the analysis and design of flanged beams by limit state method and sign of beams for shear, bond and torsion.
			C501.3	design the various types of slabs and staircase by limit state method.
			C501.4	Design columns for axial, uniaxial and biaxial eccentric loadings.
			C501.5	Design of footing by limit state method.
35		CE8502 STRUCTURAL ANALYSIS I	C502.1	Analyze continuous beams, pin-jointed indeterminate plane frames and rigid plane frames by strain energy method
			C502.2	Analyse the continuous beams and rigid frames by slope deflection method.
			C502.3	Understand the concept of moment distribution and analysis of continuous beams and rigid frames with and without sway.
			C502.4	Analyse the indeterminate pin jointed plane frames continuous beams and rigid frames using matrix flexibility method.



NADAR SARASWATHI COLLEGE OF ENGINEERING & TECHNOLOGY



Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai
Vadapudupatti, Annanji (po), Theni - 625 531,
Tamilnadu, India.

	III/V		C502.5	Understand the concept of matrix stiffness method and analysis of continuous beams, pin jointed trusses and rigid plane frames.
36		EN8491 WATER SUPPLY ENGINEERING	C503.1	an insight into the structure of drinking water supply systems, including water transport, treatment and distribution
			C503.2	the knowledge in various unit operations and processes in water treatment
			C503.3	an ability to design the various functional units in water treatment
			C503.4	an understanding of water quality criteria and standards, and their relation to public health
			C503.5	the ability to design and evaluate water supply project alternatives on basis of chosen criteria.
37	CE8591 FOUNDATION ENGINEERING	C504.1	Understand the site investigation, methods and sampling.	
		C504.2	Get knowledge on bearing capacity and testing methods.	
		C504.3	Design shallow footings.	
		C504.4	Determine the load carrying capacity, settlement of pile foundation.	
		C504.5	Determine the earth pressure on retaining walls and analysis for stability.	
38	III/V	GI8014 GEOGRAPHIC	C505.1	Have basic idea about the fundamentals of GIS.
			C505.2	Understand the types of data models.
			C505.3	Get knowledge about data input and topology.



NADAR SARASWATHI COLLEGE OF ENGINEERING & TECHNOLOGY



Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai
Vadapudupatti, Annanji (po), Theni - 625 531,
Tamilnadu, India.

39	III/V	INFORMATION SYSTEM	C505.4	Gain knowledge on data quality and standards.
			C505.5	Understand data management functions and data output
		ORO551 RENEWABLE ENERGY SOURCES	C506.1	Understanding the physics of solar radiation.
			C506.2	Ability to classify the solar energy collectors and methodologies of storing solar energy.
			C506.3	Knowledge in applying solar energy in a useful way.
C506.4	Knowledge in wind energy and biomass with its economic aspects.			
C506.5	Knowledge in capturing and applying other forms of energy sources like wind, biogas and geothermal energies.			
40	III/V	CE8511 SOIL MECHANICS LABORATORY	C507.1	Students are able to conduct tests to determine both the index and engineering properties of soils and to characterize the soil based on their properties.
41	III/V	CE8512 WATER AND WASTE WATER ANALYSIS LABORATORY	C508.1	Quantify the pollutant concentration in water and wastewater
			C508.2	Suggest the type of treatment required and amount of dosage required for the treatment
			C508.3	Examine the conditions for the growth of micro-organisms
42	III/V	CE8513 SURVEY CAMP	C509.1	To learn to work as team, ethics and prepare technical reports of surveying.
			C509.2	To relate theoretical knowledge of surveying to resolve real field problems.



NADAR SARASWATHI COLLEGE OF ENGINEERING & TECHNOLOGY



Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai
Vadapudupatti, Annanji (po), Theni - 625 531,
Tamilnadu, India.

			C509.3	To establish horizontal control and vertical control by traversing and triangulation
			C509.4	To prepare topographical map and contour map on an area.
43	III/VI	CE8601 DESIGN OF STEEL STRUCTURAL ELEMENTS	C601.1	Understand the concepts of various design philosophies
			C601.2	Understand the concepts of various design philosophies
			C601.3	Design tension members and understand the effect of shear lag.
			C601.4	Understand the design concept of axially loaded columns and column base connections.
			C601.5	Understand specific problems related to the design of laterally restrained and unrestrained steel beams.
44		CE8602 STRUCTURAL ANALYSIS II	C602.1	Draw influence lines for statically determinate structures and calculate critical stress resultants.
			C602.2	Understand Muller Breslau principle and draw the influence lines for statically indeterminate beams.
			C602.3	Analyse of three hinged, two hinged and fixed arches.
			C602.4	Analyse the suspension bridges with stiffening girders
			C602.5	Understand the concept of Plastic analysis and the method of analyzing beams and rigid frames.
			C603.1	Have knowledge and skills on crop water requirements.



NADAR SARASWATHI COLLEGE OF ENGINEERING & TECHNOLOGY



Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai
Vadapudupatti, Annanji (po), Theni - 625 531,
Tamilnadu, India.

45	III/VI	CE8603 IRRIGATION ENGINEERING	C603.2	Understand the methods and management of irrigation.
			C603.3	Gain knowledge on types of Impounding structures
			C603.4	Understand methods of irrigation including canal irrigation.
			C603.5	Get knowledge on water management on optimization of water use.
46		CE8604 HIGHWAY ENGINEERING	C604.1	Get knowledge on planning and aligning of highway.
			C604.2	Geometric design of highways
			C604.3	Design flexible and rigid pavements.
			C604.4	Gain knowledge on Highway construction materials, properties, testing methods
			C604.5	Understand the concept of pavement management system, evaluation of distress and maintenance of pavements.
47		EN8592 WASTEWATER ENGINEERING	C605.1	An ability to estimate sewage generation and design sewer system including sewage pumping stations
			C605.2	The required understanding on the characteristics and composition of sewage, self purification of streams
			C605.3	An ability to perform basic design of the unit operations and processes that are used in sewage treatment
	C605.4		Understand the standard methods for disposal of sewage.	



NADAR SARASWATHI COLLEGE OF ENGINEERING & TECHNOLOGY



Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai
Vadapudupatti, Annanji (po), Theni - 625 531,
Tamilnadu, India.

			C605.5	Gain knowledge on sludge treatment and disposal.
48	III/VI	CE8611 HIGHWAY ENGINEERING LABORATORY	C606.1	Student knows the techniques to characterize various pavement materials through relevant tests.
49		CE8612 IRRIGATION AND ENVIRONMENTAL ENGINEERING DRAWING	C607.1	The students after completing this course will be able to design and draw various units of Municipal water treatment plants and sewage treatment plants.
50		HS8581 PROFESSIONAL COMMUNICATION	C608.1	Make effective presentations
	C608.2		Participate confidently in Group Discussions.	
	C608.3		Attend job interviews and be successful in them.	
	C608.4		Develop adequate Soft Skills required for the workplace	
51	IV/VII	CE8701 ESTIMATION, COSTING AND VALUATION ENGINEERING	C701.1	Estimate the quantities for buildings,
			C701.2	Rate Analysis for all Building works, canals, and Roads and Cost Estimate.
			C701.3	Understand types of specifications, principles for report preparation, tender notices types.
			C701.4	Gain knowledge on types of contracts
			C701.5	Evaluate valuation for building and land.
52		CE8702 RAILWAYS, AIRPORTS, DOCKS AND HARBOUR ENGINEERING	C702.1	Understand the methods of route alignment and design elements in Railway Planning and Constructions.
			C702.2	Understand the Construction techniques and Maintenance of Track laying and Railway stations.



NADAR SARASWATHI COLLEGE OF ENGINEERING & TECHNOLOGY



Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai
Vadapudupatti, Annanji (po), Theni - 625 531,
Tamilnadu, India.

			C702.3	Gain an insight on the planning and site selection of Airport Planning and design.
			C702.4	Analyze and design the elements for orientation of runways and passenger facility systems.
			C702.5	Understand the various features in Harbours and Ports, their construction, coastal protection works and coastal Regulations to be adopted.
53	IV/VII	CE8703 STRUCTURAL DESIGN AND DRAWING	C703.1	Design and draw reinforced concrete Cantilever and Counterfort Retaining Walls
			C703.2	Design and draw flat slab as per code provisions
			C703.3	Design and draw reinforced concrete and steel bridges
			C703.4	Design and draw reinforced concrete and steel water tanks
			C703.5	Design and detail the various steel trusses and cantry girders
54		EN8591 MUNICIPAL SOLID WASTE MANAGEMENT	C704.1	understanding of the nature and characteristics of municipal solid wastes and the regulatory requirements regarding municipal solid waste management.
			C704.2	Reduction, reuse and recycling of waste.
			C704.3	ability to plan and design systems for storage, collection, transport, processing and disposal of municipal solid waste.
			C704.4	knowledge on the issues on solid waste management from an integrated and holistic perspective, as well



NADAR SARASWATHI COLLEGE OF ENGINEERING & TECHNOLOGY



Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai
Vadapudupatti, Annanji (po), Theni - 625 531,
Tamilnadu, India.

				as in the local and international context.
			C704.5	Design and operation of sanitary landfill.
55	IV/VII	OEN751 GREEN BUILDING DESIGN	C705.1	carry out scoping and screening of developmental projects for environmental and social assessments
			C705.2	explain different methodologies for environmental impact prediction and assessment
			C705.3	plan environmental impact assessments and environmental management plans
			C705.4	evaluate environmental impact assessment reports
56		CE8711 CREATIVE AND INNOVATIVE PROJECT	C706.1	To use the knowledge acquired in Civil Engineering to do a mini project, which allows the students to come up with designs, fabrication or algorithms and programs expressing their ideas in a novel way.
57		CE8712 INDUSTRIAL TRAINING	C707.1	The intricacies of implementation textbook knowledge into practice
			C707.2	he concepts of developments and implementation of new techniques
58		GE8076 PROFESSIONAL ETHICS IN ENGINEERING	C801.1	Upon completion of the course, the student should be able to apply ethics in society, discuss the ethical issues related to engineering and realize the responsibilities and rights in the society.

THENI MELAPETTAI HINDU NADARGAL URAVINMURAI



NADAR SARASWATHI COLLEGE OF ENGINEERING & TECHNOLOGY



Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai
Vadapudupatti, Annanji (po), Theni - 625 531,
Tamilnadu, India.

59	IV/VII	CE8020 MAINTENANCE, REPAIR AND REHABILITATION OF STRUCTURES	C802.1	the importance of maintenance and assessment method of distressed structures.
			C802.2	The strength and durability properties ,their effects due to climate and temperature.
			C802.3	recent development in concrete
			C802.4	the techniques for repair and protection methods
			C802.5	repair, rehabilitation and retrofitting of structures and demolition methods.
60		CE8811 PROJECT WORK	C803.1	On Completion of the project work students will be in a position to take up any challenging practical problems and find solution by formulating proper methodology.