

## COURSE OUTCOMES - 2022 SCHEME

### 1<sup>st</sup> Semester-D section (ME)

<b>Subject:</b>	Mathematics-I for Mechanical Engineering stream		
<b>Subject Code:</b>	BMATM101	<b>NBA Code:</b>	BSME101
<b>CO1</b>	Apply the knowledge of calculus to solve problems related to polar curves.		
<b>CO2</b>	Learn the notion of partial differentiation to compute rate of change of multivariate functions.		
<b>CO3</b>	Analyze the solution of linear and non-linear ordinary differential equations.		
<b>CO4</b>	Make use of matrix theory for solving the system of linear equations and compute		
<b>CO5</b>	Familiarize with modern mathematical tools namely MATHEMATICA/MATLAB/ PYTHON/SCILAB		

<b>Subject:</b>	Applied Chemistry for Civil Engineering stream		
<b>Subject Code:</b>	BCHEC102 /202	<b>NBA Code:</b>	BSCV102
<b>CO1</b>	Identify the terms and applications processes involved in scientific and engineering		
<b>CO2</b>	Explain the phenomena of chemistry to describe the methods of engineering processes		
<b>CO3</b>	Solve the problems in chemistry that are pertinent in engineering applications		
<b>CO4</b>	Apply the basic concepts of chemistry to explain the chemical properties and processes		
<b>CO5</b>	Analyze proper ties and multidisciplinary situations processes associated with chemical substances in properties and multidisciplinary situations		

<b>Subject:</b>	Computer Aided Engineering Drawing		
<b>Subject Code:</b>	BCEDK103	<b>NBA Code:</b>	BSCV103
<b>CO1</b>	Draw and communicate the objects with definite shape and dimensions		
<b>CO2</b>	Recognize and Draw the shape and size of objects through different views		
<b>CO3</b>	Develop the lateral surfaces of the object		
<b>CO4</b>	Create a Drawing views using CAD software.		
<b>CO5</b>	Identify the interdisciplinary engineering components or systems through its graphical representation.		

<b>Subject:</b>	Renewable Energy Sources		
<b>Subject Code:</b>	BETCK105E	<b>NBA Code:</b>	BSME104
<b>CO1</b>	Describe the environmental aspects of renewable energy resources. In Comparison with various conventional energy systems, their prospects and limitations		
<b>CO2</b>	Describe the use of solar energy and the various components used in the energy production with respect to applications like-heating, cooling, desalination, power generation.		
<b>CO3</b>	Understand the conversion principles of wind and tidal energy		
<b>CO4</b>	Understand the concept of biomass energy resources and green energy		
<b>CO5</b>	Acquire the basic knowledge of ocean thermal energy conversion and hydrogen energy.		

<b>Subject:</b>	Introduction to C Programming		
<b>Subject Code:</b>	BESCK104E/204E	<b>NBA Code:</b>	BSME105
<b>CO1</b>	Elucidate the basic architecture and functionalities of a computer and also recognize the hardware parts.		
<b>CO2</b>	Apply programming constructs of C language to solve the real world problem		
<b>CO3</b>	Explore user-defined data structures like arrays in implementing solutions to problems like searching and sorting		
<b>CO4</b>	Explore user-defined data structures like structures, unions and pointers in implementing solutions		
<b>CO5</b>	Design and Develop Solutions to problems using modular programming constructs using functions		

<b>Subject:</b>	Communicative English		
<b>Subject Code:</b>	BENGK106	<b>NBA Code:</b>	BSME106
<b>CO1</b>	Understand and apply the Fundamentals of Communication Skills in their communication skills.		
<b>CO2</b>	Identify the nuances of phonetics, intonation and enhance pronunciation skills.		
<b>CO3</b>	To impart basic English grammar and essentials of language skills as per present requirement.		
<b>CO4</b>	Understand and use all types of English vocabulary and language proficiency.		
<b>CO5</b>	Adopt the Techniques of Information Transfer through presentation.		

<b>Subject:</b>	ಬಳಃ ಕನಁಡಃ		
<b>Subject Code:</b>	BKBKK107	<b>NBA Code:</b>	BSME107 II
<b>CO1</b>	To understand the necessity of learning of local language for comfortable life.		
<b>CO2</b>	To speak, read and write Kannada language as per requirement.		
<b>CO3</b>	To communicate (converse) in Kannada language in their daily life with kannada speakers.		
<b>CO4</b>	To Listen and understand the Kannada language properly.		
<b>CO5</b>	To speak in polite conversation.		

<b>Subject:</b>	□ಂಸಜ್ಞೋರಿಕ ಕನಡೆ		
<b>Subject Code:</b>	BKSKK207	<b>NBA Code:</b>	BSME107 I
<b>CO1</b>	ಕನ್ನಡ ಭಾಷೆ, ಸಾಹಿತ್ಯ ಮತ್ತು ಕನ್ನಡದ ಸಂಸ್ಕೃತಿಯ ಕುರಿತು ಅರಿವು ಮೂಡಿರುತ್ತದೆ.		
<b>CO2</b>	ಕನ್ನಡ ಸಾಹಿತ್ಯದ ಪ್ರಧಾನ ಭಾಗವಾದ ಆಧುನಿಕ ಪೂರ್ವ ಮತ್ತು ಆಧುನಿಕ ಕಾವ್ಯಗಳನ್ನು ಸಾಂಕೇತಿಕವಾಗಿ ಕಲಿತು ಹೆಚ್ಚಿನ ಓದಿಗೆ ಮತ್ತು ಜ್ಞಾನಕ್ಕೆ ಸೂರ್ತಿ ಮೂಡುತ್ತದೆ.		
<b>CO3</b>	ವಿದ್ಯಾರ್ಥಿಗಳಲ್ಲಿ ಸಾಹಿತ್ಯ ಮತ್ತು ಸಂಸ್ಕೃತಿಯ ಬಗ್ಗೆ ಅರಿವು ಹಾಗೂ ಆಸಕ್ತಿಯನ್ನು ಹೆಚ್ಚಿಸುತ್ತದೆ.		
<b>CO4</b>	ತಾಂತ್ರಿಕ ವ್ಯಕ್ತಿಗಳ ಪರಿಚಯ ಹಾಗೂ ಅವರುಗಳ ಸಾಧಿಸಿದ ವಿಷಯಗಳನ್ನು ತಿಳಿದುಕೊಂಡು ನಾಡಿನ ಇನ್ನಿತರ ವ್ಯಕ್ತಿಗಳ ಬಗ್ಗೆ ತಿಳಿದುಕೊಳ್ಳಲು ಕೌತುಕತೆ ಹೆಚ್ಚಿಸುತ್ತದೆ.		
<b>CO5</b>	ಸಾಂಸ್ಕೃತಿಕ, ಜನಪದ ಹಾಗೂ ಪ್ರವಾಸ ಕಥನಗಳ ಪರಿಚಯ ಮಾಡಿಕೊಡುವುದು.		

<b>Subject:</b>	Scientific Foundations of Health		
<b>Subject Code:</b>	BSFHK158	<b>NBA Code:</b>	BSME108
<b>CO1</b>	To understand and analyse about Health and wellness (and its Beliefs) & It's balance for positive mindset.		
<b>CO2</b>	Develop the healthy lifestyles for good health for their better future.		
<b>CO3</b>	Build a Healthy and caring relationships to meet the requirements of good/social/positive life.		
<b>CO4</b>	To learn about Avoiding risks and harmful habits in their campus and outside the campus for their bright future.		
<b>CO5</b>	Prevent and fight against harmful diseases for good health through positive mindset.		

## COURSE OUTCOMES - 2022 SCHEME

### 2<sup>nd</sup> Semester-D section (ME)

<b>Subject:</b>	Mathematics-II for Civil Engineering stream		
<b>Subject Code:</b>	BMATM201	<b>NBA Code:</b>	BSME109
<b>CO1</b>	Apply the knowledge of multiple integrals to compute area and volume.		
<b>CO2</b>	Understand the applications of vector calculus refer to solenoidal, irrotational vectors, line integral and surface integral.		
<b>CO3</b>	Demonstrate partial differential equations and their solutions for physical interpretations.		
<b>CO4</b>	Apply the knowledge of numerical methods in solving physical and engineering		
<b>CO5</b>	Get familiarize with modern mathematical tools namely MATHEMATICA/MATLAB/PYTHON/SCILAB		

<b>Subject:</b>	Applied Physics for ME Stream		
<b>Subject Code:</b>	BPHYM202	<b>NBA Code:</b>	BSME110
<b>CO1</b>	Elucidate the concepts in oscillations, waves, elasticity and material failures		
<b>CO2</b>	Summarize concepts of acoustics in buildings and explain the concepts in radiation and photometry		
<b>CO3</b>	Discuss the principles photonic devices and their application relevant to civil engineering.		
<b>CO4</b>	Describe the various natural hazards and safety precautions.		
<b>CO5</b>	Practice working in groups to conduct experiments in physics and perform precise and honest measurements.		

<b>Subject:</b>	Elements Of Mechanical Engineering		
<b>Subject Code:</b>	BEMEM103/203	<b>NBA Code:</b>	BSME111
<b>CO1</b>	Explain the role of mechanical engineering in industry and society, fundamentals of steam and non-conventional energy sources		
<b>CO2</b>	Describe different conventional and advanced machining processes, IC engines, propulsive devices, air-conditioning, refrigeration.		
<b>CO3</b>	Explain different gear drives, gear trains, aspects of future mobility and fundamentals of robotics		
<b>CO4</b>	Determine the condition of steam and its energy, performance parameters of IC engines, velocity ratio and power transmitted through power transmission systems.		

<b>Subject:</b>	Introduction to Electronics & Communication		
<b>Subject Code:</b>	BESCK104C/204C	<b>NBA Code:</b>	BSME112
<b>CO1</b>	Describe the concepts of electronic circuits encompassing power supplies, amplifiers and oscillators.		
<b>CO2</b>	Present the basics of digital logic engineering including data representation, circuits and the microcontroller system with associated sensors and actuators		
<b>CO3</b>	Discuss the characteristics and technological advances of embedded systems.		
<b>CO4</b>	Relate to the fundamentals of communication engineering spanning from the frequency spectrum to the various circuits involved including antennas.		
<b>CO5</b>	Explain the different modes of communications from wired to wireless and the computing involved.		

<b>Subject:</b>	Introduction to Python Programming		
<b>Subject Code:</b>	BPLCK205B	<b>NBA Code:</b>	BSCV113
<b>CO1</b>	Demonstrate proficiency in handling loops and creation of functions.		
<b>CO2</b>	Identify the methods to create and manipulate lists, tuples and dictionaries.		
<b>CO3</b>	Develop programs for string processing and file organization		
<b>CO4</b>	Interpret the concepts of Object-Oriented Programming as used in Python.		

<b>Subject:</b>	Professional Writing Skills in English		
<b>Subject Code:</b>	BPWSK206	<b>NBA Code:</b>	BSME114
<b>CO1</b>	To understand and identify the Common Errors in Writing and Speaking.		
<b>CO2</b>	To Achieve better Technical writing and Presentation skills.		
<b>CO3</b>	To read Technical proposals properly and make them to Write good technical reports.		
<b>CO4</b>	Acquire Employment and Workplace communication skills.		
<b>CO5</b>	To learn about Techniques of Information Transfer through presentation in different level		

<b>Subject:</b>	Indian Constitution		
<b>Subject Code:</b>	BICOK107-207	<b>NBA Code:</b>	BSME115
<b>CO1</b>	Analyse the basic structure of Indian Constitution.		
<b>CO2</b>	Remember their Fundamental Rights, DPSP's and Fundamental Duties (FD's) of our constitution.		
<b>CO3</b>	Know about our Union Government, political structure & codes, procedures.		
<b>CO4</b>	Understand our State Executive & Elections system of India.		
<b>CO5</b>	Remember the Amendments and Emergency Provisions, other important provisions given by the constitution.		

<b>Subject:</b>	Innovation and Design Thinking		
<b>Subject Code:</b>	BIDTK158/258	<b>NBA Code:</b>	BSME116
<b>CO1</b>	Appreciate various design process procedure		
<b>CO2</b>	Generate and develop design ideas through different technique		
<b>CO3</b>	Identify the significance of reverse Engineering to Understand		
<b>CO4</b>	Draw technical drawing for design ideas		

