



Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore
Shri Vaishnav School of Management

Choice Based Credit System (CBCS) in Light of NEP-2020
MBA+Ph.D. - III SEMESTER (2022-2024)

MBAI301C ADVANCED HUMAN VALUES AND PROFESSIONAL ETHICS

COURSE CODE	CATEGORY	COURSE NAME	TEACHING & EVALUATION SCHEME									
			THEORY			PRACTICAL			L	T	P	CREDITS
			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*					
MBAI301C	AECC	Advanced Human Values and Professional Ethics	60	20	20	-	-	3	-	-	3	

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical; C - Credit; AECC- Ability Enhancement Compulsory Course

*Teacher Assessment shall be based on following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.

Course Objective

The objective of the course is to disseminate the theory and practice of moral code of conduct and familiarize the students with the concepts of "right" and "good" in individual, social and professional context

Examination Scheme

The internal assessment of the students' performance will be done out of 40 Marks. The semester Examination will be worth 60 Marks. The question paper and semester exam will consist of two sections A and B. Section A will carry 36 Marks and consist of five questions, out of which student will be required to attempt any three questions. Section B will comprise of one or more cases / problems worth 24 marks.

Course Outcomes

1. Help the students to understand right conduct in life.
2. To equip students with understanding of the ethical philosophies, principles, models that directly and indirectly affect personal and professional life.

COURSE CONTENT

Unit I: Inculcating Values at Workplace

1. Values: Concept, Sources, Essence
2. Classification of Values.
3. Values in Indian Culture and Management: Four False Views, Value Tree
4. Eastern and Western Values; Values for Global Managers

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Unit II: Professional Ethics

1. Ethics: Concept, Five P's of Ethical Power, Organisational Tools to Cultivate Ethics
2. Theories of Ethics: Teleological and Deontological
3. Benefits of Managing Ethics in an Organisation
4. Ethical Leadership

Unit III: Indian Ethos and Management Style

1. Indian Ethos and Workplace
2. Emerging Managerial Practices
3. Ethical Considerations in Decision Making and Indian Management Model
4. Core Strategies in Indian Wisdom and Ethical Constraints

Unit IV: Human Behavior – Indian Thoughts

1. Guna Theory
2. Sanskara Theory
3. Nishkama Karma
4. Yoga: Types, Gains; Stress and Yoga

Unit V: Spirituality and Corporate World

1. Spirituality: Concept, Paths to Spirituality
2. Instruments to achieve spirituality
3. Vedantic Approach to Spiritual and Ethical Development
4. Indian Spiritual Tradition.

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Suggested Readings

1. Kausahl, Shyam L. (2006). *Business Ethics – Concepts, Crisis and Solutions*. New Delhi: Deep and Deep Publications Pvt. Limited
2. Murthy, C.S.V. (2012). *Business Ethics –Text and Cases*. Himalaya Publishing House: Mumbai
3. Chakraborty, S. K. (1999). *Values and Ethics for Organizations*. Oxford university press
4. D.Senthil Kumar and A. SenthilRajan (2008). *Business Ethics and Values*. Himalaya Publishing House: Mumbai

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Shri Vaishnav Institute of Technology

Master of Technology

SEMESTER I

COURSE CODE	Category	COURSE NAME	TEACHING & EVALUATION SCHEME								
			THEORY			PRACTICAL		Th	T	P	CRED ITS
			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*				
MTMAN 101	BS	Advanced Mathematics	60	20	20	-	-	3	0	0	3

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P – Practical; C - Credit;

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Course Educational Objectives (CEOs):

To introduce the students to advanced mathematics.

Course Outcomes (COs):

After the successful completion of this course students will be able to:

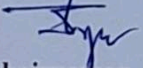
- understand the concept of a vector space, subspace, basis, dimensions and their properties.
- find solution/numerical solution of PDE.
- explain fundamental principles of probability theory.
- understand the concept of Markov process and Queuing theory.
- demonstrate the ability to solve mathematical problem with fuzzy logic.

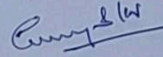
Syllabus

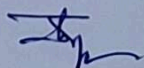
UNIT – I

Linear Algebra:

Vector Space, Subspace, Basis & dimensions, Change of Basis, Linear Transformation, Matrix Representation of Linear Transformation.


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UNIT – II

Numerical Solution of Partial Differential Equations:

Classification of second order equations, Finite difference approximation to derivatives, Elliptic equations, Solution of Laplace's equation, Solution of Poisson's equations, Parabolic equations, Solutions of Heat equations, Hyperbolic equations.

UNIT – III

Probability & Statistics:

Probability, Compound probability, Discrete Random Variable, Binomial and Poisson distribution, Continuous random variable, Normal distribution, Sampling distribution, Theory of hypothesis.

UNIT – IV

Stochastic Process & Queuing Theory:

Introduction of random or stochastic processes, Markov processes, Markov chain, Queuing theory: M/M/1: ∞/∞ /FCFS, M/M/1: N/∞ /FCFS.

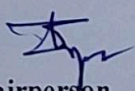
UNIT – V

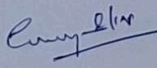
Fuzzy Set and Theorems:

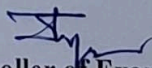
Fuzzy sets, Fuzzy relation, Fuzzy arithmetic, Fuzzy logic.

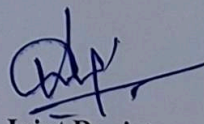
Texts:

1. Higher Engg. Mathematics: B. S. Grewal, Khanna Publishers, Delhi
2. Higher Engg. Mathematics: E. Kreyzig, John Wiley & Sons (Asia) Pvt. Ltd.
3. Operation Research: S. D. Sharma, Kedar Nath and Ram Nath, Delhi.
4. Probability, Random variables & Random processes: Schaum's outlines.
5. Stochastic processes: J. Medhi, New age international publishers.
6. Calculus of finite differences and Numerical Analysis: Gupta and Malik.
7. Fuzzy logic in Engineering: T. J. Ross.
8. Fuzzy set theory and its applications: H. J. Zimmersoms.


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MTCE 1102	DCC	Advanced Concrete Technology	60	20	20	30	20	2	0	2	3

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical; C - Credit.

***Teacher Assessment** shall be based following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.

Course Educational Objectives (CEOs):

1. To understand the concrete material and their mechanism.
2. To study about the various parameters of fresh concrete
3. To design and developed special types of concrete.

Course Outcomes (COs):

Student will be able to

1. Acquire knowledge about cement and admixtures.
2. Understand the characteristics of fresh and hardened concrete.
3. Gain knowledge about different types of concrete.
4. Understand structural health monitoring using NDT

Syllabus

UNIT I

06 Hrs.

Cement: Different types of cement and their properties; Physical tests of cement; Use of cement Admixtures: Different types of admixtures, their properties and uses.

UNIT II

06 Hrs.

Properties of Concrete: Properties of fresh and hardened concrete; Workability, strength, durability, fatigue, creep, shrinkage, and permeability of concrete.

UNIT III

06 Hrs.

High Performance Concrete: Definition and types of high-performance concrete: Mix Design of high-performance concrete.

UNIT IV

06 Hrs.

Light weight Concrete: Definition and types of light weight concrete: Strength Density ratio; Mix design of light weight concrete.

UNIT V

06 Hrs.

Non -Destructive Testing: Non-destructive testing- introduction; Structural health monitoring using non-destructive testing: Introduction to sensors used in structural health monitoring.

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Text Books:

1. M.S. Shetty, Concrete Technology, S Chand publication, 2006
2. A. M. Neville and J.J. Brooks, Concrete Technology, Prentice Hall, 2 edition, 2010
3. M.L Gambhir, Concrete Technology, Tata Mc Graw Hill Book Co. 2010

Reference Books:

1. R. Jones, Non-Destructive Testing of Concrete, Cambridge University Press.
2. Pierre-Claude Aïtcin and Robert J Flatt, Science and Technology of Concrete Admixtures, Woodhead Publishing, 2015.

List of Practicals:

1. Basic test on cement and aggregate.
2. The assess quality of hardened concrete as per IS standard specification using rebound hammer
3. Non-destructive testing of concrete sample using Ultra Sonic Test

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MTCE 1103	DCC	Theory and Design of Concrete Structures	60	20	20	0	0	2	1	0	3	

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Course Educational Objectives (CEOs):

Student (A) will be able to analyze various loads acting on structure and design different components of RCC structure (B) at particular site (C) economically & safely.

Course Outcomes (COs):

Student will be able to

1. To provide a coherent development to the students for the courses in sector of reinforced concrete designing.
2. To present the foundations of many basic engineering concepts related designing of structures.
3. To give an experience in the implementation of designing concepts which are applied in field of structural engineering
4. To involve the application of scientific and technological principles of design of buildings according to limit state method of design

Syllabus:

UNIT I

08 Hrs.

Design Philosophies: Introduction to various design philosophies; Merits and drawbacks of design philosophies; Code provision and their meaning; Introduction to pre-stressed concrete.

UNIT II

08 Hrs.

Grid Structures: Types of R.C.C Grids; Behaviour; Design by approximate and exact methods.

UNIT III

08 Hrs.

Flat Slab: Definition; Types; Behaviour; Direct design method; Equivalent frame method.

UNIT IV

08 Hrs.

Circular Cylindrical Shells: Behaviour and design using ASCE Manual Method.

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UNIT V

08 Hrs.

Concept of Ductility: Detailing of ductility as per IS13920 for earthquake loads

Text Books:

1. Chowdhary R and Chowdhary I, Geotechnical Slope Analysis, CRC Press, 2010
2. Y. M. Cheng and C. K. Lau, Slope Stability Analysis and Stabilization: New Methods and In-sight, CRC Press; 2008

Reference Books:

1. J. Michael Duncan, Soil Strength and Slope Stability, John Wiley & Sons; 2nd edition, 2014
2. Paul Guyer, An Introduction to Slope Stability Analysis, Independently Published, 2018

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MTCE 1104	DCC	Advanced Structural Analysis	60	20	20	0	0	2	1	0	3

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Course Educational Objectives (CEOs):

The objectives of the course are to build on the student's knowledge on the theory and application of structures in buildings and to introduce the students to concept of structural stability, methods in structural analysis.

Course Outcomes (COs):

1. Ability to analyze statically determinate trusses, beams, and frames and obtain internal loading
2. Ability to analyze cable and arch structures
3. Ability to obtain the influence lines for statically determinate and indeterminate structures
4. Ability to determine deflections of beams and frames using classical methods
5. Ability to solve statically indeterminate structures using classical methods
6. Ability to solve statically indeterminate structures using matrix (stiffness) method

Syllabus:

UNIT I

Matrix Method (Flexibility Method): Force methods; Basic concepts; Evaluation of flexibility; transformation; Analysis of a single member of different types; Transformation of single member. 08 Hrs.

UNIT II

Plane and Space Frames: Applications to plane and space structures with pin joints and rigid joints; Energy approach in flexibility method; Effect of support displacement. 08 Hrs.

UNIT III

Matrix Method (stiffness Method): Displacement methods; Basic concepts; Evaluation of stiffness coefficients; Direct stiffness method; Energy approach in stiffness method; Effect of support displacement and temperature. 08 Hrs.

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UNIT IV

08 Hrs.

Symmetrical and Anti-Symmetrical Problems: Stiffness of plane and space frames solution of problems; Comparison of force and displacement methods of solution.

UNIT V

08 Hrs.

Space Frame: Tension coefficient method for analysis of pin jointed structural frames.

Text Books:

1. C.S. Reddy, Basic Structural Analysis, McGraw Hill Education; McGraw Hill Education, 2017
2. , Pandit, Structural Analysis: A matrix approach McGraw Hill Education, 2008

Reference Books:

1. V. K. Manicka Selvam, Elements of Matrix and Stability Analysis of Structures, Khanna Publishers; Seventh Edition, 2010
2. W Wearer Jr. & James M. Gere, Matrix Analysis of Framed Structures, CBS Publication, 2004

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