



Shri Balasaheb Mane Shikshan Prasarak Mandal's
ASHOKRAO MANE GROUP OF INSTITUTIONS, VATHAR.
NH – 4, VatharTarfVadgaon, Tal: -Hatkanangale, Dist: - Kolhapur-416112



Program Outcomes (POs)

- PO1: Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- PO2: Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- PO3: Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- PO4: Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- PO5: Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
- PO6: The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- PO7: Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- PO8: Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- PO9: Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- PO10: Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- PO11: Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- PO12: Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.



Shri Balasaheb Mane Shikshan Prasarak Mandal's

ASHOKRAO MANE GROUP OF INSTITUTIONS

NH - 4, Vathar Tarf Vadgaon, Tal: -Hatkanangale, Dist: - Kolhapur-416112

E-mail: hodcivil@amgoi.edu.in, Website: www.amgoi.org

NBA accredited Programs* | Accredited by NAAC with 'A' Grade (CGPA 3.08)



DEPARTMENT OF CIVIL ENGINEERING

Course Outcomes for Each Subject

SY 2023-24, 2022-23, 2021-22 Semester - III (Odd)



Course Code & Name: BTBS301 - Mathematics - III

CO	Course Outcomes
CO301.1	Understand the properties of Laplace transform and evaluate transforms of integral and derivatives.
CO301.2	Solve inverse Laplace transform using partial fraction method and convolution theorem.
CO301.3	Determine Fourier Sine and Fourier Cosine integrals.
CO301.4	Study partial differential equations along with applications.
CO301.5	Study analytic functions, Cauchy Riemann equations, Cauchy integral formula and Cauchy residue theorem.

Course Code & Name: BTCVES302 - Mechanics of Solids

CO	Course Outcomes
CO302.1	Perform the stress-strain analysis.
CO302.2	Draw force distribution diagrams for members and determinate beams.
CO302.3	Visualize force deformation behavior of bodies.
CO302.4	Perform failure analysis

Course Code & Name: BTCVC303 - Building Construction & Drawing

CO	Course Outcomes
CO303.1	Understand types of masonry structures.
CO303.2	Comprehend components of building and their purposes.
CO303.3	Draw plan, elevation and section of various structures-
CO303.4	Apply the principles of planning and by laws used for building planning
CO303.5	Prepare detailed working drawing for doors and windows.



Shri Balasaheb Mane Shikshan Prasarak Mandal's
ASHOKRAO MANE GROUP OF INSTITUTIONS

NH - 4, Vathar Tarf Vadgaon, Tal: -Hatkanangale, Dist: - Kolhapur-416112
E-mail: hodcivil@amgoi.edu.in, Website: www.amgoi.org

NBA accredited Programs* | Accredited by NAAC with 'A' Grade (CGPA 3.03)

DEPARTMENT OF CIVIL ENGINEERING

Course Code & Name: BTCVC304 - Hydraulics -I

CO	Course Outcomes
CO304.1	Calibrate the various flow measuring devices.
CO304.2	Determine the properties of fluid and pressure and their measurement.
CO304.3	Understand fundamentals of pipe flow, losses in pipe and analysis of pipe network.
CO304.4	Visualize fluid flow phenomena observed in Civil Engineering systems.

Course Code & Name: BTCVC305 - Surveying

CO	Course Outcomes
CO305.1	Perform measurements in linear/angular methods.
CO305.2	Perform plane table surveying in general terrain.
CO305.3	Know the basics of leveling and Theodolite survey in elevation and angular measurements.
CO305.4	Know the concepts of theodolite & engineering surveys.




HOD

Civil Engineering
AMGOI, Faculty of Engineering
Vathar Tarf Vadgaon, Tal hatkanangale, Dist. Kolhapur

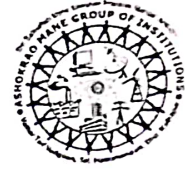


Shri Balasaheb Mane Shikshan Prasarak Mandal's
ASHOKRAO MANE GROUP OF INSTITUTIONS

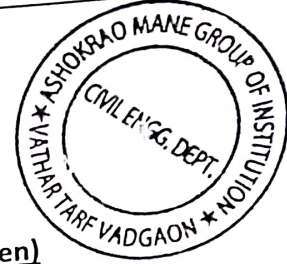
NH - 4, Vathar Tarf Vadgaon, Tal: -Hatkanangale, Dist: - Kolhapur-416112

E-mail: hodcivil@amgoi.edu.in, Website: www.amgoi.org

NBA accredited Programs* | Accredited by NAAC with 'A' Grade (CGPA 3.08)



DEPARTMENT OF CIVIL ENGINEERING



Course Outcomes for Each Subject

SY 2023-24, 2022-23, 2021-22 Semester - IV (Even)

Course Code & Name: BTCVC401 - Building Planning & Drawing

CO	Course Outcomes
CO401.1	To plan buildings considering various principles of planning and bye laws of governing body.
CO401.2	Comprehend various utility requirements in buildings
CO401.3	Understand various techniques for good acoustics.
CO401.4	Understand the concept of green building & low-cost building

Course Code & Name: BTCVC402 - Environmental Engineering

CO	Course Outcomes
CO402.1	Apply the water treatment concept and methods.
CO402.2	Prepare basic process designs of water and wastewater treatment plants.
CO402.3	Apply the wastewater treatment concept and methods.
CO402.4	Apply the solid waste management concepts.

Course Code & Name: BTCVC403 - Structural Mechanics - I

CO	Course Outcomes
CO403.1	Describe the concept of structural analysis, degree of indeterminacy.
CO403.2	Calculate slopes and deflection at various locations for different types of beams.
CO403.3	Identify determinate and indeterminate trusses and calculate forces in the members of trusses
CO403.4	Perform the distribution of the moments the in continuous beam and frame

VADGAON



Shri Dalasaheb Mane Shikshan Prasarak Mandal's

ASHOKRAO MANE GROUP OF INSTITUTIONS

NH - 4, Vathar Tarf Vadgaon, Tal: -Hatkanangale, Dist: - Kolhapur-416112

E-mail: hodcivil@amgoi.edu.in, Website: www.amgoi.org

NBA accredited Programs* | Accredited by NAAC with 'A' Grade (CGPA 3.08)



DEPARTMENT OF CIVIL ENGINEERING

Course Code & Name: BTCVC404 - Water Resource Engineering

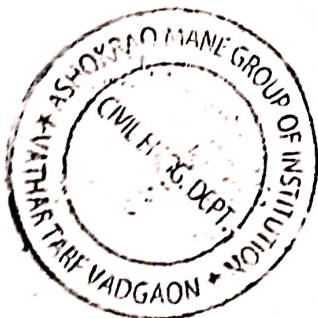
CO	Course Outcomes
CO404.1	Understand need of Irrigation in India and water requirement as per farming practice in India.
CO404.2	Understand various irrigation structures and schemes.
CO404.3	Develop basis for design of Irrigation schemes.
CO404.4	Understand hydrological cycle and ground water.

Course Code & Name: BTCVC405 - Hydraulics – II

CO	Course Outcomes
CO405.1	Design open channel sections in a most economical way.
CO405.2	Know about the non-uniform flows in open channel and the characteristics of hydraulic jump.
CO405.3	Understand application of momentum principle of impact of jets on plane
CO405.4	Understand working of turbine and pumps.

Course Code & Name: BTCVC406 - Engineering Geology

CO	Course Outcomes
CO406.1	Recognize the different land forms which are formed by various geological agents.
CO406.2	Identify the origin, texture and structure of various rocks and physical properties of mineral.
CO406.3	Emphasize distinct geological structures which have influence on the civil engineering structure.
CO406.4	Understand how the various geological conditions affect the design parameters of structures.




HOD

Civil Engineering
AMGOI, Faculty of Engineering
Vathar Tarf Vadgaon, Tal. hatkanangale, Dist. Kolhapur



Shri Balasaheb Mane Shikshan Prasarak Mandal's
ASHOKRAO MANE GROUP OF INSTITUTIONS

NH - 4, Vathar Tarf Vadgaon, Tal: -Hatkanangale, Dist: - Kolhapur-416112

E-mail: hodcivil@amgol.edu.in, Website: www.amgol.org

NBA accredited Programs* | Accredited by NAAC with 'A' Grade (CGPA 3.08)



DEPARTMENT OF CIVIL ENGINEERING

Course Outcomes for Each Subject

TY 2023-24, 2022-23 Semester - V (ODD)



Course Code & Name: BTCVC501 - Design of Steel Structures

CO	Course Outcomes
CO501.1	Identify and compute the design loads and the stresses developed in the steel member.
CO501.2	Analyze and design the various connections and identify the potential failure modes.
CO501.3	Analyze and design various tension, compression and flexural members
CO501.4	Understand provisions in relevant BIS Codes.

Course Code & Name: BTCVC502 - Geotechnical Engineering

CO	Course Outcomes
CO502.1	Understand different soil properties and behavior
CO502.2	Understand stresses in soil and permeability and seepage aspects.
CO502.3	Develop ability to take up soil design of various foundations
CO502.4	Analyze concept of shear stress

Course Code & Name: BTCVC503 - Structural Mechanics - II

CO	Course Outcomes
CO503.1	Have a basic understanding of matrix method of analysis and will be able to analyze the determinant structure
CO503.2	Have a basic understanding of the principles and concepts related to finite difference and finite element methods
CO503.3	Have a basic understanding of concept of influence line
CO503.4	Have a basic understanding of analysis of three hinged and two hinged arches



Shri Balasaheb Mane Shikshan Prasarak Mandal's
ASHOKRAO MANE GROUP OF INSTITUTIONS

NH - 4, Vathar Tarf Vadgaon, Tal: -Hatkanangale, Dist: - Kolhapur-416112
E-mail: hodcivil@amgoi.edu.in, Website: www.amgoi.org

NBA accredited Programs* | Accredited by NAAC with 'A' Grade (CGPA 3.08)



DEPARTMENT OF CIVIL ENGINEERING

Course Code & Name: BTCVC504 - Concrete Technology

CO	Course Outcomes
CO504.1	Understand the various types and properties of ingredients of concrete.
CO504.2	Understand effect of admixtures on the behavior of the fresh and hardened concrete.
CO504.3	Formulate concrete design mix for various grades of concrete.
CO504.4	Understand the properties of concrete ingredients & additives.

Course Code & Name: BTHM505 - Project Management

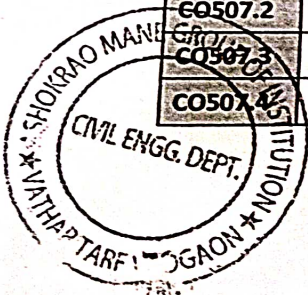
CO	Course Outcomes
CO505.1	Understand various steps in project Management, different types of charts. Construct network by using CPM and PERT method.
CO505.2	Determine the optimum duration of project with the help of various time estimates.
CO505.3	Know the concept of engineering economics, economic comparisons, and linear break even analysis problems. Understand the concept of total quality Management including Juran and Deming's philosophy.
CO505.4	Understand various steps in project Management, different types of charts. Construct network by using CPM and PERT method.

Course Code & Name: BTCVPE506 - Applied Geology

CO	Course Outcomes
CO506.1	Understand geological time scale and physiographic division of India and their geological and characteristics different geological formation in India.
CO506.2	Perform sub surface exploration and interpret core log.
CO506.3	Solve numerical problem based on core drilling and seismic data.
CO506.4	Familiar with origin of earthquake, seismic wave and landslide in Deccan trap.

Course Code & Name: BTCVES507 - Software Application in Civil Engineering

CO	Course Outcomes
CO507.1	Understand civil engineering softwares
CO507.2	Analyze civil engineering softwares
CO507.3	Use applications of various softwares in specialized works of civil engineering
CO507.4	Use application of Microsoft Excel for various puposes



Civil Engineering
AMGOI, Faculty of Engineering
Vathar Tarf Vadgaon, Tal. Hatkanangale, Dist. Kolhapur



Shri Balasaheb Mane Shikshan Prasarak Mandal's

ASHOKRAO MANE GROUP OF INSTITUTIONS

NH - 4, Vathar Tarf Vadgaon, Tal: -Hatkanangale, Dist: - Kolhapur-416112

E-mail: hodcivil@amgoi.edu.in, Website: www.amgoi.org

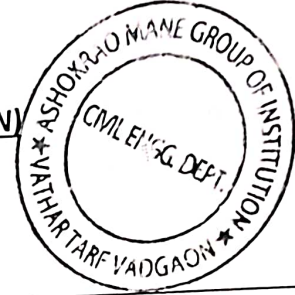


NBA accredited Programs* | Accredited by NAAC with 'A' Grade (CGPA 3.08)

DEPARTMENT OF CIVIL ENGINEERING

Course Outcomes for Each Subject

TY 2023-24, 2022-23 Semester - VI (EVEN)



Course Code & Name: BTCVC601 - Design of RC Structures

CO	Course Outcomes
CO601.1	Comprehend to the various design philosophies used for design of reinforced concrete.
CO601.2	Analyze and design the reinforced concrete slab using limit state and working state method.
CO601.3	Analyze and design the reinforced concrete beam using limit state and working state method.
CO601.4	Analyze and design the reinforced concrete column using limit state and working state method.

Course Code & Name: BTCVC602 - Foundation Engineering

CO	Course Outcomes
CO602.1	To predict soil behavior under the application of loads and come up with appropriate solutions to foundation design queries.
CO602.2	Analyze the stability of slope by theoretical and graphical methods.
CO602.3	Analyze the results of in-situ tests and transform measurements and associated uncertainties into relevant design parameters.
CO602.4	Synthesize the concepts of allowable stress design, appropriate factors of safety, margin of safety, and reliability.

Course Code & Name: BTCVC603 - Transportation Engineering

CO	Course Outcomes
CO505.1	Comprehend various types of transportation systems and their history of development
CO505.2	Comprehend to various types of pavements
CO505.3	Design the pavements by considering various aspects associated with traffic safety measures.
CO505.4	Comprehend to various types of Highway Materials



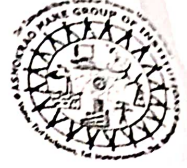
Shri Balasaheb Mane Shikshan Prasarak Mandal's

ASHOKRAO MANE GROUP OF INSTITUTIONS

NH - 4, Vathar Tarf Vadgaon, Tal: -Hatkanangale, Dist: - Kolhapur-416112

E-mail: hodcivil@amgoi.edu.in, Website: www.amgoi.org

NBA accredited Programs* | Accredited by NAAC with 'A' Grade (CGPA 3.08)



DEPARTMENT OF CIVIL ENGINEERING

Course Code & Name: BTCVPE604 - Structural Audit

CO	Course Outcomes
CO604.1	Gain the knowledge of Bye laws, procedure of Structural audit and study the typical problems in structures.
CO604.2	Develop skills for use of various Nondestructive tests required during auditing of structures.
CO604.3	Strength evaluation of existing structures.
CO604.4	Acquire knowledge of legal procedure to conduct structural audits & Prepare a Structural audit report.

Course Code & Name: BTCVOE605 - Business Communication & Presentation Skills

CO	Course Outcomes
CO605.1	Inculcate basics of business communication skills & relevant tools.
CO605.2	Understand business SOPs and essentials of the same.
CO605.3	Adapt modern skills regarding communication, presentation & team working




HOD

Civil Engineering
AMGOI, Faculty of Engineering
Vathar Tarf Vadgaon, Tal. hatkanangale, Dist. Kolhapur.



Shri Balasaheb Mane Shikshan Prasarak Mandal's

ASHOKRAO MANE GROUP OF INSTITUTIONS

NH – 4, Vathar Tarf Vadgaon, Tal: -Hatkanangale, Dist: - Kolhapur-416112

E-mail: hodcivil@amgoi.edu.in, Website: www.amgoi.org

NBA accredited Programs* | Accredited by NAAC with 'A' Grade (CGPA 3.08)



DEPARTMENT OF CIVIL ENGINEERING

Course Outcomes for Each Subject

B.TECH 2023-24 Semester – VII (ODD)

Course Code & Name: BTCVC 701 Design of RC and PSC Structures

CO	Course Outcomes
CO701.1	Able to identify the behavior, analyze and design of the beam sections subjected to torsion.
CO701.2	Able to analyze and design of axially and eccentrically loaded column and construct the interaction diagram for them.
CO701.3	Understand various concepts, systems and losses in pre-stressing.
CO701.4	Able to analyze and design the rectangular and symmetrical I-section pre-stressed beam/girders.

Course Code & Name: BTCVC 702 Infrastructure Engineering

CO	Course Outcomes
CO702.1	Know about the basics and design of various components of railway engineering
CO702.2	Understand the types and functions of tracks, junctions and railway stations.
CO702.3	Able to understand Airport engineering.
CO702.4	Able to understand Docks and Harbours.

Course Code & Name: BTCVC 703 Construction Techniques

CO	Course Outcomes
CO703.1	Understand the planning of new project with site accessibility and services required.
CO703.2	Comprehend the various civil construction equipment's.
CO703.3	Familiar with layout of RMC plant, production, capacity and operation process.
CO703.4	Recognize various aspect of road construction, construction of diaphragm walls, railway track construction etc.

