NOTIFICATION

No. 65/2024 Date : 24/06/2024

Subject : Implementation of new Syllabi of Semester V & VI of Bachelor of Architecture (B.Arch.) (CBCS) as per Council of Architecture norms.

It is notified for general information of all concerned that the authorities of the University have accepted to implement the new Syllabus of Semester V & VI of Bachelor of Architecture (B.Arch.) (CBCS.) as per Council of Architecture norms to be implemented from the academic session 2024-2025 onwards as given below:

Sd/-
(Dr.A.M.Asanare)
Registrar
Sant Gadge Baba Amravati University

SYLLABUS PRESCRIBED FOR FIVE YEAR DEGREE COURSE IN ARCHITECURE

SEMESTER PATTERN (CHOICE BASED CREDIT SYSTEM)

FIFTH & SIXTH SEMESTER

SEMESTER: FIFTH

05ARC01 BUILDING MATERIALS & CONSTRUCTION-V

Objective: The course will enable to learn RCC frame structure starting from building foundation to roof, Components and construction techniques to develop strong network of RCC members.

Unit I: R.C.C frame structures and advantages over load bearing masonry constructions. Shallow foundations and its types. Detail study of raft foundations, its types and uses.

Unit II: Detailing of R.C.C. work with reinforcement for R.C.C. beams, columns, one way & two-way slabs.

Unit III: R.C.C. cantilevers and reinforcement details in chajjas, balcony, canopy, lofts, etc. R.C.C. Staircases and its reinforcement details. Introduction to flat plate slab and its purpose.

Unit IV: Special concrete and concreting methods such as light weight, high density, fibre reinforced, polymer concrete-outline of manufacture, properties and uses. Ready mix concrete and current developments in concrete product.

Unit V: Introduction to precast building elements, comparative study with cast in situ constructions. Appropriate use of various types of precast building elements and its construction details.

Unit VI: Appropriate cost-effective construction techniques and materials to be useful to conserve the energy.

References:

1. S.C. Rangwala, Engineering Materials, Charotar Publishing House, Anand,1997
2. HUDCO - All you want to know about soil stabilized mud blocks, HUDCO Pub, New, Delhi, 1989.
3. Don A Watson, Construction Materials and Processes, McGraw Hill Co.,1972.
4. R. Chudley, Construction technology, Richard Clay (Chaucer Press) Ltd.,Suffolk,1978.
5. J.H.callender,Time saver standard for Architectural Design Data, McGraw-Hill,1994.

Sessional work: Assignments, test,site visit and drawing on the abovetopics.

5ARC02 HISTORY AND THEORY OF MODERN ARCHITECTURE -V

Objective: The course will enable to learn the historical development starting from industrial era to modern age, reflected through school of thoughts and works of pioneer Architects.

Unit I: Industrial revolution and its effect on modern Contemporary Architecture. Its characteristics, techniques and materials.

Unit II: The newly evolved schools of thoughts and theories in Architecture viz; Expressionism, Cubism, Brutalism, monumentalize with architectural examples.

Unit III: The postmodern theories like Futurism, De-constructivism,Eclecticism, Rhapsodic architecture, Contemporary architecture and sustainable Architecture.

Unit IV: Western pioneer Architects with their philosophies: H.H. Richardson, Peter Beherens, F.L. Wright, Louis Sullivan, Walter Gropius, Mies Van der Rohe, Le Corbusier, Alvar Alto etc.

Unit V: New Age architects with their philosophies, methodologies and tools like: Frank Gehry, Zaha Hadid, Peter Eisenman, Daniel Libskind, Santiago Calatrava, I.M. Pei, Jeffery Bawa, Ken Yeang etc.

Unit VI: The works and philosophies of modern Indian architects: B.V. Doshi, Charles Correa, A.P.Kanvinde, U.C.Jain, Bimal Patel, Lauri Baker, Hafeez Contractor, Christopher Benninger, Raj Rewal Chitra Vishwanath , Brinda Somaya, etc.

Sessional work: Assignments, sketches, presentationson the above topics&interviews of renowned architects.

05ARC03 ARCHITECTURAL STRUCTURE-IV

Objective: Understanding of development in Concrete technology,basic Theory, principles of structural analysis and structural properties of elements& use of related IS codes.

Unit I: Behaviour of various structural elements under varying loading conditions with load flow diagram, sketches for failure mechanisms.

Unit II: Introduction to concrete technology- fine and coarse aggregate, water cement ratio, workability, etc. Various steps involved in concreting like, proportioning, batching, mixing, placing of concrete, etc, and method of compacting, expansions and constructions joints in concrete, durability of concrete with respect to honeycombing, role of admixtures in concrete.

Unit III: Introduction to Mild steel and tor steel reinforcement, properties bending and fixing. Introduction and use of IS. Code for RCC member IS 456, IS 800, IS 875.

Unit IV: Introduction to R.C.C. theory, Introduction to limit state method, basic concepts of singly-doubly reinforcement, neutral axis and moment of resistance.

Unit V: Design of Column, beam and slab using limit state method.

Unit VI: Design of R.C.C. footing and staircases using limit state method.

Sessional work: Assignments and tutorials on the above topics. Visit to construction sites to understand structural detailing.

References:

1. P.C.Punmia, Strength of Materials and Theory of Structures; vol I, Laxmi Publications, Delhi 1994.
2. S.Ramanmurtham, Strength of Materials – Dhanpatrai & Sons, Delhi 1990
3. W.A.Nash, Strength of Materials – Schaums Series – McGraw Hill Book Company, 1989
4. R.K.Bansal – engineering Mechanics and Strength of Materials – Lakshmi Publications, Delhi, 1990.

05ARC04 SPECIFICATION

Objective: To impart knowledge of specification of building materials and its importance.

Unit I: Introduction and Importance of specification in the building activities, types of specification. Use of Indian Standard specification viz; NBC, P.W.D., ECBC, various state departments specification.

Unit II: Primary considerations for selections of materials for various items of construction and equipment's for various construction operations.

Unit III: Art of writing specifications of material along with emphasis on the quality of the materials and proper sequence of construction works. Method of writing correct order and sequence of use of materials.

Unit IV: Specifications of basic materials such as bricks, Sand, Stones & Aggregates, glass, timber, cement, metals, etc. and construction works for Load bearing masonry type and R.C.C. framed type, steel structures such as brick work, concreting, plastering, flooring, roofing, etc. required in building construction.

Unit V: Specification of works for various kinds of finishes -ceiling and partitions, paneling , insulation, timber work, waterproofing and various kinds of interior works. Specification for services such as drainage, water supply, electrical installation.

Unit VI: Specifications for special items such as demolitions work, temporary constructions like sheds, exhibition stalls, gateways etc. Specifications for special items such as green building works. Study of proprietary building materials along with manufactures specifications, trade name of such materials.

Sessional work: Assignments, tests, and tutorials on the above topics.

References:

1. W.H.King and D.M.R.Esson,Specification and quantities for Civil Engineers, The English university Press Ltd.
2. P.W.D. Standard specifications, Govt. Publications.
3. Dutta, Estimating and Costing, S. Dutta and Co., Lucknow.

05ARC05 Free Elective - I
(i) FUNDAMENTALS OF ARCHITECTURAL DESIGN

Objective: The prime objective of this course is to introduce architectural design as a process and as a final product , to understand fundamentals of space, form and order through basic perception of architectural skills.

Unit I: Introduction to Architecture. Definition of Architecture, design art, fine art, visual art.

Unit II: Principles of two dimensional design elements, such as point, line, direction, shape, size, colour and texture, levels, light, fenestrations.

Unit III: Aesthetic components of design- proportions, scale, balance,rhythm, symmetry, asymmetry, hierarchy, pattern and axis with building examples.

Unit IV: Harmony and contrast in 2D and 3D design, interplay of light and shade on building blocks and their effects.

Unit V: Form and functions in Architecture, use of building materials and construction techniques.

Unit VI: Architectural design process, site observations andanalysis.

Sessional work: Assignments, tests, and tutorials on the above topics.

Suggested Text Books:

1. Ching, F.D.R.: Form, Space and Order, Van Nostrand Rheinhold, New York (1979).
2. Parmar V.S.: Design Fundamentals in Architecture, Somoiya Publications, Bombay (1973)
3. Scott: Design Fundamentals Edward d Mills- Planning the Architects Hand Book – Bitterworth, London, 1985.
4. Watson,D (editor) Time –saver standards for Architectural Design: Technical data for professional practice, McGraw-Hill, 2005.
5. Neufert,P; Architects Data; Blackwell Science, 2000.
6. Agkathidis, A, Hudert, M and Schiling, G., “Form defining strategis: experimental architectural design”. Wasmuth, 2007.

05ARC05 Free Elective - I
(2) LANDSCAPE ARCHITECTURE

Objective: To expose students with historical relevance of Landscape design &landscape elements& the role of Landscape Architect in tune with ecological balance

Unit I: Introduction to Landscape Architecture. Understanding man and nature, land and landscape.

Unit II: Relationship of Architecture and Landscape Architecture. Study of basic principles of landscape design.

Unit III: History of the art of garden design of India, China, Persia, Japan, France and England.

Unit IV: Garden designs of the modern world.

Unit V: Ecological and environmental aspects of Landscape Design.

Unit V: Study of elements of landscape design.

Sessional work : Assignments, sketches, and tests on the above topics.

References:

1. Sylvia Crowe Sheila Haywood, The Gardens of Mughal India , Vikas Publishing House, Pvt. Ltd, India, Delhi,1973.
2. Garrett Eckbo, The Art the Home Landscaping, McGraw-hill Book Co., London, 1956.
3. Testsuro Yoshida, Gardens of Japan, Jr. Marcus G. Sims, 1963.
4. Sir Banister Fletcher, A History of Architecture , University of London, The Antholone press, 1986.
5. Percy Brown, Indian Architecture (Islamic period), Taraporevala and Sons, Bombay, 1983tt
6. Satish Grover, The Architecture of India (Buddhist and Hindu Period), Vikas Publishing Housing Pvt. Ltd., New Delhi, 1981
7. Christopher Tadgelli, The History of Architecture in India from the Dawn of Civilization to the end of Raj, Longman group, U.K.Ltd., London, 1990.

5ARC06 : ARCHITECTURAL DESIGN STUDIO - V

Objective: To expose the students to the architectural design processof multifunctional building with emphasis on topography, climatic consideration, materials and techniques.

Basic contents:

1) Introduction to the designing of multifunctional community buildings on an intermediate scale.
2) Importance of case studies, data collection, area analysis, evolution of plan forms, climatic oriented planning and design features, space utilization, building & site services, site analysis and site planning ,etc; in the Architectural design process.
3) Importance of culture, tradition, topography, climate and building bye laws in generating built form.
4) Major design project may be based on institutional, Museum, community center, sports club, etc. at appropriate level.
5) Architectural study tour relevant to design project.

Sessional work: One major design project and one time project withother task and assignments.

Viva Voce by external examiner at the end of Semester.

Suggested Text Books:

1. Ching, F.D.R.: Form, Space and Order, Van Nostrand Rheinhold, New York (1979).
2. Parmar V.S.: Design Fundamentals in Architecture, Somoiya Publications, Bombay (1973)
3. Scott: Design Fundamentals Edward d Mills- Planning the Architects Hand Book – Bitterworth, London, 1985.
4. Watson,D (editor) Time –saver standards for Architectural Design: Technical data for professional practice, McGraw-Hill, 2005.
5. Neufert,P; Architects Data; Blackwell Science, 2000.
6. Agkathidis, A, Hudert, M and Schiling, G., “Form defining strategis: experimental architectural design”. Wasmuth, 2007.

5ARC07 BUILDING MATERIALS & CONSTRUCTION STUDIO - V

Sessional work: Drawings, Models and site visit on the above topics given in the subject 5ARC01 Building Materials & Construction – V.

Viva Voce by external examiner at the end of Semester.

05ARC08 COMPUTER GRAPHICS STUDIO - II

Objective : The prime objective of this course is to develop & utilize 3D rendering tools used in 4ARC08 Computer Graphics studio-I leading to building walkthroughs and study of online building approval systems.

Unit-I: 3D Drafting &modelingtechnique and application on a case project of a student.

Unit-II: 3D Rendering and setting: Rendering and scene setting to create a photo realistic picture understanding material mapping, environment setting and image filing with use of different renderingtools. (ex-Lumion, twin motion, etc.)

Unit-III: Animation leading to walkthrough of the above project.

Unit- IV: Introduction to online building approval systemorganised by Government Authorities.

Sessional work: One major design project with the use of above tools.

Viva Voce by external examiner at the end of Semester.

Suggested Books:

1. Chiara, J.D., Panero, J., Zelnik, M., “Time Saver Standards for Housing and Residential Development”, 2nd Ed., McGraw-Hill.
2. Neufert, P., “Architects Data”, 3rd Ed., Blackwell Science.
3. Watson, D.(Editor), “Time-saver Standards for Architectural Design: Technical Data for Professional Practice”, McGraw-Hill
4. Ballard Bell, Victoria and Rand, P., “Materials for Architectural Design”, Laurence King

5ARC09 WORKING DRAWING – I

Objective: The students shall impart the knowledge of constructiondetails for the execution of building from foundation to roof level.

Contents: Working drawing of load bearing masonry structure for design project done during fourth semester. The drawing should be in an appropriate scales.

The working drawing should include from foundation level to roof level as follows:

a) Municipal drawing and detail of all level plans.
b) Detail section showing toilets, Staircase and levels of floors.
c) Working detail of toilet, staircase.
d) Working details of any interestingfeatures in the plan, sections & elevation.
e) Site plan showing drainage layout, landscape layout, internal roads etc.
f) Working details of water supply & electrical layout plan's.

Sessional Work : Assignments and drawing plates on the above topics.

Viva Voce by external examiner at the end of Semester.

Suggested Text Books:

1. Ching, F.D.R.: Form, Space and Order, Van Nostrand Rheinhold, New York (1979).
2. Parmar V.S.: Design Fundamentals in Architecture, Somoiya Publications, Bombay (1973)
3. Scott: Design Fundamentals Edward d Mills- Planning the Architects Hand Book – Bitterworth, London, 1985.
4. Watson,D (editor) Time –saver standards for Architectural Design: Technical data for professional practice, McGraw-Hill, 2005.
5. Neufert,P; Architects Data; Blackwell Science, 2000.
6. Agkathidis, A, Hudert, M and Schiling, G., "Form defining strategis: experimental architectural design". Wasmuth, 2007.

SEMESTER: SIXTH

6ARC01 ARCHITECTURAL DESIGN – VI

Objective : To expose the students to the architectural design process of multifunctional building with emphasis on topography, climatic consideration, materials and techniques.

Basic contents:

1) Introduction to the designing of multifunctional community buildings on an intermediate scale.
2) Importance of case studies, data collection, area analysis, evolution of plan forms, climatic oriented planning and design features, space utilization, building & site services, site analysis and site planning ,etc; in the Architectural design process.
3) Importance of culture, tradition, topography, climate and building bye laws in generating built form.
4) Major design project may be based on commercial, institutional, Hotel, Luxurious apartment, Hospital etc. at appropriate level.
5) Architectural study tour relevant to design project.

Evaluation: There shall be university paper of eighteen hours distributed within three days in six sittings.

Suggested Text Books:

1. Ching, F.D.R.: Form, Space and Order, Van Nostrand Rheinhold, New York (1979).
2. Parmar V.S.: Design Fundamentals in Architecture, Somoiya Publications, Bombay (1973)
3. Scott: Design Fundamentals Edward d Mills- Planning the Architects Hand Book – Bitterworth, London, 1985.
4. Watson,D (editor) Time –saver standards for Architectural Design: Technical data for professional practice, McGraw-Hill, 2005.
5. Neufert,P; Architects Data; Blackwell Science, 2000.
6. Agkathidis, A, Hudert, M and Schiling, G., "Form defining strategis: experimental architectural design". Wasmuth, 2007.

6ARC02 BUILDING MATERIALS & CONSTRUCTION - VI

Objective : The course will enable to learn steel structure starting from building foundation to roof, components and construction techniques to develop strong network of structural members.

Unit I: Study of Deep foundation. Detail study of Pile foundation, types and its purpose.

Unit II: Structural steel frame work & trusses for various spans, design consideration, advantages, connection of various members supported on R.C.C. column, brick piers, fixing, wind bracing etc.

Unit III: Structural steel members with connections of girders, stanchions and grillage foundations.

Unit IV: Steel north light roof trusses, connections Gutters. Patent glazing for skylights, lanterns, steel Monitor roofs, methods of fixing, fixtures and fastenings.

Unit V: Introduction to pre-engineering buildings, its types, footing details, flooring, structural components, roofing materials, ventilation and lighting systems. Its advantages and disadvantages.

Unit VI: Shoring, purposes and types . Underpinning its purposes and types.

Sessional work: Assignments, test,site visit and drawing on the above topics.

References :

1. S.C. Rangwala, Engineering Materials, Charotar Publishing House, Anand,1997
2. HUDCO - All you want to know about soil stabilized mud blocks, HUDCO Pub, New, Delhi, 1989.
3. W.B. Mckay Building Constrution, vol. 1,2,3, Longmans, U.K.1981.
4. Don A Watson, Construction Materials and Processes, McGraw Hill Co.,1972.
5. R. Chudley, Construction technology, Richard Clay (Chaucer Press) Ltd.,Suffolk,1978.
6. J.H.callender,Time saver standard for Architectural Design Data, McGraw-Hill,1994.

6ARC03 ARCHITECTURAL STRUCTURE - V

Objective: Understanding of Basic Theory and principles of steel structural, its analysis and structural properties of elements.

Unit I: Introduction to pre cast concrete, various structural precast members available. Flat plate slab merits over conventional slab, proportioning and opening in flat slab.

Unit II: Introduction to shear wall, importance, types and locations in structural system.

Unit III: Introduction to IS-1893 & IS-13920. Detailing of earthquake resistant structure, ductile detailing for beam, column, beam column junction& footing.

Unit IV: Introduction to Steel structure, Types of steel section and their properties. Understanding types of joints in steel structures, riveted, welded and bolted joints.

Unit V: Simple welded and riveted connection (without moments) only axial loads.

Unit VI: Design of simple tension and compression member of trusses.

Sessional work: Assignments, tutorials and site visit on the above topics.

References:

1. P.C.Punmia, Strength of Materials and Theory of Structures; vol I, Laxmi Publications, Delhi 1994.
2. S.Ramanmurtham, Strength of Materials – Dhanpatrai & Sons, Delhi 1990
3. W.A.Nash, Strength of Materials – Schaums Series – McGraw Hill Book Company, 1989
4. R.K.Bansal – engineering Mechanics and Strength of Materials – Lakshmi Publications, Delhi, 1990

6ARC04 ESTIMATING AND COSTING

Objective: To impart knowledge of cost estimation of building construction work as per specification of materials and its importance.

Unit I : Introduction estimating & costing. Types of estimates,data required for preparing estimate.

Unit II : Standard mode of measurement. Method of taking quantities viz; long wall short wall & center line method.

Unit III: Examples and exercise for working out quantities for items from excavation to the final finishing of load bearing and R.C.C. items viz. slab, beams, columns etc.

Unit IV: Introduction to schedule of rates published by various governmental departments & its use.Procedure of working out abstract and bill ofquantities.

Unit V: Rate analysis, factors affecting the rate of an item, rate analysis of usual items used in construction works. Introduction to writing & recording of Measurement Book for interim and final payments during construction.

Unit VI: Administrative approval andtechnical sanction for a project. Detail estimate of project given and use of computers for thesame.

Sessional work: Assignments, tests, and tutorials on the above topics.

References:

1. W.H.King and D.M.R.Esson,Specification and quantities for Civil Engineers, The English university Press Ltd.
2. P.W.D. Standard specifications, Govt. Publications.
3. Dutta, Estimating and Costing, S. Dutta and Co., Lucknow.
4. Singh, S.C. and Sofat, C.G., Ed., "Handbook on Building Economics and Productivity", Central Building Research Institute
5. Birdie, G.S., "Text Book of Estimating and Costing (Civil Engineering)", Dhanpat Rai Publishing Company (P) Ltd.

06ARC05 Free Elective - II .
(1) CLIMATE RESPONSIVE ARCHITECTURE

Objective: The course aims to understand the various features to be considered for planning and designing of climate responsive built and un-built spaces.

UNIT-I: Introduction of Sun – Earth relationship and its impact on earthsurfaces. Thermal balance of Earth, Tropical Zones on earth surfaces.

UNIT-II: Human comfort through body metabolisms, heat gain and heatloss , thermal balance of body, clothing pattern its effect on body.

UNIT-III: Climatic factors and climatic elements. Importance of climaticfactors to create micro and macro climatic conditions.

UNIT-IV: Introduction of planning, designing, materials and techniquesconsidered in traditional structures with respect to climate.

UNIT-V: Solar charts, types of shading devices, shadow angles and itsuse.

UNIT-VI: Planning and design of building in hot and dry climates.

Sessional work: Assignments and test on the above topics.

References:

1. O.H.keonigsberger; T.G. Ingersoll and others; Manual of tropical housing and building- Part-I; Longmans,London-1980
2. M. Evans; Housing, climate and comfort; Architectural press London- 1980
3. B.G.Givoni; Man,climate,and architecture; Applied science, banking, Essex, 1982
4. N.K Bansal and others; Passive building design; Elsevier science- 1994.
5. S.Drake; The third skin architecture,technology and environment;UNSW –press-2007.

06ARC05 Free Elective- II
(2) SUSTAINABLE ARCHITECTURE

Objective: To sensitize students about the importance and need for Sustainable Planning concept with respect to conservation of Environment.

Unit-I : Introduction to the ideas, issues and concepts of Sustainable Architecture, global environment and the built environment, principles of environmentally and ecologically supportive architecture.

Unit-II: Study of sustainable architecture in context with resourceefficiency viz. Land , Water, Energy, Materials, Human resources,. Biodiversity , health and global environment related to constructions and operation of buildings.

Unit-III: Appropriate materials and constructions to maintainsustainability. Eco friendly construction practices – sustainable campuses and case studies.

Unit-IV: Sustainable and conservation practices, water conservation,sewerage treatment, solid waste treatments, economics and managements.

Unit-V: Low energy design, hybrid system, modeling and simulation of energy system, integration of P.V. and wind system in the building, wind, solar and other non-conventional energy systems.

Unit-VI: Climatic factors and sustainability.

Sessional work : Assignments and test on the above topics.

References:

1. O.H.keonigsberger; T.G. Ingersoll and others; Manual of tropical housing and building- Part-I; Longmans,London-1980
2. M. Evans; Housing, climate and comfort; Architectural press London- 1980
3. B.G.Givoni; Man,climate,and architecture; Applied science, banking, Essex, 1982
4. N.K Bansal and others; Passive building design; Elsevier science- 1994.
5. S.Drake; The third skin architecture,technology and environment;UNSW–press-2007.

6ARC06 BUILDING SERVICES AND EQUIPMENTS

Objective: To impart knowledge of various aspects of building services-water supply systems, drainage and solid waste disposal system.

Unit I: General ideas of water qualities & impurities. Systems of water supply for low rise &high rise buildings.

Unit II: Computing water demands for various uses and its basis. Hot water supply system- solar water heater & geysers.

Unit III: Water storage reservoir, their types and importance in water supply scheme.

Unit IV: Water supply pipes & fittings, materials, sizes and itsclassification. Types of taps, toilet and kitchen fittings.

Unit V: Drainage systems, conservancy and water carriage systems. Types of traps and sanitary fittings. Sewage disposal systems from buildings & premises. Garbage disposal & solid waste management systems at community & city level.

Unit VI: Basic knowledge of electrical generation systems. Electrical distribution systems in buildings & premises. Electrical control, wiring systems and appliances at building level.

Sessional work: Assignments, test, site visit and drawings on the abovetopics.

References:

1. Manual of Water supply and treatment , second edition, CPHEEO, Ministry of Works and housing, New Delhi, 1977.
2. Manual of Sewerage and sewage treatment, CPHEEO Ministry of Works and housing, New Delhi, 1980.
3. S.C.Rangwala, water supply and sanitary Engineering, Charotar publishing House , Anand 1989.

6ARC07 ARCHITECTURAL DESIGN STUDIO – VI

Objective and contents as per subject 06ARC01ARCHITECTURAL DESIGN - VI.

Sessional work: One major design project and one time project with theother task given by studio coordinator

Viva Voce by external examiner at the end of the Semester.

06AR08 BUILDING MATERIALS & CONSTRUCTION STUDIO – VI

Sessional work:

Assignments and drawing on the above topics given in the subject 6ARC02 Building Materials & construction-VI.

Viva Voce by external examiner at the end of Semester.

6ARC09 INTERIOR DESIGN – I

Objective: To Impart the knowledge of interior design as an integralpart of Architectural Design. The study of latest trends/ styles of interior design & decoration.

Unit - I: Background to furniture design and decoration styles with reference to varying time lines, geography and cultures viz; Georgian, Victorian, missionary, Rajasthani, Gujrati, Maratha, Dravidian, etc.

Unit – II: Various elements &components of interior design spaces such as, walls, floors, ceilings, openings, furniture's& decorative items to achieve or improvise desired ambience of the space.

Unit - III: Interior Design process through brainstorming and using material pallet to arrive at desired ambience and the style.

Sessional work:
One material survey on latest & trending interior materials and one major interior design project as decided by studio coordinator.

Sessional work: One major interior design project on the above topicswith assignments.

Viva Voce by external examiner at the end of the Semester.

Suggested Books :

1. Chiara, J.D., Panero, J., Zelnik, M., "Time Saver Standards for Housing and Residential Development", 2nd Ed., McGraw-Hill.
2. Neufert, P., "Architects Data", 3rd Ed., Blackwell Science.
3. Watson, D.(Editor), "Time-saver Standards for Architectural Design: Technical Data for Professional Practice", McGraw-Hill

6ARC10 WORKING DRAWING – II

Objective : The students shall impart the knowledge of constructiondetails for the execution of building from foundation to roof.

Contents: Working drawing of RCC structure for design project doneduring fifth semester. The drawing should be in an appropriate scale.

The working drawing should include from foundation level to roof level as follows:

a) Study of building byelaws
b) Municipal drawing and detail of all level plans.
c) Details center line plan of columns
d) Working details of any interesting features in the plan, sections & elevation.
e) Site plan showing drainage layout, landscape layout, internal roads etc.
f) Working details of water supply & electrical layout plans.

Sessional Work : Assignments and drawing plates on the above topics.

Viva Voce by external examiner at the end of the Semester.

Suggested Text Books:

1. Parmar V.S.: Design Fundamentals in Architecture, Somoiya Publications, Bombay (1973)
2. Scott: Design Fundamentals Edward d Mills- Planning the Architects Hand Book – Bitterworth, London, 1985.
3. Watson,D (editor) Time –saver standards for Architectural Design: Technical data for professional practice, McGraw-Hill, 2005.
4. Design & Practical handbook on plumbing by C.R. Mohan& Vivek Anand.
5. Architectural Drafting: Structure & Environment by John D. Bias, Ph.D.
6. Working Drawing handbook Second edition by Keith Styles.
7. Agkathidis, A, Hudert, M and Schiling, G., "Form defining strategis: experimental architectural design". Wasmuth, 2007.

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