1.3.1: Institution integrates crosscutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum.

Yashoda College of Architecture places a strong emphasis on professional ethics and social responsibility in its curriculum to prepare students to become social responsible and ethical architects.

Syllabus for subjects which are helpful to integrate crosscutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability is attached herewith.

Syllabus for Subject: PRACTICAL TRAINING AND REPORT.

Lectures- 16 weeks (96 working days)	Theory - .
Studio-	Sessional Work Int. - 100 Marks
No. of Paper –	Ext - 100 Marks
Duration -	**Total - 200 Marks**

• All students who have appeared for Third Year B. Arch Semester VI Exam will proceed for Fourth Year B-Arch Semester Seven - Practical Training and Report.

• The candidate will enroll himself at the college by paying his full fees and obtain permission to join for practical Training.

• The students will have to complete practical training under a registered architect in Private Office/ Corporate office/ Government Organizations etc with the permission and approval of the Principal/ HOD / Director of the college. The period of practical training shall be of two semesters (16 weeks per semester). At least one of the two semesters Training should be done in India

. • At the end of each Semester the candidate will have to submit to the Department, the training report (in stipulated format with drawings) along with the certificate by the employer to the effect that he / she has completed training satisfactorily for the stipulated period.

• The student has to appear for the internal viva examination as per the exam schedule announced by the Institute at the end of the Semester.

• As there is no University Examination for Semester VII there is no need fill University Examination form. The purpose of this study is to expose the students to practical field of design and construction to understand the application of academic knowledge acquired in the college. The purpose of the training is to learn:

• Day-to – day working of an Architect's Office and Correspondence.

• Presentation techniques.

- Working Drawings and detailed drawings.
- Preparing estimates, checking of contractor’s bills.
- Site Visit for Supervision of the work.
- Item rates, labour rates and cost of standard materials available in the market.

SUBJECT : PROJECT II(Stage-II) – (Data collection, Case studies, Design Programme and Site Analysis)

Lectures-Hour	01	Theory -	
Studio-Studio	08	Sessional Work	Int. - 100 Marks
No. of Paper –		Ext -	
Duration -		**Total - 100 Marks**	

Submission Schedule: PROJECT II(Stage-II)

1. Data Collection
2. Case Studies
3. Design Program
4. Site Analysis

Students should plan above work in practical training period (16weeks) in following manner,

1. **Data Collection:** Necessary information, interviews, surveys, experimental work, discussion to be done concerned to their thesis topic.
2. **Case Studies:** Two no. Live case studies
   Minimum one no. book case study
   Minimum one no. Net case study
   With comparative analysis and statement
3. **Design Program and Requirements**:
   Students should finalize design program and requirements under the supervision of internal and external guide.
   Students should also take cognizance of different institutional authorities(COA, AICTE, UGC,MHRD,Medical council, Department of Govt. of India, etc.) to finalize their design program.
4. **Site Analysis:** Students should finalize the site and location under the supervision of guide with reference to requirements of above different institutional authorities.

5. **Internal Marking:**
   1. **Data Collection …….. 20 Marks**
   2. **Case Studies…….50 Marks**
   3. **Design Program……..15 Marks**
   4. **Site Analysis……15 Marks**

   Total : 100 Marks

Note: If Student fail to submit above work and acquired to get less than 50% marks will not be allowed to appear for stage III of thesis project and Semester-X

SUBJECT: PROJECT III(Stage-III)

(Final Design & Presentation, Drawings /Report)

Lectures-	01 Hour	Theory -	
Studio-	08 Studio	Sessional Work	Int. - 200 Marks
No. of Paper –			Ext - 200 Marks
Duration -			**Total - 400 Marks**

Submission Schedule:

1. Analysis & Conclusion

2. Decision of approach to Final Design –concept & zoning etc.

3. Draft Design submission –Includes single line conceptual plans

4. Final submission with detailed layout plan showing building footprints, roadways, parking, service line, ETP/STP, Landscaping etc. All technical drawings including plans, elevations, Sections, interior & Exterior Views, model, construction techniques applied, security systems etc.with typewritten bound report and drawing

5. External viva- voce Note: Assessment and marking for stage 1 to 5 shall be done by an internal panel of three members appointed by the institute.

As far as possible practicing architects should be involved by the institute in this panel. If a student deviates from the above schedule his internal marking will be affected. .

Unless a student passes in the internal assessment, he will not be allowed to appear for the external assessment. (Viva-voce)

The typewritten dissertation must be presented in neatly bound 3 copies two copies of which will be retained by the college and one returned to the candidate.

The size of the dissertation volume must be A4 size (TRIMMED210 x 297) on sunlit bound or equivalent paper with standard binding in black or brown cloth and embossed title on top and preferably on the spine.

The printed blank page of the certificate which will be provided by the college will be bound along with other typewritten pages in the beginning of the dissertation. This will be certified and signed by the college authorities as authentication of the work and by the guide (Internal and External) who has guided the work.

The index page must contain the following sequence and paging the volume must follow this sequence. Attach either reduced size Xerox or photocopies of drawing (if legible) or prints neatly folded to suit the size of the volume.

1. Introduction (the why and what of the project)

2. Planning proposals (what do you wish to do).

3. Case studies (actual similar examples studied or visited).

4. Location (where is it proposed, brief environmental Characteristics).

5. Physical programme (details of requirements).

6. Design determinants (concepts that guided you to arrive at the decisions or solutions).

7. Architectural proposals (Actual copies of drawings and/or reduced xerox copies or photo copies).

8. Bibliography (reference books, papers, etc. from where the information is gathered).

It is recommended that the appraisal of criticisms of building projects which appear in the magazines on Architecture be read so as to acquaint you of the technical language in explaining year case studies.

SUBJECT: PROJECT MANAGEMENT

Lectures-	02 Hour	Theory -	
Studio-	02 Studio	Sessional Work	Int. - 75 Marks
No. of Paper –			Ext -75 Marks
Duration -			**Total -150 Marks**

Introduction & necessity of Project management, Purpose, goal & objectives of project management

Fundamentals of project management, Planning, (Programming),

Scheduling (Work break down & time Schedule), Controlling and reviewing.

Traditional management, Bar/ Gnatt's Chart, Load chart

Merits and demerits of Gnatt Chart

Introduction to modern management system concept, Introduction to Critical path method

Network, Concept of event, activity, time estimates, float and slack

Introduction to Programme Evaluation Review technique, various time estimates,

Difference between CPM & PERT technique, Site Layout for construction Works, Site office & management

Application of Computers In Project management for calculation of material requirement and labour requirement Using Abstract Sheet of typical project.

(SEC- 108)

COMMUNICATION SKILLS - I
SYLLABUS FOR FIRST SEM - ARCHITECTURE DEGREE COURSE

Lectures-	30	Paper -	-	Sessional Work(Int.)-	50
Studio-	-	Duration-	-	Oral(Ext.)-	-
Total-	30			Theory-	-
Total Credit points-02				Total-	50

COURSE OBJECTIVES:

- Introducing various communication skills in the society.
- Enabling Students to make presentation in front of mass communication.

COURSE CONTENTS

1) **Communication**
   - Introduction to Communication Definition, need & importance Process of Communication
   - Types of Communication Forms of Communication Barriers to Communication

2) **Techniques of Communication**
   - A)Verbal Communication: Techniques of GD &Interview
   - B) Non-Verbal Communication: Body Language

3) **Essay Writing**
   - Descriptive (Current Topics)

4) Rapid Review of Grammar
   - Tenses
   - Active/Passivevoice
   - Direct–Indirect
   - Affirmative, Negative , Assertive , Exclamatory, Interrogative.
   - Q-Tag, Remove"too"

5) **Correction of Common Errors**

Note: The internal marks will be based on tutorials and individual performance.

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SYLLABUS FOR THIRD SEM – ARCHITECTURE DEGREE COURSE

(BS&AE – 307)

SUBJECT: CLIMATOLOGY AND ARCHITECTURE

Lectures - 15	Paper - 100 Marks	Internal - 50
Studio - 30	Duration Hours - 3	External -
Total - 45		Theory - 100
Total Credit Points - L1 + S1 = 02		Total - 150

COURSE OBJECTIVES:

To understand climate as a determinant of architectural design and to enable the students to evolve climate responsive design.

COURSE CONTENTS :

- The climate factor is one of the basic criteria in architecture design process. The application of knowledge of climate is useful in views of comfort and environment. The study includes climatology pertaining to architectural to planning and energy efficient architecture.
- Introduction to climate as a factor of human shelter, comfort and environment. Elements of climate in different regions at different altitudes and latitudes, macro and micro climate, study of effects of landscape elements and topography on micro climate.
- Study of solar radiation, temperature and their effects on architecture. sun movements, times, shading devices, effects of latitude on sun angles, design of shading devices and study of sciography on horizontal and vertical surfaces with shadow angle. Thermal comfort condition and their relation to overheated and under-heated periods. Relation of relative humidity, thermal comfort.
- Air movement due to natural and built forms, air moment through buildings, use of mechanical ventilation, thermally induced air currents- stack effect, venture effect, use of courtyards
- Effect of humidity in building, effect of large water bodies on humidity reading and
  preparation of various tables, charts prepared by department of Meteorology, etc. visit to nearest metrological station.
- Climate and design of buildings, design strategies in warm and humid climates, Hot and dry climate, Composite climate and tropical upland climate etc.

ASSESSMENT:

- Continuous assessment and marking system should be followed.

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SYLLABUS FOR THIRD SEM -

ARCHITECTURE DEGREE COURSE

(BS & AE – 309)

SUBJECT : ENVIRONMENTAL STUDIES – I

As a Compulsory Paper for all Undergraduate Courses

Lectures - 30	Paper -	Internal -
Studio -	Duration Hours -	External -
Totalperweek - 30		Theory -
Total Credit Points - L2 + S0 = 02		Total -

1. Nature of Environmental Studies: Definition, scope and importance. Multi disciplinary nature of environmental studies Need for public awareness.

2. Natural Resources and Associated Problems:
   a) Forest resources: Use and over- exploitation, deforestation, dams and their effects on forests and tribal people.
   b) Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems.
   c) Mineral resources: Usage and exploitation. Environmental effects of extracting and using mineral resources.
   d) Food resources: World food problem, changes caused by agriculture effect of modern agriculture, fertilizer-pesticide problems.
   e) Energy resources: Growing energy needs, renewable and non- renewable energy resources, use of alternate energy sources. Solar energy , Biomass energy, Nuclear energy,
   e) Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification.

Role of an individuals in conservation of natural resources.

3. Ecosystems: Concept of an ecosystem. Structure and function of an ecosystem. Producers, consumers and decomposers. Energy flow in the ecosystem. Ecological succession. Food chains, food webs and ecological pyramids. Introduction, types, characteristics features, structure and function of the following ecosystem :-
   a) Forest ecosystem, b) Grassland ecosystem, c) Desert ecosystem, d) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)

4. Biodiversity and its conservation: Introduction- Definition: genetic, species and ecosystem diversity. Bio-geographical classification of India. Value of biodiversity: consumptive use, productive use, social, ethical, aesthetic

and option values. India as a mega- diversity nation. Western Ghatas a biodiversity region. Hot-spots of biodiversity. Threats to biodiversity habitat loss, poaching of wildlife, man- wildlife conflicts. Endangered and endemic species of India. Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity.

References :

1) Agarwal, K.C.2001, Environmental Biology, NidiPubi. Ltd.,Bikaner.
2) BharuchaErach, The Biodiversity of India, Mapin Publishing pvt.Ltd., Ahmedabad 380013, India, Email:mapin@icenet.net (R)
3) Brunner R.C.,1989, Hazardous Waste Incineration, McGraw Hill Inc. 480p
4) Clank R.S. Marine Pollution, Clanderson Press Oxford(TB)
5) Cunningham, W.P. Cooper, T.H.Gorhani, E. & Hepworth,M.T.2001, Environmental Encyclopedia, Jaico Publ. Hpise, Mumbai,1196p
6) De A.K., Environmental Chemistry, Wiley WasternLtd.
7) Down to Earth , Cebtre fir Scuebce and Environment(R)
8) Gleick, H.,1993, Water in crisis, Pacific Institute for studies in Dev., Environment & Security. Stockholm Env. Institute. Oxford Univ. Press 473p
9) Hawkins R.e., Encyclopedia of Indian Natural History, Bombay Natural History Society, Bombay(R)
10) Heywood, V.H.& Watson, R.T.1995, Global Biodiversity Assessment, Cmbridge Univ. Press1140p.
11) Jadhav, H.&Bhosale, V.M.1995, Environmental Protection and Laws, Himalaya Pub. Hcuse, Delhi284p.
12) Mickinney, M.L.& School. R.M.1196, Environmental Science Systems & Solutions, Web enhanced edition,639p.
13) Mhaskar A.K., Mastter Hazardous, Techno-Science Publications(TB)
14) Miller T.G.Jr., Environmental Science. Wadsworth Publications Co.(TB)
15) Odum, E.P.1971, Fundamentals of Ecology, W.B.Saunders Co. USA, 574p.
16) Rao M.N.&Datta, A.K.1987, Waste Water Treatment, Oxford & IBH Publ. Co. Pvt. Ltd.,345p
17) Sharma B.K., 2001, Environmental Chemistry, Gokel Publ. Hkouse, Meerut
18) Survey of the Environment, The Hindu(M)
19) Townsend C., Harper, J. and Michael Begon, Essentials of Ecology, Blackwell Science (TB)
20) Trivedi R.K. Handbook of Environmental Laws, Rules, Guidelines, Compliances and Standards, vol. I anfd II, Environmental Media(R)
21) Trivedi R.K. and P.K. Gokel, Intriduction to air pollution, Tecgbi-Science Publications(TB)
22) Wagner K.D.,1998, Environmental management, W.B. SaundersCo. Philadelphia, USA499p.
23) Paryavaranshastra – GholapT.N.
24) ParyavaranSahastra –Gharapure

(M)Magazine (R)Reference (TB)Textbook

(PC–104**)

SUBJECT : HUMAN SETTLEMENT AND HISTORY OF CIVILISATION - I

SYLLABUS FOR FRIST SEM - ARCHITECTURE DEGREE COURSE

Lectures-	30	Paper -	01	Sessional Work (Int.) -50	
Studio-	-	Duration-	2 hrs.	Oral(Ext.)-	-
Total-	30			Theory-	50
Total Credit points-2				Total-	100**

Note: Internal marks should be based on assignments, sketches, question bank & seminar.

COURSE OBJECTIVE:

To study the settlement and the History of Civilization from Prehistoric period and ancient civilization. Settlement pattern and architectural built from have the influence of geography, geology, climate, socio-climate and religious aspect of that particular place, which emphasis the context of specific planning and design approach is required. Comparative study of various civilizations will give the appropriate guideline for the study of settlement and architecture.

COURSE CONTENTS :

- Prehistoricperiod:
  Evolution of man, relation in between Man and environment, rise of culture and religion, Stone Age, Bronze Age, Iron Age, Culture and civilization.
- General features/influences of human settlement factor responsible for the development of humansettlement.
- Nile valleycivilization:
  Influences/aspects, architectural characters, Burial system, Egyptian temple, Egyptian city [city kahun] planning.
- Greek civilization: Influence/ aspects, architectural characters, Study of Greek cities in detail, cityAthens
- Roman civilization: influence /aspect, architectural characters, study of romancities, Roman Militarytown
- Mesopotamian civilization: Influence/aspects, architectural characters, city Babylon,city Ur ,ziggurat , Hanging Garden [Sumerian , Assyrian and Babylonian]
- A: Indus valley civilization- Influence/aspects, architectural characters,Mohenjo-Daro cityplanning
- B: Vedic civilization – Vedicvillage

Course Title : **Landscape Architecture**	
Course Code : PC - 508	**Semester : V**
Teaching Scheme : L - 1hr + St - 2hrs	Credits : 2 = (T)1 + (TW)1
Examination Scheme : (T)50 + (TW)50	Total marks: 100

Note:

- Internal marks should be based on assignments, sketches, and Design etc.
- Assignments shall be completed individually which cover the modules- 1 to 6. Module - 6 will be concerned with the individual drawings, 3d views, model (optional) explaining the concept, the landscape design process and detaining of it.

Course Description:

The course intends to make the students understand the concept of landscape architecture, different landscape styles in the world. Students will gain the knowledge of site analyse site with respect to its natural surrounding area. They will understand the basic design, details of hardscape and Softscapes in the landscape design.

Course objective:

The objective of the subject is to enable students to understand landscape design as an allied field of architecture; to introduce landscape architecture and the scope of it. It will create awareness regarding the process of landscape design for small and large buildings; Indoor and outdoor spaces.

Course Content
Unit 1: Introduction to Landscape Architecture Introduction to landscape architecture, need and scope, aspects of landscape architecture from functional, socio-cultural, ecological, economical, aesthetical point of view. Study of landscape elements (natural/manmade) and study of landscape characters. Study of Landscape elements such as land, vegetation, water, earth & climate, Natural & manmade elements, etc. Principles of landscape design.
Unit 2: History of Landscape Architecture Study of the evolution of the landscape history in the world from pre-history up to modern era, origin of garden concept, history of Landscape Architecture including natural & cultural factors of the place, development of landscape architecture through history in different parts of the world such as China, Japan, Italy, France, Spain, England, Persia, Egypt, Greece, Rome. Study of Landscape history of India; Ancient India and Mughal Period. Modern & contemporary Landscape architecture.
Unit 3: Introduction to modern landscape planning Study planning of cities like Jaipur, Chandigarh, Delhi and colonial period etc. Study the concepts of streetscapes, waterfronts, green infrastructure, green roof, etc.

Unit 4: Hardscape and Softscapes elements Hardscapes such as pergolas, garden furniture, fences, rocks, masonry, paving & surfacing, roads& parking lots, walks & plazas w.r.t. materials and **landscape construction details** through site visits. Softscapes such as plantation, turfing, water features. Design criteria for landscape design such as visual, functional, micro-climatic, ecological and aesthetic. Basic horticultural study of plants, plant selection, planting design and care of plants.
Unit 5: Site planning and site analysis Study of factors affecting landscape design, i.e. context, climate w.r.t. surrounding environment. Introduction to **sustainable site planning and sustainable Landscape design.** Site analysis includes study of physical and socio-cultural context, topography, hydrology and vegetation.
Unit 6: Landscape design and Services Macro, micro-climatic and contextual considerations in landscape architecture. Landscape Services like electrical, surface water drainage, irrigation, soil management techniques etc. Landscape design of a small residential unit or a small public area. Conceptualization with creative thinking with landscape design details showing indoor-outdoor relationship between built and unbuilt spaces.

Reference books:

Time saver standards for landscape architecture
Landscape architecture a manual of site planning and design – Symonds
Residential landscape architecture, Norman. K. Booth
Visual analysis of landscape development, peter Jacobs and Douglas way
Landscape planning and energy conservation. Gary. o. Robinette (ed), Van-Nostrand reinhold
Introduction to landscape architecture, Michael Laurie
National building code 2016
The landscape of man, Geoffrey and Susan Jellicoe, Thames and Hudson

SHIVAJI UNIVERSITY, KOLHAPUR

SYLLABUS FOR THIRD SEM –
ARCHITECTUREDEGREECOURSE
(BS & AE – 308)
SUBJECT : BUILDING SERVICES – I (SANITATION)

Lectures - 30	Paper - 50 Marks	Internal - 50
Studio -	Duration Hours - 2	External - --
Total per week - 30		Theory - 50
Total Credit Points - L2 + S0 = 02		Total - 100

COURSE OBJECTIVE

Study the concepts of Drainage systems, layouts, different accessories, pipes, chambers, maintenance of systems etc.

COURSE CONTENTS :

Design of Drainage system at plot level , Inspection of Site , Locations of fittings. Sanitary

Fittings, classification and types of waste and soil fittings

Working, variations, fitting and connections of different soil and waste fittings, Space

requirement and accessories for different fittings, construction of these fittings. Traps of

various types, materials etc

Pipes of various types, fittings and accessories, workmanship, piping systems thru sunk and core cutting

Chambers and manholes of various types, construction, manhole covers.

Connection to central drainage, drops, alternate systems of digestion, Design of septic tanks, various

Materials, vertical SUBO septic tank, two pit toilets, biogas plants on night soil, calculations, constructiondetails, Soak pit construction,

Construction and maintenance of drains, testing of drains, equipments.

One pipe and two pipe systems, ventilation of drains.

Layouts of toilets (attached toilet, public toilets for gents and ladies, ventilation of toilets,

Assessment:

- Drawing sheets and Notes based on the above topic.
- Continuous assessment and marking system should be followed Internal assessment will be based on above understanding of topics.

REFERENCE BOOKS -

1. National Building Code 2016
2. Sanitation, Drainage and Water Supply-Mitchell.
3. Environment and Services-Peter Burberry
4. Building Construction by Rangwala.
5. Charanjit Shah, Water supply and sanitary engineering, Galgotia publishers.

SUBJECT: SUSTAINABLE ARCHITECTURE

Lectures-	02 Hour	Theory -	
Studio-	02 Studio	Sessional Work	Int. - 75 Marks
No. of Paper –			Ext -75 Marks
Duration -			**Total -150 Marks**

Introduction to sustainable architecture: Definition of sustainable architecture,Need,scope &study of , Natural resources & their interrelationship

Historical Perspective: Natural & Physiological factors influencing human civilizations & Settlements

Challenge of Sustainable Development: Introduction to sustainability, its historical precedence global & local relevance - its correlation to population growth & consumption patterns

Human Impact on Earth sustainability: Impact of human civilization on the earth's major ecosystem forests, oceans, & atmosphere;

Strategies for Sustainability: Principles of conservation & efficiency as applied to space, energy and material resources; Global treaties & action plans; sustainable role models such as eco-villages; environmental education

Sustainability applications to Architecture and Planning: Sustainable Architecture and Planning. Preserving and improving the human settlement in harmony with nature. Conservation of natural resource for improving the quality of life on earth and attempting to ensure its continuity for the future of humanity. Eco cities, eco-communities and eco buildings: Archeology. Designing settlements and other man-made eco-systems. Ecological and environmental cities for sustainable future

Use of sustainable materials in interiors, Green materials and construction technology: Insulation, paint, wiring; Smart building systems

Students are encouraged to actively participate in the college's governance through student council elections

Student council elections Google form -