BMS COLLEGE OF ENGINEERING, BANGALORE
Autonomous College under VTU

VIII SEMESTER

Course Code: 12AT8DCADP **Course: Architectural Design Project**

CONTACT HOURS: 21hrs/Week (21 Studios)
Max. CIE Marks: 100
Max. SEE Marks (Viva-voce Exam): 100
CREDITS: 18

OBJECTIVE:

- To demonstrate an ability to comprehend the nature of architectural problem and create a brief which sets the frame work for design
- To demonstrate an advanced level design ability to convert the brief set forth earlier into a speculative proposition of design
- To articulate and delineate the propositions of design into an architectural solution addressing all the dimensions

OUTLINE:

Studio Project:

Architectural Design Projects can be of any scale and size (in terms of built areas) as long as the required rigour and depth is demonstrated by the student to merit consideration as a final project. Very large campus projects can be avoided as the work more often ends with a large number of structures but with minimal variation and content. It is expected that all genre of projects (study or design) would end in a design solution; in fact all projects should be grounded in some kind of critical enquiry. The maximum weightage for study shall be 25% in case of a Study + Design Project. The depth of enquiry can be extended and the time spent on design can be reduced in a specific case, but such a project should demonstrate clarity in terms of research design. The following stages have been identified as a generic model of the studio. The stages can be fine tuned depending on the resources. It is expected that this project will be run as a studio with individual guidance under a project coordinator and assisted by several guides.

1. Pre-Project: This stage should ideally be accomplished in the previous semester. The work involves students to discuss with the faculty to identify an area of interest or specific types of buildings. This stage should end with a project proposal giving routine information on site, location, need, broad requirements and scale. In addition, the proposal should clearly indicate the “project question” or an area (or areas) of interest.
2. Project Seminar: Student shall present a seminar on the project topic which would include the following;
    a. Precedents of similar projects, either actual visit to such projects or through literature reviews
    b. Cultural, contextual, historical, technological, programmatic concerns of the project
    c. Prevalent or historical models of architectural approach to such projects and a critique of such models

d. A rhetorical or speculative statement that would be the basis of further investigation (for example: Architecture in the information age – Design of Libraries in the new virtual reality regime).

Documentation which is part of this presentation shall be taken as completion of "Case Study" part of the final requirement.

3. Mid Reviews: There shall be reviews to clarify the conceptual statements and assumptions of the students. Students shall present a clearly articulated response to context, programme and users. Preliminary / Conceptual and development of architectural scheme shall be the end product of this stage.
4. Final Review: This stage should consist of all the works which would be presented at the Viva-voce. Mode of presentation shall be tentative.

The final output shall include a Report, All Drawings, Study Models and Presentation Model. The Report shall discuss the Programme, Site Analysis, Literature Review, Case Studies, Design Criteria, Concept and Detailed Design. Three copies of the report shall be submitted along with drawings and models.

Self Study: Self-study component to have two parts.

Part A:

"Architectural Design related issues to be reviewed from the books, journals and other relevant sources based on the content and merit. Book review outcome can be presented in the form of essay / explanatory model / digital presentation. Prior approval of the selected content for self-study to be sought from course faculty".

Part B:

"Submission of detailed report on the dominant feature/issue/aspect which has a major role in the Architectural Design Project topic chosen by the student".

NOTE:

The design shall incorporate principles of barrier free environment.

At the time of Viva-voce examination, the student shall show to the jurors, the portfolio containing the evolution of his/her design from the beginning to the final output. All the drawings and reports shall be certified by the Head of the Department as bonafide work carried out by the student during the semester.

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Course Code: 09AT8IMCOL **Course: Constitutional Law**

CONTACT HOURS: 3hrs/Week (3 Lectures)
Max. CIE Marks: 100
Max. SEE Marks (Theory Exam – 3 hrs.): 100
CREDITS: 0

OBJECTIVE:
Introduction to the Constitution of India

OUTLINE:
Unit 1: (Contact Hours - 09)
Preamble to the Constitution of India – Evolution of Constitutional Law.
Scope and Extent of Fundamental Rights under Part III – Details of Exercises of Rights, Limitations and Important Cases.
Unit 2: (Contact Hours - 09)
Relevance of Directive Principles of State Policy Under Part IV.
Significance of Fundamental Duties under part IV (a)
Unit 3: (Contact Hours - 08)
Union Executive, President, Vice-President, Prime Minister, Council of Ministers, Parliament and Supreme Court of India.
State Executive, Governor, Chief Minister, Council of Ministers, Legislature and High Courts.
Constitutional provisions for scheduled castes and tribes; women and children and backward classes.
Unit 4: (Contact Hours - 07)
Emergency Powers, Major Constitutional Amendments.
Unit 5: (Contact Hours - 06)
Electoral Process.

REFERENCE BOOKS:-
1. “Introduction to the Constitution of India (Student Edition)” by Durga Das Basu
2. “Constitution of India – Latest Edition” by VN shukla

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Course Code: 09AT8DCERS Course: Earthquake Resistant Structures

CONTACT HOURS: 3hrs/Week (3 Lectures)
Max. CIE Marks: 100
Max. SEE Marks (Theory Exam – 3 hrs.): 100
CREDITS: 3

OBJECTIVE:
To provide awareness and introduction to earthquake resistant design of buildings

OUTLINE:
Unit 1: (Contact Hours - 08)
Building safety from natural hazards: an introduction;
Cyclones, Floods, Landslides, Tsunami, Earthquake, Fire – causes and remedial measures;
Elementary Seismology – occurrence in the world, plate tectonics, plate boundaries, seismic waves, magnitude, intensity, seismological instruments
Unit 2: (Contact Hours - 08)
Introduction to Theory of Vibration – Single degree of freedom systems, period, frequency, resonance, damping, response spectrum, seismic design philosophy, ductility, base shear calculation by seismic coefficient method
Unit 3: (Contact Hours - 07)
Site planning, building forms, horizontal and vertical irregularities, mass and stiffness irregularities, soft storey effects, Architectural design concepts for earthquake resistance, shear walls, redundancy, setbacks, torsion, pounding
Unit 4: (Contact Hours - 09)
Behavior of ground, buildings, power plants, services in the past earthquakes, types of failure, liquefaction, social and economic consequences of earthquakes, concepts of repair and seismic strengthening, methods of retrofitting, seismic base isolation, construction quality control
Unit 5: (Contact Hours - 07)
Seismic detailing provisions – RCC structures, masonry and adobe

REFERENCES:-
1. **Earthquake resistant design of structure**, Pankaj Agarwal and Manish Shrikhande, Prentice-Hall, India
2. **Lecture Notes for Training of Practicing Architects** (NPCBAERM) – Ministry of Home Affairs, Govt. of India, published by MIT Manipal
3. IS codes: IS 1893 (2002), IS 4326 (1993), IS 13920 (1993), IS 13828

BMS COLLEGE OF ENGINEERING, BANGALORE
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Course Code: 09AT8IEELE **Course: Elective - II**

CONTACT HOURS: 2hrs/Week (2 Lectures)
Max. CIE Marks: 100
Max. SEE Marks: 100
CREDITS: 2

OBJECTIVE:
To expose students to related areas of architecture

OUTLINE:

1.	Film making	(Viva-voce Exam)
2.	Architectural Computation	(Viva-voce Exam)
3.	Heritage Conservation	(Viva-voce Exam)
4.	Architectural Journalism	(Viva-voce Exam)
5.	Urban & Regional Planning	(Viva-voce Exam)
6.	Construction Management Techniques	(Viva-voce Exam)
7.	Interior Design	(Viva-voce Exam)
8.	Real Estate Markets	(Theory Exam)
9.	Ecology & Built Environment	(Viva-voce Exam)

Note :
The detailed syllabus will be provided by the faculty member offering the elective course.