



CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY

Courses of Study and Scheme of Examination of B. Arch. First Year
Common to all branches of Engineering except

SECOND SEMESTER

S.No	Board of Study	Subject Code	Subject	Periods Per Week			Scheme of Examination			Total Marks	Credit [L+[T+P]] 2
				L	T	P	Theory				
							ESE	CT	TA		
1	316211(16)	Arch.	Building Construction-II	3	-	-	80	20	75	175	3
2	316212(20)	Civil Engg.	Structure – II	3	2	-	80	20	20	120	4
3	316213(16)	Arch.	Graphics – II	3	-	-	80	20	75	175	3
4	316214(16)	Arch.	Building Materials – II	2	1	-	80	20	20	120	3
5	316215(16)	Arch.	History of Architecture I	2	2	-	80	20	20	120	3
6	316216(16)	Arch.	Design-II	2	6	-	-	-	150	150	5
7	316221(16)	Arch.	Design-II (STUDIO)	-	-	2	50	-	-	50	1
8	316222(16)	Arch.	Building Construction-II (STUDIO)	-	-	4	25	-	-	25	2
9	316223(16)	Arch.	Graphics – II (STUDIO)	-	-	5	25	-	-	25	3
10	316224(16)	Arch.	Computer Applications LAB	-	-	3	-	-	40	40	2
TOTAL				15	11	14	500	100	400	1000	29

L-Lecture, T-Tutorial, P-Practical, ESE – End Semester Exam, CT- Class Test, TA- Teacher's Assessment

Note: (i) The teaching in the 1st and 2nd semester will be divided in two groups consisting of various branches as shown below: P1-GROUP: Electronics & Communication, Information Technology, Electronics & Instrumentation, Electrical, Chemical, Electrical & Electronics; Q1-GROUP: Computer Science, Mechanical, Civil, Mining and Applied Electronics & Instrumentation, Metallurgy.

(ii) Applied Maths - I will be taught to both the groups.

Chhattisgarh Swami Vivekanand Technical University Bhilai (C.G.)

Semester: **IInd**

Subject: **Building Construction - II**

Total Theory Periods: 40

Total Marks in End Semester Exam: 80

Minimum number of class tests to be conducted: 02

Branch: Common to All Branches

Code: 316211 (16)

Total Tutorial Periods: --

Unit – I

DOOR (TIMBER): Ledged braced and battened door, panel door, glazed door, flush door.

[No. of Periods:]

Unit – II

WINDOWS (TIMBER): Side and Top hung, pivoted, louvers, ventilators and fixed and operable fanlights.

[No. of Periods:]

Unit – III

DOOR (METAL): Pressed steel and 'z' section, with and without fanlight.

[No. of Periods:]

Unit – IV

WINDOWS (METAL): Pressed steel and 'z' section, Top and side hung, fixed, pivoted, louvers, ventilators and fanlights.

[No. of Periods:]

Unit – V

MISCELLANEOUS: Jamb casing, architrave, palmate, moldings, skirting and window boards, Door and window fixtures.

[No. of Periods:]

Note:

1. Submission shall be done as scaled drawings on drawing sheets and freehand drawings along with occasional visits to construction sites.
2. In theory examination there will be a separate question from each unit with choice within the unit/question. All units/questions will be compulsory.

Chhattisgarh Swami Vivekanand Technical University

Bhilai (C.G.)

Semester: **IInd**

Subject: **Structure-II**

Total Theory Periods: 40

Total Marks in End Semester Exam: 80

Minimum number of class tests to be conducted: 02

Branch: Common to All Branches

Code: 316212 (20)

Total Tutorial Periods: 24

Unit – I

Shear force and Bending Moment diagrams for strained beams subjected to point and uniformly distributed loadings (simply supported and cantilever only)

[No. of Periods:]

Unit – II

Direct and bending stresses in beams.

[No. of Periods:]

Unit – III

Slope and deflection in simply supported and cantilever beams for point loads & uniformly distributed loads.

[No. of Periods:]

Unit – IV

Analysis and stability of retaining walls: (Rectangular and Trapezoidal only).

[No. of Periods:]

Unit – V

Study of types of structure viz. load bearing, framed, rigid jointed, pin jointed, determinate, indeterminate.

[No. of Periods:]

Note:

1. Submission of the Sessional work shall include assignments/tests on the above topics along with the drawings.
2. In theory examination there will be a separate question from each unit with choice within the unit/question. All units/questions will be compulsory.

***Chhattisgarh Swami Vivekanand Technical University
Bhilai (C.G.)***

Semester: **IIInd**

Subject: **Graphics-II**

Total Theory Periods: **40**

Total Marks in End Semester Exam: **80**

Minimum number of class tests to be conducted: **02**

Branch: Common to All Branches

Code: **316213 (16)**

Total Tutorial Periods: ---

PERSPECTIVE:

Unit – I

1. Introduction to basic terms, principles, types and techniques of perspective drawing for expression of ideas. Two point perspective of simple objects (drafted & free hand)
2. Presentation of interior and exterior views in one point perspective (drafted

[No. of Periods:]

Unit – II

Orthographic Projections: from point and line to simple regular solids, complex solids, hollow objects.

[No. of Periods:]

SCIOGRAPHY:

Unit – III

Introduction to basic principles of sciography and its application on two dimensional objects in plan and elevation.

[No. of Periods:]

Unit – IV

Sciography of three dimensional object in plan, elevation and views, (Isometric, Axonometric and Perspective).

[No. of Periods:]

Unit – V

Sciography of simple building elements.

[No. of Periods:]

Note:

1. The sessionals will be in the form of drawings and sketches.
2. In theory examination there will be a separate question from each unit with choice within the unit/question. All units/questions will be compulsory.

Chhattisgarh Swami Vivekanand Technical University Bhilai (C.G.)

Semester: **IInd**
Subject: **Building Materials - II**
Total Theory Periods: 28
Total Marks in End Semester Exam: 80
Minimum number of class tests to be conducted: 02

Branch: Common to All Branches
Code: **316214 (16)**
Total Tutorial Periods: 12

The subject aims at developing the understanding and knowledge of various building materials regarding their availability, constitution, properties, classification, uses and applications.

Unit - I

FLOORING, AND WALL CLADDING: stones, stone slabs, stone tiles, bricks, clay tiles, mosaic tiles, and terrazzo, along with fixing materials.

[No. of Periods:]

Unit - II

ROOF COVERINGS: Country tiles, Mangalore and other designed tiles, A.C. sheets, metal sheets and latest developments, along with materials, fittings and fixtures used in the construction.

[No. of Periods:]

Unit - III

WALL PANELING AND CEILING: Timber panels, boards, fiber and particle boards, ply boards, laminated boards.

[No. of Periods:]

Unit - IV

OPENINGS (For frame & shutters): Timber, Metals like steel, Aluminum, Synthetic materials, Glasses along with fittings and fixtures.

[No. of Periods:]

Unit - V

SURFACE FINISHES:

- a) Lime wash, colour clay wash, distempers, cement based colour, plaster of Paris, Putties along with the adhesives, thinners, solvents and implements used in application of plastered internal and external surfaces.
- b) Primers, paints, varnishes, polishes on timber and metallic surface along with adhesives, thinners, solvents and implements used in application.

[No. of Periods:]

Note:

1. Submission of the Sessionals assignments would be in form of self-study, market survey, sample and literature collection, and presentation of the data/information through submission of term papers, seminars, class test etc.
2. In theory examination there will be a separate question from each unit with choice within the unit/question. All units/questions will be compulsory.

Chhattisgarh Swami Vivekanand Technical University Bhilai (C.G.)

Semester: **IInd**

Subject: **History of Architecture - I**

Total Theory Periods: 28

Total Marks in End Semester Exam: 80

Minimum number of class tests to be conducted: 02

Branch: Common to All Branches

Code: **316215 (16)**

Total Tutorial Periods: 24

The subject aims at developing an understanding regarding worldwide development of ancient (Before 400 B.C.) Architecture in terms of design concepts, philosophy, space organization, use of materials, construction techniques, structural systems, aesthetical aspects etc. with considerations to prevailing geo-graphical climatic, political, social, cultural and religious situations and influences.

Unit - I

Global preview of pre-historic architecture.

[No. of Periods:]

Unit - II

Indian Architecture during Vedic period, Indus-Sarasvati civilization, and Early Buddhist period.

[No. of Periods:]

Unit - III

Egyptian Architecture.

[No. of Periods:]

Unit - IV

West Asiatic Architecture.

[No. of Periods:]

Unit - V

Cretan and Mayan Architecture.

[No. of Periods:]

Note:

1. Sessional assignments will be inform of sketches and notes to be submitted in sketch book/files and presented through seminars and class tests.
2. In theory examination there will be a separate question from each unit with choice within the unit/question. All units/questions will be compulsory.

***Chhattisgarh Swami Vivekanand Technical University
Bhilai (C.G.)***

Semester: **IInd**

Subject: **Design - II**

Total Theory Periods: 24

Total Marks in End Semester Exam: ---

Minimum number of class tests to be conducted: 02

Branch: Common to All Branches

Code: **316216 (16)**

Total Tutorial Periods: 72

***Chhattisgarh Swami Vivekanand Technical University
Bhilai (C.G.)***

Semester: **IInd**

Subject: **Design -II (Studio)**

Total Practical Periods: 28

Total Marks in End Semester Exam: 50

Minimum number of class tests to be conducted: 02

Branch: Common to All Branches

Code: **316221 (16)**

Total Tutorial Periods: --

- Introduction of Architectural design with an approach of functional understanding and analysis of problems with studies of space requirement for different furniture (objects), activities and circulation, Relationship between occupied and unoccupied spaces.
- Anthropometrical study and analysis. Study of single units viz. living area, sleeping area, cooking area, study area, toilet etc.
- Design of small shelters and study of multi units involving max. 3 to 4 functional spaces, Natural and man made objects of functional and aesthetic value. Aspects of area determination in conjunction with relevant building Bye Laws and area relationship.
- Colour theories and colour schemes and its effect on the users.
- Case studies for measured drawing of small buildings and furniture. Introduction to draw presentation drawings. Small views (isometric and perspective) of the studied building.
- Study and design of small structures like ceremonial gates, temporary exhibition stalls.
- Minimum 1 time-problem of 6 hrs. duration is to be attempted in addition to regular design problems.

Note: Submission of the sessionals will be in the form of drawings and models along with technical report for the design dealt with. The evaluation would be done in intermediate reviews consisting of internal/external experts. There would be regular site visits to the building types dealt in the studio problem.

***Chhattisgarh Swami Vivekanand Technical University
Bhilai (C.G.)***

Semester: **IInd**

Subject: **Building Construction -II (Studio)**

Total Practical Periods: 50

Total Marks in End Semester Exam: 25

Branch: Common to All Branches

Code: **316222 (16)**

Total Tutorial Periods: ---

***Chhattisgarh Swami Vivekanand Technical University
Bhilai (C.G.)***

Semester: **IInd**

Subject: **Graphics - II (Studio)**

Total Practical Periods: 60

Total Marks in End Semester Exam: 25

Branch: Common to All Branches

Code: **316223 (16)**

Total Tutorial Periods: Nil

Chhattisgarh Swami Vivekanand Technical University Bhilai (C.G.)

Semester: **IInd**
Subject: **Computer Applications Lab**
Total Practical Periods: 40
Total Marks in End Semester Exam: -----

Branch: Common to All Branches
Code: **316224 (16)**
Total Tutorial Periods: 40

Unit – I

Introduction and Fundamentals of computer (Historical background) Binary number system. Hardware and Software. Block Diagram of representation of Computer CPU and Memories.

[No. of Periods:]

Unit – II

Basic understanding of Input and Output devices (function of input and output devices in computer, key-board, mouse, scanners, secondary memory devices, joy stick, digitizers, light pen, video input devices, Video Display unit, printers.

[No. of Periods:]

Unit – III

Introduction and basic applications of operating software: Windows, Dos etc. and Word processing software: MS Office, PageMaker, Lotus SmartSuite.

[No. of Periods:]

Unit – IV

Introduction to basic understanding of Architectural application software, such as Auto Cad, Architectural Desktop, Corel Draw, etc.

[No. of Periods:]

Unit – V

Basic understanding of computer virus and Anti-virus vaccines.

[No. of Periods:]

Note:

1. Submission of the sessionals shall be in the form of small exercises and written assignments.