



ವಿಶ್ವೇಶ್ವರಯ್ಯ ತಾಂತ್ರಿಕ ವಿಶ್ವವಿದ್ಯಾಲಯ

ವಿಜಯ ಅಧಿನಿಯಮ ೧೯೯೪ರ ಅಡಿಯಲ್ಲಿ ಕರ್ನಾಟಕ ಸರ್ಕಾರದಿಂದ ಸ್ಥಾಪಿತವಾದ ರಾಜ್ಯವಿಶ್ವವಿದ್ಯಾಲಯ



VISVESVARAYA TECHNOLOGICAL UNIVERSITY

State University of Government of Karnataka Established as per the VTU Act, 1994 "JnanaSangama" Belagavi-590018, Karnataka, India

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REF: VTU/BGM/BOS/Syll/AJ2023-24/ 6945

DATE: 27 MAR 2024

CIRCULAR

Sir,

Subject: Elective Courses /Subjects in 4th and 6th semesters of Architecture 2021 scheme updated regarding...

Reference: Concerned Board of Studies Chairperson's emails dated:12.03.2024

Reference to the subject cited above, the following 2021 scheme's elective courses of Architecture programs are updated (missing portion added) by the Board of Studies in Architecture

- 21ARC484 – Craftsmanship in Wood Working
- 21ARC684 – Tectonics and Meaning

Updated copy of the syllabi are attached with this circular for stakeholders reference. The Director /HoD of School of Architectures are hereby informed to bring the content of this circular to the notice of the teachers and students concerned.

Thanking You

Encl: Syllabus copy of 21ARC484, 21ARC684

R. 27/03/24 BE
REGISTRAR
[Signature]

To,

1. The Directors / HOD of School of Architecture under the ambit of the University.

Copy to.

1. To the Hon'ble Vice-Chancellor through the secretary to VC, VTU Belagavi for information
2. The Registrar (Evaluation) for information and needful
3. The Director, ITI SMU, VTU Belagavi for information and to upload the circular on VTU web portal for stakeholders' information
4. The Special Officer, QPDS section for information and needful
5. The Special Officer Academic Section VTU Belagavi
6. Office Copy

IV Semester

Elective 04--CRAFTSMANSHIP IN WOODWORKING			
Course Code	21ARCH484	CIE Marks	100
Teaching Hours/Week (L:T:P: S)	3:0:0:0	SEE Marks	--
Total Hours of Pedagogy	36	Total Marks	100
Credits	02	Exam Hours	-
Course objectives: In an architectural context, wood is one of the most prominently used materials, especially in homes, either traditionally or in a contemporary style; it could be either in the form of timber in roofing, flooring, furniture and products or in the form of engineered wood as wardrobes, kitchens and so on. Although, the know-how of wood or timber does not academically transmit the way it deserves to most design curriculums. Our goal is to bridge this gap in the field.			
Teaching-Learning Process (General Instructions) These are sample Strategies, which teacher can use to accelerate the attainment of the various course outcomes. 1) The teacher may use conventional method or an innovative method to deal with the subject. 2) The students need to work with hands on experiences to gain an expertise of the chosen field. 3) The teacher needs to use performance assessments to develop real life skills in the students.			
CRAFTSMANSHIP IN WOODWORKING OUTLINE: Encouraging the students to include wood as a material in their projects or professional future, to be able to communicate with carpenters & vendors to achieve their designs, to create an understanding of the various constraints of the material to design and consult better by raising the right questions. METHODS: To create an orientation programme to expose architecture students with a pre-masters know-how of the various woodworking fields and their application in Architecture through this curriculum. An Overview of Wood and Woodworking in an artisanal & industrial context for an upcoming architect and to create a better understanding of the following woodworking fields in this profession. <ol style="list-style-type: none">1. Structural framework of a house2. Opening: Doors and Windows along with Shuttering Ply3. Furniture & Product development - Custom Design, Mass Production, Outdoor furniture4. Contemporary interior installation with Panel processing5. Millwork Week 1 Introduction to wood as a building material - Savoir Faire ppt, basic woodworking exercise. Week 2 Types of joinery in construction, types of woodworking in Architecture and interiors - timber framing, carpentry, and joinery. Week 3 Woodworking exercise 2 Week 4 Learn about geometry, define the base line of geometry of the object from which we get proportion. Define a way and process to realise design that are coherent with timber. Week 5 Split into groups, start Design of furniture - finalise design Week 6 Understanding section sizes, joinery details, standards, span restrictions; make drawings for design, with joinery Week 7-9 Building a scale model/ part of the structure - shop setup at the college, budget to be decided.			

Week 10 Field trips

Week 11- 12 Continue building, final review.

EVALUATION:GRADING SCHEME:

Simple Woodworking: Exercise 01 – 25

Woodworking: Exercise 02 – 25

Furniture Design and build: Exercise 03 - 50

Activity Based Learning: Calculate the carbon footprint of material used in building a formal house and an informal house. Include the carbon footprint of functions/ operations of the respective houses. Reflect on the scores and analyze the reasons. Document how lifestyles of residents of formal and informal houses contribute to carbon footprint.

Assessment Details (CIE)

(methods of CIE need to be defined topic wise i.e.- Studio/ Class room/Tutorial discussions, Reviews, Time problems, test, Seminar or micro project)

The weightage of Continuous Internal Evaluation (CIE) is 100% and there is no Semester End Exam (SEE) .The student has to obtain a minimum of 50% marks in CIE and is conducted for 100 marks. Based on the CIE marks grading will be awarded.

Continuous Internal Evaluation:

Methods suggested:

1. Studio discussions, Reviews, Time problems, CIE tests, Seminar or micro project, Quiz, report writing etc.
2. The class teacher has to decide the course of learning for the Elective subject, in the beginning only. The teacher has to announce the methods of CIE for the subject in advance in writing.

Semester End Examination:

1. There is no Semester End Exam (SEE) The CIE marks list generated is to be signed by the internal examiners and submitted to VTU as per the procedure through the Principal of the institution.

LEARNING OUTCOMES:

1. Introduction to production process and operation with the help of organisational tools like Gant charts
2. Defining and understanding the base of Geometry and Stereotomy through exercises
3. To understand proportions by uncovering designs coherent with timber.
4. Assignment of projects through interactive exercises & table discussions with Bram and team.
5. Intervention of consultants/mentors from our network of Artisans, Masters, Entrepreneurs and master carpenters.

IV Semester

Elective 04 -TECTONICS AND MEANINGS			
Course Code	21 ARCH 684	CIE Marks	100
Teaching Hours/Week (L:T:P: S)	3:0:0:0	SEE Marks	--
Total Hours of Pedagogy	36	Total Marks	100
Credits	02	Exam Hours	-

Course objectives:

This course tries to discuss and unravel the meanings embedded in architectural expressions in materials and construction techniques. Students will explore the coupling of spatial experiences and substance while trying to understand how material expressions convey sensorial, historical and cultural meanings. We will look at the early manifestations of moulding and splitting all the way to the expressions in modern materials, such as those by the likes of Carlo Scarpa, Mies and a few others. It also briefly touches on how topography, corporeality and ethnography impact the material expressions in various cultures. The sessions will comprise readings accompanied mainly by presentations (primarily images) intended to generate discussions towards the end of each session. This course tries to give the students a vital lens to see (analyse) buildings in terms of material expressions.

Teaching-Learning Process (General Instructions)

These are sample Strategies, which teacher can use to accelerate the attainment of the various course outcomes.

- 1) The teacher may use conventional method or an innovative method to deal with the subject.
- 2) The students need to work with hands on experiences to gain an expertise of the chosen field.
- 3) The teacher needs to use performance assessments to develop real life skills in the students.

TECTONICS AND MEANINGS

OUTLINE:

- Watching together the documentary "Grain in the Stone", which is a part of the series "Ascent of Man", based on the book of the same name by Jacob Bronowski. This documentary focuses on how the bodily actions of "splitting" and "moulding" shaped the early settlements of Arizona's Canyon de Chelly and the great Machhu Pichhu.
The students will be asked to watch the next episode, "The Hidden Structure," of the same series and make a commentary by writing on the same.
- These two sessions will be largely based on the book "The Four Elements of Architecture" by Gottfried Semper. The book discusses the elements of "hearth", "roof", "enclosure", and "mound" in various ancient civilisations and how the material and the know-how of their people concerning these materials impacted their expressions.
- We will pick up excerpts from two chapters from the book "Experiencing Architecture" by the Danish architect Steen Eiler Rasmussen, namely "Textural Effects" and "Hearing Architecture". The first chapter (as well as the book) focuses on the experiential aspects of architectural expressions. It discusses various crafts worldwide and multiple practices of rendering buildings to explore the impact of such expressions on our experience. The second chapter discusses the expressions of sounds in different buildings through scale and textures.
- Reading and Discussion on the "Glass and China" essay by Adolf Loos.

- Reading and Discussion on the "The Principles of Cladding" essay by Adolf Loos.
- Reading and Discussion on "Ornament and Crime" essay by Adolf Loos.
- We will discuss the idea of metaphors in architectural discourses and articulations and their corporeal underpinnings. The discussion will be based on the book "Studies in Tectonic Culture: The Poetics of Construction in Nineteenth and Twentieth Century Architecture" by Kenneth Frampton and "Prolegomena to a Psychology of Architecture" by "Heinrich Wölfflin".
- In this session, we will discuss the impact of topography on the material expression. We will take up the works of Dimitri Pikionis, especially his landscape design of the acropolis and his famous essay "A sentimental topography", to discuss this idea.
- We will discuss the impact of culture on material expressions. The discussion will be based on the book "Studies in Tectonic Culture: The Poetics of Construction in Nineteenth and Twentieth Century Architecture" by Kenneth Frampton and the essay "In Praise of Shadows" by Junichiro Tanizaki.
- Discussion on the works of Frank Lloyd Wright, especially in the context of the textures that he created in his works.
- Discussion on the works of Mies Van Der Rohe in the context of his usage of steel and glass.
- Discussion on the works of Carlo Scarpa and Alvar Aalto in the context of their adoration for detailing and joinery.
- A glance through the works of Archigram and how they assimilated the pop and the contemporary material culture in their works.

EVALUATION: GRADING SCHEME:

Exercise 1: After watching the documentary "Grain in the Stone", the students will be asked to watch the episode "The Hidden Structure" from the Ascent of Man series and reflect upon the documentary in the context of an architect/building of their choice. This will be a 500-word essay with illustrations.

Evaluation criteria:

1. Articulation of the essay that reflects their understanding of the documentary.
2. Depth of understanding of the architect/building they have chosen.

Exercise 2: Based on their understanding of the book "The Four Elements of Architecture", the students will analyse one of the following aspects of a small part of the campus of WCFA to understand the role of that aspect in the experience of that space:

1. Roof
2. Enclosure
3. Plinth

They will do the analysis with the help of:

1. One Plan
2. One section
3. One wall sections

The drawings will be proportionate sketches.

Evaluation criteria:

1. Quality of drawings
2. Depth of analysis

Exercise 3:

- Based on the readings and understanding of essays from the book "Studies in Tectonic Culture: The Poetics of Construction in Nineteenth and Twentieth Century Architecture", the students will choose one Indian architect and make a presentation about the tectonic expressions in that architect`s works.

Distribution of marks:

Exercise 1 - 30 Marks

Exercise 2 - 40 Marks

Exercise 3 - 30 Marks

Semester End Examination:

1. There is no Semester End Exam (SEE) The CIE marks list generated is to be signed by the internal examiners and submitted to VTU as per the procedure through the Principal of the institution.

LEARNING OUTCOMES:

- Students will develop the ability to understand an architect`s work from the lens of materiality and construction.
- Students will be able to understand the historical backdrop behind the way architects use materials and details.
- Students will learn one way of architectural writing and research.