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REF: VTU/BGM/NOC/1009/2026-27/ 1684

DATE: 14 JUL 2026

CIRCULAR

Subject: Introduction of Additional Professional Elective Courses under B.Arch. 2021 Scheme – ODD Semester 2026 Regarding...

Reference: Wadiyar Center For Architecture Mysuru email dated: 08.07.2026
 Chairperson BoS in Architecture approval dated: 09.07.2026
 Dean Faculty of Engineering approval dated: 09.07.2029

In pursuance of the recommendations received from the Wadiyar Centre for Architecture, Mysuru, and subsequent endorsement by the Chairperson, BOS Composite Board, the University hereby notifies the introduction of the following **Additional Professional Elective Courses (PEC)** under the **B.Arch. 2021 Scheme** with effect from the **Academic Year 2026-27**

1. III Semester (B.Arch.) *Professional Elective Course*: **21ARC385-Universal Design**
2. VII Semester (B.Arch.) *Professional Elective Course*: **21ARC784-Space Architecture**

These electives are introduced in alignment with the Council of Architecture's encouragement to offer innovative courses that reflect current developments in the field of Architecture, thereby enriching the academic exposure of students.

The respective colleges are directed to incorporate the above electives into the teaching scheme for the upcoming semester and ensure necessary arrangements for their effective delivery.

This circular may be circulated among all concerned faculty members, and students, for information and implementation.

Paul/13/07/26
REGISTRAR

To,
The Directors of School of Architecture under the ambit of the university

Copy to:

- The Hon'ble Vice-Chancellor through the secretary to VC for information.
- The Registrar (Evaluation) VTU Belagavi for information
- The Director ITI, SMU, VTU Belagavi for information and make arrangement for uploading of the circular on VTU web portal
- The Special Officer QPDS section for information and needful (copy to Mr. Manjunath)
- The Special Officer Academic Section for information and needful
- Office Copy

III Semester

APEC: Additional Professional Elective			
Universal Design			
Course Code	21ARC385	CIE Marks	100
Teaching Hours/Week (L:T:P: S)	2 Hours	SEE Marks	-
Total Hours of Pedagogy	32 Hours	Total Marks	100
Credits	2	Exam Hours	-
COURSE OBJECTIVES: 1. The course aims to introduce students to principles of Universal Design and their relevance to architectural practice. 2. It sensitizes students to understand diverse user needs and address accessibility barriers. 3. It focuses on inclusion and accessibility as crucial considerations in built environmental design.			
COURSE CONTENT: OUTLINE: The course is divided into sections to address human diversity, evaluation of existing environment, case studies, and design applications. The intent is to find more suitable lenses to understand human diversity and to guide design considering diversity of the users. Understanding Human Diversity Introducing diversity of users and how they interact with the built environment. Focusing on medical and social disability models; temporal and situational disability; human variation across age, ability, gender, culture, etc. The aim of this section is also to discuss human factors, anthropometry, ergonomics, accessibility and user experience. Analysis of Existing Environments Focuses on observation, documentation and evaluation of existing spaces from Universal design perspective. The section guides students to identify accessibility issues, barriers (physical, sensory and cognitive) and methods of assessment and evaluation. This aims at developing skills in analyzing the built environment and exploring opportunities for improving accessibility and inclusion. Universal Design Application and Case Studies This section looks at application of universal design principles across residential, institutional, public, and urban environments. Through universal design case studies and design precedents, students will explore strategies for accessibility, usability, environmental legibility, wayfinding, and inclusion. It emphasizes on integrating Universal design considerations in architectural design. Universal Design Studio This section provides an opportunity for students to apply the concepts through design based exercise. Students will analyze selected existing/their own architectural design project, identify the accessibility challenges, to develop the design interventions informed by Universal Design Principals.			

COURSE METHODOLOGY:

The course shall be conducted through a combination of tutor led input sessions asking the right questions to kindle the thinking from Universal Design perspective, class discussions, case-study, and design application through studio based exercise. Emphasis will be on observation, critical analysis, and application of Universal Design Principles in architectural design.

COURSE OUTCOME:

Students would be able to identify accessibility and usability needs of diverse groups in built environments, analyses case studies, evaluate existing environments, and apply the Universal Design principals to architectural design projects.

CIE and SEE**CIE: GRADING SCHEME:**

Weekly progressive grades – 50

Design Studio - 50

SEE: NA

REFERENCES:

1. Central Public Works Department, Ministry of Urban Affairs & Employment. *Guidelines and Space Standards for Barrier Free Built Environment for Disabled and Elderly Persons*. Government of India, 1996.
2. Hauderowicz, Dominique, and Kristian Ly Serena, editors. *Age-Inclusive Public Space*. Hatje Cantz, 2020.
3. Ministry of Urban Development. *Harmonized Guidelines and Space Standards for Barrier-Free Built Environment for Persons with Disability and Elderly Persons*. Government of India, Feb. 2016.
4. Raheja, Gaurav. *Harmonized Guidelines and Standards for Universal Accessibility in India 2021*. Ministry of Housing and Urban Affairs, Government of India, Mar. 2022.
5. UNNATI–Organization for Development Education, and Handicap International. *Design Manual for a Barrier-Free Built Environment*. 1st ed., reprinted, UNNATI / Handicap International, Nov. 2006.
6. "Universal Design for the Built Environment: Beyond Ramps and Railings." *ACEDGE*, 2026, www.acedge.in/courses/UDita.
7. United Nations Office at Geneva. *Disability-Inclusive Language Guidelines*. United Nations, 2019.
8. World Bank. *Handbook for Gender-Inclusive Urban Planning and Design*. World Bank, 2020.

Video Suggestions:

1. When we design for disability, we all benefit. Elise Roy, <https://youtu.be/g2m97gPI70I>
2. Why Is Accessible Design Good for Everyone? ARTiculations
<https://youtu.be/wBSy7VrGQVU>
3. Accessible India Campaign, Sugamya Bharat Abhiyan,
<https://www.youtube.com/watch?v=o2npY5hmVXA>
4. Moving Beyond Disability To Accessibility.
<https://www.youtube.com/watch?v=E7SV9Kw2YpE>
5. It's not fair having 12 pairs of legs. Aimee Mullins, <https://youtu.be/IQ0iMulicgg>

APEC: Additional Professional Elective Course			
Space Architecture – Lunar Habitat Design			
Course Code	21ARC784	CIE Marks	100
Teaching Hours/Week (L:T:P: S)	2 Hours	SEE Marks	-
Total Hours of Pedagogy	32 Hours	Total Marks	100
Credits	2	Exam Hours	-
Course objectives: In this course students will learn about the development strategies and design challenges of locating and building lunar habitats and discover space architecture design strategies that integrate transdisciplinary aerospace methodologies.			
COURSE CONTENT: OUTLINE: The course is divided into sections followed by assignments and design exercises along with physical models that explore humanity and studies space to answer fundamental questions about our origins, ensure technological progress, improve life on Earth, and secure the long-term survival of the human species. Establishing permanent settlements on the Moon and understanding the physiological and psychological limits of prolonged human spaceflight.			
Astrophysics and Astronomy (1 session) To study how the universe began and evolved, how it works, and where life might exist beyond Earth.			
A Historical Look at Lunar Surface Mission Studies (1 session) Lunar surface mission objectives focus on establishing a sustained human presence, mapping resources, and conducting deep-space scientific research and a brief introduction to the various studies done by ISRO, NASA, and ESA.			
Design Challenges and Consequences (2 sessions) Introduction to design-relevant environmental characteristics and showing possible consequences for design (gravity, light conditions, location characteristics, radiation—different kinds of hazards).			
Lunar habitat Concepts (2 sessions) Lunar habitats are required in support of sustaining human life to meet the mission objectives of lunar exploration, operations, and sustainability.			
Construction Technology for Moon (2 sessions) One of the keys to a sustainable human presence on distant worlds is using local, or in-situ, resources, which includes building materials for infrastructure such as habitats, radiation shielding, roads, and rocket launch and landing pads.			
In-Situ Resource Utilization (ISRU) (3 sessions) ISRU to make space exploration affordable, independent, and sustainable. Place sustainable infrastructure that will allow exploration and study of more of the Moon than ever before.			

Structural Design of a lunar habitat (3 sessions)

A structural engineer's approach is outlined in this topic, discussing possible materials and structural concepts for second-generation construction on the Moon. Several different concepts will be evaluated, and the most reasonable is chosen for a detailed design.

Lunar and Deep Space Exploration (1 session)

Moon village association path way for lunar and deep space exploration.

Moon Base Plan (1 session)

NASA's Moon base plan videos followed by discussions.

COURSE METHODOLOGY:

Students will be exposed to lectures followed by assignments. The course is designed in such a way that the students will have to design and create physical models of the lunar habitat and structural system based on the inferences drawn from each lecture and critical discussions.

COURSE OUTCOME:

Students would have created physical lunar habitat models and structural systems that are critical for the future lunar habitat missions. There will also be assignments and design exercises which will help resolve lunar design challenges.

CIE and SEE**CIE: GRADING SCHEME:**

Weekly progressive grades – 50

Physical models - 50

SEE: NA**REFERENCES:**

- 1.Space Architecture Education for Engineers and Architects: Designing and Planning Beyond Earth (Space and Society)by Sandra Häuplik-Meusburger (Author), Olga
- 2.ISRO (Indian space research association)
- 3.Moon village association (<https://moonvillageassociation.org/>)
- 4.National Aeronautics and Space Administration (NASA)
5. Japanese Aerospace Exploration Agency
- 6.European Space Agency (ESA)
7. NASA, Olympus - Lunar habitat into extra-terrestrial construction
8. NASA Podcasts

SMESTER-III

Sl No	Course category	Course Code	Title of the Subject	Teaching Dept	Teaching Hours/ Week							Examination					Credits	
					Lecture	Tutorial	Studio	Practical	Seminar	Self Study	Total	Duration in Hours	CIE marks	SEE Marks				
														Theory Marks	Term Work	Viva Marks		
1	PCC	21ARC31	Architectural Design -III	Architecture			7					100			100	200	7	
2	BSAE	21ARC32	Materials and Methods in Building Construction -III	Architecture	1		3					50			50	100	4	
3	BSAE	21ARC33	Climatology	Architecture	3							50	50			100	3	
4	PCC	21ARC34	History of Architecture - III	Architecture	3							50	50			100	3	
5	BSAE	21ARC35	Building Services -I	Architecture	3							50	50			100	3	
6	BSAE	21ARC66/ 21ENG66	Building Structure -II	Civil Engg	3							50	50			100	3	
7	HSMC	21KSK37	Samskrutika Kannada	Humanity	1	0	0				1	1	50	50		100	1	
		21KKB37	Balake Kannada	Sci Dept														
8	PEC/OEC	21ARC38x	Professional Elective-1	Architecture	2						2		100			100	2	
9	AEC	21UH39	Social Connect & Responsibility	Any	1	0	0	0	0		1	1	50	50		100	1	
			Total		16	1	10	0	0	0	27	14	550	300		150	1000	27

PCC - Professional Core Courses

PEC - Professional Elective Courses

OEC - Open Elective Course

BSAE- Building Science & Applied Engineering Courses

SEC - Skill Enhancing Courses

HSMC- Humanity Science & Management Course

Ability Enhancement Course

Progressive Assessment (Continuous Internal Evaluation)(CIE) to be awarded by the subject teacher. Semester End Examination (SEE) will be conducted by VTU. Term work & Viva Voce examination shall be conducted jointly by one internal & one external examiner appointed by the University.

Minimum Marks to be secured in CIE for passing: 50%. Theory (SEE) marks, Term work marks and

Viva marks : 40 % in each.

Elective courses will provide some of the most valuable and memorable learning experiences in the Bachelor of Architecture program. The architecture electives allow students to diversify or concentrate their areas of knowledge.

Students may select courses in digital applications, history and theory, landscape architecture, advanced drawing, architectural photography, visual training, design/build, management, and specialized independent studies.

Advanced courses in architectural materials, construction technology, energy conscious design and structures emphasize the interrelationship of engineering and architecture, while digitally-enriched electives will maximize your readiness to use tomorrow's most sophisticated design, analysis, and presentation tools. Courses in entrepreneurship, project and construction management and other subjects will prepare you for the day-to-day practice of architecture. **Open Elective**

Course(OEC) enables an exposure to some other discipline or domain to nurture the candidate's proficiency or skill. Open Electives can be chosen from the approved list of the institution, from subjects of study other than Architecture which will add value to the course and enable the overall development of the student.

21KBK37 Balake Kannada is for non-Kannada speaking, reading, and writing students, and 21KSK37 Samskrutika Kannada is for students who speak, read and write Kannada.

Professional Elective Course-1

21ARC381	Architectural Photography
21ARC382	Vernacular Architecture
21ARC383	Visual Communication
21ARC384	Art Appreciation
21ARC385	Universal Design

Visvesvaraya Technological University, Belagavi																	
BACHELOR OF ARCHITECTURE																	
Scheme of Teaching and Examination (2021)																	
Outcome based Education (OBE) Choice Based Credit System (CBCS)																	
SEMESTER-VII																	
Sl No	Course category	Course Code	Title of the Subject	Teaching Dept	Teaching Hours/ Week						Total	Duration in Hours	CIE marks	SEE Marks			Credits
					Lecture	Tutorial	Studio	Practical	Seminar	Self Study				Theory Marks	Term Work	Viva Marks	
1	PCC	21ARC71	Architectural Design -VII	Architecture	L	T	S	P	SM	SS	8				100	200	8
2	BSAE	21ARC72	Materials and Methods in Building Construction -VII	Architecture	1		3				4				50	100	4
3	PCC	21ARC73	Urban Design	Architecture	3						3	3	50			100	3
4	PCC	21ARC74	Professional Practice	Architecture	3						3	3	50			100	3
5	BSAE	21ARC75	Estimation & Costing	Civil engg	2	1					3	3	50			100	3
6	PCC	21ARC76	Interior Design	Architecture			3				3				50	100	3
7	PCC	21ARC77	Working Drawing-II	civil engg				4			4				100	100	4
8	PEC/OEC	21ARC78x	Professional Elective-5	Architecture	2	0	0				2				100	100	2
9	PAEC	21ARC79	Traffic Awareness and Road Safety	Architecture	1	0	0				1				100	100	1
			Total		12	1	14	4			31	9	650	150	200	1000	31
PCC- Professional Core Courses																	
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BSAE- Building Science & Applied Engineering Courses																	
SEC - Skill Enhancing Courses																	
PAEC - Professional Ability Enhancement Course																	
Progressive Assessment (Continuous Internal Evaluation)(CIE) to be awarded by the subject teacher.Semester End Examination (SEE) will be conducted by VTU. Term work & Viva Voice examination shall be conducted jointly by one internal & one external examiner appointed by the University.																	
Minimum Marks to be secured in CIE for passing: 50%. Theory (SEE) marks, Term work marks and Viva marks : 40 % in each.																	

Professional Elective Course-5	
21ARC781	Craft in Architecture
21ARC782	Architectural writings & Journalism
21ARC783	Biometrics
21ARC784	Space Architecture

Fwd: 2 of many Request for Subject Code for Proposed Additional Professional Elective Course - Upcoming ODD Semester 2026

Gayathri Aaditya <gayathriaaditya@gmail.com>
To: Sadashiv Halbhavi <sbhvtuso2022@gmail.com>

Wed, Jul 8, 2026 at 3:03 PM

Dear Sir,

Have gone through the proposal from **Wadiyar Centre for Architecture, Mysore**, regarding the introduction of the Additional Professional Elective Courses under the **B.Arch. 2021 Scheme**.

1. **Space Architecture** – VII Semester
2. **Universal Design** – III Semester

I would recommend the proposal for consideration and approval by the University.

Regards,

Dr. Gayathri Aaditya

[Quoted text hidden]