



UNIVERSITY OF KASHMIR, SRINAGAR

NOTIFICATION

It is notified for the information of all concerned that the Academic Council at its meeting held on 01-03-2018 ratified the action taken by the Concerned Deans in having authorized adoption of syllabi and courses of study for the following courses/programmes from the academic session as mentioned below:

<u>Course/Programme</u>	<u>Batch</u>
1. 05 year B. Arch (1st to 10th semester)	2017 & onwards
2. B.Tech Programmes in Electronics & Communication Engineering :	
<u>Semester</u>	<u>Batch</u>
a. 1st & 2nd	2017 & onwards
b. 3rd to 8th	2016 & onwards
c. 1st & 2nd	2016
d. 3rd & 4th	2015
e. 5th to 8th	2014-2015
3. B.Tech Program in Electrical Engineering :	
<u>Semester</u>	<u>Batch</u>
a. 1st & 2nd	2016
b. 3rd & 4th	2015
c. 5th to 8th	2014-15
d. 1st & 2nd	2017 & onwards
e. 3rd to 8th	2016 & onwards
4. B.Tech Programme in Mechanical Engineering	
<u>Semester</u>	<u>Batch</u>
a. 1st & 2nd	2016 & onwards
b. 3rd to 8th	2017 & onwards
c. 3rd	2015
d. 4th	2015
e. 5th to 8th	2014-2015

Deputy Registrar
ACADEMIC

No: F (Pres Syllabi-B.E/B.Tech-B.Arch) Acad/KU/18

Dated: 18-04-2018

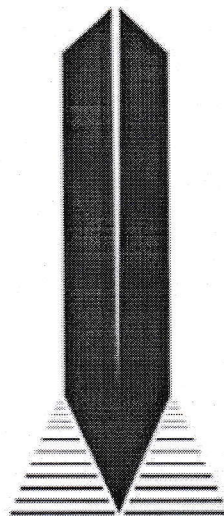
Copy to the:-

01. Dean, Academics Affairs, University of Kashmir, Srinagar;
02. Dean, Engineering, University of Kashmir, Srinagar;
03. Director, IT&SS, University of Kashmir, Srinagar;
04. Principal, ABDUL AHAD AZAD MEMORIAL Degree College Bemina;
05. Principal, SSM College of Engineering and Technology Parihaspora Pattan.
06. Controller of Examinations, University of Kashmir, Srinagar;
07. PRO to Vice-Chancellor for the information of the Vice-Chancellor;
08. P. S. to Registrar for information of the Registrar;
09. Assistant Controller, Secrecy/Tabulation/Professional Unit.
10. File.

BACHELOR'S DEGREE COURSE IN ARCHITECTURE

SYLLABUS AND COURSE STRUCTURE

(TO BE MADE EFFECTIVE FROM THE ACADEMIC SESSION 2017-2018)



SCHOOL OF ARCHITECTURE

SCHOOL OF ARCHITECTURE - KASHMIR

BEMINA-SRINAGAR, J&K

Affiliated to the University of Kashmir

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OBJECTIVES

The Bachelor of Architecture Degree program prepares students for professional practice in the field of Architecture. Being an undergraduate program, it has a broad scope, providing exposure to a variety of interests in this field and assisting students to discover their own directions for further development.

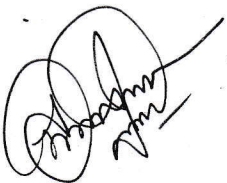
There is increasing recognition today of Architecture as an intellectual discipline, both as art and as a profession. Architects make a vital contribution in the shaping of our environment and society, in the design and technology for a diverse range of situations, both in the rural and urban contexts. In India, we have further complexities of different social, cultural, geographical, economic and technical nuances which are unique and typical of every region in our country.

It is the appreciation of this over-changing context that the architect must bring to bear of his work. This demands appropriate skills, understanding and knowledge and a deep commitment to professed ideals. Addressing Architectural Design as a comprehensive creative process, this program is based on the following broad intentions:

- a) To stimulate sensitivity and unveil creative talents.
- b) To reinforce intellectual capabilities and develop proficiency in professional skills to enable graduates to competently pursue alternative careers, within the broad spectrum of architecture.
- c) To provide opportunities to students to try out the role they will eventually play as responsible members of society, under supervision and interactive guidance.

The program aims at attaining a high level of excellence in Architectural Design. To this end, the design course is seen as the core of the program with supportive inputs from courses in other streams viz., the Humanities, the Technological and the Professional, built upon a strong foundation of enabling skills in communications and data processing. The emphasis is on the development of faculties of discernment and decision-making with the aid of both objective information and subjective attitudes, based on reason.

Given the complexities of present-day design projects, the architect's role is that of a team Leader and coordinator of the input of specialists in various specific disciplines. He needs to possess a sound knowledge of all aspects of modern building technology to be able to draw up an integrated framework for activities of the other members of the team, to direct them and to assume overall responsibility for the collective effort. This is manifested in the courses in the Technological and professional streams.



Notations:

L	-LECTURES
T	-TUTORIALS
ST	-STUDIO
IA	-INTERNAL ASSESMENT
WR	-WRITTEN EXAM
VV	-VIVA VOCE

NOTE:

- Each Semester will be of 16 teaching weeks.
- Number of Classes per week = 30.
- Exams will be held after each 16-week semester (excluding exams).
- Semester VIII will cover the Practical Training of the students and no class work will be held for such semesters.
- Each credit comprises of Lecture / Tutorial / Studio of duration 1 hour.
- Each credit comprises of 50 marks.
- The entire curriculum of five years will be divided into two stages, first three years will constitute Stage – 1 devoted to basic course and next two years will constitute Stage – 2.
- A student shall be required to pass Stage – 1 within a maximum period of five years and the full course within a maximum period of eight years from the time of his/her admission. If a candidate, at any stage is found to be unable abide by the said criteria, shall not be allowed to continue any further.
- A candidate shall not be promoted to Stage – 2 unless he / she passes all the examinations of Stage – 1 of the course.
- Minimum required by the students to pass an examination shall be as follows:

○ Internal Assessment	40%
○ Viva Voce / Thesis Jury	40%
○ Written Examination	40%
○ Written Examination with Viva Voce	40%
○ Aggregate	40%
- Students having passed internal assessment of each subject, only shall be permitted to appear in the Final Examination of the respective semester.

The Student Grading System and Result Division System is explained in Annexure -I at the end of this syllabus.

Syllabus for 5-year B. Arch Course

<u>Subject Code</u>	<u>Subject Name</u>	<u>Total Marks</u>	<u>Total Credits</u>
BAR 1	Architectural Design	3800	76
BAR 2	Building Construction and Materials	2400	48
BAR 3	Architectural Drawing	800	16
BAR 4	Theory of Structures	1200	24
BAR 5	History of Architecture	600	12
BAR 6	Arts and Graphics	400	8
BAR 7	Workshop Practices	200	4
BAR 8	Communication Skills	50	1
BAR 9	Surveying and Levelling	100	2
BAR 10	Computer Applications	250	5
BAR 11	Building Science	300	6
BAR 12	Estimation and Costing	150	3
BAR 13	Building Services	400	8
BAR 14	Site Planning and Landscaping	100	2
BAR 15	Humanities	100	2
BAR 16	Interior Design	200	4
BAR 17	Town Planning	100	2
BAR 18	Landscape	200	4
BAR 19	Elective	650	13
BAR 20	Working Drawing	100	2
BAR 21	Project Management	150	3
BAR 22	Building Economics	100	2
BAR 23	Architectural Heritage and Urban Conversation	200	4
BAR 24	Dissertation	250	5
BAR 25	Practical Training Seminar	1500	30
BAR 26	Ecology and Architecture	150	3
BAR 27	Inclusive Design	150	3
BAR 28	Urban Design	100	2
BAR 29	Building Bye Laws	150	3
BAR 30	Professional Practice	150	3
<u>Total</u>		<u>15000</u>	<u>300</u>

SEMESTER 1**SESSION 2017-18**

CODE	SUBJECT	CLASSES		MARKS				EXAM HOURS	CREDITS
		L	T/ST	IA	WR	VV	TOT		
BAR 101	Architectural Design I	2	5	200	100	50	350	6	7
BAR 102	Building Construction and Materials I	1	5	150	100	50	300	3	6
BAR 103	Architectural Drawing I	1	3	100	100	-	200	3	4
BAR 104	Theory of Structures I	3	-	75	75	-	150	3	3
BAR 105	History of Architecture I	3		75	75		150	3	3
BAR 106	Arts and Graphics I	1	3	100	50	50	200	3	4
BAR 107	Workshop Practices I	1	1	100			100		2
BAR 108	Communication Skills	1		50			50	-	1
	TOTAL	13	17	850	500	150	1500	21	30

BAR 101 - Architectural design I – Theory and studio

- Introduction to profession of architecture
- Introduction to design
- Study of anthropometrics
- Conceptual framework for intelligent appreciation of architecture
- Develop a vocabulary for design ideas

BAR 102 - Building Construction and Materials I

- Introduction to basic elements of buildings and their importance.
- Different types of Bricks
- Introduction to bonds, principle and applications
- Brick walls in different bonds, ends, corners and junctions.
- Composition of brick earth and their properties, manufacturing process of bricks, classification of bricks, test for bricks, special type of bricks, substitutes for bricks, etc.
- Classification, characteristics and properties of stones, quarrying of stone, artificial stones.
- Rubble work: Random Rubble, built-to-course and coursed masonry, miscellaneous
- Explanation, construction methods and details of construction of composite masonry with various material as follows:
 - Lime: Sources of lime, Classification and manufacturing process of lime, Fat and hydraulic lime – properties and use, tests on lime, etc.
 - Cement: Composition of ordinary cement, function of cement ingredients, properties of cement – soundness, setting time, strength, etc. Grade of cement and different types of cement used in construction. Manufacturing process of

- ordinary cement in dry and wet method, packing and storage of cement, use of cement.
- Mortar: Sand, sources of sand and its classification, tests on sand, classification of mortar – lime mortar, mud mortar, surkhi mortar, cement mortar, preparation of mortar and its properties, use and selection of mortar for different construction work, etc.
- Construction details of external brick wall section

BAR 103 - Architectural Drawing I

- Introduction – Drawing instruments, sheet layout, lettering and lines
- Scales
- Preliminary Measured Drawing
- Grids

BAR 104 - Theory of structures I

- Applied Mechanics, Statics and Dynamics. Importance of Study.
- Forces, Definition, Effects, Different Systems, Principle of Transmissibility and Superimposition of Forces. Resolution of Forces.
- Equilibrium of Concurrent Forces. Parallelogram, Polygonal & Triangular Law of Forces. Lami's Theorem.
- Definition of Centre of Gravity and Centroid. C.G of Regular Shapes. Computing of C.G of complex Shapes limited to Standard Steel Sections like C, T, L, I and Compound Sections (Only method of moments).
- Definition of Moment of Inertia and M.I of Standard Shapes. Parallel Axis Theorem, Perpendicular Axis Theorem, Radius of Gyration. Computing M.I of Complex Shapes Limited to C.T. L.I and Compound Sections using these Shapes.
- Supports, Definition, Reactions offered by Simple, Fixed, Hinged and Roller Support.
- Statically Indeterminate and Determinate Structures and Degree of Indeterminacy. Beams classified as Simply Supported, Cantilever, Over Hanging, Propped Cantilever, Fixed and Continuous.
- Loads Classified as U.D.L, Point Load & Varying Load.
- Loads Classified as Dead, Live, Wind, Snow, Seismic. Introduction to Densities of Material and Calculation of Dead loads on a Beam from slab, Brick work above to act as U.D.L and from a abutting beam as a Point Load.
- Support Reactions. For Simply Supported Beams and Cantilevered Beams only. Loading limited to Point Loads and U.D.L only.
- Shear Force and S.F.Diagram & B.M.D and B.M.Diagram for: Simple Support with an U.D.L., Simple Support with a Central Point Load, Simple Support with an eccentric point Load, Cantilever with a full U.D.L, Cantilever with a Point Load.
- S.F.D and B.M.D of a Simple Supported Beam and Over Hanging Beams with U.D.L and Point Loads. Point of Zero Shear, Point Of Max S.F and B.M max. Point of Contra flexure.
- Relationship between S.F.D and B.M.D.

BAR 105 - History of architecture I

- Civilizations of the ancient western world
- Stone-age to Neolithic settlements in Europe
- Egyptian
- Mesopotamia
- Indus Valley
- Huang Ho

BAR 106 - Arts and Graphics I

- Basic elements of composition and design
- Color theory
- Appreciating a piece of art on the basis of aesthetic value
- Sketching

BAR 107 - Workshop practices:

- Architectural modeling
- Introduction to types of model
- Introduction to various materials

BAR 108 - Communication skills:

- Visual
- Spoken
- Written

