

**B.Arch. Exam.
Ist & II Semesters**

Prospectus No. 111721

**संत गाडगे बाबा अमरावती विद्यापीठ
SANT GADGE BABA AMRAVATI UNIVERSITY**

(FACULTY OF ENGINEERING & TECHNOLOGY)

PROSPECTUS

**PRESCRIBED FOR
DEGREE OF BACHELOR OF
ARCHITECTURE,
(FIVE YEAR DEGREE COURSE)
SEMESTER PATTERN
I & II Semesters Examinations, 2010-2011
CREDIT GRADE SYSTEM**



2010

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Dineshkumar Joshi
Sant Gadge Baba
Amravati University,
Amravati 444 602**

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- (1) Notwithstanding anything to the contrary, it is notified for general information and guidance of all concerned that a person, who has passed the qualifying examination and is eligible for admission only to the corresponding next higher examination as an ex-student or an external candidate, shall be examined in accordance with the syllabus of such next higher examination in force at the time of such examination in such subjects papers or combination of papers in which students from University Departments or Colleges are to be examined by the University.
- (2) Be it known to all the students desirous to take examination/s for which this prospectus has been prescribed should, if found necessary for any other information regarding examinations etc., refer the University Ordinance Booklet the various conditions/provisions pertaining to examination as prescribed in the following Ordinances.

Ordinance No. 1	: Enrolment of Students.
Ordinance No. 2	: Admission of Students
Ordinance No. 4	: National cadet corps
Ordinance No. 6	: Examinations in General (relevent extracts)
Ordinance No. 18/2001	: An Ordinance to provide grace marks for passing in a Head of passing and Improvement of Division (Higher Class) and getting Distinction in the subject and condonation of defficiency of marks in a subject in all the faculties prescribed by the Statute NO.18, Ordinance 2001.
Ordinance No. 9	: Conduct of Examinations (relevent extracts)
Ordinance No. 10	: Providing for Exemptions and Compartments
Ordinance No. 19	: Admission of Candidates to Degrees.
Ordinance No. 109	: Recording of a change of name of a University

student in the records of the University.

Ordinance No. 6/2010 : For improvement of Division/Grade.

Ordinance No.19/2001 : An Ordinance for Central Assessment Programme, Scheme of Evaluation and Moderation of answerbooks and preparation of results of the examinations, conducted by the University, Ordinance 2001.

Dineshkumar Joshi
Registrar,
Sant Gadbe Baba
Amravati University

PATTERN OF QUESTION PAPER ON THE UNIT SYSTEM

The pattern of question paper as per unit system will be boradly based on the following pattern.

- (1) Syllabus has been divided into units equal to the number of question to be answered in the paper. On each unit there will be a question either a long answer type or a short answer type.
- (2) Number of question will be in accordance with the unit prescribed in the syllabi for each paper i.e. there will be one question on each unit.
- (3) For every question long answer type or short answer type there will be an alternative choice from the same unit. However, there will be no internal choice in a question.
- (4) Division of marks between long answer and short answer type question will be in the ratio of 40 and 60.
- (5) Each short answer type question shall Contain 4 to 8 short sub question with no internal choice.

**SYLLABUS PRESCRIBED FOR
FIVE YEAR DEGREE COURSE
BACHELOR OF ARCHITECTURE
SEMESTER PATTERN
I & II SEMESTER
SEMESTER : FIRST**

1SA1 BUILDING MATERIALS & CONSTRUCTION-I

Objective : The course will enable the learning in progression , starting from simple building elements, components, materials and construction techniques to develop strong sense of visualization.

Unit I: Introduction: General introduction of various components of building and material from foundation to roof. Study of types of soils and its load bearing capacity.

Unit II: Bricks and Clay products: Brief study on manufacturing process of bricks- its properties –suitability- types of bricks – decorative brick work and jail work.

Unit III: Mud as a building material – soil stabilization – use for walling and terracing.

Unit IV: Drawings of different types Brick bonds, end junctions, attached and detached piers, jointing and pointing. Brick foundations for wall and piers. Cavity walls & rat trap bond. DPC and its uses. Plinth filling details.
Types of arches in bricks.

Unit V: Stone: Classification of rocks- Building stones – their uses – physical properties – brief study of tests for Stone- deterioration – preservation of stone – various stone finishes – cutting and polishing of granites.

Unit VI: Drawings of types of masonry – random rubble/Ashlar, etc. - cavity walls- flooring – copings, sills, lintels, corbels, Stone foundation for wall and piers. Types of arches in stones.

NOTE: Sessionals will be in the form of reports, drawings, and models. Construction site visits are essential for practical exposure.

References:

1. S.C. Rangwala, Engineering Materials, Charotar Publishing House, Anand, 1997
2. HUDCO - All you want to know about soil stabilized mud blocks, HUDCO Pub, New, Delhi, 1989.
3. W.B. Mckay Building Construction, vol. 1,2,3, Longmans, U.K. 1981.

4. Don A Watson, Construction Materials and Processes, McGraw Hill Co., 1972.

1SA2 ARCHITECTURAL GRAPHICS-I

Objective: The objective of this course is to understand the graphic fundamentals of Architectural drawing.

Unit I: Introduction to drafting procedure, lines, lettering, Dimensioning, graphic codes and symbols.

Unit II: Construction of Architectural scales (plain scales, diagonal scale, isometric scale). Reduction and enlargement of drawings on different scales.

Unit III: Construction of basic and complex geometrical shapes and curves.

Unit IV: Principles and projection methods of orthographic projection (third angle projection). Orthographic projection of simple, complex solids and hollow object.

Unit V: Projection of straight lines, planes, solids, sections of solids and development of surfaces.

Unit VI: Introduction to Architectural plans, Elevations and Sections.

References:

1. Bhatt N.D. and Panchal V. M. Engineering Drawing, Charotar Publishing House, Gujrat, 1996.
2. I. H. Morris, Geometrical Drawing for Art students-Orient Longman, Madras, 1982.

1SA3 HISTORY OF ARCHITECTURE & CULTURE-I

Objective : Art and culture has supplemented architecture in the form of sculptures, paintings, murals art forms and designs. This course will enable the students to have a broad understanding of relationship between art , culture and architecture through various stages of history.

Unit I: Introduction to the course – Old Stone Age – the agricultural revolution – The New stone age- Development of shelter.

Unit II: River valley civilization and cultures – Indus, Tigris, Euphrates and Nile, its impact, Cultural and religious impact on Egyptian Architecture.

Unit III: Comprehensive survey of Indian and Western sculptures of different periods, thematic study of cultural influence.

- Unit IV: Cave painting - Frescos and Murals of Ajanta, Bagh, Badami, Ellora, Hampi, etc; Mythological influence; Techniques and characteristics.
- Unit V: Miniature painting – Indian and Islamic miniature paintings; Influence of changing period; Artist, subjects and techniques.
- Unit VI: Impressionism/Expressionism/Cubism/Futurism/ Abstract Art. Famous works of contemporary artist, sculptors and muralist of India and abroad.

Sessional work :

Assignments and drawing on the above topics.

References:

- 1 Janson, H. W. History of Art, New York, 1978. .
- 2 Tomory Edith, A History of Fine Arts in India and the west; Orient Longman, 1995.
- 3 Sir Banister Fletcher, A History of Architecture, University of London, The Antholone press, 1986.

1SA4 COMPUTER GRAPHICS-I

Objective : The prime objective of this course is to introduce the fundamental concepts of computer systems; hardware and software and to develop basic skills in programming, Application of Information Technology tools and technical in Architecture.

Unit I : Introduction to computer
Technology of small computer system, computer terminology operation principles of P.C., introduction to application software, and graphic system, and use of printers, scanner, plotter, File ‘management, etc. Introduction to windows and its applications. Introduction to Microsoft, Office, word, excel. Introduction to Internet, using e-mail.

Unit II : Introduction to computer aided 2D drafting
Understanding the use of drawing tools, object editing, drawing objects, filling and setting drawing units, scales, limits that size and dimensioning, texting. Setting up of drawings of various simple architectural objects with complete text and dimensioning.

Unit III : Advance computer aided 2D Drafting
Advance command programming – transparent overlays hatching utilities, assigned colour and line type, use of multiline, style, block, symbol Library manipulation for accurate drawings, incorporating the above said utilities.

Sessional work :

Assignments and drawing on the above topics.

References:

1. V.Rajaraman, Principles of Computer Programming – Pretince Hall of India.
2. Byron S. Gottfried, Theory and problems of Programming with C.Schaum’s outline series, Mcgraw Hill Publishing Co.
3. Auto CAD reference manual – Autodesk UNC, 1998
4. Auto CAD architectural users guide – Autodesk Inc. 1998
5. Sham Tickoo, Advance Technique in Auto CAD Re.14 – 1977
6. Sham Tickoo, Understanding Auto CAD – 14 (windows) – 1977

1SA5 ARCHITECTURAL COMMUNICATIONS SKILLS

Unit I : Comprehension Skills

1. Skimming for general ideas
2. Contextual vocabulary
3. Summarizing, note-making
4. Ability to answer factual, inference and personal response questions

Unit II : Writing Skills

1. Architectural reports, inspection reports
2. Paragraph developments

Unit III : Architectural Communications

1. Verbal and visual presentations on architectural terminology such as forum, sky-line, capital
2. Presenting architectural concepts with the help of texts, drawings, transparencies, slides, video, photographs, models etc.

Unit IV : Other forms of written communications

1. Job applications
2. Preparation of curriculum vitae, resume

Unit V : Public speaking and presentation skills

Non verbal communication - personal appearance, posture, gesture, facial expression, eye contact etc.
Methodology of conducting of meetings, conferences, seminars work shops and group discussions.

References Books :

1. Developing Communication Skills; Krishna Mohan, Meera Banerjee : Macmillan
2. English for Practical Purposes : Z.N.Patil, B.S.Walake, Ashok Thorat, Zeenat Merchant : Macmillan
3. Business Communication : V.K.Jain, Omprakash Biyani : S.Chand and Company

Sessional Work :

Assignments, reports, seminars and Computer-aided presentation on above topics

1SA6 ARCHITECTURAL DESIGN-I

Objective The objective of the course is to provide an overview of the profession of Architecture and to develop a comprehensive understanding of Design fundamentals.

Introduction to Architecture

A brief summary of Architecture – its various definitions, aspects/dimensions, approaches through different ages and factors affecting architecture of a region.

- 1) Introduction to elements of Design like point, line, plane, solid and void etc. with respect to their expression quality.
- 2) Introduction and Importance of Design principles like Balance, Harmony, Rhythm, Contrast, Symmetry, Scale, Proportions etc. leading to unity in design.
- 3) Creation of two and three- dimensional composition of abstract and architectural nature.
- 4) Introduction to external and internal form concept, their quality, concept of space, relation of space and volume
- 5) Relationship between basic design and Architectural Design, comprehensive understanding of space, form, order and design.

Sessional work :

Assignments and drawing on the above topics. Viva Voce by external examiner at the end of Semester.

Suggested text books:

1. Ching, F.D.R. : Form, Space and Order, Van Nostrand Rheinhold, New York (1979).
2. Parmar V.S.: Design Fundamentals in Architecture, Somoiya Publications, Bombay (1973)
3. Scott: Design Fundamentals
4. Edward d Mills- Planning the Architects Hand Book – Bitterworth, London, 1985.

1SA7 BUILDING MATERIALS & CONSTRUCTION STUDIO-I**Sessional work :**

Assignments and drawing on the topics given in subject 1SA1 Building Materials & Construction-I.

Viva Voce by external examiner at the end of Semester.

1SA8 ARCHITECTURAL GRAPHICS STUDIO-I**Sessional work :**

Assignments and drawing on the topics given in subject 1SA2 Architectural Graphics-I.

Viva Voce by external examiner at the end of Semester.

1SA9 VISUAL ARTS STUDIO - I

Objective : To introduce the develop an understanding of principles of design in abstract and to introduce the student to visual arts.

Unit I : Introduction

The definition of art – the needs and meanings of the work of art – Technical language of the art – Technique of lookinan appreciation of art form.

Unit II : The Techniques of Arts

Drawing – architecture – sculpture – paintings – printing minor arts (glassware, stain glass, lithographic prints, etc.) - Industrial art (Art Nouveau, Bauhaus)

Unit III : Composition – Basic Design:

Chaos to order scale, proportion, proximity, surface tension, balance and rhythm co-ordination skills (eye-mind-hand/perceptual) drawing and painting: drawing with both the hand-lines and geometrical shapes, plants and man made objects. Creative skills Media exploration, ideograms and art lettering.

Unit IV : Basic Design – harmony character, negative and positive space, form – space inter relation, juxtaposition, and a contrast. Co-ordination skills: (Eye-mind-hand/perpetual) drawing and painting: indoor and outdoor sketching, life drawing (Rapid sketching of man in action/motion) creative skills: Sculpture or optics or kinetics.

Sessional work :

Assignments and drawing on the above topics. Viva Voce by external examiner at the end of Semester.

References :

1. Jax Themier, B.W., “How to paint and draw”, Thames and Hudson, 1985
2. Gill, R. W., “Rendering with Pen and Ink”, Thames and Hudson, 1985
3. “Principles of three Dimensional Design” by Wucious Wong
4. “Principles of Two Dimensional Design” by Wucious Wong

SEMESTER SECOND**2SA1 BUILDING MATERIALS & CONSTRUCTION-II**

Objective: The course will enable the learning in progression, starting from simple building elements, components, materials and construction techniques to develop strong sense of visualization.

Unit I: Timber and allied products
Timber – Physical properties and uses – Defects, Conversion, Seasoning, decay and preservations of timber –

Unit II: Fire retardant treatment, anti-termite treatment. Industrial timbers – plywood, blockboard, particle board, fibre boards. Manufacture and uses – current developments.

Unit III: Timber doors and windows
Drawings of timber joinery for windows, doors, ventilators. Types of timber doors such as ledged, braced and battened, panel, glazed, flush doors.

Unit IV: Types of windows such as Fixed, side and top hung, pivoted, louvered, ventilators and fanlights

Unit V: Timber partitions, paneling, wall paneling. Timber staircases – Designed staircase

Unit VI: Timber trusses – lean to – close couple – Kingpost – Queenpost – Trusses.

References:

1. S.C. Rangwala, Engineering Materials, Charotar Publishing House, Anand, 1997
2. W.B. McKay Building Construction, vol. 1,2,3, Longmans, U.K. 1981.
3. Don A Watson, Construction Materials and Processes, McGraw Hill Co., 1972.
4. R.Chudleu, 'Building Construction Handbook', British Library Cataloguing in Publication, Data, London, 1990
5. S.C. Rangwala, Engineering Materials, Charotar Pub. House, Anand, 1997

2SA2 ARCHITECTURAL GRAPHICS - II

Objective The objective of this course is to understand the isometric view, perspective view and Sciography

Unit I: Measure drawings
Measured drawing of simple objects (like furniture, entrance gates, etc) and building components (like columns, cornice, door, window, etc.)

Unit II: Introduction to architectural presentations techniques, isometric and oblique three dimensional views, conical projections, perspectives, one point and two point.

Unit III: Perspective
Introduction to basic terms, principles, types and techniques of perspective drawing: realistic expression of ideas.

Unit IV: Two point perspective of simple objects. (drafted and free hand) presentation of interior and exterior views in one point perspective. (drafted and free hand).

Unit V: Sciography
Introduction of basic principles of sciography and its application to the field of architecture
Sciography of two dimensional objects in plan and elevation

Unit VI: Sciography of three dimensional objects in plan and elevation and views. (isometric, Axonometric and Perspective)
Sciography of simple building elements.

Reference:

1. Bhatt N.D. and Panchal V. M. Engineering Drawing, Charotar Publishing House, Gujrat, 1996.
2. Clande Batley, Indian Architecture, D.B. Taraporevale Sons and Co. Ltd., Bombay.
3. John M. Holmes, Applied Perspective, Sir Isaac, Piotman and Sons Ltd., London 1954
4. Robert W. Gill, Basic Perspective, Thames and Hudson, London, 1974

2SA3 HISTORY OF ARCHITECTURE - II

Objective History of Architecture exposes the student to evolution of different architectural solutions through historical periods to understand the building materials, construction techniques, planning and designing features.

Unit I: Ancient India
Indus Valley Civilization – culture and pattern of settlement. Impact of Aryan culture – Vedic village and the rudimentary forms of bamboo and wood. Wooden construction under the Mauryan rule.

Unit II: Buddhist Architecture
Hinayana and Mahayana Buddhism – Interaction of Hellenic & Indian Ideas in Northern India – Architectural Production during Ashoka's rule – Ashokan Pillar, Sarnath, Rock cut caves at Barabar, Sanchi Stupa.

Salient features of a Chaitya hall and Vihara, Rock cut architecture in the western and Eastern Ghats – Karli, viharas at Nasik, Rani gumph, Udaigiri. Takti bhai, Gandhara.

Unit III: Hindu Architecture

Evolution of Hindu Temple – Early shrines of the Gupta and Chalukyan periods – Tigawa Temple, Ladh Khan and Durga Temple, Aihol, Papanatha and Virupaksha Temples, Pattadakal.

Unit IV: Dravidian Architecture

Dravidian culture – Rock cut productions under Pallavas – Shore Temple, Mahabalipuram – Dravidian Order – Brihadeeswara Temple, Tanjore – Evolution and form of Gopuram – Complexity in temple plan due to complexity in Ritual – Minakshi Temple, Madurai.

Unit V: Indo Aryan style

Salient features of an Indo Aryan Temple – Lingaraja Temple, Bhuvaneshwar – Sun temple, Konarak, Kunds and Vavs – Sabali Kund Vav – Adalaj – Surya Kund, Modhera.

Sessional work :

Assignments and drawing on the above topics.

References

1. Sir Banister Fletcher, A History of Architecture, University of London, The Antholone press, 1986.
2. Percy Brown, Indian Architecture (Buddhist and Hindu Period), Taraporevala and Sons, Bombay, 1983
3. Satish Grover, The Architecture of India (Buddhist and Hindu Period), Vikas Publishing Housing Pvt. Ltd., New Delhi, 1981
4. Christopher Tadgelli, The History of Architecture in India from the Dawn of Civilization to the end of Raj, Longman group, U.K.Ltd., London, 1990

2SA4 THEORY OF ARCHITECTURE-I

Objective : This course deals with the theory of architectural design as should be understood for professional practice. The principles covered are those pertaining primarily to visual and aesthetic aspects of architecture. Comparisons with nature and other forms of visual art are intended to be understood through study of examples.

Unit I: Introduction to Architecture

Definition of architecture – elements of architecture backed by need and followed by fulfillment of need.

Unit II: Scope of Architectural Design

Architectural design – An analysis – Integration of aesthetic and function.

Unit III: Architectural space and Mass

Mass and Space, Visual and Emotional effects of geometric forms and their derivatives – the sphere, the cube, the pyramid, the cylinder and cone.

Unit IV: Aesthetic components of Design

Proportion, scale, balance, rhythm, symmetry, hierarchy, pattern and axis with building examples.

Unit V: Application of colour in architecture

Effect of colour in architecture – colour symbolism.

Sessional work :

Assignments and drawing on the above topics.

References:

1. Paul Alan Johnson – The Theory of Architecture – Concepts and themes, Van Nostrand Reinhold Co., New York, 1994
2. V.S.Pramar, Design Fundamentals in Architecture, Somaiya Publications Private Ltd., New Delhi, 1973
3. Francis D.K.Ching, Architecture – Form, Space and Order, Van Nostrand Reinhold Company, New York, 1979
4. Helm Marie Evans and Caria David Dunneshil, an initiation to design, Macmillan Publishing Co.Inc., New York, 1982.

2SA5 MECHANICS OF STRUCTURE - I

Objective : The course covers the simple types of structural elements followed by determination of forces and stresses in the elements.

Unit I: Concurrent and non-concurrent coplanar forces, moment, conditions of equilibrium.

Unit II: Statically determinate plane frames, determination of forces in members of pin-jointed frames by analytical and graphical methods, wind forces on frames.

Unit III: Stress, strain, Hooke's law, lateral strain, Poisson's ratio, Young's modulus, modulus of rigidity, bulk modulus and their relationships.

Unit IV: Shear force and bending moment diagrams for strained beams subjected to concentrated and distributed loadings.

Unit V: Centroid and moment of inertia of plain areas, parallel axis theorem, moment of inertia, principal axis

Unit VI: Bending stresses and deflection in simply supported beams and cantilever beams.

Sessional work :

Assignments and tutorials on the above topics.

References

1. P.C.Punmia, Strength of Materials and Theory of Structures; vol I, Laxmi Publications, Delhi 1994.
2. S.Ramanmurtham, Strength of Materials – Dhanpatrai & Sons, Delhi 1990
3. W.A.Nash, Strength of Materials – Schaums Series – McGraw Hill Book Company, 1989
4. R.K.Bansal – engineering Mechanics and Strength of Materials – Lakshmi Publications, Delhi, 1990

2SA6 ARCHITECTURAL DESIGN -II

Objective : The prime objective of this course is to introduce architectural design as a process and as a final product; to understand fundamentals of space, form and order through basic perception of architectural skills.

Basic Exercises

1. Study of anthropometrics and their relationship with the dimensioning of objects of daily use viz. furniture, fixtures equipments vehicles, etc; determining space for activities, such as, living, dining, sleeping, conveniences, etc.
2. Measured drawing of a sample small building, such as a small house or office, etc.
3. Simple circulation/flow diagrams for a small house or a small school or hostel or an office to understand the functional interrelationships of various spaces in building.
4. Three dimensional organization of a variety of forms to create built forms and importance of shades and shadows in the entire composition. Layout of repetitive units within a site to create interesting and functional compositions.
5. Design exercise (Two Nos.) of very small space structures or buildings such as, compound wall, gate, milk booth, vendor stall, guard room, cycle stand, bus stop. Etc.

Sessional work

Assignments and drawing on the above topics. Viva Voce by external examiner at the end of Semester.

Suggested text books :

1. Ching, F.D.R. : Form, Space and Order, Van Nostrand Rheinhold, New York (1979).
2. Parmar V.S.: Design Fundamentals in Architecture, Somoiya Publications, Bombay (1973)
3. Scott: Design Fundamentals
4. Edward d Mills- Planning the Architects Hand Book – Bitterworth, London, 1985.

2SA7 BUILDING MATERIALS & CONSTRUCTION STUDIO-II

Sessional work :

Assignments and drawing on the topics given in the subject 2SA1 Building Materials & Construction-II Viva Voce by external examiner at the end of Semester.

2SA8 ARCHITECTURAL GRAPHICS STUDIO-II

Sessional work :

Assignments and drawing on the topics given in the subject 2SA2 ARCHITECTURAL GRAPHICS -II. Viva Voce by external examiner at the end of Semester.

2SA9 MODELLING WORKSHOP -I

Objective The prime purpose of this course is to guide the students on model making and general principles of use of basic materials for constructional purposes for developing art skills.

Unit I: Use of clay, Plaster of Paris, metal scrap, Jute fiber etc. for study of forms.

Unit II: Development of surfaces of simple and composite forms using paper, thermocole, wire

Unit III: Materilas and tools to be used in model making (cardboard, Wax, plaster of paris, plaster, acrylic, sheets and similar materials, wood, plastics, etc)

Unit IV: Models in appropriate materials for understanding joinery in wooden construction and bonds in masonry based on the programme of building, construction

Sessional work :

Assignments and drawing on the above topics. Viva Voce by external examiner at the end of Semester.

References

1. Weninger (Magrus.J.) Spherical Models, Cambridge University Press, 1979
2. John W. Mills, The Technique of Sculpture, B.T.Batsford Ltd., New York Reinhold Publishing Corpn., London, 1966

APPENDIX-A
FIVE YEAR DEGREE COURSE
BACHELOR OF ARCHITECTURE
(SEMESTER PATTERN)
FIRST SEMESTER

L : THEORY/LECTURE
T : TUTORIAL
P/D : PRACTICAL/DESIGN STUDIO

ABBREVIATIONS
S-SEMESTER
A-ARCHITECTURE

Sr. No.	Sub Code	SUBJECT	TEACHING SCHEME					EXAMINATION SCHEME										
			L	T	P/D	Total Hours/week	Credits	THEORY					SESSIONAL/PRACTICALS					
								Duration of paper Hours	Max. Marks Theory Paper	Max. Marks College Assessment	T O T A L	Min. Pass Marks	External	Internal	TOTAL	Minimum Pass	Grand Total	
THEORY																		
1.	ISA1	Building Materials & Construction-I	3	-	-	3	3	4	80	20	100	40	-	-	-	-	-	
2.	ISA2	Architectural Graphics-I	2	-	-	2	2	4	80	20	100	40	-	-	-	-	-	
3.	ISA3	History of Architecture & Culture-I	3	-	-	3	3	3	80	20	100	40	-	-	-	-	-	
4.	ISA4	Computer Graphics-I	1	1	-	2	2	3	80	20	100	40	-	-	-	-	-	
5.	ISA5	English (Communication Skill)	2	-	-	2	2	3	80	20	100	40	-	-	-	-	-	
SESSIONAL/PRACTICAL																		
6.	ISA6	Architectural Design-I	-	-	6	6	6	-	-	-	-	-	75	75	150	75	-	
7.	ISA7	Building Materials & Construction Studio-I	-	-	4	4	2	-	-	-	-	-	25	25	50	25	-	
8.	ISA8	Architectural Graphics Studio-I	-	-	4	4	2	-	-	-	-	-	25	25	50	25	-	
9.	ISA9	Visual Arts Studio-I	-	-	4	4	2	-	-	-	-	-	25	25	50	25	-	
TOTAL			11	1	18	30	24	-	-	-	500	-	-	-	300		800	

Note : Architectural design subjects consider one hour Lecture/ Tutorial and P/D is equal to one credit and for all other subjects consider 1 hour Lecture & Tutorial = 1 credit & 2 hour Practical/ Design studio = 1 credit

APPENDIX-A
FIVE YEAR DEGREE COURSE
BACHELOR OF ARCHITECTURE
(SEMESTER PATTERN)
SECOND SEMESTER

L : THEORY/LECTURE
T : TUTORIAL
P/D : PRACTICAL/DESIGN STUDIO

ABBREVIATIONS
S-SEMESTER
A-ARCHITECTURE

Sr. No.	Sub Code	SUBJECT	TEACHING SCHEME					EXAMINATION SCHEME										
			L	T	P/D	Total	Credits	THEORY			SESSIONAL/PRACTICALS							
			Hours/week	Duration of paper Hours	Max. Marks Theory Paper	Max. Marks College Assessment	T O T A L	Min. Pass Marks	External	Internal	TOTAL	Minimum Pass	Grand Total					
THEORY																		
1.	2SA1	Building Materials & Construction-II	3	-	-	3	3	4	80	20	100	40	-	-	-	-	-	-
2.	2SA2	Architectural Graphics-II	2	-	-	2	2	4	80	20	100	40	-	-	-	-	-	-
3.	2SA3	History of Architecture-II	3	-	-	3	3	3	80	20	100	40	-	-	-	-	-	-
4.	2SA4	Theory of Architecture-I	2	-	-	2	2	3	80	20	100	40	-	-	-	-	-	-
5.	2SA5	Mechanics I of Structure-I	2	1	-	3	3	3	80	20	100	40	-	-	-	-	-	-
SESSIONAL/PRACTICAL																		
6.	2SA6	Architectural Design-II	-	-	6	6	6	-	-	-	-	-	75	75	150	75	-	-
7.	2SA7	Building Materials & Construction Studio-II	-	-	4	4	2	-	-	-	-	-	25	25	50	25	-	-
8.	2SA8	Architectural Graphics Studio-II	-	-	4	4	2	-	-	-	-	-	25	25	50	25	-	-
9.	2SA9	Modeling Workshop-II	-	-	2	2	1	-	-	-	-	-	25	25	50	25	-	-
TOTAL			12	1	16	29	24	-	-	-	500	-	-	-	300			800

Note : Architectural design subjects consider one hour Lecture/ Tutorial and P/D is equal to one credit and for all other subjects consider 1 hour Lecture & Tutorial = 1 credit & 2 hour Practical/ Design studio = 1 credit

DIRECTION**No. 44/2010****Date : 3/7/2010**

Subject : Examinations leading to the Degree of Bachelor of Architecture (Five Year Degree Course.... Semester Pattern..... Credit Grade System)

Whereas, the Board of Studies in Architecture in its meeting held on 23-06-2010 resolved to recommend the schemes of teaching & examinations and syllabi of I & II Semester B.Arch. course as per Credit Grade System for its implementation from the Academic Session 2010-2011,

AND

Whereas, the Faculty of Engineering & Technology in its meeting held on 14-05-2010 constituted and authorized a committee of faculty members to accept and recommend schemes of teaching & examinations and syllabi as per Credit Grade System to the Academic Council,

AND

Whereas, the Committee in its meeting held on 25-06-2010 resolved to accept and recommend the above scheme and syllabi to the Academic Council,

AND

Whereas, the Hon'ble Vice-Chancellor has accepted the above schemes and syllabi u/s 14(7) of the M.U.Act, 1994 on behalf of Academic Council on /06/2010,

AND

Whereas, admissions to the First Year of B. Arch. course are to be made in the Academic Session 2010-2011,

AND

Whereas the matter for admission of the students at the examinations is required to be regulated by an Ordinance,

AND

Whereas the schemes of teaching & examinations of I and II Semesters of B. Arch. course are to be implemented from the academic session 2010-2011,

AND

Whereas the schemes of teaching & examinations are required to be regulated by the Regulation,

AND

Whereas the process of making an Ordinance and the Regulation is likely to take some time,

AND

Whereas syllabi for I and II Semesters of B. Arch. course is to be sent for printing.

Now, therefore, I, Dr. Ku. Kamal Singh, Vice-Chancellor of Sant Gadge Baba Amravati University in exercise of powers confirmed upon me under sub section (8) of Section 14 of the Maharashtra Universities Act, 1994, hereby direct as under :

1. This Direction may be called "Examinations leading to the Degree of Bachelor of Architecture (Five Year Degree Course.... Semester Pattern..... Credit Grade System) Direction, 2010.
2. This Direction shall come into force w.e.f. its issuance.
3. Subject to the conditions prescribed by the Government from time to time for admission to First Year B.Arch.course, the candidates shall be considered eligible Passing XII standard examination of the Maharashtra State Board of Secondary and Higher Secondary Education / Statutory Body with the subjects :-
 1. English (Higher or lower)
 2. Modern Indian Language (Higher or lower)
 3. Mathematics and Statistics.
 4. Chemistry
 5. Physics.

Any other optional subject from out of the list prescribed by the said Secondary and Higher Secondary Education Board.

OR

1. English (Higher or lower)
2. Mathematics and Statistics.
3. Chemistry.
4. Physics.
5. Vocational course (Defined by the said Board as Technical) Carrying 200 Marks.

OR

An Examination recognised by Sant Gadge Baba Amravati University as equivalent to the above.

4. The duration of the course shall be of five Academic years. The final year, IX and X Semester will consist of (a) Practical training and (b) Project work and Dissertation respectively.
5. There shall be ten main examinations. The main examination of first, third, fifth, seventh and ninth semester B.Arch. shall be held by the University in winter & supplementary examination in summer every year. And main examination of second, fourth, sixth, eighth and tenth semester B.Arch. will be held in summer & the supplementary examination in winter every year. These examinations shall be held at such places and so such dates as may be notified by the University.

6. The period of academic year term shall be such as may be notified by the University.
7. The Internal Assessment marks for theory should be based on Class Test and Attendance as follows :-
- a) Class Test - 15
Marks will be based upon two Class Tests
OR
Assignments
- b) Attendance - Mark/s
- | | | |
|-------------|---|---|
| 75% to 80% | - | 1 |
| 81% to 85% | - | 2 |
| 86% to 90% | - | 3 |
| 91% to 95% | - | 4 |
| 96% to 100% | - | 5 |

Where ever if internal assessment marks are 'ten (10)' then it should be converted out of "20".

8. Subject to his/her compliance with the provisions of this Direction & other Ordinances pertaining to Examination in force from time to time, the applicant for admission, at the end of the course of study of a particular semester/session, to an Examination specified in column (1) of the table I below, shall be eligible to appear if
- he/she satisfies with the conditions in the table and the provisions thereunder.
 - he/she complies with the provisions of the ordinance pertaining to the Examination in general from time to time.
 - he/she has prosecuted a regular course of study in a college affiliated to the University.
 - he/she has in the opinion of the Principal shown satisfactory progress in his/her studies.

TABLE - I

Name of Exam	The student should have passed the Exam. of	The Student should have satisfactorily completed the following semester	The student should have passed following examination.
1.	2.	3.	4.
First Semester B.Arch.	XII standard Examination or equivalent	.....	.....
Second Semester B.Arch.	.....	I Semester B.Arch.	.....

1.	2.	3.	4.
Third Semester B.Arch.	.....	II Semester B.Arch.	2/3rd heads of I & II Sem. combined together
Fourth Semester B.Arch.	.....	III Semester B.Arch.	.....
Fifth Semester B.Arch.	I & II Sem. B.Arch.	IV Semester B.Arch.	2/3rd heads of III & IV Sem. combined together
Sixth Semester B.Arch.	.....	V Semester B.Arch.	.....
Seventh Semester B.Arch.	III & IV Sem. B.Arch.	VI Semester B.Arch.	2/3rd heads of V & VI Sem. combined together
Eighth Semester B.Arch.	.....	VII Semester B.Arch.	.....
Ninth Semester B.Arch.	V & VI Sem. B.Arch..	VIII Semester B.Arch.	2/3rd heads of VII & VIII Sem. combined together
Tenth Semester B.Arch.	.....	IX Semester B.Arch.	.....

9. An examinee who has passed 2/3 rd heads of passing shall be allowed to keep term in the next higher class.
Explanation :
i) While calculating 2/3 rd heads of passing, fraction if any shall be ignored
ii) For considering the heads of passing, every theory and every practical / sessional shall be considered as separate head of passing, as per scheme of examinations.
10. The schemes of teaching & examinations shall be as provided under "Appendix-A" appended with this Direction.
11. The examination fees for each B.Arch.examination shall be as prescribed by the University from time to time.
12. The computation of Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA) of an examinee shall be as given below :-

The marks will be given in all examinations which will include college assessment marks and the total marks for each Theory / Practical / Sessional shall be converted into Grades as per Table-II.

SGPA shall be calculated based on Grade Points corresponding to Grade as given in Table-II and the Credits allotted to respective Theory / Practical / Sessional shown in the scheme for respective semester.

SGPA shall be computed for every semester and CGPA shall be computed only in X semester. The CGPA of X semester shall be calculated based on SGPA of VII, VIII, IX and X semesters as per following computation :-

$$\text{SGPA} = \frac{C_1 \times G_1 + C_2 \times G_2 + \dots + C_n \times G_n}{C_1 + C_2 + \dots + C_n}$$

Where C_1 = Credit of individual Theory / Practical / Sessional
 G_1 = Corresponding Grade Point obtained in the respective Theory / Practical/ Sessional

$$\text{CGPA} = \frac{(\text{SGPA})_{\text{VII}} \times (\text{Cr})_{\text{VII}} + \dots + (\text{SGPA})_{\text{X}} \times (\text{Cr})_{\text{X}}}{(\text{Cr})_{\text{VII}} + \dots + (\text{Cr})_{\text{X}}}$$

Where $(\text{SGPA})_{\text{VII to X}}$ = SGPA of VII to X Semester
 $(\text{Cr})_{\text{VII to X}}$ = Total Credits for VII to X Semester

CGPA equal to 6.00 and above shall be considered as equivalent to First Class which shall be mentioned on Grade Card of X Semester as a foot note.

TABLE - II
THEORY

Grade	Percentage of Marks	Grade Points
AA	80 ≤ Marks ≤ 100	10
AB	70 ≤ Marks < 80	9
BB	60 ≤ Marks < 70	8
BC	55 ≤ Marks < 60	7
CC	50 ≤ Marks < 55	6
CD	45 ≤ Marks < 50	5
DD	40 ≤ Marks < 45	4
FF	00 ≤ Marks < 40	0
ZZ	Absent in Examination	—

PRACTICAL / SESSIONAL

Grade	Percentage of Marks	Grade Points
AA	85 ≤ Marks ≤ 100	10
AB	80 ≤ Marks < 85	9
BB	75 ≤ Marks < 80	8
BC	70 ≤ Marks < 75	7
CC	65 ≤ Marks < 70	6
CD	60 ≤ Marks < 65	5
DD	50 ≤ Marks < 60	4
FF	00 ≤ Marks < 50	0
ZZ	Absent in Examination	—

13. (i) The scope of the subjects shall be as indicated in the syllabus.
(ii) The medium of instructions and examinations shall be English.
14. Provisions of Ordinance No.18 of 2001 in respect of an Ordinance to provide grace marks for passing in a Head of passing and improvement of Division (Higher Class) and getting distinction in the subject and condonation of deficiency of marks in a subject in all the faculties prescribed by the Statute No.18, Ordinance, 2001 shall apply to each examination under this Direction.
15. An examinee who fails in the sessional subject has to resubmit fresh sessional work of that subject and shall be evaluated internally and externally in the subsequent examination. The internal marks shall be forwarded to the University through the Principal of the College / Head, University Department.
16. An examinee who does not pass or who fails to present himself/ herself for the examination shall be eligible for readmission to the same examination on payment of a fresh fees and such other fees as may be prescribed, without prosecuting the same course of study.
17. As soon as possible after the Examination, the Board of Examinations shall publish a list of successful examinees and merit list for B.Arch. Degree shall be notified under provision of Ordinance No.6.
18. Notwithstanding anything to the contrary in this Direction, no one shall be admitted to an examination under this Direction, if he/she has already passed the same examination or an equivalent examination of any Statutory University.

19. The examinees who have passed in all the subjects prescribed for the first to tenth semesters B.Arch.examination shall be eligible for award of the Degree of Bachelor of Architecture, in the prescribed form signed by the Vice-Chancellor.

Sd/-
Dr. Kamal Singh
Vice-Chancellor

DIRECTION

No. 59/2010

Date : 11/10/2010

Subject: Examinations leading to the Degree of Bachelor of Architecture (Five Year Degree Course.... Semester Pattern..... Credit Grade System)

Whereas, Direction No. 44 of 2010 relating to Examinations leading to the Degree of Bachelor of Architecture (Five Year Degree Course.... Semester Pattern..... Credit Grade System) is in existence in the University,
AND

Whereas, the Academic Council in its meeting held on 27-8-2010 vide Item No. 58 while approving the actions taken by the Hon'ble Vice-Chancellor under section 14(7) of the M.U. Act, 1994, the action on Sr. No. 36 on page No. A-4948 in Book No. 18 of 2010, the subject title appearing in Appendix-A at Sr. No. 5 in Column No. 3 "English (Communication Skills)" appearing on page No. A-4771 in Book No. 18 of 2010 has been substituted by "Architectural Communication Skills" and the subject content for the subject 1 SA 5 "English (Communication Skills)" on page Nos. A-4774 & A-4775 in Book No. 18 of 2010 has been substituted by the subject content 1 SA 5 "Architectural Communication Skills" which were circulated with the minutes of the meeting of Academic Council vide page No. A-5174,
AND

Whereas, in the above said meeting vide Item No. 59 while approving the Direction No. 44 of 2010, at Sr. No. 37 on page No. A-4728 in Book No. 21 of 2010, the subject title "English (Communication Skills)" at Sr. No. 5 in Column No. 3 appearing in First Semester of B.Arch. course, Appendix-A appended with the Direction No. 44 of 2010 has been substituted by 1 SA 5 "Architectural Communication Skills",
AND

Whereas, the process of framing the Regulation is likely to take some time,
AND

Whereas, the schemes of teaching & examinations of I & II Semesters Bachelor of Architecture course are to be implemented from the academic session 2010-2011,
AND

Whereas, syllabus for I & II Semesters Bachelor of Architecture course is to be sent for printing.

Now, therefore, I, Dr. Ku. Kamal Singh, Vice-Chancellor of Sant Gadge Baba Amravati University in exercise of powers confirmed upon me under sub section (8) of Section 14 of the Maharashtra Universities Act, 1994, hereby direct as under :-

- 1) This Direction shall be called "Examinations leading to the Degree of Bachelor of Architecture (Five Year Degree Course.... Semester Pattern..... Credit Grade System), Direction, 2010"
- 2) This Direction shall come into force from the date of its issuance.
- 3) In Appendix-A appended with the Direction No. 44 of 2010 in respect of Examinations leading to the Degree of Bachelor of Architecture (Five Year Degree Course.... Semester Pattern..... Credit Grade System), the subject title at Sr. No. 5, '1 SA 5 English (Communication Skills)' appearing in the scheme of First Semester B.Arch. course be substituted by the title "1 SA 5 Architectural Communication Skills".

Sd/-
Dr. Kamal Singh
Vice-Chancellor