

B. ARCH. SEMESTER – V
RAR – 701, PRACTICAL TRAINING

PERIODS			EVALUATION SCHEME						SUBJECT TOTAL	CREDITS	DURATION OF	
LECTURE	TUTORIAL	PRACTICAL/ STUDIO	SESSIONAL ASSESMENT			ESE					THEORY PAPER	
			CT	TA	TOTAL	THEORY	VIVA	TOTAL			F.O.A.	A.K.T.U.
0	0	0	0	400	400	0	400	400	800	20	X	X

INTRODUCTION

A. TRAINING RULES:

Extracts from Ordinances, Scheme of Examination & Syllabus:

(For the award of the degree of B. Architecture by the Dr. A.P.J. Abdul Kalam Technical University. Lucknow)

Ordinance 16 PRACTICAL TRAINING:

- 16.1 Each student will be required to proceed on 'Practical Training' for the VII semester after appearing at the VI semester examination. The Principal/Head of Department of Architecture of the concerned Institute will approve the office of the 'Practical-Training' for the student.
- 16.2 The marks for 'Practical Training' will be awarded to each student in accordance with the Regulations and Guidelines issued separately by the Dr. A.P.J. Abdul Kalam Technical University.

B. AIMS OF PRACTICAL TRAINING:

1. The aim of the 'Practical Training' is to enable the students to gain the kind and range of practical experience which will prepare them for their likely responsibilities, immediately after qualifying B. Arch. Course.
2. The 'Practical Training' should be regarded as an important academic activity. Howsoever good the arrangement of training may be, the trainee student, still, has the responsibility to use his own initiative in making the best use of the opportunities which he/she gets during training period and prepare himself/herself for the profession.
3. The student should try to seek a variety of experiences in his/her 'Training office' to acquaint himself/herself with various works, procedures etc. of building trade.

GUIDELINES FOR STUDENT TRAINEE

1. Criteria for selection of a Training Office

- In case of proprietorship firm, the proprietor shall be an architect; also, the firm shall have at least two or more architects as employee/associates.
- In case of 'Partnership' / 'Pvt. Ltd.' Firms, at least one of the partner/director shall be an architect, and the firm shall have at least one or more architects as Partner/director/employee/ associate.
- In case of a 'Public-sector' / 'State or Central Government office / Academic institute or a multinational organization', there shall be a separate wing for architectural consultancy works.
- The said architect (Proprietor/Partner/Director/Head of Department/Chief Architect etc.) shall have at least 10 years of working experience and the organization should have a variety of projects.

2. Working Relationship between Architect and Trainee

- The architect shall provide enough jobs to the trainee to keep him/her occupied.
- The Architect shall expose the trainee to difference aspects of professional practice. The tasks given to the trainee shall include the following-
 - **Preparation of**
 - Sketch designs, presentation drawings etc.
 - Municipal drawings according to the byelaws.
 - Workings drawings and details.
 - Estimates, bill of quantities & specifications.

- **Discussions with**
 - Clients.
 - Structural Consultants.
 - Services Consultants.
- **Inspection and management of site.**
- **Preparation of**
 - Models, perspectives and photographs.
 - Reports, progress charts etc.
- **Other administrative works.**

3. **Honorarium/Stipend**

- The architects usually pay some amount as honorarium/stipend to meet out of pocket expenditure to the trainee. The Institute/College of the student shall have no objection if the trainees accept/receive such honorarium/stipend.
- The mode and amount of the honorarium shall depend upon the office and be based upon a mutual agreement between the employing architect and the trainee. However it shall neither be a claim of the trainee nor binding on the architect but in order of professionalism and to maintain the dignity of profession, the training office of architects pay a respectable amount as stipend/honorarium.
- The Institute/Training and Placement cell of the Institute shall not in any way be responsible for the payment against any sorts of damages, whatsoever.

4. **Code of conduct for the trainee**

- He/she shall abide by the rules, regulations and general instructions of the office/firm.
- He/she shall remain punctual and regular in attendance.
- He/she shall make all efforts to learn the work involved in the profession, and if so required for work, shall attend the office beyond the scheduled time in the office.
- He/she shall respect and obey the senior members of the office/firm.
- He/she shall take up the job with full responsibility and show utmost interest in the work allotted.
- He/she shall inform the institute/training and placement cell about joining in the training office, its address and contact numbers. He/she shall also inform the address of the accommodation acquired during the training period.
- He/she shall remain in regular touch with the institute/‘Training and Placement Cell’ and shall keep the Training and Placement Cell fully informed about his/her progress in the training office.
- In case of any complaint or misconduct, the Institute/Training and Placement Cell may take suitable and strict action against the student

5. **Arranging/Fixing-up the Training office**

- The Department / Faculty of Architecture, directly or through the ‘Training and Placement Cell’ of the Institute shall provide a list of offices, along with their addresses of some well-established and recognized architects. Addition, alteration and deletion in such a list may be made from time to time in conformity to ‘Criteria’ as laid down for selection of a training office.
- After seeking advice from ‘Training and Placement Cell’, the student shall make his/her options available to the Training and Placement Cell.
- With the help of ‘Training and Placement Cell’, the student shall make all efforts to settle his/her appointment as trainee with an established and recognized architect.

6. **Duration of Practical Training**

- The duration of practical training is equivalent to a semester. The dates to start and finish the practical training shall coincide with the starting and finishing dates of the respective semester, in accordance to academic calendar of *Dr. A.P.J. Abdul Kalam Technical University, Lucknow*. However, the candidate can start his/her practical training before the said schedule i.e. during summer vacations.

7. **Joining and Leaving the Training Office**

- The trainee is expected to join the training office on the scheduled date, and submit his ‘**Joining Report**’ on the letterhead of the office duly signed by Head of the Training to the Institute in the Performa prescribed for the purpose and contained in the Log Book.
- The trainee must obtain a ‘**No Dues Certificate**’ duly signed by Head of the Training and get relived from the office at the end of the training period or before changing the ‘Training Office’. The trainee must submit this ‘**No Dues Certificate**’ along with the **Log Book**.

8. Change of Training Office

- In case of any emergency, a trainee may be permitted to change the training office/place of training once only during the entire period of training. He/she shall inform the Principal/Director/Head of Department/Officer in-charge of the 'Training and Placement Cell', and seek prior permission for such a change.
- The total duration of the practical training shall be the sum of the period of stay in different offices. It shall be in conformity with the 'Duration of Training' as prescribed in the 'Ordinances, Scheme of Examination & Syllabus' of the Dr. A.P.J. Abdul Kalam Technical University.

9. Final Submissions

After completion of practical training, the trainee is required to submit the following to the parent Institute.

- 'Certificate' of successful completion of the practical training, from the architect, in two original copies.
- 'Daily Diary' with details of the day to day work record, which will be returned to the student after assessment and viva voce examination.
- 'Log-Book' in the prescribed format, duly filled up and signed by the 'Supervisor'.
- 'Training report' supplemented with the prints and documents of work done during practical training. The prints and documents shall be obtained with the permission of the Training office and shall be duly signed by the 'Supervisor'.
- Training report shall be submitted in two original copies. One copy shall be returned to the student after assessment of sessional marks and viva voce examination. The second copy shall be retained by the Training and Placement Cell/library. These shall be presented in A-3 size with ring binding.

10. Failures

- In case the student/trainee remains unsuccessful or fails in completing his/her practical training or viva-voce examination, the matter shall be dealt with in accordance with the relevant 'Rules and Regulations' of the Dr. A.P.J. Abdul Kalam Technical University.

COMPOSITION OF JURY PANEL FOR INTERNAL EVALUATION / SESSIONAL OF PRACTICAL TRAINING

- Practical training shall be evaluated internally by a panel, by questioning the candidate. The panel shall consist of at least two senior faculty members (Architect) and Practical Training Coordinator in addition. The assessment shall be made out of 300 marks (250 marks for Training report, 30 marks for Log-Book and 20 marks for Daily Diary) by the panel.
In case of more than one section, in the Institute, there can be equivalent numbers of panel. In this case the panel shall consist of at least two senior faculty members (Architects) and Practical Training Co - coordinator / Asst. Practical Training Coordinator in addition.
- An assessment report (confidential) having a weightage of 100 marks out of the whole sessional marks, shall be obtained on a prescribed format (available on web site), from the training office. The report should be signed by the head of respective office.

COMPOSITION OF JURY PANEL FOR FINAL EVALUATION / EXAMINATION OF PRACTICAL TRAINING

EXAMINERS –

Each panel shall consist of -

- An Architect Director / Dean / Principal / Head of the Department / Professor of the parent institution / university.
- A faculty member (Architect) of the parent institution / university.
- An Architect Director / Principal / Head of the Department / Professor of other than the parent institution / university.
- An Eminent Architect from the profession with at least 15 years of field experience.

Kindly note that opportunity to evaluate a candidate shall be given once to a faculty member, in the semester i.e. either in jury panel of internal or final evaluation.

Further the Practical Training Coordinator(s) will act as facilitator.

B. ARCH. SEMESTER – V
RAR – 702, SEMINAR / PRESENTATION

PERIODS			EVALUATION SCHEME						SUBJECT TOTAL	CREDITS	DURATION OF	
LECTURE	TUTORIAL	PRACTICAL/ STUDIO	SESSIONAL ASSESMENT			ESE					THEORY PAPER	
			CT	TA	TOTAL	THEORY	VIVA	TOTAL			F.O.A.	A.K.T.U.
0	0	0	0	100	100	0	100	100	200	4	X	X

OBJECTIVES

The presentation in this course shall cover, over and above the regular work done (in RAR - 701) by the trainee during the training period. It shall fulfill the following objectives -

- To make trainees understand and feel the importance of observation of Buildings of Importance, Historical places, Areas of prominence etc. within the city and nearby areas of training. The trainees shall present it through travelogue, photographs, measure drawings etc.
- To attend Conferences, Seminars, Workshops, Exhibitions etc. related to field of architecture during their period of training.
- To make students experience the issues related to Site Supervision and Execution through interactive outcomes with masons, site supervisors, vendors and other related professionals.

The trainee is expected to accomplish all the above three objectives during training period along with the period of summer - break.

SUBMISSIONS

After completion of practical training, the trainee is required to present / submit the following to the parent Institute / university.

- All relevant drawings / sketches, site measures etc. as .jpeg image incorporated in power point format. The travelogue both in soft and hard copies in two numbers.
- Brochure / Study material etc. of Conferences, Seminars, Workshops, Exhibitions etc. attended in two sets.
- Diary, where interactive outcomes at site is noted down, along with photographs of site visits in one set.

COMPOSITION OF JURY PANEL FOR INTERNAL EVALUATION / SESSIONAL OF SEMINAR / PRESENTATION

Seminar / Presentation shall be evaluated internally by a panel, by questioning the candidate. The panel shall consist of at least two senior faculty members (Architect) and Practical Training Coordinator in addition. The assessment shall be made out of 100 marks by the panel.

In case of more than one section, in the Institute, there can be equivalent numbers of panel. In this case the panel shall consist of at least two senior faculty members (Architects) and Practical Training Co - coordinator / Asst. Practical Training Coordinator in addition.

COMPOSITION OF JURY PANEL FOR FINAL EVALUATION / EXAMINATION OF SEMINAR / PRESENTATION

EXAMINERS –

Each panel shall consist of -

- An Architect Director / Dean / Principal / Head of the Department / Professor of the parent institution / university.
- A faculty member (Architect) of the parent institution / university.
- An Architect Director / Principal / Head of the Department / Professor of other than the parent institution / university.
- An Eminent Architect from the profession with at least 15 years of field experience.

Kindly note that opportunity to evaluate a candidate shall be given once to a faculty member, in the semester i.e. either in jury panel of internal or final evaluation.

Further the Practical Training Coordinator(s) will act as facilitator.

B. ARCH. SEMESTER – VIII
NAR – 801, ARCHITECTURAL DESIGN - VII

PERIODS			EVALUATION SCHEME						SUBJECT TOTAL	CREDITS	DURATION OF	
LECTURE	TUTORIAL	PRACTICAL/	SESSIONAL ASSESMENT			ESE					THEORY PAPER	
		STUDIO	CT	TA	TOTAL	THEORY	VIVA	TOTAL			F.O.A.	A.K.T.U.
1	0	8	30	70	100	75	25	100	200	7	6+6+6 HRS	7 HRS

OBJECTIVES

- Understanding design as a process of problem identification, space standards, formulation of requirements, evolution of design criteria and development of design of buildings in urban context, phasing and development.
- Understanding relationship of buildings amongst themselves and with a given environment.
- Incorporating the agenda of building bye laws, structure, site planning and landscape and services within existing context.

Module-1	Introduction	Understanding the importance of ‘context’ and built urban environment in design and lessons to be learnt in contextual insertions.
Module-2	Study and Analysis	Examining an existing urban environment for establishing parameters that influence contextual insertion within that fabric.
Module-3	Design Proposal	Design of multi-utility buildings / campus / complexes incorporating the constraints derived from the context it is placed in.

SUGGESTED STUDIO EXERCISES

1. Study of a given urban fabric with underlying context.
2. Urban Intervention Projects: Design of buildings / building complexes in specific urban contexts such as heritage zones, near existing and within built environments.
3. Development of projects containing group of buildings with multiplicity of constraints such as relationship of land uses, space, architectural character, circulation, movement landscape and buildings.
4. The exercises such as redevelopment and urban improvement projects shall be generated after understanding the existing physical, socio-cultural, economic and political context surrounding activities etc.

APPROACH

- Design methodology shall take precedence over design.
- Model of existing site and context shall be prerequisite for design insertions.
- Part of project may be done in groups to develop teamwork and multi-faceted approach to design.

REFERENCE BOOKS

1. Architecture Today.
2. Concept to the manifest.
3. Projects of various Architects of similar nature.

CRITERIA FOR ASSESSMENT OF SESSIONALS

S.NO.	PARTICULARS	NO. OF ASSIGNMENTS	MARKS PER ASSIGNMENT	TOTAL
1	Seminar / Presentation / Site Report of Module - 1	1	5	5
2	Detailed Study of Existing Urban Fabric with Model(s) Developing the Context where Insertion is to be done of Module - 2	5	5	25
3	Design Exercises (Major) with Models of Module - 3	2	20	40
			TOTAL	70

B. ARCH. SEMESTER – VIII
RAR – 802, CONSTRUCTION & MATERIALS – VII

PERIODS			EVALUATION SCHEME						SUBJECT TOTAL	CREDITS	DURATION OF	
LECTURE	TUTORIAL	PRACTICAL/	SESSIONAL ASSESMENT			ESE					THEORY PAPER	
		STUDIO	CT	TA	TOTAL	THEORY	VIVA	TOTAL			F.O.A.	A.K.T.U.
2	0	4	25	50	75	50	25	75	150	4	3 HRS	3 HRS

OBJECTIVES

- To introduce and familiarize the students with the usage of various metal/gypsum board partitions and false ceilings construction works.
- To introduce and familiarize the students with the various asbestos cement products for construction works.
- To introduce and familiarize the students with the various water proofing compounds used in construction works.
- To introduce and familiarize the students with the usage of various Plastics and Rubbers in construction works.
- To study the causes and remedies of various defects in existing and new construction.
- To familiarize the student with the advanced building construction practices on site.

SECTION – A, BUILDING MATERIALS AND SCIENCES

Module-1 Gypsum & Asbestos Products	Introduction - Gypsum Board, Suspended Ceiling (Board & Tiles), Gypsum Plaster, Components and Accessories. Jointing and Finishing. Understanding of various Asbestos Cement products available for application in building industry.
Module-2 Water Proofing Compounds	Various waterproofing compounds - Neoprene, Butyl, EPDM, PVC, Polyurethane.
Module-3 Plastics and Rubbers	Thermoplastics - Polythene, Polyvinyl chloride, Poly-propylene, Polymethyl methacrylate, Acrylonitrile butadiene styrene. Thermosetting Plastics – Phenol formaldehyde, Urea formaldehyde, Melamine formaldehyde, Polyurethane, Silicong resin. Rubber.

LIST OF ASSIGNMENTS (Market Surveys, Seminars & Report)

1. To study the availability, constituents, properties, manufacturing processes, storage, transportation and applications of above mentioned materials.
2. To visit gypsum, asbestos, plastic factory etc. for better understanding and submit report.

WORKSHOP/CONSTRUCTION YARD PRACTICE & SITE EXPOSURE

Module-4 Workshop/Construction Yard Practice	Practicing in construction yard by making the examples of Gypsum board partition & false ceiling, P.V.C. doors and windows.
Module-5 Site Exposure	Exposure to advanced building construction practices on site of various items of work from foundation to roof and finishes.

LIST OF ASSIGNMENTS

1. To study the various tools, equipments used in precast works.
2. To construct examples of precast works in construction yard.
3. To survey construction work on site and submit report.

SECTION – B, BUILDING CONSTRUCTION TECHNOLOGY

Module-6 Partitions & False Ceilings (Gypsum Board)	Construction details of Metal Stud Partition (single layer). Construction details of Suspended Ceilings
Module-7 Water Proofing Works	Basements, Toilets, Kitchens, Terrace gardens. Expansion joints.
Module-8 Joints	Special Construction joints. Seismic joints.
Module-9 Doors & Windows (P. V. C.)	Door Frame and Shutters. Windows Frames and Shutters.
Module-10 Defects and Remedies	The study of various defects in buildings and their remedies. Defects caused by dampness, applied forces and changes in size.

CONSTRUCTION PLATES

1. To understand the application of gypsum board in metal stud partitions in building.
2. To understand the application of gypsum board in suspended / false ceilings in building.
3. To understand the application of water proofing works in building.
4. To understand the application of construction and seismic joints in building.
5. To understand the application of P.V.C. Doors.
6. To understand the causes and remedies of various defects in existing and new construction.

APPROACH

- The students would be familiarized with vernacular terminology as prevalent in this part of the country.
- The emphasis will be construction details as applicable to Indian conditions.
- Site visits and market surveys will be an integral part of sessional work.

REFERENCE BOOKS

1. McKay, W.B., "Building Construction Volume I, II, III and IV", Longmans, 1955.
2. Ching, Francis D. K. and Adams, Cassandra, "Building Construction Illustrated", Wiley and Sons, 2000.
3. The Construction of Buildings – Barry Volume I, II, III and IV
4. Chudley, Roy, "Construction Technology", Longman, 2005.
5. Building Construction_Mitchell (Elementary and Advanced)
6. Rangwala, S. C., "Building Construction", Charotar Publishing House, 2007
7. Building Construction-Bindra &Arora.
8. Punmia B. C., Jain A. J., and Jain A.J., Building Construction, Laxmi Publications, 2005.
9. Mitchell's Structure & Fabric-II
10. Prestressed Concrete Structures: P. Dayaratnam
11. Concrete: Microstructure, Properties and Materials P. Kumar Mehta
12. Properties of Concrete A. M. Neville
13. Concrete Admixture Handbook: Properties, Science & V. S. Ramchandran Technology
14. Modern Prestressed Concrete: J. R. Libby
15. Principle & Practices of Heavy Construction: Smith & Andres
16. Don A.Watson, Construction Materials and Processes, McGraw Hill Co.
17. Building Materials by SC Rangwala: Charotar Pub. House, Anand
18. M. Gambhir, NehaJamwal, Building Materials Products, Properties and Systems, Tata McGraw Hill Publishers, New Delhi, 2011.
19. R.K.Gupta, Civil Engineering Materials and Construction Practices, Jain brothers, New Delhi, 2009.
20. National Building Code of India (Latest Edition), Bureau of Indian Standards.
21. Engineering Materials-Deshpande.
22. Engineering Material-Roy Chowdary
23. Designing with models – Criss. B. Mills.
24. Morris, M., "Architecture and the Miniature: Models", John Wiley and Sons, 2000.
25. Mills, Criss B., "Designing with Models: A Studio Guide to Making and Using Architectural Models", Thomson and Wadsworth, 2000.
26. Raghuwanshi, B.S., "A Course in Workshop Technology - Vol. I and II", Dhanpat Rai and Co, 2001.
27. Wenninger (Magrus.J.) Spherical Models, Cambridge University Press, 1979
28. Testing of Concrete in Structures J H Bungey and S. G. Millard
29. Non-destructive testing V. M. Malhotra
30. Learning from failure – deficiencies in Design, Construction and Service R N Raikar
31. Concrete: Repair and Maintenance Illustrated, Problem Analysis, Repair strategy and Techniques Peter Emons & Gajanan Sabnis
32. Construction Failure Jacob Feld, Kenneth Harper.

CRITERIA FOR ASSESSMENT OF SESSIONALS

S.NO.	PARTICULARS	NO. OF ASSIGNMENTS	MARKS PER ASSIGNMENT	TOTAL
1	Construction Sheets/Plates of Module 6 – 10	6	4	24
2	Tutorial/Quiz/Sketches of Module 1 – 5	2	3	6
3	Market Survey & Seminar of Module 1 – 3	1	10	10
4	Workshop/Yard of Module 4	1	4	4
5	Site Visit Reports of Module 5	2	3	6
			TOTAL	50

B. ARCH. SEMESTER – VIII
RAR – 803, ARCHITECTURAL STRUCTURES - VII

PERIODS			EVALUATION SCHEME						SUBJECT TOTAL	CREDITS	DURATION OF	
LECTURE	TUTORIAL	PRACTICAL/ STUDIO	SESSIONAL ASSESMENT			ESE					THEORY PAPER	
			CT	TA	TOTAL	THEORY	VIVA	TOTAL			F.O.A.	A.K.T.U.
2	1	0	15	35	50	50	0	50	100	2	3 HRS	3 HRS

OBJECTIVES

- To understand the reinforcement cement concrete design of structural elements

Module-1	Analysis & Design of Roof Trusses (Steel)	Introduction and terminology of Roof Trusses, Types of Trusses, Analysis and design of Roof Truss (Fan Type) in Steel.
Module-2	Analysis & Design of Raft Foundation (R.C.C.)	Introduction and need of Raft foundation. Analysis and design in R.C.C.
Module-3	Analysis & Design of Shell Structures (R.C.C.)	Introduction to various types of shell structures. Analysis and design of shell structure (Hemi-spherical Dome) in R.C.C.
Module-4	Analysis and design of Pre Stressed Concrete	Introduction, Element of pre stressed concrete, Advantages and disadvantages of prestressed concrete, Reinforced concrete versus prestressed concrete, General Principles of prestressing concrete member and Systems of prestressing, Loss of prestress. Analysis and design of prestress concrete beam.
Module-5	Multistoried Buildings	Introduction, Structural systems, Stiffening elements, Need for redundancy, Regularity, Member stiffness, Loads (Dead loads, Live loads, Wind loads), Approximate analysis for vertical loads and lateral loads, Effect of sequence of construction, Partition walls or infill walls, Coupling effect in buildings, Effect of joint width, Beam to column joint. Introduction to various loads resisting system.

APPROACH

- Lectures by Experts in the field of Design and analysis will be arranged to make the student's exposure to practical aspects of design.

REFERENCE BOOKS

- Reinforced Concrete Design- AK. Jain.
- Earthquake Resistant Design of Structures- Manish Shrikhande and Pankaj Agarwal.
- Advance reinforced concrete design – P.C.Varghese.
- Structural Design & Drawing Reinforced Concrete & Steel – N Krishna Raju
- Steel Structures Design & Drawing – Prof. Harbhajan Singh Col. (Retd.)

CRITERIA FOR ASSESSMENT OF SESSIONALS

S.NO.	PARTICULARS	NO. OF ASSIGNMENTS	MARKS PER ASSIGNMENT	TOTAL
1	Tutorial of Module 1 - 5	5	7	35
			TOTAL	35

B. ARCH. SEMESTER – VIII
RAR – 804, TOWN PLANNING

PERIODS			EVALUATION SCHEME						SUBJECT TOTAL	CREDITS	DURATION OF	
LECTURE	TUTORIAL	PRACTICAL/ STUDIO	SESSIONAL ASSESMENT			ESE					THEORY PAPER	
			CT	TA	TOTAL	THEORY	VIVA	TOTAL			F.O.A.	A.K.T.U.
1	0	2	15	35	50	50	0	50	100	3	3 HRS	3 HRS

OBJECTIVES

- To develop an appreciation of the planning issues involved at the scale of a town or a city.
- To expose the students to the history and development of planning, its relevance & application to modern day principles of town planning.

Module 1	Introduction to Town Planning & Theories	Definitions of town planning, form of planning, Elements and planning principal of city plan, Shapes of plan in accordance to road networks. Introduction to basic planning theories Indus Valley, Ancient (Vedic) planning systems.
Module 2	Planning Concepts and Evolution	Planning concepts related to City beautiful movement (Chicago, Chandigarh), Urban Utopia (Broadacre), Garden city (Letchworth), Radburn Theory (Radburn) and Neighbourhood planning.
Module 3	Planning Process & Standards	Understanding of planning process. Relevance of standards in planning as per URDPFI guidelines prepared by TCPO.
Module 4	Roads and Traffic Studies	Awareness of concepts related to various traffic problems in India. Understanding of PCU, Traffic volume, Road capacities, Road types; their sections and intersections, Traffic calming as per IRC guidelines.
Module 5	Modern Transportation Systems	New concepts in mass and rapid transportation systems e.g. BRT, LRT and Metro rail.
Module 6	Modern Approach in Planning	Introduction, Benefits and Planning components of Green City (e.g. Vancouver), Compact City (e.g. Sky city, China) and Smart City (e.g. Malta)

REFERENCE BOOKS

1. John Ratcliffe, An Introduction to Town and Country Planning, Hutchinson 1981
2. Arthur B. Gallion and Simon Eisner, The Urban Pattern – City planning and Design, Van Nostrand Reinhold company
3. Rangwala, Town Planning, Charotar publishing house
4. G.K.Hiraskar, Town Planning
5. Rame Gowda, Urban and Regional planning
6. V.N.Ambedkar, Town and country planning and Housing, orient longman, 1971
7. URDPFI Guidelines for Planning by TCPO.
8. IRC Guidelines.
9. Abir Bandhopadhyay, Town Planning.
10. Binode Behari Dutt, Town Planning in Ancient India.

CRITERIA FOR ASSESSMENT OF SESSIONALS

S.NO.	PARTICULARS	NO. OF ASSIGNMENTS	MARKS PER ASSIGNMENT	TOTAL
1	Tutorial of Module 2 - 6	5	5	25
2	Seminar/Presentation of Module 1	1	10	10
			TOTAL	35

B. ARCH. SEMESTER – VIII
RAR – 805, ELECTIVE – I (SKILL BASED)); A–GRAPHIC DESIGN

PERIODS			EVALUATION SCHEME						SUBJECT TOTAL	CREDITS	DURATION OF	
LECTURE	TUTORIAL	PRACTICAL/ STUDIO	SESSIONAL ASSESMENT			ESE					THEORY PAPER	
			CT	TA	TOTAL	THEORY	VIVA	TOTAL			F.O.A.	A.K.T.U.
1	0	2	30	70	100	0	0	0	100	2	X	X

OBJECTIVES

- Demonstrate a thorough understanding of the elements of graphic design.
- Read, understand and communicate in the language of graphic design.
- Use technology such as Photoshop, Illustrator, Corel Draw and Internet Explorer.

Module-1 Introduction to the Graphic Design

History of Graphic Design, Future of Graphic Design.

Module-2 Basic Design

Development of aesthetic sensibility towards design. Elements and principles of design.

Module-3 Calligraphy and Typography

Anatomy of a letter, Typefaces, Typographic measurement, Typographic standards, Typographic guidelines

Module-4 Creating Images for Print & Web

Formats, Resolution, Raster Vs Vector. Ethics and Copyright laws.

Use of particular image formats for individual projects to create collages, logos, cd covers, etc. with the help of Photoshop.

Corel Draw and illustrator software.

Images scanned from the internet to create projects while learning to cite sources.

APPROACH

- In teams students create a business proposal and create branding for that business including a commercial and magazine ad. They present the product to all students.

REFERENCE BOOKS

1. Stuart Trolley, Min: The New Simplicity in Graphic Design, 1960
2. John Krull, Graphis Design Annual, 2017
3. Timothy Samara, Making and Breaking the Grid, Second Edition, Updated and Expanded: A Graphic Design Layout Workshop.

CRITERIA FOR ASSESSMENT OF SESSIONALS

S.NO.	PARTICULARS	NO. OF ASSIGNMENTS	MARKS PER ASSIGNMENT	TOTAL
1	Tutorial of Module 1 - 3	3	10	30
2	Seminar/Presentation of Module 1 - 3	1	20	20
3	Hands on – Branding proposal of Module 4	1	20	20
			TOTAL	70

B. ARCH. SEMESTER – VIII
RAR – 805, ELECTIVE – I (SKILL BASED)); B–CERAMICS

PERIODS			EVALUATION SCHEME						SUBJECT TOTAL	CREDITS	DURATION OF	
LECTURE	TUTORIAL	PRACTICAL/ STUDIO	SESSIONAL ASSESMENT			ESE					THEORY PAPER	
			CT	TA	TOTAL	THEORY	VIVA	TOTAL			F.O.A.	A.K.T.U.
1	0	2	30	70	100	0	0	0	100	2	X	X

OBJECTIVES

- To understand the versatility of clay, as a materials.
- To introduce ceramics, thereby creating various forms/pots while doing hands-on exercises.

Module-1 Study of Various Types of Clay	Clay body making, building shapes by coil & slab. Practice & throwing on wheel. Simple glazes.
Module-2 Preparing Different Clay Bodies	Creating three dimensional forms with the help of potter's wheel. Methods of Biscuit firing. Glaze making & glaze firing.
Module-3 Callographs	Round & relief shapes by coil, Slab moulding and wheel work. Moulding & casting tile making. Biscuiting and glaze firing.
Module-4 Pottery	Pots and shapes made by coil method. Pot making by throwing on potter's wheel (elementary)

CRITERIA FOR ASSESSMENT OF SESSIONALS

S.NO.	PARTICULARS	NO. OF ASSIGNMENTS	MARKS PER ASSIGNMENT	TOTAL
1	Tutorial/Study Model of Module 1 - 3	3	10	30
2	Seminar/Presentation of Module 1 - 3	1	20	20
3	Hands on – Product out of Clay of Module 4	1	20	20
			TOTAL	70

B. ARCH. SEMESTER – VIII
RAR – 805, ELECTIVE – I (SKILL BASED)); C-ADVANCED MODEL MAKING

PERIODS			EVALUATION SCHEME						SUBJECT TOTAL	CREDITS	DURATION OF	
LECTURE	TUTORIAL	PRACTICAL/ STUDIO	SESSIONAL ASSESMENT			ESE					THEORY PAPER	
			CT	TA	TOTAL	THEORY	VIVA	TOTAL			F.O.A.	A.K.T.U.
1	0	2	30	70	100	0	0	0	100	2	X	X

OBJECTIVES

- To introduce model making as a generative process, a tool in Design generation.
- To inculcate the dynamic act of model making in thinking process.
- To explore conventional and less conventional techniques of representation in an attempt to creative visualization and to understand drawings as vehicles of thinking.
- To understand the versatility in making models ranging from study to presentation and in varying scales and materials.

Module-1 Surface Development

Methods of surface development by Parallel-line, Radial-line, Triangulation methods, approximate methods, development of lateral surfaces of right solids, viz. Cubes, prisms, cylinders, pyramids, cones. Development of transition pieces, for spheres etc. Paper folding – Origami.

Module-2 Model Making Techniques

Generative / geometry, fractals, parametric / material explorations (both in traditional materials like mount, foam, thermacol, clay, plaster of Paris, paper Mache, wood and new age materials like polystyrene, Aerocon blocks, plastics, meshes, and processes like carpentry, casting, moulding, welding ,laser cutting, CNC cutting etc.

Module-3 Use of Advanced Tools and Materials

Painting model surfaces with various finishes, development of topography and landscape elements, use of materials like cork, polyurethane foam, use of laser, acid etching, stereolithographic (3D printing) for development of building and their envelopes.

Module-4 Presentation Models

Skills to use the tools with precision, Techniques for preparation of presentation models. General information and practice with different finishing material. Exercises involving topography, textures, landscapes, human elements etc.

APPROACH

- Students are made to explore a variety of tools and software that are available for the design process, which includes form exploration, modeling, and producing drawings. For Project students will be asked to develop digital generative drawings and then encouraged to develop their abilities in modeling their designs.

REFERENCE BOOKS

1. Werner, M. (2011). Model Making. New York: Princeton Architectural Press.
2. Jannsen, Constructional Drawings & Architectural models, Kari Kramer Verlag Stuttgart, 1973.
3. Harry W.Smith, The art of making furniture in miniature, E.P.Dutton Inc., New York, 1982.

CRITERIA FOR ASSESSMENT OF SESSIONALS

S.NO.	PARTICULARS	NO. OF ASSIGNMENTS	MARKS PER ASSIGNMENT	TOTAL
1	Tutorial/Study Model of Module 1 - 3	3	10	30
2	Seminar/Presentation of Module 1 - 3	1	20	20
3	Hands on – Installation (Outdoor/Indoor) of Module 4	1	20	20
			TOTAL	70

B. ARCH. SEMESTER – VIII
RAR – 805, ELECTIVE – I (SKILL BASED)); D–PHOTOGRAPHY

PERIODS			EVALUATION SCHEME						SUBJECT TOTAL	CREDITS	DURATION OF	
LECTURE	TUTORIAL	PRACTICAL/ STUDIO	SESSIONAL ASSESMENT			ESE					THEORY PAPER	
			CT	TA	TOTAL	THEORY	VIVA	TOTAL			F.O.A.	A.K.T.U.
1	0	2	30	70	100	0	0	0	100	2	X	X

OBJECTIVES

- To impart the skills of taking aesthetically appealing and creative architectural photographs through the use of appropriate cameras / lenses and lighting conditions.

Module-1 Introduction

Introduction to architectural photography. Various types of compositions framing, silhouette photography.

Module-2 Types of Camera

Use of various cameras, lenses and accessories, handling of equipment. SLR, DSLR cameras, lenses for different focal lengths for various contexts. Use of wide angle, normal, tele, zoom, macro, close up lenses. Filters-UV, Skylight, colour filters, special effect filter. Shutter speeds - slow, normal and high and their various applications. Apertures - use of various apertures to suit different lighting conditions and to enhance depth of fields.

Module-3 Architectural Photography

Optimizing selection of shutter speed, aperture and ISO. Twilight and night photography. Various uses of photography - documentation, presentations, competitions, lecture etc. Architectural Photography, Exterior and Interior photography. Practical exercises to understand composition.

Module-4 Photographic Documentation

Creative photography / photo renderings for special effects using software. Play of light and shadows to achieve dramatic pictures. Effects of seasons, inclusion of greenery, foliage, clouds, human scale etc. Photo documentation of buildings highlighting quality of architectural elements and spaces.

APPROACH

- A teacher should give an intensive introduction to photography including darkroom techniques to develop visual perception through observation, composition, colour and light interaction, shades, as well as positive / negative space relationships.

REFERENCE BOOKS

- Schulz, Adrian. Architectural Photography: Composition, Capture, and Digital Image Processing, Rocky Nook, 2012.
- McGrath, Norman . Photographing Buildings Inside and Out, Watson-Guptill Publications, 1993.
- Harris, M. (2002). Professional Interior Photography. Focal Press.
- Heinrich, M. (2008). Basics Architectural photography. Birkhauser Verlag AG

CRITERIA FOR ASSESSMENT OF SESSIONALS

S.NO.	PARTICULARS	NO. OF ASSIGNMENTS	MARKS PER ASSIGNMENT	TOTAL
1	Tutorial of Module 1 - 3	3	10	30
2	Seminar/Presentation of Module 1 - 3	1	20	20
3	Hands on – Photographic documentation of any Building of Importance of Module 4	1	20	20
			TOTAL	70

B. ARCH. SEMESTER – VIII
RAR – 805, ELECTIVE – I (SKILL BASED)); E-PARAMETRIC DESIGN

PERIODS			EVALUATION SCHEME						SUBJECT TOTAL	CREDITS	DURATION OF	
LECTURE	TUTORIAL	PRACTICAL/ STUDIO	SESSIONAL ASSESMENT			ESE					THEORY PAPER	
			CT	TA	TOTAL	THEORY	VIVA	TOTAL			F.O.A.	A.K.T.U.
1	0	2	30	70	100	0	0	0	100	2	X	X

OBJECTIVES

- To understand the recent development of parametric design in architecture both as a discourse and as a tool.
- To provide a brief yet systematic conceptual framework to parametric design in contemporary architectural practices.
- To develop in students' basic skills in using parametric tools such as Grasshopper, Dynamo.

Module-1 Elements of Parametric Design and Design Patterns	Introduction to Parametric design, Historical development of parametric design, The structure of parametric design processes, their characteristics and reusable parametric design approaches
Module-2 Fundamental Concepts of Geometric Modeling	Spatial coordinates, Projections, Boolean operations, Formal transformations, Freeform surface creation, Surface development and deformations aimed at architecture applications, Discretization and meshing, Digital prototyping and geometry reconstruction. Concepts in computational geometry applied to parametric architectural geometry modeling.
Module-3 Parametric Modeling Techniques and Tools	Introduction of tools for model design parametrically to illustrate the construction of geometrical relationships among complex shapes. Focus on hands-on techniques that can be applied to the design process, to extend the efficiency and productivity of work during the process.
Module-4 Digital Fabrication	Use of softwares like Rhino, Grasshopper, Kangaroo, Revit and Dynamo. Using 3D digital modeling to efficiently produce components without the need for 2D representation.
Module-5 Parametric Design & Environment	Use of Ladybird and honeybee plugins for simulation.

APPROACH

- Through the combination of lectures, hands-on workshops and project-based seminars

REFERENCE BOOKS

- Gips, James. "Computer implementation of shape grammars." In NSF/MIT workshop on shape computation, vol. 55, p. 56. Cambridge, MA: Massachusetts Institute of Technology, 1999.
- Piker, Daniel. "Kangaroo: form finding with computational physics." Architectural Design 83, no. 2 (2013): 136-137.
- Ingels, Bjarke. Hot to cold: an odyssey of architectural adaptation. No. 72: 504 72: MedioAmbiente. BIG Bjarke Ingels Group., 2015.
- Schumacher, Patrik. "Parametricism: A new global style for architecture and urban design." Architectural Design 79, no. 4 (2009): 14-23.
- Sakamoto, Tomoko, ed. From control to design: parametric/algorithmic architecture. Actar-D, 2008.

CRITERIA FOR ASSESSMENT OF SESSIONALS

S.NO.	PARTICULARS	NO. OF ASSIGNMENTS	MARKS PER ASSIGNMENT	TOTAL
1	Tutorial / Digital Modelling of Module 1 - 3	3	10	30
2	Seminar/Presentation of Module 1 - 3	1	20	20
3	Hands on – Digital Fabrication of Module 4	1	20	20
			TOTAL	70

B. ARCH. SEMESTER – VIII
RAR – 805, ELECTIVE – I (SKILL BASED)); F–ALTERNATE BUILDING TECHNIQUES

PERIODS			EVALUATION SCHEME						SUBJECT TOTAL	CREDITS	DURATION OF	
LECTURE	TUTORIAL	PRACTICAL/ STUDIO	SESSIONAL ASSESMENT			ESE					THEORY PAPER	
			CT	TA	TOTAL	THEORY	VIVA	TOTAL			F.O.A.	A.K.T.U.
1	0	2	30	70	100	0	0	0	100	2	X	X

OBJECTIVES

- To enable the students to understand the alternative building techniques other than conventional ones with relation to economic and environmental outcomes.

Module-1 Introduction

Types of alternative building techniques like, Earth, Flyash, Bamboo, Thatch, Ferro-cement, etc. Advantages of alternative building techniques over conventional methods. Alternative methods of construction related to different materials and their comparison. Upgradation, modification and revision of various methods of construction

Module-2 Earth

Components of earth: gravel, sand, silt and clay. Characteristics, advantages and disadvantages, needs and usage of various methods of construction like walling, flooring and roofing techniques. Composite materials made from earth like rammed earth, compressed stabilised earth blocks, stacked earth, sun dried clay bricks, steam cured blocks, Wattle and Daub.

Module-3 Bamboo

Filler slab, Jack arch roof. Characteristics, advantages and disadvantages, needs and usage of various methods of construction like walling, flooring and roofing techniques. Preservation of bamboo, bamboo tiles, shingles, bamboo joints.

Module-4 Recycled Waste Materials

Types of waste used in construction. Benefits of using recycled waste materials. Materials made out from waste paper, wood, plastic bottles, plastic bags, earthen materials, steel, aluminium, copper, bricks, gypsum, straw, wool, carpets etc, Techniques of using these materials in building construction.

APPROACH

- A workshop should be conducted on any of the above mentioned building techniques.

REFERENCE BOOKS

- Lewis Davidson Gotlieb, Environment and design in housing, The Mc.Millan Corp, New York.
- Housing and building in hot-humid and hot dry climate/
- Low-cost housing in developing countries/ Mathur,

CRITERIA FOR ASSESSMENT OF SESSIONALS

S.NO.	PARTICULARS	NO. OF ASSIGNMENTS	MARKS PER ASSIGNMENT	TOTAL
1	Tutorial / Digital Modelling of Module 1 - 4	4	7.5	30
2	Seminar/Presentation of Module 1 - 4	1	20	20
3	Hands on – Installation (Outdoor/Indoor) of Module 2 -4	1	20	20
			TOTAL	70

B. ARCH. SEMESTER – VIII
RAR – 806, ARCHITECTURAL SERVICES – V (ACOUSTICS)

PERIODS			EVALUATION SCHEME						SUBJECT TOTAL	CREDITS	DURATION OF	
LECTURE	TUTORIAL	PRACTICAL/ STUDIO	SESSIONAL ASSESMENT			ESE					THEORY PAPER	
			CT	TA	TOTAL	THEORY	VIVA	TOTAL			F.O.A.	A.K.T.U.
1	1	0	15	35	50	50	0	50	100	2	3 HRS.	3 HRS.

OBJECTIVES

- To understand the basic principles of physics of sound.
- To make them enable to apply the knowledge in various buildings.
- To get familiarized with sound system equipments, available in market.
- To familiarize the student with laws as per National Building Code of India/BIS.

Module-1 Building Acoustics

Introduction -

Terminology and unit.

Characteristics of audible sound – Propagation, Velocity, Frequency, Pitch, Quality/timbre, Loudness and Intensity.

Behavior of audible sound in enclosures – Reflection, Absorption, Diffraction and Transmission of sound.

Common acoustical defects and recommended remedies–

Echo, Sound foci, Dead spots, Sound shadows, Resonance, Insufficient loudness, External noise and Reverberation.

Sabine's expression for calculation of Reverberation time.

Absorbents and absorption coefficient.

Noise control –

Noise and its types, Noise pollution.

Sources of indoor noise, Indoor noise levels, Planning and design against indoor noise.

Sources of outdoor noise, Traffic noise levels, Planning and design against outdoor (traffic & buildings in built-up area) noise.

Identification of various sources of noise and recommendations to control them in various types of buildings e.g. – Residential, Educational, Hospital, Office, Hotels & Hostels, Industrial, Laboratories & Test houses, Miscellaneous buildings etc.

Constructional measures for sound insulation of buildings –

Materials, Hollow & composite wall construction, Floors & Ceilings.

Properties of good acoustical materials.

Sound system –

Sound reinforcement system, Public address system.

Familiarization and understanding of sound system equipment specification e.g. Amplifiers, Microphones, Speakers, Mixers, Conference systems and accessories.

Acoustical design principles and factors–

Acoustical design principles for Auditoriums, Cinema halls, Conference rooms etc. and factors viz. Site selection & planning, Dimensions, Shape, Seats & seating arrangements, Treatment of interior surfaces, Reverberation & sound absorption.

SECTION – B, APPLICATION

Module-2 Acoustical Design

The understanding the audio needs and layout for projects e.g. Auditoriums, Cinema halls, Conference rooms etc.

Module-3 Field / Market Surveys

Familiarization and understanding of sound system equipment available in market manufactured by various brands e.g. Amplifiers, Microphones, Speakers, Mixers, Conference systems and accessories.

REFERENCE BOOKS

1. National Building Code of India.
2. National Electrical Code.
3. K. A. Siraskar, Acoustics in Building Design, Orient Longman Ltd., 1972.
4. S. Kandaswamy, Architectural Acoustics and Noise Control, Allied publishers Pvt. Ltd., 2005.
5. Catalogues of leading Audio equipments agencies e.g. Philips, Ahuja etc.

CRITERIA FOR ASSESSMENT OF SESSIONALS

S.NO.	PARTICULARS	NO. OF ASSIGNMENTS	MARKS PER ASSIGNMENT	TOTAL
1	Tutorial of Module 1	6	3	18
2	Seminar/Presentation of Module 2	1	10	10
3	Site Visit Reports of Module 3	1	7	7
			TOTAL	35

B. ARCH. SEMESTER – VIII
RAR – 807, THEORY OF ARCHITECTURE

PERIODS			EVALUATION SCHEME						SUBJECT TOTAL	CREDITS	DURATION OF	
LECTURE	TUTORIAL	PRACTICAL/ STUDIO	SESSIONAL ASSESMENT			ESE					THEORY PAPER	
			CT	TA	TOTAL	THEORY	VIVA	TOTAL			F.O.A.	A.K.T.U.
2	1	0	15	35	50	50	0	50	100	2	3 HRS.	3 HRS.

OBJECTIVES

- To provide to students a strong knowledge base on, the various theories and concepts of design and how philosophy and strategies are related to architecture.
- This course aims to evolve a conceptual framework for intelligent appreciation of Architecture and to develop a vocabulary for discussing design ideas at a broader level

Module-1	Pre Modern	Antonio Gaudi; Charles Rennie Mackintosh; Antonio Sant'Elia; Adolf Loos; Auguste Perret; Peter Behrens; Bruno Taut; Gerrit Reitveld; Tatlin
Module-2	Modern	Gropius; Mies Van der Rohe; Frank Lloyd Wright; Le Corbusier; Alvar Aalto; Terragini; Louis Kahn.
Module-3	Post Modern	<p>Spatial/Deconstruction: Frank O Gehry, Michael Graves, Peter Eisenman, Moore, Richard Meier, Robert Venturi, Zaha Hadid, Coop Himmelblau, Richard Rogers, Tadao Ando, Rem Koolhaas, Herzog and de Meuron, Daniel Libeskind.</p> <p>Historicism: Michael Graves & Robert Venturi, Bernard Tschumi.</p> <p>Urbanist: Mario Botta, Aldo Rossi, Cesar Pelli.</p> <p>Classicists: Arata Isozaki, Michael Graves, Mario Botta.</p> <p>Revivalists: Louis I Kahn, James Stirling, Charles Gwathmey, Richard Meier.</p> <p>Vernacular: Hasan Fathy.</p> <p>Philosophy: Charles Jencks, Bernard Tschumi, Peter Eisenman, John Hejduk.</p> <p>Critical Regionalism: Charles Correa, B.V Doshi, Tadao.</p> <p>Materialist: Peter Zumthor.</p>

APPROACH

Through the presentation of the work of the architects from Pre Modern, Modern and Post Modern, the students have to trace their ideology, their philosophical attitudes and the theories that may have contributed to their evolution. The architect may be associated with a theoretical movement or group, which needs to be highlighted through models, sketches and design assignments emphasizing the philosophy or style.

REFERENCE BOOKS

- Pattern language-Christopher Alexander
- The language of post Modern architecture –Charles Jencks
- K. Michael Hays, “Architecture Theory since 1968”
- Kenneth Frampton, “Modern Architecture; A Critical History” by, Tames and Hudson
- Colin Davies, “Thinking about Architecture and Introduction to Architectural Theory”
- Robert Venturi, “Complexity and Contradiction in Architecture”
- Le Corbusier, “Towards a New Architecture”
- Charles Jencks, “The language of Post Modern Architecture”.
- Willam Jr.Curtis, “Modern Architecture since 1900”, Phaidol
- Aldo Rossi, “ The Architecture of City”
- Robert Venturi, “ Learning from Las Vegas”
- M. Reza Shirazi, “Towards an Articulated Phenomenological Interpretation of Architecture: Phenomenal Phenomenology”.

CRITERIA FOR ASSESSMENT OF SESSIONALS

S.NO.	PARTICULARS	NO. OF ASSIGNMENTS	MARKS PER ASSIGNMENT	TOTAL
1	Sheets/Sketches of Module 1 - 3	2	5	10
2	Model of Module 1 - 3	2	5	10
3	Seminar	2	7.5	15
			TOTAL	35

B. ARCH. SEMESTER – VIII
RAR – 808, DISSERTATION

PERIODS			EVALUATION SCHEME						SUBJECT TOTAL	CREDITS	DURATION OF	
LECTURE	TUTORIAL	PRACTICAL/ STUDIO	SESSIONAL ASSESMENT			ESE					THEORY PAPER	
			CT	TA	TOTAL	THEORY	VIVA	TOTAL			F.O.A.	A.K.T.U.
1	3	0	0	150	150	0	0	0	150	2	X	X

OBJECTIVES

- To research on a theoretical topic which may be relevant to the final thesis topic and do the necessary backgrounds work.
- Present the findings in report form

INTRODUCTION

Preparation of an Architectural Dissertation including reference to an extensive study of architectural examples and precedents in the selected field of study. This can be a related study for the final thesis next semester.

Each student is expected to submit one or more synopsis for finalization of his/her topic. After finalization of topic, by set of faculty members, the student shall be allotted one or more faculty member(s)/Guide(s) under whose guidance he/she has to carry out his/her dissertation.

Module-1	Stage I Dissertation Plan Marks = 25	Aims, Objectives, Hypothesis, Methodology, Scope & limitations. Brief literature review.
Module 2	Stage II Mid-Term Review Marks = 50	Detailed literature review, Case studies, Data collection & analysis. Revised dissertation plan.
Module-3	Stage III Final Stage Marks = 50	Final presentation of dissertation after incorporating suggestions of jury. Draft report.
Module-4	Stage IV Final Report Marks = 25	Submission of Final report (10 – 15 thousand words) after incorporating suggestions of jury. It shall be duly referenced in standard format.

COMPOSITION OF JURY PANEL FOR EVALUATION OF DISSERTATION AT EVERY STAGE

- There shall be one or more jury panels. Each panel shall consist of the following -
 - Senior faculty member, an architect, (Professor/Asso. Professor) of the Department of the parent institution.
 - Junior faculty member, an architect, (Asst. Professor) of the Department of the parent institution.
 - Thesis Guide(s).

There shall be three juries/presentations for each student in order to assess Stage I, Stage II and Stage III. The assessment of Stage IV, i.e. Final Report shall be assessed by the same set of jury members as in Stage III. Further the Dissertation Coordinator will act as facilitator.

REFERENCE BOOKS

1. Raman Meenakshi and Sharma Sangeeta, “Technical Communications – Principles and Practices”, Oxford University Press, New Delhi.
2. Kate L. Tourabian, A manual for Writers of Research Papers, Theses and Dissertation, 8th edition.
3. Joseph Gibaldi, MLA handbook for Writers of Research Papers.