M. S. RAMAIAH INSTITUTE OF TECHNOLOGY
BANGALORE
(Autonomous Institute, Affiliated to VTU)

SYLLABUS
(FOR THE ACADEMIC YEAR 2016- 2017)

IX & X SEMESTER B ARCH
2012 BATCH

ARCHITECTURE

HISTORY OF THE INSTITUTE:

M. S. Ramaiah Institute of Technology was started in 1962 by the late Dr. M.S. Ramaiah, our Founder Chairman who was a renowned visionary, philanthropist, and a pioneer in creating several landmark infrastructure projects in India. Noticing the shortage of talented engineering professionals required to build a modern India, Dr. M.S. Ramaiah envisioned MSRIT as an institute of excellence imparting quality and affordable education. Part of Gokula Education Foundation, MSRIT has grown over the years with significant contributions from various professionals in different capacities, ably led by Dr. M.S. Ramaiah himself, whose personal commitment has seen the institution through its formative years. Today, MSRIT stands tall as one of India's finest names in Engineering Education and has produced around 35,000 engineering professionals who occupy responsible positions across the globe.

SCHOOL OF ARCHITECTURE

M S Ramaiah Institute of Technology (MSRIT), Bangalore, is a leading institution offering undergraduate, post graduate and research programs in the areas of engineering, management and architecture. The institute was established in the year 1962 under the aegis of Gokula Education Foundation. Its mission is to deliver Global quality technical education by nurturing a conducive learning environment for better tomorrow through continuous improvement and customization.

The school of architecture, MSRIT, Bangalore, started in the year 1992. Since its establishment, the school has played a vital role in providing quality education. The Council of Architecture and AICTE has recognized this program.

The mission of the school is to uphold MSRIT mission and thus provide quality education to the students and mould them to be excellent Architects with adequate management skills and noble human qualities.

Full time faculty members having postgraduate qualification from prestigious institutions in India and abroad are teaching in this school. Experienced and well respected practicing architects are invited to provide their experiences as visiting faculty. New milestones are continually being set and achieved. The synergy of the progressive management, committed faculty and students are ensuring in excellent academic results year after year. This is reflected in the high number of University ranks that are secured.

The School of Architecture is now autonomous (affiliated to VTU) providing scope for further improvement. The focus has been towards fostering novel concepts and solutions in architectural design. The student's response is very encouraging and the school recognises and appreciates such good students by awarding them. Many of the students after graduation have pursued higher studies in various universities in the country and abroad. There is a good demand for the school graduates in the industry and is developing initiatives towards co-branding of the industry and the institution school. Many have started their own enterprise and architectural practice as well.

All this has been possible as a result of the efforts of the impeccable faculty of the school. The faculty is committed to the welfare and success of the students. The teachers of the school are also engaged in enhancing their knowledge and skills and many are engaged in research activities as well. The school has experts in specialized disciplines like Planning, Landscape Architecture and Interior Design. Faculties of the school also actively participate in National and International conferences and publish and present papers.

The school as part of consultancy started off with the maiden project to redevelop the MSRIT engineering college campus and is now involved in various campus designs.

SCHOOL OF ARCHITECTURE

TEACHING STAFF

Sl No	Name	Qualification	Designation
1	Dr. Sridhar Rajan	PhD	HOD
2	Ar. Vishwas Hittalmani	M Arch	Professor
3	Ar. Rajshekhar Rao	M Arch (PhD)	Associate Professor
4	Ar. S. Jotirmay Chari	M Arch (PhD)	Associate Professor
5	Rashmi Niranjan	MA (Fine arts) (PhD)	Associate Professor
6	Dr. Mona Lisa	M Arch , PhD	Associate Professor
7	Er. M. Vijayanand	M Tech (PhD)	Assistant Professor
8	Ar. Vishwa. S	M Plan	Assistant Professor
9	Ar. Lavanya Vikram	M Arch	Assistant Professor
10	Ar. Sudha Kumari	M Arch	Assistant Professor
11	Er. Aruna Gopal	BE	System Analyst
12	Ar. Arpita Singh	M Arch	Assistant Professor
13	Ar. Sivadeepti Reddy	M Arch	Assistant Professor
14	Ar. Waqar Abid A. Z	B. Arch	Assistant Professor
15	Ar. Kriti Bhalla	B. Arch	Assistant Professor
16	Ar. Kusum Singh	M. Arch	Assistant Professor
17	Ar. Kanika Bansal	M. Arch	Assistant Professor
18	Ar. Apoorva Lakshmi R	M. Arch	Assistant Professor
19	Ar. Surbahon Rajkumar	M. Arch	Assistant Professor
20	Ar. Karishma Susan Kurian	M. Arch	Assistant Professor
21	Ar. Jeeno Soa George	M. Arch	Assistant Professor
22	Ar. Nagajyotsna	B. Arch	Assistant Professor
23	Ar. Preeti Ann Cherian	M. Arch	Assistant Professor
24	Ar. Anjali Chariyath	M. Arch	Assistant Professor

ADMINISTRATIVE STAFF

1	Mrs. Padmavathy. B	MBA	FDA
2	Mrs. Ambika	M Tech	Assistant Instructor

SUPPORT STAFF

1	Mr. R Subramani	Attender
2	Mr. Ramachandra Chari	Attender

Vision and Mission of the Institute and the School

The Vision of MSRIT: To evolve into an autonomous institution of international standing for imparting quality technical education

The Mission of the institute in pursuance of its Vision: MSRIT shall deliver global quality technical education by nurturing a conducive learning environment for a better tomorrow through continuous improvement and customization

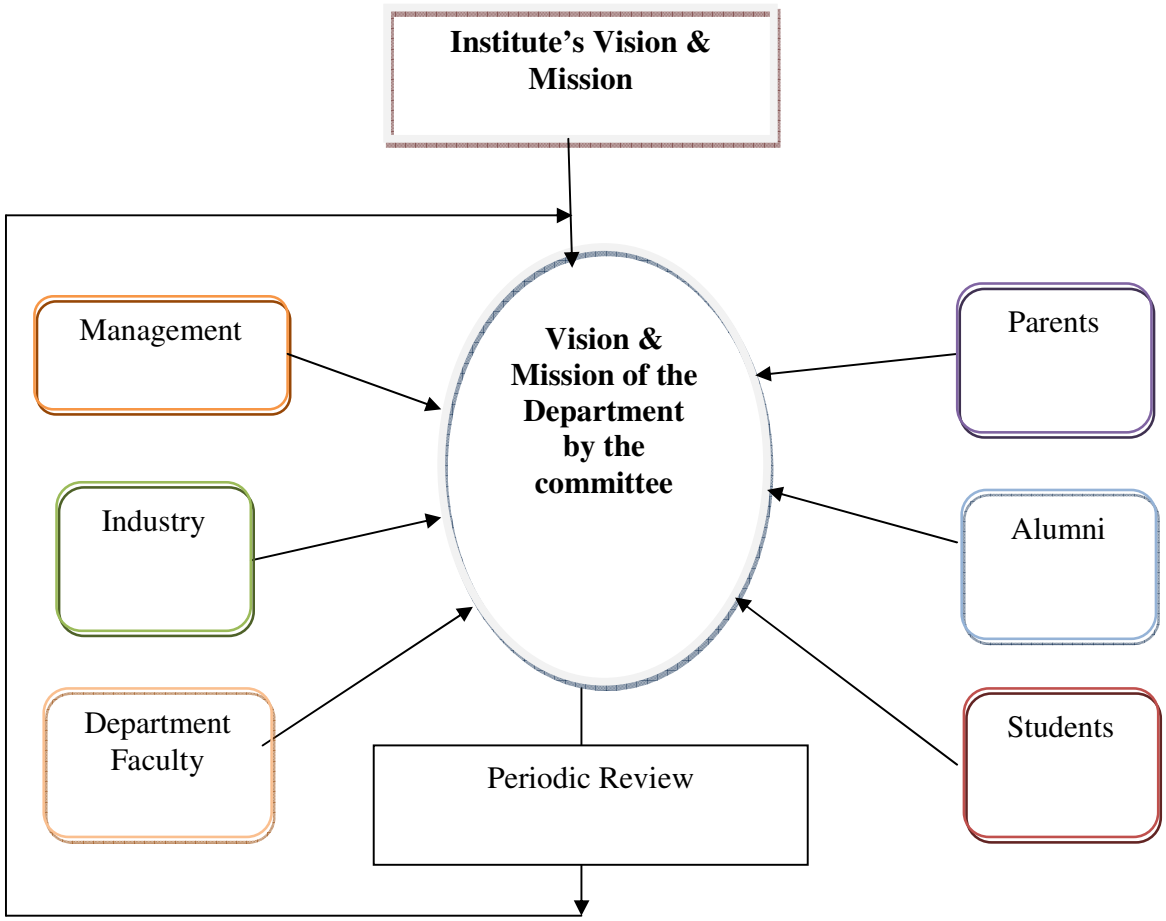
Quality Policy
"We at M. S. Ramaiah Institute of Technology, Bangalore strive to deliver comprehensive, continually enhanced, global quality technical and management education through an established Quality Management system Complemented by the Synergistic interaction of the stake holders concerned".

Vision of the School
To achieve and propagate high standards of excellence in architectural education

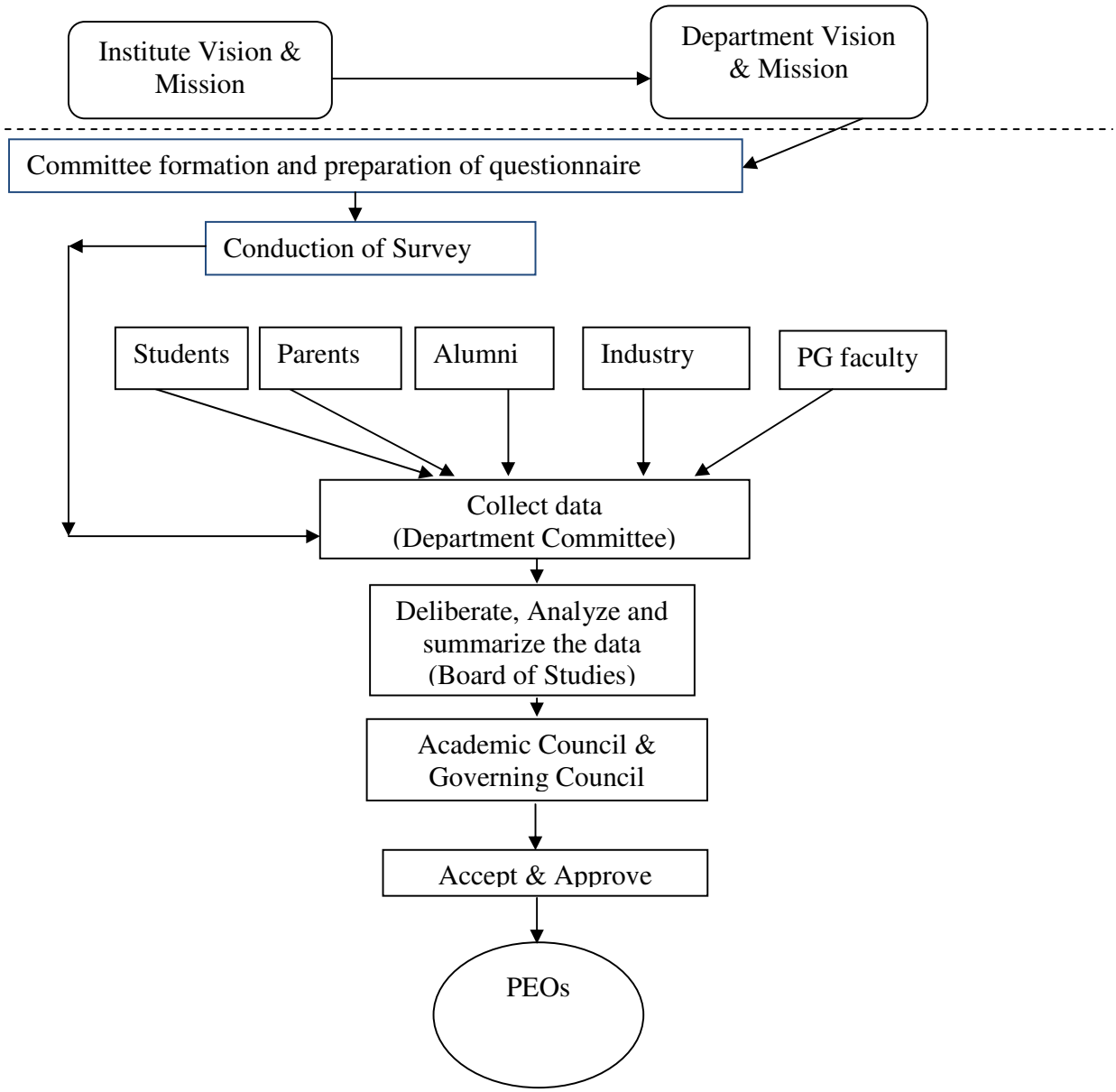
Mission of the School
- The school's commitment is to prepare people to make a difference;
- To create an environment that shall foster the growth of intellectually capable, innovative and entrepreneurial professionals, who shall contribute to the growth of the society by adopting core values of learning exploration, rationality and enterprise; and
- To contribute effectively by developing a sustainable technical education system to meet the changing technological needs incorporating relevant social concerns and to build an environment to create and propagate innovative designs and technologies.

Process of deriving the vision and mission of the department

Process of deriving the vision and mission of the department is shown in Figure below



Process of Deriving the PEOs of the program

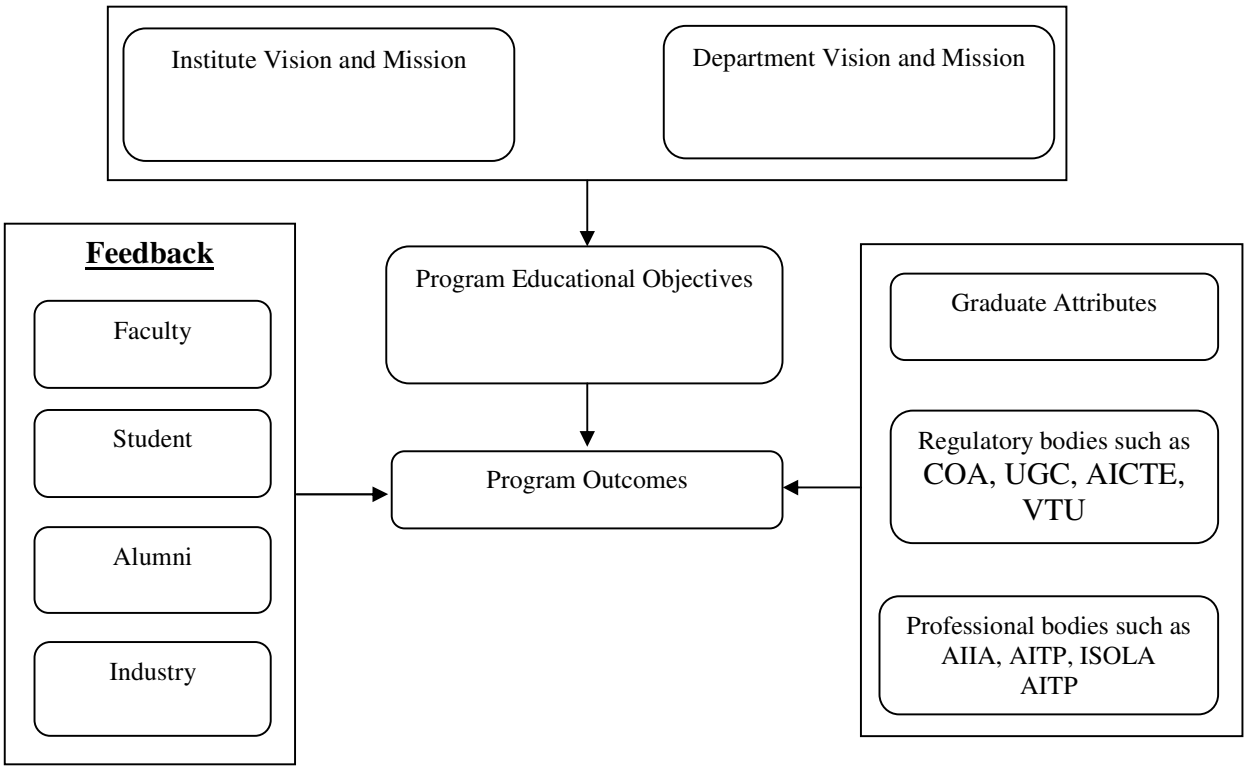


Programme Educational Objectives (PEOs) of the program (Prepared by Arch dept)

PEO 1: Use the knowledge and skills of Architecture to analyze the real life problems and interpret the results.
PEO 2: Effectively design, implement, improve and manage the integrated socio-technical systems.
PEO 3: Build and lead cross-functional teams, upholding the professional responsibilities and ethical values.
PEO 4: Engage in continuing education and life-long learning to be competitive and enterprising.

Process of deriving the Program Outcomes

The Programme outcomes are defined taking into account the feedback received from faculty, alumni, Industry and also from guidelines put across by regulatory/professional bodies and graduate attributes which are in line with programme educational objectives. The following Fig. 2.1 indicates the information flow.



PO's of the program offered

a. Apply knowledge and skills of arts and sciences to the various architectural scenarios.
b. Design and develop projects based on function, form and analysis
c. Design and improve integrated systems of people, materials, information, facilities, and technology.
d. Function as a member of a multi-disciplinary team.
e. Identify, formulate and solve industrial requirements and problems.
f. Understand and respect professional and ethical responsibility.
g. Communicate effectively both orally and in writing.
h. Understand the impact of design solutions in a global and societal context.
i. Recognize the need for and an ability to engage in life-long learning.
j. Have knowledge of contemporary issues in industrial and service sectors.
k. Use updated techniques, skills and tools of architecture throughout their professional careers.
l. Implement the concepts of project and construction management to satisfy customer expectations.

Mapping of PEO's and PO's

The correlation between the Program outcomes and Program Educational objectives are mapped in the Table shown below:

Correlation between the POs and the PEOs

Sl. No.	Program Educational Objectives	Program Outcomes											
		a	b	c	d	e	f	g	h	i	j	k	l
1	Use the knowledge and skills of Architecture to analyze the real life problems and interpret the results.	X	X			X				X		X	X
2	Effectively design, implement, improve and manage the integrated socio-technical systems.	X	X	X	X	X		X	X			X	X
3	Build and lead cross-functional teams, upholding the professional responsibilities and ethical values.				X		X	X					X
4	Engage in continuing education and life-long learning to be competitive and enterprising.								X	X	X	X	

Curriculum breakdown structure:

The curriculum of Architecture program is so structured to include all the courses that together satisfy the requirements of the program specific criteria prescribed by the **Council of Architecture**. The Course code, Course title, the number of contact hours and the number of credits for each course are given in the following table. The courses are grouped in line with the major components of the curriculum namely: (i) Humanities and Social Sciences, (ii) Arts and Science, (iii) Basic Architecture and Engineering courses, (iv) Professional core courses, (v) Electives and (vi) Project and industry exposure/internship.

Breakup of Credits for B Arch Degree Curriculum. (I to X Semester)

Sem	HSS	AS	BAE	PCS	Electives	Project / Internship	Total Credits
I	1	7	6	11	-	-	**25**
II	-	8	6	11	-	-	**25**
III	-	6	8	11	-	-	**25**
IV	-	3	11	11	-	-	**25**
V	2	6	6	11	-	-	**25**
VI	2	-	12	11	-	-	**25**
VII	3	-	8	11	3	-	**25**
VIII	5		3		2	15	**25**
IX	-	-	-	-	-	25	**25**
X	-	-	-	-	-	25	**25**
Total	**13**	**30**	**60**	**77**	**5**	**65**	**250**

HSS - Humanities and Social Sciences - 13
AS - Arts and Science - 30
BAE - Basic Architecture & Engineering - 60
PCS - Professional Core Subjects - 77
Elective - Professional Electives, relevant to the chosen specialization - 05
Project / Internship - Project Work and Internship in Architect's office - 65

Board of Studies for the Term 2016-2017

1.	Prof. Dr. Sridhar Rajan	HOD & Chairperson
2.	Ar. Sharukh Mistry	VTU Nominee
3.	Ar. Vidyadhar S. Wodeyar	Member, Practicing Architect
4.	Ar. S. J. Anthony	Member, Practicing Architect
5.	Ar. Ullhas Rane	Member, Practicing Architect
6.	Prof. Vishwas Hittalmani	Member
7.	Prof. (Dr.) Rajshekhar Rao	Member

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SCHEME OF TEACHING & EXAMINATION IX SEMESTER B ARCH
ACADEMIC YEAR 2016- 2017

2012 Batch			Teaching scheme per week			Examination scheme		
Sl. No	Subject code	Title of the Subject	Lecture / Studio	Tutorial	Practical	Total	Exam	SEE Marks
1	AR901	Practical Training	25	0	0	25	SEE (Viva voce)	100
						25		

SEE = SEMESTER END EXAMINATION

Evaluation Pattern : Marks allocation for SEE (viva-voce)

		Portfolio	Critical Appraisal	Material Analysis	Viva Voce
AR901	Practical Training	50	20	10	20

Note:

- For Practical training viva-voce exam, one internal faculty and two external faculty will conduct the exam.
- Portfolios and certificate have to be submitted which will be retained in the department for one year.
- All students have to register and submit the portfolios and certificate from architect's office on the first day, at the beginning of the viva voce exam.

PRACTICAL TRAINING – AR901

Requirements of Practical Experience in office

- Exposure to office work and practical experience
- Understanding of working drawings
- Understanding of construction details and innovative details
- Preparation of tender documents
- Regular visit to site to understand the practical problems
- Stacking methods of various building materials
- Understanding and taking measurements to prepare bill of quantities
- Understanding of local byelaws, rules and regulations
- Preparation of drawings for sanction purpose
- Maintaining day to day dairy with dates with signature of the architect

- At the end of the training period collect a certificate of experience and satisfactory performance from the architect. (Let the dates match with the semester beginning and closing dates)
- All the drawings are signed by the architect and your name shall be mentioned in the title block (This is a must in computer drawings)
- Photographs of various stages of the work and details

  (Familiarize yourself on the above topics even if works in some of the above listed areas are not subjected to you in the office.)

Present the case study of one well known work of the architect.

Undertake a study of a building material of your choice and make a presentation.

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SCHEME OF TEACHING & EXAMINATION X SEMESTER B ARCH
ACADEMIC YEAR 2016- 2017

2011 Batch			Teaching scheme per week			Examination scheme		
Sl. No	Subject code	Title of the Subject	Lecture / Studio	Tutorial	Practical	Total	Exam	SEE Marks
1	AR1001	Practical Training	25	0	0	25	SEE (Viva voce)	100
						25		

SEE = SEMESTER END EXAMINATION

Evaluation Pattern : Marks allocation for SEE (viva-voce)

		Portfolio	Critical Appraisal	Material Analysis	Viva Voce
AR1001	Practical Training	50	20	10	20

Note:

- For Practical training viva-voce exam one internal faculty and two external faculty will conduct the exam.
- Portfolios and certificate have to be submitted which will be retained in the department for one year.
- All students have to register and submit the portfolios and certificate from architect's office on the first day, at the beginning of the viva voce exam.

PRACTICAL TRAINING – AR1001

Requirements of Practical Experience in office

- Exposure to office work and practical experience
- Understanding of working drawings
- Understanding of construction details and innovative details
- Preparation of tender documents
- Regular visit to site to understand the practical problems
- Stacking methods of various building materials
- Understanding and taking measurements to prepare bill of quantities
- Understanding of local byelaws, rules and regulations
- Preparation of drawings for sanction purpose

- Maintaining day to day dairy with dates with signature of the architect
- At the end of the training period collect a certificate of experience and satisfactory performance from the architect. (Let the dates match with the semester beginning and closing dates)
- All the drawings are signed by the architect and your name shall be mentioned in the title block (This is a must in computer drawings)
- Photographs of various stages of the work and details

  (Familiarize yourself on the above topics even if works in some of the above listed areas are not subjected to you in the office.)

Present a case study of one well known work of the architect.

Undertake a study of a building material of your choice and make a presentation.

SEMESTER - IX

PRACTICAL TRAINING

Course Code: AR901 **Credits: 25 : 0: 0**
Prerequisite: Nil **Contact Hours: Internship**
Course Coordinator: As per Time Table

Course objectives

- To provide exposure to the various dimension of architectural practice
- To prepare working drawing and detailing
- To prepare students to design and detail architectural projects with confidence
- To enable students to develop skills to start their own practice.

Course Content

Preparation of working drawings and details
Acquire knowledge of computer skills for drafting, design, 3D view etc
Understand how an office functions
Through site visits gain practical knowledge and solve problems that arise during construction at site.
Discussion with clients
Critical analysis of an Architect Designed building presented with a portfolio
Study a building material and its usage in practice.

Course outcome:

Student will be able to

- Conduct professional practice as per the demand of industry. (PO- a, c)
- Carryout designing and detailing of architectural projects.
  (PO- a, b, c, d, e, f, j, k, l)
- Demonstrate skills to start an independent practice. (PO- d, k, g)

Note: Students should work under a registered architect from council of architecture and the registered architect should sign in the certificate with registration number.

Students have to send a report of their progress and a log of works done every month to their respective proctors promptly.

SEMESTER - X

PRACTICAL TRAINING

Course Code: AR1001 **Credits: 25 : 0: 0**
Prerequisite: Nil **Contact Hours: Internship**
Course Coordinator: As per Time Table

Course objectives

- To provide exposure to the various dimension of architectural practice
- To prepare working drawing and detailing
- To prepare students to design and detail architectural projects with confidence
- To enable students to develop skills to start their own practice.

Course Content

Preparation of working drawings and details
Acquire knowledge of computer skills for drafting, design, 3D view etc
Understand how an office functions
Through site visits gain practical knowledge and solve problems that arise during construction at site
Discussion with clients
Critical analysis of an Architect Designed building presented with a portfolio
Study a building material and its usage in practice.

Course outcome:

Student will be able to

- Conduct of professional practice as per the demand of industry. (PO- a, c)
- Carryout designing and detailing of architectural projects.
  (PO- a, b, c, d, e, f, j, k, l)
- Demonstrate skills to start an independent practice. (PO- d, k, g)

Note: Students should work under a registered architect from council of architecture and the registered architect should sign in the certificate with registration number.

Students have to send a report of their progress and a log of works done every month to their respective proctors promptly.