



# R V COLLEGE OF ARCHITECTURE<sup>®</sup>

Affiliated to Visvesvaraya  
Technological University  
Belagavi

Approved by Council  
of Architecture  
(COA), New Delhi

**REGULATIONS & SYLLABUS 2018 SCHEME**  
I & II Semester B.Architecture  
[ As approved by VTU ]

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# Visvesvaraya Technological University, Belagavi



**REGULATIONS GOVERNING  
THE DEGREE OF BACHELOR OF ARCHITECTURE (B. Arch)  
UNDER OUTCOME BASED EDUCATION (OBE)  
AND  
CHOICE BASED CREDIT SYSTEM (CBCS)  
Effective from the academic year 2018 – 19**

**2018**

**Visvesvaraya Technological University, Belagavi**  
**Regulations Governing the Degree of Bachelor of Architecture (B. Arch)**  
**Under Outcome Based Education (OBE) and Choice Based Credit System (CBCS)**  
**(Effective from the academic year 2018 – 19)**

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**Definitions of Keywords**

The following are the definitions/descriptions that have been followed for the different terms used in the Regulations of Bachelor of Architecture (B. Arch):

- 1) **Programme:** Is an educational programme in a particular stream/ branch of Architecture / branch of specialization leading to award of Degree. It involves events/activities, comprising of lectures/tutorials/laboratory work/studio/field work, outreach activities/project work/ vocational training/viva/seminars/Internship/ assignments/ presentations/ self-study etc., or a combination of some of these.
- 2) **Branch:** Means Specialization or discipline of B.Arch. Degree Programme.
- 3) **Semester:** Refers to one of the two sessions of an academic year (vide: serial number 4), each session being of sixteen weeks duration (with working days greater than or equal to ninety). The odd semester may be scheduled from August and even semester from February of the year.
- 4) **Academic Year:** Refers to the sessions of two consecutive semesters (odd followed by an even) including periods of vacation.
- 5) **Course:** Refers to usually referred to as 'papers' and is a component of a programme. All Courses need not carry the same weight. The Courses should define learning objectives and learning outcomes. A Course may be designed to comprise lectures/ tutorials/ laboratory work/ studio/case studies/field work/thesis/ outreach activities/project work/ professional training/ viva/ seminars/ term papers/assignments/ presentations/ self-study etc., or a combination of some of these.
- 6) **Credit:** Refers to a unit by which the Course work is measured. It indicates the relative importance of a given course.
- 7) **Audit Courses:** Means Knowledge/ Skill enhancing Courses without the benefit of a grade or credit for a Course.
- 8) **Choice Based Credit System (CBCS):** Refers to customizing the Course work, through Core, Elective and soft skill Courses, to provide necessary support for the students to achieve their goals.
- 9) **Course Registration:** Refers to formal registration for the Courses of a semester (Credits) by every student under the supervision of a Faculty Advisor (also called Mentor, Counselor etc.,) in each Semester for the Institution to maintain proper record.
- 10) **Course Evaluation:** Means Progressive Evaluation[Continuous Internal Evaluation(CIE)] and Semester End Examinations (SEE) to constitute the major evaluations prescribed for each Course.
- 11) **Progressive Evaluation:** Refers to evaluation of students' achievement in the learning process. Progressive Evaluation shall be by the Course Instructor and includes tests, homework, problem solving, reviews/juries, periodical submissions, desk – crits (criticism), quiz, mini-project and seminar throughout the Semester, with weightage for the different components being fixed at the University level.
- 12) **Semester end examinations (SEE):** Refers to examination conducted at the University level in each Course covering the entire Course Syllabus. SEE shall be conducted for Term work /Theory/Viva voce.
- 13) **First Attempt:** Refers to a student who has completed all formalities and has become eligible to attend the SEE and has attended at least one head of passing, such attempt shall be considered as first attempt.
- 14) **Credit Based System (CBS):** Refers to quantification of Course work, after a student completes teaching – learning process, followed by passing in both Progressive Evaluation and SEE. Under CBS, the requirement for awarding degree is prescribed in terms of total number of credits to be earned by the students.
- 15) **Credit Courses:** All Courses registered by a student in a semester to earn credits. In a widely accepted definition, students must earn credits by registering and passing the courses.
- 16) **Letter Grade:** It is an index of the performance of students in a said Course. Grades are denoted by letters S, A, B, C, D, E and F.

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- 17) **Grading:** Grade refers to qualitative measure of achievement of a student in each Course, based on the percentage of marks secured in (Progressive Evaluation and SEE). Grading is done by Absolute Grading [Refer: 18OBA5.0]. The rubric attached to letter grades are as follows:  
S – Outstanding, A – Excellent, B – Very Good, C – Good, D – Above Average, E – Average and F – Fail.
- 18) **Grade Point (GP):** Refers to a numerical weightage allotted to each letter grade on a 10-point scale as under.

Letter Grade and corresponding Grade Points on a typical 10 – Point scale							
Letter Grade	S	A	B	C	D	E	F
Grade Point	10	09	08	07	06	04	00

- 19) **Passing Standards:** Refers to passing a Course only when getting GP greater than or equal to 04 (as per serial number 18).
- 20) **Credit Point:** Is the product of grade point (GP) and number of credits for a Course i.e.,  
 $\text{Credit points (CrP)} = \text{GP} \times \text{Credits for the Course}$ .
- 21) **Semester Grade Point Average (SGPA):** Refers to a measure of academic performance of student/s in a semester. It is the ratio of total credit points secured by a student in various Courses of a semester and the total Course credits taken during that semester. [Refer: 18OBA5.0]
- 22) **Cumulative Grade Point Average (CGPA):** Is a measure of overall cumulative performance of a student over all semesters. The CGPA is the ratio of total credit points earned by a student in various Courses in all semesters and the sum of the total credits of all Courses in all the semesters. It is expressed up to two decimal places. [Refer: 18OBA5.0]
- 23) **Transcript or Grade Card or Certificate:** Refers to a certificate showing the grades earned by a student. A grade certificate shall be issued to all the registered students after every semester end examination. The grade certificate will display the programme details (Course code, title, number of credits, grades secured) along with SGPA of that semester and CGPA earned till that semester.
- 24) **University:** Visvesvaraya Technological University (VTU), Belagavi.





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<b>18OBA1.0</b>	<b>Title, Duration and Credits of the Programme of Study</b>
<b>18OBA1.1</b>	The programme of study shall be called the degree of Bachelor of Architecture abbreviated as B. Arch.
<b>18OBA 1.2</b>	The B.Arch. programme shall be of five academic year duration divided into ten semesters and each semester is of 16 weeks duration. The actual teaching and learning days shall be for at least 90 working days in a semester.
<b>18OBA1.3</b>	The calendar of events of the programme of study shall be notified by the University.
<b>18OBA1.4</b>	The University examination shall be conducted at the end of each semester for all the ten semesters.
<b>18OBA1.5</b>	<b>Maximum Duration for Programme Completion:</b> (a) Students admitted to I year B. Arch shall complete the programme within a period of ten academic years from the date of first admission, failing which they have to discontinue the Course. (b) A student who has not obtained the eligibility for III semester even after three academic years from the date of admission to I semester shall discontinue the Programme or get readmitted to I semester of first year B.Arch with a new University Seat Number but retaining the same year of admission.
<b>18OBA1.6</b>	<b>Prescribed Number of Credits for the Programme:</b> The number of credits to be completed by students admitted B. Arch programme shall be <b><u>260</u></b> .
<b>18OBA2.0</b>	<b>Eligibility for Admission (As per the Government orders issued from time to time)</b>
<b>18OBA2.1</b>	Admission to the first year of the course shall be open to the students, (a) who have passed the two year Pre-University examination conducted by the Karnataka State Pre-University Board with Mathematics as a subject of study; or (b) who have passed 10+2 of the Central Board of Secondary Education (CBSE) or equivalent with Mathematics as a subject of study; or (c) who possess Three-Year Diploma in Architecture or any stream of Engineering recognized by Government of Karnataka, or any other State Government or Central Government or any other Diploma qualification considered equivalent there to by this University; (d) who possess international Baccalaureate Diploma, after 10 years of Schooling; or (e) Who have passed any other examination recognized by the University as equivalent thereto.
<b>18OBA2.2</b>	The candidates shall have secured a minimum of 50 % of marks in aggregate in the qualifying examination. Provided that candidates belonging to Scheduled Castes and Scheduled Tribes and any other groups classified by the Government of Karnataka for such purpose from time to time shall be considered eligible for admission, if they have passed the qualifying examination giving eligibility for B.Arch. admission with 45% of marks in aggregate.
<b>18OBA2.3</b>	All the candidates seeking admission to B.Arch. shall pass/qualify the National Aptitude Test in Architecture (NATA) or any specially designed aptitude test in Architecture conducted by the Competent Authority of the Central / State Government or JEE Paper-II examination conducted by CBSE . This condition shall be fulfilled by all candidates including those belonging to Scheduled Castes, scheduled tribes and other classified groups.
<b>18OBA2.4</b>	Those students, who have passed a qualifying examination other than the PUC II examination of the Pre-University Education Board of Karnataka, have to obtain eligibility certificate for seeking admission to B.Arch. Degree Programme from Visvesvaraya Technological University, Belagavi.
<b>18OBA2.5</b>	Candidates admitted to the B. Arch programme from Diploma streams shall not be entitled to any exemption of any Course of the programme.

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<b>18OBA3.0</b>	<b>Courses</b>
<b>18OBA3.1</b>	<p>The syllabus of B.Arch. programme shall be any combination of following types of courses.</p> <p>(a) Architecture Courses - These courses include the mandatory courses like, Architectural Design, Methods and Materials in Building Construction, Architectural Graphics, History and Theory of Architecture, Climatology, Building Services, Landscape Architecture, Working Drawing, Interior Design, Architectural Design project (Thesis), etc.</p> <p>(b) Art Courses - This will include art oriented courses like Basic Design and Visual Arts.</p> <p>(c) Engineering Courses - These courses include Engineering oriented courses i.e., Building structures, Specification and Quantity Surveying, Earth Quake Resistant Structures etc.</p> <p>(d) Humanity Courses- These courses include courses like communication skills, constitutional law, etc.</p> <p>(e) Electives Courses: Are the professional Electives relevant to the field of Architecture and can be chosen from the pool of papers. It shall be supportive to the discipline providing extended scope/enabling an exposure to some other discipline /domain and nurturing student proficiency skills.</p> <p>(f) Study Tour: The study tour shall include places of architectural interest.</p> <p>(g) Professional Training: Students shall undergo the training in a registered architectural firm/ Government Departments /organizations of significant repute for a specified period mentioned in Scheme of Teaching and Examination.</p>
<b>18OBA3.2</b>	<p>The minimum number of students registered to any Elective Course offered by the Department/College shall be not less than ten.</p> <p>However, the above condition shall not be applicable if the class strength is less than 10.</p>
<b>18OBA3.3</b>	<p>A student shall exercise his option in respect of Elective Courses and register for the same at the beginning of the concerned semester.</p> <p>The student may be permitted to opt for a change of Elective Course within 15 days from the date of commencement of the semester as per the calendar of the University.</p>
<b>18OBA3.4</b>	<b>Course Registration:</b> Every student shall register for the Courses of a semester (Credits) under the supervision of a Faculty Advisor (also called Mentor, Counselor etc.,) in each Semester for the Institution to maintain proper record.
<b>18OBA4.0</b>	<b>Study Tour, Professional Training and Professional Training</b>
<b>18OBA4.1</b>	<p><b>Study Tour</b></p> <p>A minimum of two study tours each of 4 to 10 days duration shall be completed, one before the end of IV semester and the other before the commencement of VI semester.</p> <p>The students have to submit a study tour report as group work (4 to 6 students per group) within 15 days after the end of the study tour.</p> <p>The reports shall be evaluated by the departments/ colleges for awarding the progressive marks. The average marks obtained by a student in the two study tour reports shall be the progressive marks for the course 18ARC69.</p> <p>The department/ college shall use its discretion about the choice of places and buildings to be visited for study tour. The study tour may include places of architectural interest in India or abroad.</p> <p>Students who cannot attend the study tour due to ill-health or any other compelling reasons shall undertake a study assignment in lieu of study tour.</p>



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<b>18OBA4.2</b>	<b>Professional Training</b> All the IX semester students shall undergo Professional Training for a period of 16 weeks under the supervision of a practicing architect registered with the Council of Architecture. The students are permitted to carry out the professional training anywhere in India or abroad. Students opting to undergo training abroad shall work only under the Principal architect of firms registered with the local affiliating body of architects. The University will not provide any kind of financial assistance to any student for carrying out the professional training.
<b>18OBA4.3</b>	The commencement of professional training shall be the date of commencement of respective semester as notified by the University. The duration of professional training shall be counted from the date of commencement of the training.
<b>18OBA4.4</b>	The students shall undergo professional training in single organization only. The change of office /firm shall be permitted only under extraordinary circumstances with due approval of the Principal/HoD.
<b>18OBA4.5</b>	All the students shall submit the logbook, training report along with the training completion certificate duly signed by the Principal Architect of the firm to the Head of the Department of Architecture / Principal. The report shall comprise of certified print out of drawings, site notes and any other relevant work carried out during training period.
<b>18OBA4.6</b>	The college / department shall maintain the record of the students undergoing training in form of joining report, periodical log reports, etc.
<b>18OBA4.7</b>	The candidates who have completed the IX semester Professional Training shall attend the viva-voce examination conducted by two University appointed examiners, one internal examiner and one external examiner. Each candidate shall produce the logbook, training report and training completion certificate duly signed by the Principal Architect of the firm to the examiners.
<b>18OBA4.8</b>	<b>Failing to undergo Professional Training:</b> Professional Training is one of the head of passing. Completion of 16 week training is mandatory. If a student fails to undergo/ complete the 16 week training, he/she shall be considered as fail in that Course and shall not be permitted to appear for SEE in that Course. Also, he/she shall not be eligible to go to X semester [To be read with 18OBA9.1] The student shall appear for the subsequent SEE in Professional Training after repeating and satisfying the conditions prescribed Training. The reappearance shall be considered as an attempt.
<b>18OBA4.9</b>	<b>Architectural Design Project (Thesis)</b> The thesis project is the culmination of the learning under B.Arch. programme. The thesis provides an opportunity to the students to experiment an architectural idea with comprehensive application of understanding of various aspects of buildings / built environment. The architectural design project chosen by a student can be of any scale which can be adequately handled in a prescribed semester duration. The genre of the project shall end with a design solution.
<b>18OBA5.0</b>	<b>Computation of SGPA and CGPA</b>
<b>18OBA5.1</b>	(i) The University adopts absolute grading system wherein the marks are converted to grades, and every semester results will be declared with semester grade point average (SGPA) and Cumulative Grade Point Average (CGPA). The CGPA will be calculated for every semester, except for the first semester. (ii) The grading system with the letter grades and the assigned range of marks under absolute grading system are as given below:

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Level		Outstanding	Excellent	Very Good	Good	Above Average	Average	Fail
Letter Grade		S	A	B	C	D	E	F
Grade Points		10	9	8	7	6	4	00
Percentage of Marks Scored in	Course with Prog. Marks & Theory(SEE)	$\geq 90$	$< 90 \geq 80$	$< 80 \geq 70$	$< 70 \geq 60$	$< 60 \geq 45$	$< 45 \geq 43$	$< 43$
	Course with Prog. Marks & Term work	$\geq 90$	$< 90 \geq 80$	$< 80 \geq 70$	$< 70 \geq 60$	$< 60 \geq 50$	$< 50 \geq 45$	$< 45$
	Course with Prog. Marks & Viva voce	$\geq 90$	$< 90 \geq 80$	$< 80 \geq 70$	$< 70 \geq 60$	$< 60 \geq 50$	$< 50 \geq 45$	$< 45$
	Course with Prog. Marks only	$\geq 90$	$< 90 \geq 80$	$< 80 \geq 70$	$< 70 \geq 60$	$< 60 \geq 55$	$< 55 \geq 50$	$< 50$

**18OBA5.1**  
**(continued)**

(iii) A student obtaining Grade F in a Course shall be considered fail and is required to reappear in the subsequent SEE. Whatever the letter grade secured by the student during his /her reappearance shall be retained. However the number of attempts taken to clear a Course shall be indicated in the grade card.

**Computation of SGPA and CGPA**

The following expressions shall be used to compute the Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA) respectively:

*SGPA*

$$= \frac{\sum [\text{Course Credits} \times \text{Grade Points}] \text{ for all the Courses in that Semester}}{\sum [\text{Course Credits}] \text{ for all the Courses in that Semester}}$$

$$CGPA = \frac{\sum [\text{Course Credits} \times \text{Grade Points}] \text{ for all Courses excluding those with F grades until that Semester}}{\sum [\text{Course Credits}] \text{ for all Courses excluding those with F grades until that semester}}$$

The SGPA and CGPA shall be rounded off to 2 decimal points and reported in the grade cards.

**Illustration for Computation of SGPA and CGPA**

**(a) SGPA and CGPA Calculations: An Illustrative Example for one academic year**

Semester (Odd: I, Even: II)	Course Number	Credits	Grade	Grade Points	Credit Points	SGPA, CGPA
I	XX101	5:0:0 = 5	B	8	5 × 8	$SGPA = \frac{117}{25} = 4.68$
I	XX102	3:2:0 = 5	Absent(F)	0	5 × 0 = 00	
I	XX103	3:0:0 = 3	A	9	3 × 9 = 27	
I	XX104	0:1:1 = 2	F	0	2 × 0 = 00	
I	XX105	4:1:0 = 5	D	6	5 × 6 = 30	
I	XX106	5:0:0 = 5	E	4	5 × 4 = 20	
Total		25 (18*)	Total	117		

(18\*): Total credits of the semester excluding the credits of the courses under F grade. Considered for the calculation of CGPA of the two consecutive semesters under consideration.



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18OBA5.1 (continued)	Illustration for Computation of SGPA and CGPA										
	(a) SGPA and CGPA Calculations: An Illustrative Example for one academic year										
	Semester (Odd:I,Even:II)	Course Number	Credits	Grade	Grade Points	Credit Points	SGPA, CGPA				
	II	XX107	3:1:1 = 5	C	7	5 × 7 = 35	SGPA = $\frac{157}{25}$ = <b>6.28</b>				
	II	XX108	4:0:0 = 4	B	8	4 × 8 = 32					
	II	XX109	3:0:0 = 3	D	6	3 × 6 = 18					
	II	XX110	4:1:0 = 5	E	4	5 × 4 = 20					
	II	XX111	2:1:1 = 4	A	9	4 × 9 = 36	CGPA = $\frac{(117 + 157)}{18 + 23}$ = 274/41 = <b>6.68</b>				
	II	XX112	2:0:0 = 2	F	0	2 × 0 = 00					
	II	XX113	0:2:0 = 2	B	8	2 × 8 = 16					
	Total		25 (23*)	Total		157					
	(23*): Total credits of the semester excluding the credits of the courses under F grade. Considered for the calculation of CGPA of the two consecutive semesters under consideration.										
	If the Student secures letter grades as detailed below after reappearance to SEE, then the SGPA and CGPA shall be calculated as indicated below.										
	I	XX102	3:2:0 = 5	D	6	5 × 6 = 30	SGPA (I Semester) = (117 + 30 + 14) /25				
	I	XX104	0:1:1 = 2	C	7	2 × 7 = 14					
	II	XX112	2:0:0 = 2	D	6	2 × 6 = 12	SGPA (II Semester) = (157 + 12)/25 = 169/25 = <b>6.76</b>				
	CGPA at the end of the academic year after passing all the Courses of the two consecutive semesters under consideration = $\frac{(6.44 \times 25 + 6.76 \times 25)}{50}$ = <b>6.60</b>										
	(b) CGPA Calculation of the Programme:An Illustrative Example										
	Semester	I	II	III	IV	V	VI	VII	VIII	IX	X
	Credits of the semester	29	29	29	28	28	30	27	26	18	16
	SGPA	8.79	8.03	9.20	6.86	8.18	7.73	8.68	9.40	8.53	7.13
	CGPA (29 × 8.79 + 29 × 8.03 + 29 × 9.20 + 28 × 6.86 + 28 × 8.18 + 30 × 7.73 + 27 × 8.68 + 26 × 9.40 + 18 × 8.53 + 16 × 7.13) = _____ 260 = <b>8.28</b>										
18OBA5.2	Grade Card: Based on the secured letter grades, grade points, SGPA and CGPA, the transcript for each semester and a consolidated transcript indicating the performance in all semesters shall be issued.										
18OBA6.0	Conversion of CGPA into Percentage of Marks and Class Equivalence										
18OBA6.1	Formula for the conversion of CGPA into percentage is given below: Percentage of marks secured, P = [CGPA Earned- 0.75] × 10 Illustration for a CGPA Of 8.20: P = [CGPA Earned8.2 - 0.75]× 10 = 74.5 %										

**18OBA5.2**

**Grade Card:** Based on the secured letter grades, grade points, SGPA and CGPA, the transcript for each semester and a consolidated transcript indicating the performance in all semesters shall be issued.

**18OBA6.0**

**Conversion of CGPA into Percentage of Marks and Class Equivalence**

**18OBA6.1**

**Formula for the conversion of CGPA into percentage is given below:**

Percentage of marks secured,  $P = [CGPA \text{ Earned} - 0.75] \times 10$

**Illustration for a CGPA Of 8.20:**

$P = [CGPA \text{ Earned } 8.2 - 0.75] \times 10 = 74.5 \%$

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<b>18OBA6.2</b>	<p><b>Class Equivalence:</b>  Subsequent to the conversion of final CGPA, after successful completion of the programme, into percentage of marks (P), a graduating student is reckoned to have passed in  (i) First Class with Distinction (FCD) if <math>P \geq 70\%</math>  (ii) First Class (FC) if <math>P \geq 60\%</math> but <math>&lt; 70\%</math> and  (iii) Second Class (SC) if <math>P &lt; 60\%</math>.</p>
<b>18OBA7.0</b>	<b>Progressive Evaluation and Semester End Examination</b>
<b>18OBA7.1</b>	Progressive Evaluation marks and SEE marks (Theory / Term work / Viva voce marks), shall be as prescribed in Scheme of Teaching and Examination.
<b>18OBA7.2</b>	<p><b>Progressive Evaluation</b>  <b>The minimum Progressive marks to be secured by the students in all the courses shall be 50 % of the maximum marks prescribed for the Progressive Evaluation.</b>  <b>(a)</b> In case of theory courses which are mainly lecture based as per the scheme of teaching and examinations, the Progressive Evaluation marks shall be based on the average of three tests conducted covering the entire syllabus.  In addition, the teacher may give assignments instead of tests which may include sketching, book reviews, write-ups etc.  <b>(b)</b> In case of courses which are mainly studio based as per the scheme of teaching and examinations, the Progressive marks shall be the sum total of marks given to the various drawings (plates) submitted from time to time by a student on tracing sheets / drawing sheets or Computer printouts/sketches/models on the basis of internal reviews / juries / desk crits (criticisms).  However, if the course teacher so desires, he/she shall give some weightage for time bound exercises/ problems / tests in these courses for the award of progressive marks. In a semester, two to three such time problems / tests may be conducted.  <b>(c)</b> In case of courses which are mainly practical based as per the scheme of teaching and examinations, the Progressive marks shall be based on the assignments submitted by the students. A minimum of three assignments per semester shall be given.  <b>(d)</b> In all the above three cases, viz. lectured based, studio based, and term work based courses the concerned teacher shall give a reasonable opportunity to the student to improve his / her Progressive marks for example by re-doing the assignments or attending an additional test etc., within the time frame of the given semester.  <b>(e)</b> The Progressive marks in the case of Architectural Design Project (Thesis) of X semester shall be based on the evaluation of the project work (Thesis) through internal reviews/juries and desk crits etc., in accordance to the scheme of teaching and examination.</p>
<b>18OBA7.3</b>	All the relevant records and submissions of students pertaining to Progressive Evaluation shall be preserved by the Principal/ Head of the Department for at least six months after the announcement of University results and shall be made available for verification at the direction of the University authorities.
<b>18OBA7.4</b>	<p><b>(i)</b> Students failing to secure a minimum of 50 % of the Progressive marks and students who remain absent for all the Progressive Evaluation shall not be eligible for the examination conducted by the University and they shall be considered as fail in that/those Course/s. However, they can appear for University examinations conducted in other Courses of the same semester and backlog Course/s if any.</p> <p><b>(ii)</b> Improvement in progressive marks shall only be allowed during the subsequent semester when the course is offered as per the scheme of teaching. (The students can register for improvement of marks of odd semester subjects during odd semester only, similarly the registration for improvement of marks of even semester subjects shall be permitted during even semester only)</p> <p><b>(iii)</b> Students who have satisfied the attendance requirement but not the minimum progressive marks requirements shall be permitted to register afresh and appear for SEE after satisfying the progressive evaluation requirements in the same Course/s when the course is offered during subsequent semester/s.</p>

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<b>18OBA7.4 (continued)</b>	(iv) Each appearance to SEE to complete a course shall be treated as an attempt. (v) Candidates shall register their names in their college for satisfying progressive marks requirements within 15 days from the commencement of the subsequent semesters during <u>which the course is offered as per the scheme of teaching</u> . The college shall get the permission from VTU for such cases.
<b>18OBA7.5</b>	The list of such candidates, who have not secured the minimum progressive marks, shall be sent to the University along with the submission of progressive marks of the successful candidates.
<b>18OBA7.6</b>	Improvement of Progressive Evaluation marks shall not be allowed in case the student has already secured the minimum required marks.
<b>18OBA7.7</b>	The final list, incorporating corrections (if any) of Progressive Evaluation marks awarded to the students in all the courses, shall be displayed on the notice board of the college at least seven days before the closure of the semester. The institution shall enter the progressive marks of each semester in the format of the VTU online CIE marks portal and submit a certified copy of the same to the University Examination Section within the stipulated date notified by University. Every page of the Progressive Evaluation marks sheet (hardcopy) shall bear the signatures of the concerned Teacher/Teachers, Head of the Department and Principal.
<b>18OBA7.8</b>	Any corrections or overwriting of Progressive Evaluation marks shall bear the signature(s) of concerned Teacher(s) and in such cases the Head of the Department shall indicate the number of corrections on every sheet and attest it with his/her signature.
<b>18OBA7.9</b>	Progressive Evaluation marks shall reach the University before the commencement of examination as per the notification from the office of the Registrar (Evaluation) from time to time. After the submission of Progressive Evaluation marks to the University, any request under any circumstances for change of Progressive Evaluation marks shall not be considered.
<b>18OBA7.10</b>	<b>Semester End Examination and Passing standards</b> <b>For a pass in a course (theory/viva voce/term work), a candidate shall secure a minimum 40 % in the University examination.</b> <b>(a)</b> The University examination in Term work refers to the evaluation of complete course portfolios produced by students during a semester. The Term work examination shall be conducted, in the absence of candidates, by internal and external examiners appointed by the University. <b>(b)</b> The viva voce examination, as per scheme of teaching and examination, shall be conducted by internal examiner (Course teacher /senior faculty/visiting teacher working as fulltime or part-time teacher in an institution) and external examiners (a teacher or a professional not working in the same institution) appointed by the University. A consolidated marks shall be awarded by the examiners after a joint evaluation. <b>(c)</b> The viva voce examination, in the X semester course Architectural Design Project (Thesis) shall be conducted by one internal and two external examiners, all appointed by the university. The maximum number of candidates assigned shall not exceeded 10 per batch and 3 batches per day to a panel of examiners in a day. Candidates shall be present in person for Architectural Design Project (Thesis) examinations and submit the portfolio of works done (detailed set of drawings, sketches and models) during the semester and answer the queries of the examiners in respect of portfolio.
<b>18OBA7.11</b>	(1) Students who obtain any grade from S to E in courses prescribed for only progressive marks and for both progressive and SEE marks shall be considered as passed the course. (2) If a student secures F grade in any of the head of passing, he/she has to reappear in that head for the SEE. The Progressive Evaluation marks awarded <u>to the student/s</u> at first attempt in the failed <u>Course/s shall be carried forward</u> .

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<b>18OBA7.12</b>	Students who pass a Course of a semester as per 18OBA7.11 shall not be allowed to appear for any individual Course again, unless they opt for rejection of results of entire semester.
<b>18OBA7.13</b>	A student may, at his/her desire, reject the total performance of a semester (including Progressive Evaluation marks) or reject the result of his/her performance in University examination of a semester only without rejecting the progressive marks. The rejection is permitted only once during the entire programme of study.
<b>18OBA7.14</b>	The student who desires to reject the results of a semester shall reject performance in all the Courses of the semester, irrespective of whether the student has passed or failed in any Course. However, the rejection of performance of IX semester Professional Training shall not be permitted.
<b>18OBA7.15</b>	<p>(i) Students, who desire to reject the total performance of a semester including Progressive Evaluation marks, have to repeat that odd or even semester of the prevailing scheme by taking readmission during the subsequent academic year/s. They shall also be governed by 18OBA 11.1 and 11.2.</p> <p>(ii) If the rejection of SEE results excluding the progressive marks is of odd semester, students shall be allowed to take admission to the immediate next even semester.</p> <p>(iii) If the rejection of SEE results excluding the progressive marks is of even semester, then students shall not be allowed to take admission to the next odd semester as per 18OBA9.2. In such cases, students shall take admission to the next odd semester of the prevailing scheme during the subsequent academic year/s, after obtaining the eligibility to move to higher semester. They shall also be governed by 18 OBA 11.1 and 11.2.</p> <p>(iv) Readmission to odd/even semester as per 18OB 7.15 (i) and (iii) shall not be considered as fresh admission and therefore students shall continue to have the same University Seat Number, which was allotted earlier. The Course duration (as per 18OBA1.5) will be counted with reference to old USN.</p> <p>(v) Applications for rejection and approval to reappear for University examinations shall be sent to the Registrar (Evaluation) through the Principal of the College within 30 days from the date of announcement of the results. Late submission of applications shall not be accepted for any reasons.</p> <p>(vi) Application for approval of readmission shall be sent to the Registrar through the Principal of College within 30 days from the date of the announcement of the results. Late submission of application shall not be accepted for any reasons.</p>
<b>18OBA7.16</b>	Students who opt for rejection of results of University examination are eligible for the award of degree, but are not eligible for the award of ranks.
<b>18OBA8.0</b>	<b>Attendance Requirement</b>
<b>18OBA8.1</b>	<p>Courses of each semester shall be treated as a separate unit for calculation of the attendance. The candidate has to put in a minimum attendance of 85% in each Course with a provision to condone 10% of the attendance by the Vice-Chancellor on the specific recommendations of the Principal of the college where the candidate is studying, based on medical grounds, participation in University/State/ National/ International level sports and cultural activities, seminars, workshops, paper presentation etc., of significant value. The supporting documents for condoning the shortage of attendance are to be submitted along with the recommendations.</p> <p>The basis for the calculation of the attendance shall be the period prescribed by the University by its calendar of events.</p> <p>In case of late admission, approved by competent authority (KEA/DTE/VTU), to I semester B.Arch. the attendance shall be reckoned from the date of admission to the programme.</p>



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<b>18OBA8.2</b>	The Course Instructor/ Mentor/College shall inform the students as well as their parents about the attendance status periodically. Students who are facing the shortage of attendance be mentored to make up the shortage. Principals shall also notify every month, the list of candidates who are under short of attendance.
<b>18OBA8.3</b>	A candidate, who does not satisfy the attendance requirement (in one or more Courses) as mentioned in 18OBA8.1 shall not be eligible to appear for the SEE of that semester and shall not be permitted to take admission to next higher semester. The candidate shall be required to repeat that semester during the subsequent year.
<b>18OBA8.4</b>	The list of the candidates falling short of attendance shall be sent to Registrar (Evaluation) at least once in a month and final list shall be sent one week prior to the commencement of the examination. The detained students should obtain permission from Registrar, VTU for readmission to the semester concerned as a repeater.
<b>18OBA9.0</b>	<b>Vertical Progression (Promotion/ Eligibility to higher semesters)</b>
<b>18OBA9.1</b>	(a) There shall be no restriction for promotion from an odd semester to the next even semester, provided the student has fulfilled the attendance requirement, except in the case of promotion from IX semester to X semester. (b) A student shall be eligible for promotion from IX semester to X semester provided, he/she has passed the course Professional Training of IX semester. If the candidate has not undergone the training/discontinued after registration to training/not undergone the prescribed training period of 16 weeks/ failed in viva voce examination, he/ she shall repeat the Professional Training during subsequent semester to appear for the SEE.
<b>18OBA9.2</b>	(c) A student shall be declared fail if the candidate (i) Fails to satisfy the minimum progressive marks conditions. (ii) Absents himself / herself to the University examination. (iii) Is held guilty of examination malpractice and for any other reasons, and declared the performance of any Course/s null and void by a competent authority. (iv) If a student secures F grade in any of the Course/s, he/she shall reappear in that Course/s during the subsequent SEE. The progressive marks awarded to the student at first attempt in the concerned Course/s shall be carried forward. Newly earned progressive marks is considered only in cases of 18OBA7.4. <b>Vertical Progression:</b> (a) Each credit Course shall be treated as a head of passing. (b) Students having not more than four F grades in the two semesters of first year of the Programme shall be eligible to move to II Year. (c) Students having not more than four F grades in the four semesters of I and II year shall be eligible to move to III year. (d) Students who have earned all the prescribed credits of I year, and having not more than four F grades in the four semesters of II and III year shall be eligible to move to IV year. (e) Students who have earned all the prescribed credits of I and II years, and having not more than four F grades in the four semesters of III and IV year shall be eligible to move to V year. (f) Students who have earned all the prescribed credits of I and II years, and having not more than four F grades in the four semesters of III and IV year shall be eligible to move to X semester provided they undergo the Professional training and pass in the SEE.
<b>18OBA10.0</b>	<b>Award of Degree</b>
<b>18OBA10.1</b>	(a) Students shall be declared to have completed the B.Arch. programme and shall be eligible for the award of B.Arch. degree, provided the students have undergone the stipulated Course work of all the semesters under the same Scheme of Teaching and Examination and has earned the prescribed number of credits as per the provision 18OBA1.6. [To be read along with 18OBA 11.1 and 11.2.]

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<b>18OBA10.1 (continued)</b>	<b>(b)</b> For the award of degree, a CGPA $\geq 5.00$ at the end of Programme shall be mandatory. [to be read with 18OBA10.0 and 11.0]
<b>18OBA10.2</b>	<p><b>Noncompliance of CGPA <math>\geq 5.00</math> at the end of the programme</b></p> <p><b>(a)</b> Students who have completed all the courses of the programme but not having a CGPA <math>\geq 5.00</math> at the end of the programme, shall not be eligible for the award of the degree. In such cases, students shall be permitted to appear again for SEE in course/s [other than Professional training and Architectural Design Project (Thesis)] of any Semester/s without the rejection of progressive evaluation marks for any number of times, subject to the provision of maximum duration of the programme to make up the CGPA equal to or greater than 5.00 for the award of the Degree.</p> <p><b>(b)</b> In case, the students earn improved grade/s in all the reappeared course/s, the CGPA shall be calculated considering the improved grade/s. If it is <math>\geq 5.00</math>, the students shall become eligible for the award of the degree. If CGPA <math>&lt; 5.00</math>, the students shall follow the procedure laid in 18OBA10.2 (a).</p> <p><b>(c)</b> In case, the students earn improved grade/s in some course/s and the same previously earned pass grade/s in the other reappeared course/s, the CGPA shall be calculated considering the improved grade/s. If it is <math>\geq 5.00</math>, the students shall become eligible for the award of the degree. If CGPA <math>&lt; 5.00</math>, the students shall follow the procedure laid in 18OBA10.2 (a).</p> <p><b>(d)</b> In case, the students earn improved grade/s in some courses and fail in the other reappeared course/s, the CGPA shall be calculated by considering the improved grade/s and the previously earned pass grade/s of the reappeared course/s in which the students have failed. If it is <math>\geq 5.00</math>, the students shall become eligible for the award of the degree. If CGPA <math>&lt; 5.00</math>, the students shall follow the procedure laid in 18OBA10.2 (a).</p> <p><b>(e)</b> In case, the students fail (i.e., earns F grade) in all the reappeared course/s, pass grade/s of the course/s earned by the students before reappearance shall be retained. In such cases, the students shall follow the procedure laid in 18OBA10.2 (a).</p> <p><b>(f)</b> Students shall obtain written permission from the Registrar (Evaluation) to reappear in SEE to make up the CGPA equal to or greater than 5.00.</p>
<b>18OBA11.0</b>	<b>Temporary Discontinuation/Break in the Program</b>
<b>18OBA11.1</b>	<p><b>(a)</b> If a candidate, for any reason, temporarily discontinues the Programme or take a break from the Programme during any semester intentionally, he/she shall be permitted to continue the Programme by registering to the same semester of the prevailing scheme. The candidate shall complete all the remaining Course work subject to the provision 18OBA1.5. Also the Candidates may have to complete additional Course/s, if any, as per the decision of Board of Studies in B.Arch and approval of Dean, Faculty of Engineering, on establishing the equivalence between two schemes. A Grade card shall be issued to that effect. Additional Course/s shall not be considered for the eligibility criteria prescribed for promotion. However, based on the individual cases, they shall be considered to decide the SGPA and CGPA to admit the student for the award of degree. Such candidates shall not be eligible for the award of rank.</p> <p><b>(b)</b> Candidates who take admission to any semester of the existing scheme from another scheme, as a repeater/fresher because of various reasons, including the case of 18OBA11.1 (a), shall attend and complete all the remaining semester/s of the Programme adhering to the regulations of the prevailing scheme, and shall complete additional Course/s, if any, as per the decision of Board of Studies in B.Arch and approval of Dean, Faculty of Engineering, on establishing the equivalence between two schemes. A Grade card shall be issued to that effect. Additional Courses shall not be considered for the eligibility criteria prescribed for promotion. However, based on the individual cases, they shall be considered to decide the SGPA and CGPA to admit the student for the award of degree. Such candidate shall not be eligible for the award of rank.</p> <p><b>(c)</b> The credits to be earned by the candidates under 18OBA11.1 (a and b) and 18OBA13.1 (b) and (c) shall be decided by the University along with the additional Course/s to be completed.</p>

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<b>18OBA11.2</b>	<p>(i) The candidates who have temporarily discontinued the Programme of study or changed the scheme of study from one to another because of various reasons, or transferred from autonomous/other University to non-autonomous VTU affiliated college, shall be eligible for the award of degree provided the credits earned is equal to or greater than the credits decided by the University in the individual cases.</p> <p>(ii) In case, the credits earned is less than the credits decided by the University in the individual cases, after the completion of all the semesters of the Programme under the prevailing scheme, the candidate shall register for a Course or courses not studied earlier and make up the credits earned equal to or greater than the required for the award of degree.</p>
<b>18OBA12.0</b>	<b>Award of Prizes, Medals and Ranks</b>
<b>18OBA12.1</b>	For the award of Prizes and Medals, the conditions stipulated by the Donor shall be considered subject to the provisions of the statutes framed by the University for such awards.
<b>18OBA12.2</b>	<p>(1) For award of rank in B. Arch, the CGPA secured by the students from I to X semester shall be considered.</p> <p>(2) A student shall be eligible for a rank at the time of award of degree of Bachelor of Architecture, provided the student</p> <p>(a) Has passed I to X semester in all the Courses in first attempt only.</p> <p>(b) Is not a repeater in any semester because of rejection of result of a semester/ shortage of attendance etc.</p> <p>(c) Has completed all the semesters without any break/discontinuity.</p> <p>(d) Has completed all the semesters (I to X) in VTU constituent college or in any VTU affiliated non-autonomous college.</p> <p>(e) Has not been transferred from any autonomous institution affiliated to VTU or from any other University.</p> <p>(3) The total number of ranks awarded shall be 10% of the total number of students appeared in X semester subject to a maximum of 10 ranks.</p> <p>(4) For award of ranks in B. Arch, a minimum of 10 students should have appeared in the X semester examination.</p> <p><b>Illustration:</b></p> <p>a) If 1202 students appeared for the X semester B. Arch programme, the number of ranks to be awarded shall be 10.</p> <p>b) If 90 students appeared for the X semester in B. Arch programme, the number of ranks to be awarded shall be 09.</p> <p>(5) In case of fractional number of ranks, it is rounded to higher integer only when the first decimal place value is greater than or equal to 5.</p>
<b>18OBA12.3</b>	Ranks are awarded based on the merit of the students as determined by CGPA. If two or more students get the same CGPA, the tie shall be resolved by considering the number of times a student has obtained higher SGPA. If it is not resolved even at this stage, the number of times a student has obtained higher grades like S, A, B etc., shall be taken into account to decide the order of the rank.
<b>18OBA13.0</b>	<b>Transfers of Students</b>
<b>18OBA13.1</b>	<p>Transfer of students from one college to another college within the Karnataka state shall be permitted only at the beginning of third, fifth, and seventh semesters, subject to availability of seats within the permitted intake in respective Colleges and subject to the prior approval of the University.</p> <p>(a) Transfer of students from one non - autonomous to another non – autonomous college affiliated to VTU is permitted with the approval of the Registrar, VTU subject to the provision 18OBA9.2.</p>

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<b>18OBA13.1</b> <b>(continued)</b>	<p>The students seeking transfer shall have to</p> <p>(i) Obtain No Objection certificate for admission from the University and from both the colleges before the commencement of term as notified by VTU.</p> <p>(ii) Complete the Programme subject to the provision 18OBA1.5.</p> <p>(b) Transfer of students from an autonomous to non – autonomous college, affiliated to VTU is permitted with the approval of the Registrar, VTU provided the candidates have passed in all the Courses of the previous semesters.</p> <p>The students seeking transfer shall have to</p> <p>(i) Obtain No Objection certificate for admission from the University and from both the colleges before commencement of term as notified by VTU.</p> <p>(ii) Complete additional Course/s, if any, as per the decision of concerned Board of Studies and approval of Dean, Faculty of Engineering, on establishing the equivalence between two schemes. A Grade card shall be issued to that effect. Additional Course/s shall not be considered for the Eligibility criteria prescribed for promotion, Class, calculation of SGPA and CGPA. However, a pass in the additional Courses, if any, is mandatory before the completion of Degree.</p> <p>(iii) Earn the credits decided by the University as per 18OBA11.2.</p> <p>(iv) Complete the Programme subject to the provision 18OBA1.5.</p> <p>(c) In the case of students from Universities other than VTU, the students must have passed in all the Courses of I and II semesters for admission to III semester and all the Courses of I to IV semesters for admission to V semester and all the Courses of I to VI semesters for admission to VII semester.</p> <p>The students seeking admission from other Universities to VTU shall have to</p> <p>(i) Apply for establishment of equivalence with prescribed fees as notified by the VTU and obtain No Objection certificate for admission from the University before the commencement of term as notified by VTU.</p> <p>(ii) Produce No Objection certificate for admission from both the colleges before the commencement of term as notified by VTU.</p> <p>(iii) Complete additional Course/s, if any, as per the decision of concerned Board of Studies and approval of Dean, Faculty of Engineering, on establishing equivalence between two schemes. A Grade card shall be issued to that effect. Additional Course/s shall not be considered for the eligibility criterion prescribed for promotion, Class, calculation of SGPA and CGPA. However, a pass in the additional Courses, if any, is mandatory before the completion of Degree.</p> <p>(iv) Earn the credits decide by the University as per 18OBA 11.2.</p> <p>(v) Complete the Programme subject to the provision 18OBA1.5.</p>
<b>18OBA13.2</b>	The University may prescribe a fee for administrative purpose, which shall be notified from time to time, for transfer from one college to another (Change of College).
<b>18OBA14.0</b>	<b>Applicability and Power to Modify</b>
<b>18OBA14.1</b>	The regulations governing the Degree of Bachelor of Architecture of Visvesvaraya Technological University shall be a binding on all concerned.
<b>18OBA14.2</b>	<p>i) Notwithstanding anything contained in the foregoing, the University shall have the power to issue directions/ orders to address any difficulty.</p> <p>ii) Nothing in the foregoing may be construed as limiting the power of the University to amend, modify or repeal any or all of the above.</p>



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S N	Subject Code	Subject Category	Title of the Subject	Teaching Scheme in Periods per Week (60 Mins)					Examination Scheme						
				Lecture	Studio		Pract/ Tutorial/ Seminars	Total	Dur (hrs)	Theory Marks	Prog- /CIE Marks	Term work Marks	Viva Marks	Total	Credits
1	18ARC11	PC	Architectural Design-I	-	3	5	-	8	-	-	150	-	150	300	9
2	18ARC12	BS&AE	Materials and Methods in Building Construction-I	1	2	2	-	5	-	-	75	-	75	150	5
3	18ARC13	PC	Architectural Graphics-I	1	-	3	-	4	-	-	75	75	-	150	4
4	18ARC14	PC	History of Architecture - I	3	-	-	-	3	3	100	50	-	-	150	3
5	18ENG15	BS&AE	Building Structures-I	1	-	-	2	3	3	100	50	-	-	150	2
6	18ART16	PC	Basic Design & Visual Arts	-	1	3	-	4	-	-	100	-	-	100	3
7	18ARC17	PC	Model Making workshop	-	-	-	3	3	-	-	50	-	-	50	2
8	18HUM18	SEC	Communication Skills	-	-	-	2	2	-	-	50	-	-	50	1
			Total	6	6	13	7	32	-	200	600	75	225	1100	29
ARC= Architectural Subjects      ART= Art Subjects      ENG = Engineering Subjects      HUM = Humanities Subjects.															
No. of Subjects/Heads = 08      No. of Theory Examinations = 02															
Progressive Marks to be awarded by the subject teacher. Term work & Viva Voce examination shall be conducted jointly by one internal & one external examiner appointed by the University.															
Minimum Marks for passing: Progressive Marks 50%,      Theory marks, Term work marks and Viva marks 40% in each															
Subject Categories: PC: Professional Core Courses      BS&AE: Building Sciences & Applied Engineering Courses      PE: Professional Elective Courses PAEC: Professional Ability Enhancement Courses      SEC: Skill Enhancement Courses      OE: Open Elective Courses															

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S N	Subject Code	Subject Category	Title of the Subject	Teaching Scheme in Periods per Week (60 Mins)					Examination Scheme						
				Lecture	Studio		Pract/ Tutorial/ Seminars	Total	Dur (hrs)	Theory Marks	Prog./ CIE Marks	Term work Marks	Viva Marks	Total	Credits
					Core	Applied									
1	18ARC21	PC	Architectural Design- II	-	3	5	-	8	-	-	150	-	150	300	9
2	18ARC22	BS&AE	Materials and Methods in Building Construction-II	1	2	2	-	5	4	100	50	-	-	150	5
3	18ARC23	PC	Architectural Graphics-II	1	-	3	-	4	-	-	75	75	-	150	4
4	18ARC24	PC	History of Architecture-II	3	-	-	-	3	3	100	50	-	-	150	3
5	18ENG25	BS&AE	Building Structures-II	1	-	-	2	3	3	100	50	-	-	150	2
6	18ART26	PC	Basic Design and Art Appreciation	1	-	3	-	4	-	-	100	-	-	100	3
7	18ENG27	BS&AE	Site Surveying and Analysis	1	-	-	2	3	3	100	50	-	-	150	2
8	18HUM28	SEC	Kannada Bhashe - Aadalitha Matthu Vyavahara	-	-	-	2	2	-	-	50	-	-	50	1
			Total	8	5	13	6	32	-	400	575	75	150	1200	29
ARC= Architectural Subjects				ART= Art Subjects		ENG = Engineering Subjects		HUM = Humanities Subjects.							
No. of Subjects/Heads = 08				No. of Theory Examinations = 04											
Progressive Marks to be awarded by the subject teacher.															
Term work & Viva Voce examination shall be conducted jointly by one internal & one external examiner appointed by the University.															
Minimum Marks for passing: Progressive Marks 50%, Theory marks, Term work marks and Viva marks 40% in each															
Subject Categories: PC: Professional Core Courses				BS&AE: Building Sciences & Applied Engineering Courses				PE: Professional Elective Courses				OE: Open Elective Courses			
PAEC: Professional Ability Enhancement Courses				SEC: Skill Enhancement Courses											



**18ARC11 – ARCHITECTURAL DESIGN -I**

**CONTACT PERIODS : 8 (Studio) per week**

**PROGRESSIVE MARKS : 150**

**VIVA MARKS : 150**

**OBJECTIVES:**

*Beginning Design - To develop the ability to generate solutions to spatial constructs, which integrate principles of design with functional requirements.*

**PREAMBLE:**

We inhabit and function in space, both the manmade and the natural i.e., “a life spent within an enclosure”. These enclosures have functional and cultural meanings, are symbols of abstract ideas of that period in time.

*"Architecture is the art we all encounter most often, most intimately, yet precisely because it is functional and necessary to life, it's hard to be clear about where the "art" in a building begins." - Jonathan Jones*

*"Architecture is a discipline directly engaged with shaping enclosure, of erecting and toppling barriers or—more explicitly—of extending and limiting 'freedoms'." - E. Sean Bailey & Erandi de Silva*

**OUTLINE:**

**1. Introduction to Architecture:**

- What architectural education entails?
- What being an architect involves?
- Understanding of Architecture's connection with other disciplines of knowledge: Science & Technology, Mathematics, Philosophy, Religion, Sociology, Psychology, etc.

Method of learning: Observation & Study

- Documentation of local stories on architecture, important local buildings and other favourite buildings or places.
- Observing and documenting the built environment around and experiencing enclosures (field trips) to learn basics of architectural representation.

**2. Introduction to Principles of Design:**

- Elements of form from abstract concepts like point, line, plane, mass and / or volume, 2D forms - circle, square and triangle, 3D forms – cube, sphere and pyramid, therefore , development of more complex forms by the method of addition and / or subtraction.
- Concepts of volume and scale, width to height ratio.
- Concepts of composition like rhythm, contrast, balance and symmetry.

Method of learning: Observation & Study

- Study models and sketches to explore the design principles.
- Drawings of study models - plans and sections (suitable scale).

**3. Introduction to Anthropometry:**

- Understanding the relationship between function and spatial requirements with respect to the human body and its postures.

- Minimum and optimum areas for mono functions.
- User's data, movement and circulation diagrams.

Method of learning: Observation & Study

- Drawings of the human body in various postures with required measurements.
- Drawing exercise of artefacts, eg. - a table (object) with the human body - contextual.
- Measured drawing exercise of spaces – to get a grip of the functional and spatial aspects of the space, eg. - a classroom (mono functional) and a staircase (static/transitional), pavilions & open/ enclosed spaces ( multi-functional).

4. Introduction to Design process –

- Understanding the relationship between idea, context, space (form & structure), and functional requirements.
- Introduction to the various methods of idea / concept generation - use of form, patterns in nature and in geometry, music, text, and other allied fields.
- Space planning based on activity, which will involve the entire body, and its movement in space.

Method of learning: Observation & Study

- Understanding the difference and similarity while design of a non-enclosed space, a semi-enclosed space, an enclosed space.
- Study of patterns and use the pattern, both physical and material patterns as well as patterns of transformation and Integration. Appreciation of the difference between architecture and the chosen pattern.
- Design of functional furniture layout with requisite circulation, lighting and ventilation for a specific function.
- Design of Spaces such as pavilion, gazebo, kiosk, bus stop, stage, living/dining, bedrooms, Architect's office, Doctor's clinic etc.,
- Submission will include Idea generation, Study models, Sketches and drawings to achieve the desired results.

**NOTE:**

- Discussions, presentations, and case studies will cover all the topics.
- The portfolio covering all the assignments shall be presented for term work.

**Learning outcome:**

The student will get an introduction into the field of Architectural Design viz. a viz. the duality & the tension that exists between the form and function of a space.

**REFERENCES:**

1. Alain de Botton, " How Proust Can Change your life", Picador, 1997.
2. Alain de Botton, " The Architecture of Happiness", Sep. 2006, Vintage Books.
3. Alan Fletcher, " The art of looking sideways", Phaidon Press, 2001  
and Partis", Van Nostrand Reinhold, 1985
4. Anthony Di Mari and Nora Yoo, " Operative Design: A Catalogue of Spatial Verbs", 2012, BIS Publishers.

5. Anthony Di Mari, " Conditional Design: An Introduction to Elemental Architecture", 2014, 1st Edition, Thames & Hudson.
6. Bruno Munari, "Design as Art", Penguin UK, 25-Sep-2008
7. Charles George Ramsey and Harold Sleeper, " Architectural Graphic Standards", 1992, Wiley
8. Christopher Alexander, "Notes on the Synthesis of Form", 1964, Harvard University Press.
9. Debkumar Chakrabarti, " Indian Anthropometric Dimensions For Ergonomic Design Practice", 1997,
10. François Blanciak, " Siteless: 1001 Building Forms", 2008, MIT Press
11. Frank Ching, James F. Eckler, "Introduction to Architecture", 2012, John Wiley & Sons, US
12. Frank D.K. Ching, " Architecture: Form, Space, and Order", 4th Edition, Sep. 2014, John Wiley & Sons
13. Herman Hertzberger, "Lessons for Students in Architecture", 2005, 010 Publishers
14. Italo Calvino, " Invisible Cities", Harcourt Brace Jovanovich (May 3, 1978)
15. John Berger, " Way of Seeing", 1972, Penguin, UK
16. John Hancock Callender, " Time-Saver Standards for Architectural Design Data", 1982, McGraw-Hill
17. Michael Pause and Roger H. Clark, " Precedents in Architecture: Analytic Diagrams, Formative Ideas, National Institute of Design.
18. Paul Jacques Grillo, " Form, Function and Design", 1975 , Dover Publications, New York
19. Paul Jacques Grillo, " What is Design ?", 1960, P. Theobald
20. Paul Lewis, Marc Tsurumaki, David J. Lewis, "Manual of Section", Princeton Architectural Press, 2016
21. Peter H. Reynolds, " The Dot", 2013, Candlewick Press
22. Philip Jodidio, "Tree houses. Fairy tale castles in the air", 2012, Taschen
23. Robert W. Gill, "Rendering with Pen and Ink", Van Nostrand Reinhold (1 June 1984)
24. Tom Alphin, "The LEGO Architect", 2015, No Starch Press

**18ARC12: MATERIALS AND METHODS IN BUILDING CONSTRUCTION-I**

**CONTACT PERIODS: 5 (1 Lecture +4 Studio) per week**

**VIVA MARKS: 75**

**PROGRESSIVE MARKS :75**

**OBJECTIVE:** *Introduction to building components, wall construction in masonry , foundations in masonry, wooden doors and windows, use of timber for construction.*

**OUTLINE:**

**MODULE 1**

1. Overview of simple masonry building, its various components and materials used for construction.
2. Various conventions used for drawing plan, section and elevation.
3. Brick: Types, properties, uses and manufacturing methods.
4. Brick Walls: Types of brick walls and bonds, mortar types, plasters, buttresses, arches and lintels.

**MODULE 2**

5. Stone: Types, properties, quarrying and finishing.
6. Stone Walls: Bonds, arches and lintels.

**MODULE 3**

7. CMU: Hollow and solid concrete Blocks: Manufacture, uses and properties, CMU Wall construction and detailing.
8. Alternative materials for Wall construction: Clay Blocks, Fly Ash Blocks, Aerated Concrete Blocks, Stabilized Mud Blocks and Glass Blocks: Manufacture, uses and properties, wall construction and detailing.

**MODULE 4**

9. Masonry Foundation: Simple load bearing foundations in brick and stone.
10. Wood: Natural, hard and soft wood; quality, properties; joints in wood. Timber: Quality of Timber used in buildings, defects, seasoning and preservation.

**MODULE 5**

11. Wooden doors: Types of wooden Doors - battened, ledged, braced, panelled, flush and glazed doors; details of joinery.
12. Wooden windows: Types of wooden glazed windows; details of joinery.

**Note:**

- **Minimum of one plate on each topic. Study of building materials may be compiled in the form of portfolio.**
- **Site visits to be arranged by studio teacher. Construction plates and portfolio of material shall be assessed for progressive marks.**

**Learning Outcome:** The students would be able to understand the use of brick, stone and timber in construction of basic components of buildings viz. walls, foundations, doors & windows.

**REFERENCES:**

- 1) Francis K Ching 'Building construction', Wiley; 5 edition (February 17, 2014)
- 2) R. Barry, "Construction of Buildings" Vol 1., 1999 by Wiley-Blackwell
- 3) Roy Chudley, "Construction Technology", 3rd Edition, Longman, 1999
- 4) W.B. McKay, "Building Construction", Donhead, 2005

**18ARC13: ARCHITECTURAL GRAPHICS-I**

**CONTACT PERIODS: 4 (1 Lecture + 3 Studio) per week**

**TERM WORK MARKS: 75**

**PROGRESSIVE MARKS : 75**

**OBJECTIVE:** *To introduce students to the various concepts and techniques of architectural and graphic presentations. Train the students to work on drawing methods both in freehand and with instruments.*

**OUTLINE:**

1. **Introduction to Graphic Representations:** Basic principles and methods of drawing, methods of using instruments, and sign conventions.
  - Exercises in line - weightage and its application
  - Exercises in free-hand drawing.
2. **Exercises of Practice in Lettering:** Lettering used in architectural drawings, including different fonts.
3. **Introduction to Euclidian Geometry:** Exercises in lines and angles. Basic geometrical constructions, construction of triangles, quadrilaterals and regular polygons. Introduction to the development of simple surfaces of basic geometrical shapes and their applications.
4. **Arches:** Typical arch shapes and their construction methods.
5. Introduction to plane curves such as ellipse, parabola, hyperbola and ovals and their construction methods.
6. Introduction to reduced scales and its application to architectural drawings.
7. **Introduction to orthographic projection (First - angle projection):** Principles of orthographic projection, projections of points, lines and planes in different positions.
8. Orthographic Projection of Solids, architectural elements and built forms.
9. **3D Projections-I:** Isometric and Axonometric views of solids and architectural elements.
10. **3D Projections-II:** Isometric and Axonometric views of built forms.

**Note:** A consolidated portfolio containing exercises related to each of the above topics are to be submitted for term work examination.

**Learning outcome:** At the end of the semester, the students will be equipped with graphical skills which shall be useful in translating the graphical ideas into technically appropriate drawing presentations.

**REFERENCES:**

- 1) Francis D.K.Ching, "Architectural Graphics", Van Nostrand Reinhold Co., 1985
- 2) I.H.Morris, " Geometrical Drawing for Art Students", Longmans (1902)
- 3) Shankar Malik, " Perspective & Sciography", 1994, Allied Publisher



**18ARC14: HISTORY OF ARCHITECTURE - I**

**CONTACT PERIODS: 3 (Lecture) per week**

**THEORY MARKS: 100**

**PROGRESSIVE MARKS : 50**

**DURATION OF EXAM : 3 HRS**

**OBJECTIVE:** *To appreciate the culture and architecture of first societies and early civilizations. (The scope limited from Prehistory, Stone Age to civilizations across continents, early Iron Age); to develop critical reading, discussion and representation skills for architectural history.*

**MODULE 1**

1. **Introduction** meaning, methods and significance of History and Architecture's connection with History.
2. **Introduction to Pre-Historic Civilization (early cultures):** Primitive man - shelters, settlements, ritual centers (religious and burial systems) E.g.: Oval hut, Nice; settlement at Çatalhöyük; Megalithic architecture (Dolmen tomb, gallery grave, passage grave); Henge Monuments, Stonehenge.

**MODULE 2**

3. **Introduction to river valley cultures:** generic forces shaping settlements and habitats.
4. **Introduction to Desert and Mountainous Cultures:** Forces shaping settlements and habitats (environmental and cultural influences)  
E.g.: include First civilization of Americas, Andes, Mayans, early societies/ cultures in the Sahara, Thar, North America.
5. **Introduction to Tribal Cultures:** Forces shaping settlements and habitats  
E.g.:include Indigenous Peoples across the globe (environmental, cultural influences on settlements).

**MODULE 3**

6. **Indus Valley Civilization (Indus and Ghaggar Hakra):** Forces shaping settlements and habitats, E.g.: Mehrgarh, Layout of Mohenjo-Daro, dwellings and monumental architecture (House plan, Community well, Great Bath, Granary)
7. **Mesopotamia (Tigris and Euphrates):** Forces shaping settlements and habitats  
E.g.: Ziggurats at Warka, Ur and Tchoga Zanbil, Palace of Sargon.
8. **Egyptian Civilization (Nile):** Forces shaping settlements and habitats (funerary and sacred spaces), E.g.: Mastabas, Pyramid complex, Temple of Khons, Karnak.

**MODULE 4**

9. **Chinese Civilization (Yellow and Yangtze):** Forces shaping settlements and habitats.  
E.g.: Niuheiliang Ritual Center and dwellings at Banpo, Shang dynasty (Layout of Zhengzhou, Palace and Tomb at Yin), Zhou dynasty (ritual complex and Wangcheng Plan).

**10. Japanese Civilization:** Forces shaping settlements and habitats.

E.g.: Jōmon and Yayoi Period (dwellings), Kofun Period (burial mounds/ tumulus)

**MODULE 5**

**11. Introduction to Pre-Classical Civilization:** Mycenaean, Etruscan, Persian (Achaemenid)

E.g.: Lion Gate and Treasury of Atreus, Mycenae; Palace of Tiryns (megaron), Etruscan Temples (Juno Sospita, Lanuvium), Tomb of Cyrus, Pasargadae, Palace of Persepolis.

**12. Introduction to Pre-Classical Architecture (Indian sub-continent):** Aryan and early Mauryan

E.g.: Vedic village, Vedic Town and city planning principles (mandalas), Palace at Pataliputra.

**NOTE:** Progressive marks to include Submission of a portfolio of sketches, Assignments and study models

**Learning Outcome:** At the end of the course the students will be able to appreciate geographical, geological, social, cultural and political factors that influenced the early society and its architecture. They will also understand the use of materials and structural/construction systems evolved during that era.

**REFERENCES:**

1. Francis D K Ching, Mark M. Jarzombek, Vikramaditya Prakash, "A Global History of Architecture" by Wiley and Sons, 2011.
2. Percy Brown, "Indian Architecture Buddhist and Hindu", Read Books, 2010.
3. Sir Banister Fletcher; edited by Dan Cruickshank, "History of Architecture", CBS Publishers and Distributors, 2003
4. Satish Grover, "Buddhist and Hindu Architecture in India", CBS Publishers and Distributors, 2003

**18ENG15: BUILDING STRUCTURES-I**

**CONTACT PERIODS: 3 (1 Lecture + 2 Pract./Tutorial/Seminars) per week**

**THEORY MARKS: 100**

**PROGRESSIVE MARKS : 50**

**DURATION OF EXAM : 3 HRS**

**OBJECTIVE:** *Introduction to principles of mechanics, structural material & different force system & on structural properties.*

**OUTLINE:**

**MODULE 1**

1. Different construction materials with emphasis on structural properties viz. steel , concrete, wood, glass, aluminium. Different types of loads, the structure is being subjected to as per IS 875 Part I & II.

**MODULE 2**

2. Mechanics - Classification of mechanics, force, characteristics of force, classification of force system, Resultant of force, Composition of force, Axioms in mechanics, Principles of transmissibility, Moment of force, Resultant of coplanar concurrent force system, and Free body diagrams.

**MODULE 3**

3. Resultant of coplanar noncurrent force system, couple & characteristics of couple, different types of loads, different types of beams, statically determinate & statically indeterminate, different types of supports, problems on support reactions, Equilibrium of Co-planar Concurrent and Non-Concurrent forces.

Note: In the numerical pertaining to support reactions, loading on the beam shall be restricted to only **point load & uniformly distributed load**].

**MODULE 4**

4. Center of gravity, centroid, to locate the centroid of composite section from the 1st principles. Moment of inertia, radius of gyration, parallel axis theorem, perpendicular axis theorem. Numericals on determination of moment of inertia of composite section about any defined axis.

Note: In the question paper restrict the question to the numericals **and not on the derivation of the formula.**

**MODULE 5**

5. Truss - Triangulation concept, different types of trusses, assumption made in the analysis of truss. Analysis of the truss by the **"Method of Joints" (Simple problems)** to calculate the dead weight of the truss from given data.

**Learning outcome:** At the end of the course the students will have the ability to understand the mechanics of forces acting on rigid bodies and the structural properties.

**REFERENCES:**

- 1) R.K.Bansal, " A Textbook of Engineering Mechanics", Laxmi Publications, 2008
- 2) S.S. Bhavikatti, " Engineering Mechanics", New Age International, 1994.
- 3) S. Ramamrutham, " Engineering Mechanics ", Dhanpat Rai Publishing, New Delhi, 2016.

**18ART16: BASIC DESIGN & VISUAL ARTS**

**CONTACT PERIODS: 4 (Studio) per week**  
**PROGRESSIVE MARKS : 100**

**OBJECTIVE:** *To encourage a critical orientation to design thinking and action.*

- 1) **Composition :** Elements of Design & Principles of Design.
- 2) **Observation & Study 1:** Selection of two outdoor objects/systems and observation of their natural occurrence, relationships with context, form & structure, colors & textures, and function Sketching & visual representation in various media.
- 3) **Observation & Study 2:** Selection of two indoor objects/systems and observation of their situation, relationships with context, form & structure, colors & textures, and functions.  
Sketching & visual representation in various media.  
3 dimensional modeling in appropriate medium  
(Clay/paper/wire/plaster/wax etc.).
- 4) **Additive and Subtractive of Forms**
- 5) **Material Study-1:** Selection of two materials used in everyday life (textiles, Earthenware, terracotta, metals, stone, plastic, glass etc.) Study of properties, Strength, examples of use.
- 6) **Freehand sketching:** Objects and surroundings.
- 7) Exercises of freehand pencil drawings, sketches of objects, solids, furniture, architectural elements and built forms.
- 8) Exercises of rendering techniques using pencil and pen of objects, built forms showing light, shade, shadow and textures.
- 9) **Material Study-2:** Sketching & visual representation of material in various media, like Paper, clay, plaster, wood, wire, wax, photography.
- 10) **Material Study-3:** Hands-on making of object/joint/structure of own choice with one of the materials studied.

**Learning Outcome:** At the end of the course the students would have understanding of various principles of design. They would be able to appreciate the scope and limitations of using different materials for creating different forms and shapes.

**REFERENCES:**

- 1) Donald Norman , 'Design of Everyday Things" , Basic Books; 2 edition (5 November 2013)
- 2) John Berger , 'Ways of Seeing' 1972, Penguin, UK
- 3) Maitland Graves , 'The Art of Color and Design' , McGraw-Hill, 1951
- 4) Robert Gill, "Rendering with Pen and Ink" , Thames & Hudson; Revised, Enlarged edition (2 April 1984)

**18ARC17: MODEL MAKING WORKSHOP**

**CONTACT PERIODS: 3 (Pract./Tutorial/Seminars) per week**  
**PROGRESSIVE MARKS : 50**

**OBJECTIVE:** *To train the students to experiment and manipulate materials leading to creative exploration of forms.*

**OUTLINE:**

1. Generation of basic forms-cube, cone, dome and arch.
2. Generating of organic and geometrical forms/objects.
3. Generation of forms &Material exploration: hands on skill by using wood, bamboo, metal wire, thread, balsa wood, clothe, paper board etc.
4. Composite forms: Experimental form generation by combining various materials and shapes. ( rods, pipes, slabs,etc.)
5. Free Forms: Tensile structures, Funicular Shells using wood, fabric, plastic etc.
6. Architectural forms: making of windows, wall doors, roofs, trees, shrubs, roads, vehicles etc.
7. Introduction to digital modeling like 3D printing and laser cutting.

**Note: Student may be encouraged to use environment friendly materials.**

**Learning Outcome:** At the end of the course the students would be able to use variety of materials to construct architectural models and different geometrical forms.

**REFERENCES:**

1. Arjan Karssen & Bernard Otte, "Model Making: Conceive, Create and Convince", Frame Publishers (November 11, 2014)
2. David Neat , "Model-Making: Materials and Methods", CroWood Press, 2008
3. Jocqui Atkin, "250 tips, techniques, and trade secrets for potters", Barron's Educational Series, 2009
4. Matt Driscoll, "Model Making for Architects", The Crowood Press Ltd, 2013
5. Megan Werner, " Model making", Princeton Archit.Press,2010
6. Nick Dunn, "Architectural Model Making", Laurence King Publishing, 2014
7. Roark T. Congdon, "Architectural Model Building", Fairchild Books; 1 edition, 2010

**18HUM18: COMMUNICATION SKILLS**

**CONTACT PERIODS: 2 (Pract./Tutorial/Seminars) per week**

**PROGRESSIVE MARKS : 50**

**OBJECTIVE:** *To develop skills in effective communication – both written and verbal and to explore the potential of media technology and the Internet to enhance communication.*

**OUTLINE:**

1. **Introduction:** Introduction to course objective and framework of assignments and assessment. Discussion on exploratory topics.
2. **Reading and listening comprehension:** Reading of a passage from famous books (e.g. Samskara). Students to draw an image on A4 paper based on the read passage.
3. **Listening Comprehension:** Comprehension of lectures and speeches to locate key points.
4. **Verbal presentations:** Understanding the differences among seminars, conferences, convention, congress, debates, extempore speeches, panel discussions etc. Students to make brief oral and visual presentations on selected topics. Importance of gesture, posture and expressions in verbal presentations.
5. **Analytical / Technical Writing:** To develop the ability to write concisely and correctly and present ideas in a logical manner.
6. **Introduction and discussion on exploratory topic for a survey questionnaire:** Need to document infrastructure (or lack of) on college campus and students to prepare a fifteen point questionnaire with info- graphics and conduct survey.
7. **Interpretation of materials:** such as questionnaires, application forms, analysis of materials such as texts, reports, technical literature.
8. **Notes taking:** From spoken and written English.
9. **Formal / Informal Communication:** Understanding the difference between formal and informal letters etc. Students to Write /draw a letter to fellow architects, clients, public authorities, contractors, enquiries to industries, dealers.
10. **Article writing:** on a Design or a Building, Introduction to Design Basis Report.
11. **Writing a term paper and book review:** An article or paper on a chosen topic. Writing of a review on a chosen book on art or architecture.
12. **Using the Internet to enhance communication**

**Learning outcome:** The course would enable the students to communicate effectively using verbal, visual and electronic modes and media.

**REFERENCES:**

- 1) A K Jain, A M Sheikh & Pravin S R Bhatia, "Professional Communication Skills", S. Chand Publishing, 2001
- 2) Jones Leo, "Working in English: Teachers Book", Cambridge University Press, 2001.
- 3) Marsha J. Ludden, "Effective Communication Skills", Jist Works; 2 edition, 2001
- 4) Mudambadithaya G.S, "Communicative English for Professional Courses", Sapna Book House, 2002.
- 5) Taylor, Grant, "English Conversation Practice", McGraw Hill Education; 1 edition, 2001.



**18ARC21 – ARCHITECTURAL DESIGN -II**

**CONTACT PERIODS : 8 (Studio) per week**

**PROGRESSIVE MARKS : 150**

**VIVA MARKS : 150**

**OBJECTIVE:** *Beginning Design contd. - To develop the ability to generate solutions to spatial constructs, i.e., space and form which integrate principles of design with functional requirements by emphasising the study of variables like light, movement, transformation, scale, structure & skin., physical constraints and cultural context, either urban or rural.*

**PREAMBLE:**

We inhabit and function in space, both the manmade and the natural i.e., “a life spent within an enclosure”. These enclosures have functional and cultural meanings, are symbols of abstract ideas of that period in time.

*"Architecture is about giving form to the places where people live. It is not more complicated than that but also not simpler than that." - Alejandro Aravena*

*"Architecture is both an art and a practical pursuit, and the profession has always been divided between those who emphasize the art, that is pure design, and those who give priority to the practical." - Paul Goldberger*

*"Architecture is used by political leaders to seduce, to impress, and to intimidate." - Deyan Sudjic*

**OUTLINE:**

1. To relearn the “principles of Design” and anthropometric requirements of space planning,

Method of learning: Observation & Study

- Study of the relationship between human body and the built environment understanding usage and comfort

2. Introduction to “Nature of Space”:

- Understanding the notions of PLACE: A “boundary”, a “center” and a “spirit”, PATH: A “way” and a “goal”, DOMAIN: A conglomeration of paths and goals that forms a “whole” with its own “identity”,
- Understanding the notions of “Enclosure, Ambiguity, and Transparency”, “Spatial Context - open, closed, transition spaces”, “cultural context – inclusion, exclusion, spatial segregation”,

Method of learning: Observation & Study

- Mapping of one’s journey from home to studio/of the campus/of a Neighbourhood. Explore issues of movement, navigation, circulation, direction and discovery. Explore issues of representation, scale, starting point, orientation, landmarks, and imagery.

- Culture & Design: Understanding social attitudes to Built-form: extroverted/introverted, formal/informal, typical/individual, simple/labyrinthine, contiguous/isolated etc.

3. Introduction to “Poetics of Space” :

- light, movement, transformation, scale, structure and skin,
- key tools for learning : text / language as a tool; emotion, cultural, climatic, eg.- contemplative / severe / dramatic / minimalist / natural / organic / contemporary / traditional / etc.,

Method of learning: Observation & Study

- Presentation of case studies based on literature survey & field visit.
- Study models, Sketches and Drawings of study models - plans and sections (suitable scale) using a mono functional space.

4. Understanding the role of Physical Context - terrain, materials, structure, etc.,

Method of learning: Observation & Study

- Hands-on Design exercise – creation of a simple design in which form is distinct from structure and creation of a simple design in which form is integral with structure.
- Presentation of case studies based on literature survey & field visit.
- Study models, Sketches and Drawings of study models - plans and sections (suitable scale) using a mono functional space.

5. Design process to test the learning of the semester using a multifunctional program to incorporate

“nature of space”, “poetics of space” and “physical constraints”,

- Generation of a design brief for a multifunctional program, generation of areas based on human activity and anthropometric data,
- Selection a of suitable site,
- Idea generation, design development, & design drawings,
- Eg. - A House for self, Guest House, Farm house, Villa, Container house, Courtyard house, Tree house, etc.

Method of learning: Observation & Study

- Presentation of case studies based on literature survey & field visit,
- Submission will include Idea generation, Study models, Sketches to achieve the desired result, development drawings and a set of plans, sections and elevations & model to suitable scale.

**NOTE:**

- Discussions, presentations, and case studies will cover all the topics.
- The portfolio covering all the assignments shall be presented for term work.

**Learning outcome:**

The student will be equipped to understand the requirements of a multifunctional programs with respect to aspects of locating the design program on site viz a vie light, movement, etc.. The student will also be equipped to understand how to start a settlement study.

**REFERENCES:**

25. Alain de Botton, "How Proust Can Change your life", Picador, 1997.
26. Alain de Botton, "The Architecture of Happiness", Sep. 2006, Vintage Books.
27. Alan Fletcher, "The art of looking sideways", Phaidon Press, 2001
28. Anthony Di Mari and Nora Yoo, "Operative Design: A Catalogue of Spatial Verbs", 2012, BIS Publishers.
29. Anthony Di Mari, "Conditional Design: An Introduction to Elemental Architecture", 2014, 1st Edition, Thames & Hudson.
30. Bruno Munari, "Design as Art", Penguin UK, 25-Sep-2008
31. Charles George Ramsey and Harold Sleeper, "Architectural Graphic Standards", 1992, Wiley
32. Christopher Alexander, "Notes on the Synthesis of Form", 1964, Harvard University Press.
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37. Herman Hertzberger, "Lessons for Students in Architecture", 2005, 010 Publishers
38. Italo Calvino, "Invisible Cities", Harcourt Brace Jovanovich (May 3, 1978)
39. John Berger, "Way of Seeing", 1972, Penguin, UK
40. John Hancock Callender, "Time-Saver Standards for Architectural Design Data", 1982, McGraw-Hill
41. Michael Pause and Roger H. Clark, "Precedents in Architecture: Analytic Diagrams, Formative Ideas, and Partis", Van Nostrand Reinhold, 1985
42. Paul Jacques Grillo, "Form, Function and Design", 1975, Dover Publications, New York
43. Paul Jacques Grillo, "What is Design?", 1960, P. Theobald
44. Paul Lewis, Marc Tsurumaki, David J. Lewis, "Manual of Section", Princeton Architectural Press, 2016
45. Peter H. Reynolds, "The Dot", 2013, Candlewick Press
46. Philip Jodidio, "Tree houses. Fairy tale castles in the air", 2012, Taschen
47. Robert W. Gill, "Rendering with Pen and Ink", Van Nostrand Reinhold (1 June 1984)
48. Tom Alphin, "The LEGO Architect", 2015, No Starch Press

**18ARC22: MATERIALS AND METHODS IN BUILDING CONSTRUCTION-II**

**CONTACT PERIODS: 5 (1 Lecture +4 Studio) per week**

**THEORY MARKS: 100**

**PROGRESSIVE MARKS : 50**

**DURATION OF EXAM : 4 HRS**

**OBJECTIVE:** *To understand Roofing systems using Timber, Steel Truss and Concrete. Cement, Steel and Reinforced Concrete.*

**OUTLINE:**

**MODULE 1**

- 1) Timber Roof – Lean to roof, Collared Roof, King post roof, Queen Post Roof; details of joinery.
- 2) Steel Roof – Types of Steel Truss Roofs and method of construction.

**MODULE 2**

- 3) Cement: Types, applications, Tests - laboratory and field.
- 4) Steel: Properties and uses of reinforced steel.
- 5) Concrete: Ingredients, grades, admixtures, properties, production, mix, proportioning

**MODULE 3**

- 6) Reinforced Cement Concrete: Form work, placing, and compaction, curing of concrete, sampling and testing of concrete. Construction joints, expansion joints, finish in concrete, chemical admixtures.
- 7) RCC Foundations (Isolated footing) and Columns (Square and Round). Raft foundations, Grillage foundations and combined footing.

**MODULE 4**

- 8) Staircase: Anthropometry of stairs, types of Staircases.
- 9) Timber Stairs: Single and Double Stringer stairs: construction methods and joinery.
- 10) RCC Stairs: Waist slab, folded plate, stringer beam stairs, precast stairs: construction methods and joinery.

**MODULE 5**

- 11) Steel Stairs: Stringer stairs, Folded Type, Spiral stairs, Fire escape stairs: construction methods and joinery.
- 12) Composite Stairs: Brick/stone, Steel/Timber, Concrete/wood, steel/ glass: construction methods and joinery.

**Note:**

- **Minimum of one plate on each topic. Study of building materials may be compiled in the form of portfolio.**
- **Site visits to be arranged by studio teacher. Construction plates and portfolio of material shall be assessed for progressive marks.**

**Learning outcome:** At the end of the course, the students would be able to appreciate the procedure involved and various materials that can be used in construction of roofs, foundations and staircases with greater understanding of details involved in joinery.

**REFERENCE:**

- 1) Francis K Ching 'Building construction', Wiley; 5 edition (February 17, 2014)
- 2) R. Barry, "Construction of Buildings" Vol 1., 1999 by Wiley-Blackwell
- 3) Roy Chudley, "Construction Technology", 3rd Edition, Longman, 1999
- 4) W.B. McKay, "Building Construction", Donhead, 2005

**18ARC23: ARCHITECTURAL GRAPHICS-II**

**CONTACT PERIODS: 4 (1 Lecture + 3 Studio) per week**

**TERM WORK MARKS: 75**

**PROGRESSIVE MARKS : 75**

**OBJECTIVE:** *To develop visual communication and representation skills and methods of presentation of spatial design through 3D drawing techniques.*

**OUTLINE:**

1. 3D-Projections: exercises in 3D representation of exploded isometric and axonometric views of objects, furniture and built forms.
2. Development of surfaces for architectural roof forms, built enclosures and envelopes such as tents, upholstery and exercises of application to develop the paper and cardboard models.
3. Section of geometrical solids and construction of true shapes.
4. Interpenetration of geometric solids, combination of different forms in architectural compositions.  
Ex: Projecting towers of vertical circulation on building facades, chimney over sloping roofs and projecting canopies and balconies on facades and dormer windows.
5. Introduction to perspective drawing: Its importance in architectural drawings, principles of perspective drawing, visual perceptions and its limitations. Exercises of observation, recording and representing the visual effects of depth, diminution and vanishing of built forms and understanding the methods of perspective projection.
6. Studies in perspective drawing: Understanding the importance and purpose of picture plane, station point, vanishing point, ground level, eye level, cone of vision and central line of vision - their variations and resultant effects.
7. One - point perspective drawings: Exercises of perspective drawings of simple built forms, interior views of a room with furniture. Exercise of perspective by changing the variables, their positions of PP, CV, SP and eye level etc.
8. Two-point perspective drawings: exercises of perspective drawings of simple built forms, architectural elements. Interior views of a room with furniture. Exercises of perspective by changing the variables, their positions of PP, CV, SP and eye-level etc.
9. Free-hand perspective drawings of architectural elements, built forms. Exercises of rendering techniques showing light, shade and shadow on built forms. Rendering of plants, trees, water, landscape, human figures, vehicles, furniture and buildings with suitable elements of foreground and background.
10. Introduction to Sciography: Principles of shade and shadow constructions for geometrical solids, architectural elements and built forms. Construction of shadows on floor plans, elevations, sectional elevations and roof-top views.

**Learning outcome:** At the end of the course, the students will be equipped with a skills to use 3D techniques in architectural presentations. They would also attain skills to make architectural presentation using rendering and sciographic techniques.

**REFERENCES:**

- 1) Francis D.K.Ching, "Architectural Graphics", Van Nostrand Reinhold Co., 1985
- 2) I.H.Morris, " Geometrical Drawing for Art Students", Longmans (1902)
- 3) Robert.W.Gill, "Rendering with pen and ink".
- 4) Shankar Malik, " Perspective & Sciography", 1994, Allied Publisher

**18ARC24: HISTORY OF ARCHITECTURE - II**

**CONTACT PERIODS: 3 (Lecture) per week**

**THEORY MARKS: 100**

**PROGRESSIVE MARKS : 50**

**DURATION OF EXAM : 3 HRS**

**OBJECTIVE:** *To study the evaluation of greek, roman, byzantine, medieval and gothic architecture through critical analysis of appropriate examples.*

**OUTLINE:**

**MODULE 1**

- 1. Classical Greek Architecture 1:** Critical appreciation of works and synoptic study of architectural characteristic features from the Greek early periods.
- 2. Classical Greek Architecture 2:** Critical appreciation of works and synoptic study of architectural characteristic features from the Greek later periods, Doric, ionic and Corinthian orders and optical correction.
- 3. Greek architecture Typologies:** Study of principles of design of Greek buildings through study of three kinds of Architecture: a) Monumental (Built to impress and Last) ex. Parthenon, Theatre at Epidauros. b) Domestic (Built to inhabit): House of Colline, House of Masks, etc. and c) Civic space: The Agora and Acropolis.

**MODULE 2**

- 4. Introduction to Roman Architecture:** Critical appreciation of works and synoptic study of architectural characteristic features from the Roman periods. Study of Tuscan and composite orders.
- 5. Roman architecture Typologies 1:** Study of principles of design of Roman buildings through study of proportion, composition, visual effects etc. in Monumental (Built to impress and last) Pantheon, Colosseum, Thermae of Caracalla, Pont du Gard, Nimes, Basilica of Trajan.

**MODULE 3**

- 6. Roman architecture Typologies 2:** Study of principles of design of Roman buildings through study of Domestic (Built to inhabit)-House, villa and apartments.
- 7. Roman architecture Typologies 3:** Study of principles of design of Roman buildings through study of Civic space with elements like triumphal arch, Column of Trajan(Septimius Severus), Roman Forum.
- 8. Early Christian:** Evolution of architecture parallel to the evolution of religious practices. Study of principles of design of buildings through study of three kinds of Architecture: a) Monumental b) Domestic (Built to inhabit) and c) Civic space.

**MODULE 4**

- 9. Byzantine:** Study of principles of design of buildings through study of its Architecture: a) Monumental; Hagia Sophia b) Domestic (Built to inhabit) and c) Civic space-St.Marks Venice.

**10. Medieval:** Study of principles of design of buildings through study of its Architecture: a) Monumental; Pisa Cathedral, the Campanile and Baptistery, Angouleme Cathedral b) Domestic (Built to inhabit) and c) Civic space; Pisa.

### **MODULE 5**

**11. Gothic:** Study of principles of design of buildings through study of its Architecture:

a) Monumental; Notre Dame, Paris. b) Domestic (Built to inhabit) and c) Civic space;

**12. Gothic:** Study of Gothic Architecture, typical characteristics including the pointed arch, the ribbed vault and the flying buttress, aesthetic elements with examples like Chartres Cathedral: French High Gothic style

**NOTE:** Progressive marks to include Submission of sketch book, study models relating to structure, aesthetics and building typology resulting from different functions.

**Learning outcome:** The students would develop appropriate skills of reading, writing and understanding the physical and aesthetic experience of buildings.

#### **REFERENCES:**

1. Bannister Fletcher , "History of Architecture", CBS Publishers, 1992
2. Henri Stierlin, "Architecture of the world - Greece", Herron Books 1994
3. Henri Stierlin, "Architecture of the world - The Roman Empire", Taschen Pub., 1997 .
4. Henri Stierlin , "Architecture of the world - Romanesque", Taschen Pub., 2008.
5. James Stevens Curl, " Classical Architecture", W. W. Norton & Company; Reissue edition, 2003.
- Robert Adam, " Classical Architecture", Harry N. Abrams; 1st edition, 1991



**18ENG25: BUILDING STRUCTURES-II**

**CONTACT PERIODS: 3 (1 Lecture + 2 Pract./Tutorial/Seminars) per week**

**THEORY MARKS: 100**

**PROGRESSIVE MARKS : 50**

**DURATION OF EXAM : 3 HRS**

**OBJECTIVE:** *Introduction to Mechanics & Materials.*

**OUTLINE:**

**MODULE 1**

1. **Simple Stresses & Strains:** Types of stresses and strains, Hookes law, factor of safety, stress-strain curve for, mild steel, high strength steel, brittle materials. Elongation of bars of varying cross section, uniformly varying bars, bars of varying width **(no derivation)**, Poisson's ratio, relationship between elastic constants **(no derivation)**. Concept of temperature stresses **(no numericals)**, analysis of composite bars.

**MODULE 2**

2. **Bending Moment Diagram & Shear Force Diagram:** Concept of bending moment & shear force, sign convention. To draw bending moment & shear force diagrams of cantilever, simply supported & over hang beams only. Subjected to **point load & uniformly distributed** load & its combination. Relationship between rate of loading, shear force and bending moment.

**MODULE 3**

3. **Stresses in Beams:** Theory of simple bending, assumption made in bending theory, bending equation **(no derivation)**, section modulus, numericals to determine bending stresses across the cross section **(restricted to rectangular section T & I sections only)**. Shear stresses in beams, shear stress equation **(no derivation)**, numericals to determine the shear stress variation across the cross section **(restricted to rectangular section, T & I sections only)**

**MODULE 4**

4. **Elastic Stability of Columns:** Introduction - Actual length of column, Effective length of column, expression for Effective length of columns for various end conditions (fixed, hinged, free) - **No derivations**. Classification of columns based on slenderness ratio criteria, and on criteria based on least lateral dimension, and based on failure of columns, Euler's theory of long columns. Assumption and limitations of Euler's theory for critical load on long column **(no derivations)**. Numericals based on the above concepts.

**MODULE 5**

5. **Deflection of Beams:** Moment curvature equation **(no derivation)**, assumptions made in the deflection theory. To determine deflection and slope for cantilever beam, simply supported and overhang beam, subjected to **point load & uniformly distributed load** by Double Integration Method & Macaulays method.

**Learning outcome:** At the end of the course the students will have the ability to understand the effect of forces on deformable bodies.

**REFERENCES:**

- 1) B.S.Basavarajaih & P. Mahadevappa, "Strength of Materials", Universities Press, 3rd editn. 2010.
- 2) Dr. S. Ramamrutham & R. Narayan "Strength of Materials", Dhanpat Rai Publ., 8th edi. 2014.
- 3) William A. Nash, "Strength of Materials", McGraw-Hill Education; 6th edition, 2013.
- 4) R.K.Bansal, "Strength of Materials", Laxmi Publications; 6th edition (2017).
- 5) R.S.Khurmi & N. Khurmi, " Strength of Materials", S Chand Pub., revised edition 2006.

**18ART26: BASIC DESIGN & ART APPRECIATION**

**CONTACT PERIODS : 4 (1 Lecture + 3 Studio) per week**

**PROGRESSIVE MARKS : 100**

**OBJECTIVE:** *To explore the relationship between materiality & space, between building, the environment and culture and to initiate an understanding of abstraction and analysis of space and form. Study of Arts and crafts and its aesthetics and application.*

**OUTLINE:**

1. Patterns-1: Study of pattern –making in nature, (such as trees, leaves, crystals, shells etc.)  
Observation & representation of 2 dimensional patterns in various visual media. Eg. Charcoal/ pencil/crayons/oils etc.
2. Patterns-2: Study of pattern-making in technology. (Such as geodesics, nanotech, fractals etc.)  
Observation & representation of 2 & 3 dimensional patterns in various media. eg. Wire/soap bubble/photographs/digital models etc.
3. Patterns-3: Use of patterns to synthesize and create form. Use of both physical and material patterns as well as patterns of transformation and Integration. Appreciation of the difference between architecture and pattern.
4. Structure-1. Understanding gravity, and the different ways we resist it. Study of Material & structure in nature, and how design brings them together. Sketch analysis of structure and form in an example taken from Patterns-1.
5. Structure-2. Hands-on Design exercise- creation of a simple design in which form is distinct from structure. Eg. Portal frames, tensile structures.
6. Structure -3: Hands –on Design exercise- creation of simple design in which form is integral with structure. Eg. Shells, massive forms, pneumatics.
7. Study of shades & shadows.
8. Study of Art Forms & Crafts of India and Asia. Difference between art and craft.
9. Art Styles of India- folk, popular and modern art, Art trends, periods and Isms.
10. Appreciation of oriental and western performing arts.

**Learning outcome:** The students will be able to appreciate the concept of abstraction by experimenting with different patterns and materials. They will also develop an ability to appreciate various art forms.

**REFERENCES:**

- 1) Abid Husain, "National culture of India", National Book Trust, India, 1994
- 2) Antony Mason, John T. Spike, "A History of Western Art: from prehistory to the 21<sup>st</sup> Century", McRae Books, 2007.
- 3) Arthur Llewellyn Basham, "The Wonder That Was India", Picador; Indian ed edition, 2004
- 4) Christopher Alexander, "The Timeless way of Building", Oxford University Press (1979)
- 5) Francis D.K. Ching, "Architecture: form, space & order", John Wiley & Sons, 2010
- 6) Fred S. Kleiner, "Art through the Ages", Cengage Learning; 14 edition, 2012

- 7) IDEO , "Human Centered Design Toolkit", 2009.
- 8) Ilay Cooper, John Gillow, "Arts and Crafts of India", Thames and Hudson, 1996
- 9) Jasleen Dhamija, "Indian Folk arts and Crafts", 2002
- 10) Michael Braungart, William Mc Donough, "Cradle to Cradle: remaking the way we make things", North Point Press; 1 edition, 2002
- 11) Paul Johnson, "Art : A New History", Weidenfeld & Nicolson, 2003
- 12) Peggy Holroyde , "An ABC of Indian Culture", MapinLit, 2007
- 13) Yashodhara Dalmia , "Contemporary Indian Art", Marg Publications, 2002

**18ENG27: SITE SURVEYING & ANALYSIS**

**CONTACT PERIODS: 3 (1 Lecture + 2 Pract./Tutorial/Seminars) per week**

**THEORY MARKS : 100**

**PROGRESSIVE MARKS : 50**

**DURATION OF EXAM : 3HRS**

**OBJECTIVE:** *To develop the knowledge and skills related to surveying and levelling principles and practice and carrying out surveys of land of medium complexity and preparation of survey plans.*

**OUTLINE:**

**MODULE 1**

- 1) **Introduction to Surveying** – Definition, classification, principles of surveying, character of work, shrunk scale.
- 2) **Introduction to Chain Surveying Instruments** – Chain and its types, Ranging Rod, Tapes, pegs.

**MODULE 2**

- 3) **Chain Surveying 1** – Ranging and Types of Ranging.
  - 4) **Chain Surveying 2** – Setting out angles, erecting perpendicular, Obstacles in chain surveying, calculation of area by offsets.
- Plane Table Surveying** – Accessories used, advantages and disadvantages, Methods of plane table surveying (radiation and intersection).

**MODULE 3**

- 5) **Levelling** – Definition, Classification, booking and reduction of levels (HI Method, Rise and Fall Method).
- 6) **Levelling** – Profile levelling – Calculation of depth of cutting and filling

**MODULE 4**

- 7) **Contouring:** Characteristics of contours, direct and indirect methods of contours, interpolation and uses of contours.
- 8) **Introduction to Contemporary Survey Instruments** – Theodolite, Total Station, GPS  
Theodolite – Basic Concepts, Measuring horizontal and vertical angles  
Total Station – Accessories used, uses of total station and applications, Introduction to GPS

**MODULE 5**

- 9) **Observation and Analysis of a Site** – Survey without instruments using geometry and anthropometric measures. To learn a terrain on site factors like topography, hydrology, soils, landforms, vegetation, climate and micro climate and influence of water bodies.
- 10) **Studying Survey Drawing** – Learning to read a land survey drawing, types of land survey drawing, scale and north, legends and symbols.

**Field work** – Setting out works such as center lines of a building instruments used in center line marking.

**Learning outcome:** At the end of the course the students will have ability to understand, measure and analyze the topographical characteristics of a given site for its effective use in site planning.

**REFERENCES:**

- 1) B C Punmia, " Surveying Volume I", Firewall Media, 2005
- 2) K R Arora,"Surveying " Standard Book House,7th edition.
- 3) R. Subramanian, " Fundamentals of Surveying and Levelling", Oxford Uni. Press., 2014.
- 4) S K Duggal," Surveying", Vol 1, 14th Edition, McGraw Hill Education, 2013.
- 5) TP Kanetkar, SV Kulkarni, "Surveying and Levelling(Part-1)", PuneVidyarthi Griha Prakashan, 2014.

**18HUM28: KANNADA BHASHE - Aadalitha Matthu Vyavahara**

**CONTACT PERIODS: 2 (Pract./Tutorial/Seminars) per week**

**PROGRESSIVE MARKS : 50**

**ಆಡಳಿತ ಕನ್ನಡ ಪಠ್ಯಕ್ರಮ**

**(for Kannadigas - Common to all branches )**

**[As per Outcome Based Education(OBE) and Choice Based Credit System (CBCS) scheme]**

ಆಡಳಿತ ಕನ್ನಡ ಭಾಷಾ ಕಲಿಕೆಯ ಉದ್ದೇಶಗಳು:

- ಪದವಿ ವಿದ್ಯಾರ್ಥಿಗಳಾಗಿರುವುದರಿಂದ ಆಡಳಿತ ಕನ್ನಡದ ಪರಿಚಯ ಮಾಡಿಕೊಡುವುದು.
- ವಿದ್ಯಾರ್ಥಿಗಳಲ್ಲಿ ಕನ್ನಡ ಭಾಷೆಯ ವ್ಯಾಕರಣದ ಬಗ್ಗೆ ಅರಿವು ಮೂಡಿಸುವುದು.
- ಕನ್ನಡ ಭಾಷಾ ರಚನೆಯಲ್ಲಿನ ನಿಯಮಗಳು ಮತ್ತು ಕನ್ನಡ ಭಾಷಾ ಬರಹದಲ್ಲಿ ಕಂಡುಬರುವ ದೋಷಗಳು ಹಾಗೂ ಲೇಖನ ಚಿಹ್ನೆಗಳನ್ನು ಪರಿಚಯಿಸುವುದು.
- ಸಾಮಾನ್ಯ ಅರ್ಜಿಗಳು, ಸರ್ಕಾರಿ ಮತ್ತು ಅರೆ ಸರ್ಕಾರಿ ಪತ್ರವ್ಯವಹಾರದ ಬಗ್ಗೆ ಅರಿವು ಮೂಡಿಸುವುದು.
- ಭಾಷಾಂತರ ಮತ್ತು ಪ್ರಬಂಧ ರಚನೆ ಬಗ್ಗೆ ಅಸಕ್ತಿ ಮೂಡಿಸುವುದು.
- ಕನ್ನಡ ಭಾಷಾಭ್ಯಾಸ ಮತ್ತು ಸಾಮಾನ್ಯ ಕನ್ನಡ ಹಾಗೂ ಆಡಳಿತ ಕನ್ನಡದ ಪದಗಳ ಪರಿಚಯ ಮಾಡಿಕೊಡುವುದು.

ಆಡಳಿತ ಕನ್ನಡ ಪಠ್ಯ ಮುಸ್ತಕದ ಪಠ್ಯಕ್ರಮ

**ಪರಿವಿಡಿ**

ಅಧ್ಯಾಯ - 1, ಆಡಳಿತ ಕನ್ನಡ - ಒಂದು ಪಕ್ಷಿನೋಟ

ಅಧ್ಯಾಯ - 2, ಕನ್ನಡ ಭಾಷಾ ಬರಹದಲ್ಲಿ ಕಂಡುಬರುವ ದೋಷಗಳು ಹಾಗೂ ನಿವಾರಣೆಗಳು

ಅಧ್ಯಾಯ - 3, ಲೇಖನ ಚಿಹ್ನೆಗಳು ಮತ್ತು ಅವುಗಳ ಉಪಯೋಗ ಹಾಗೂ ಬಳಕೆಯ ರೀತಿ

ಅಧ್ಯಾಯ - 4, ಸಾಮಾನ್ಯ ಅರ್ಜಿಗಳು ಮತ್ತು ವಿವಿಧ ರೀತಿಯ ಅರ್ಜಿಗಳ ನಮೂನೆಗಳು

ಅಧ್ಯಾಯ - 5, ಆಡಳಿತ ಪತ್ರವ್ಯವಹಾರ - ವಿವಿಧ ರೀತಿಯ ಅರ್ಜಿಗಳ ನಮೂನೆಗಳು, ಸರ್ಕಾರಿ ಪತ್ರಗಳು ಮತ್ತು ಅರೆಸರ್ಕಾರಿ ಪತ್ರಗಳು, ವೈಯಕ್ತಿಕ ಪತ್ರಗಳು ಮತ್ತು ಮನವಿ ಪತ್ರಗಳು

ಅಧ್ಯಾಯ - 6, ಸರ್ಕಾರದ ಆದೇಶ, ನಡೆವಳಿ, ಅಧಿಸೂಚನೆ, ಸುತ್ತೋಲೆಗಳು ಮತ್ತು ಜಾಹೀರಾತು, ಪತ್ರಿಕಾ ಪ್ರಕಟಣೆ ಹಾಗೂ ಟೆಂಡರ್ ಪತ್ರಗಳು

ಅಧ್ಯಾಯ - 7, ಭಾಷಾಂತರ ಮಾಡುವುದು, ಸಂಕ್ಷಿಪ್ತ ಪ್ರಬಂಧ ಹಾಗೂ ಪ್ರಬಂಧ ರಚನೆ. ಭಾಷಾಂತರ ಮತ್ತು ಪ್ರಬಂಧದ ಮಾದರಿಗಳು.

ಅಧ್ಯಾಯ - 8, ಕನ್ನಡ ಭಾಷಾಭ್ಯಾಸ, ಕನ್ನಡದ ದೇಶ್ಯ ಪದಗಳು ಮತ್ತು ಕನ್ನಡಕರಣಗೊಂಡಿರುವ ಅನ್ಯದೇಶ್ಯ ಪದಗಳು.

ಅಧ್ಯಾಯ - 9, ಕನ್ನಡ ಮತ್ತು ಕಂಪ್ಯೂಟರ್/ಮಾಹಿತಿ ತಂತ್ರಜ್ಞಾನ

ಅಧ್ಯಾಯ -10, ಪಾರಿಭಾಷಿಕ ಕನ್ನಡ ಪದಗಳು ಮತ್ತು ತಾಂತ್ರಿಕ / ಕಂಪ್ಯೂಟರ್ ಕನ್ನಡ ಪಾರಿಭಾಷಿಕ ಪದಗಳು

### ಪರೀಕ್ಷೆಯ ವಿಧಾನ :

- CIE/Progressive Marks - ಕಾಲೇಜು ಮಟ್ಟದಲ್ಲಿಯೇ ಆಂತರಿಕ ಮೌಲ್ಯಮಾಪನ 50 ಅಂಕಗಳಿಗೆ ವಿಶ್ವವಿದ್ಯಾಲಯದ ನಿಯಮಗಳು ಮತ್ತು ನಿರ್ದೇಶನದಂತೆ ನಡೆಸತಕ್ಕದ್ದು.

### ಪಠ್ಯಪುಸ್ತಕ :

- ಆಡಳಿತ ಕನ್ನಡ ಪಠ್ಯ ಪುಸ್ತಕ,  
ಪ್ರಕಾಶಕರು : ಪ್ರಸಾರಾಂಗ,  
ವಿಶ್ವೇಶ್ವರಯ್ಯ ತಾಂತ್ರಿಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಬೆಳಗಾವಿ.



**ವ್ಯವಹಾರಿಕ ಕನ್ನಡ ಪಠ್ಯಕ್ರಮ**

**[Communicative Kannada/ Kannada for Communication]**

**(for Non – Kannadigas, Common to all branches)**

**Course Learning Objectives:**

Learners are Non – Kannadigas, so that course will make them to understand the kannada words and to communicate in kannada language.

**ವ್ಯವಹಾರಿಕ ಕನ್ನಡ ಪಠ್ಯ ಪುಸ್ತಕ (Vyavaharika Kannada Text Book)**

**Table of Contents**

- Chapter – 1, Kannada Aksharamale**
- Chapter – 2, Kannada stress letters - vattakshara (Ottakashara)**
- Chapter – 3, Kannada letters Pronunciation – Uchcharane**
- Chapter – 4, Kannada Vocabulary for Communication**
- Chapter – 5, Kannada Grammar and Conversations**
- Chapter – 6, Kannada Conversations (Sambhashanegalu)**
- Chapter – 7, General Conversations in Kannada with Activities**
- Chapter – 8, About Kannada Language and Karnataka State**

**ಪರೀಕ್ಷೆಯ ವಿಧಾನ :**

CIE/Progressive Marks - ಕಾಲೇಜು ಮಟ್ಟದಲ್ಲಿಯೇ ಅಂತರಿಕ ಮೌಲ್ಯಮಾಪನ 50 ಅಂಕಗಳಿಗೆ ವಿಶ್ವವಿದ್ಯಾಲಯದ ನಿಯಮಗಳು ಮತ್ತು ನಿರ್ದೇಶನದಂತೆ ನಡೆಸತಕ್ಕದ್ದು.

**ಪಠ್ಯಪುಸ್ತಕ :**

1. Vyavaharika Kannada Text Book (ವ್ಯವಹಾರಿಕ ಕನ್ನಡ ಪಠ್ಯ ಪುಸ್ತಕ)  
Published by Prasaraṅga, Visvesvaraya Technological University, Belagavi.



# R V C A<sup>®</sup>

## R V COLLEGE OF ARCHITECTURE

Site CA-1, Banashankari 6th Stage, 4th Block Near  
Chikagowdanapalya Village, Off, Vajarahalli Main Road,  
Bengaluru, Karnataka 560109

CONTACT: 91-97422 75212 / 8035095000

EMAIL: [rvca@rvei.edu.in](mailto:rvca@rvei.edu.in)

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*Go, change the world*