

REGULATIONS AND MANUALS (Revised)

B. ARCH. DEGREE COURSE (2014 SCHEME)

**COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY
KOCHI – 682 022**

B.ARCH DEGREE COURSE (10 SEMESTERS)

REGULATIONS AND MANUALS 2014 SCHEME(Revised)

Preamble

(This is not part of the regulations)

Architectural education in India is controlled by the Council of Architecture which was constituted under Architect's Act 1972. Council has prescribed 'minimum standards of Architectural Education regulations'. It covers required duration of the B.Arch. course, eligibility for admission of students, periods of study, standards of syllabus, examinations, faculty, infrastructure, equipment, maximum permissible intake for each batch, etc. Regulations of B.Arch. Degree programme of CUSAT has been formulated based on the COA regulations. Relevant portions of Regulations prescribed by other institutions have also been incorporated. According to the revised regulations 2015, Institutions have the option to choose the duration of Practical Training of one semester (100 working days or 2 semesters (200 working days), after the completion of first stage (after completion of sixth semester). Accordingly the Practical training of 12 months which was originally decided to be in the seventh and eighth semester is revised to be of one semester duration in ninth semester. Eligibility criteria for admission to the first year B.Arch. admission has also been revised. In these regulations wherever the term head of the institution is used it shall mean the head of the architecture department where architecture programmes are conducted as a department.

1. Conditions for admission

Candidates for admission to the B.Arch. Degree programme shall be required to have passed the Higher Secondary Examination, Kerala or 12th standard V.H.S.E, C.B.S.E, I.C.S.E or any other examination accepted by the University as equivalent thereto, with Mathematics, Physics and Chemistry group and obtaining not less than 50% marks in aggregate or a Diploma in Engineering awarded by the Board of Technical Education, Kerala or an examination recognized as equivalent thereto after undergoing an institutional course of at least three years securing a minimum of 50% marks in the final diploma examination or International Baccalaureate Diploma, after ten years of schooling, with not less than 50% marks in aggregate and with Mathematics as compulsory subject of examination, subject to the usual concessions allowed for backward and other communities as specified from time to time.

All Admissions to Architecture degree course shall be subject to passing of National Aptitude Test in Architecture (NATA) conducted by the Council of Architecture. No lateral admission shall be permitted as per the minimum standards of Architectural Education Regulations 1983 of Council of Architecture.

2. Duration of the Course

2.1 The course for the B. Arch Degree shall extend over a period of 10 semesters which includes one semester of practical training.

Working period can be of 50-60 min. duration. Working week shall be of 30 -40 periods.

Practical Training shall be after the completion of the 8th semester B.Arch. university examination.

The I and II semesters shall be combined and considered as an even semester. Only those students who have passed all studio subjects included in Group I, upto sixth semester shall be eligible to start the practical training.

2.2 The course shall cover the group of subjects as given in the curriculum and scheme of Examination given in the annexure.

2.3 Each semester other than thesis work and practical training shall ordinarily comprise of not less than 16weeks.

2.4 Candidates who fail to complete the programme and pass all examinations within eight (8) years since his first admission to the B. Arch programme will not be allowed to continue and he has to quit the Programme. However he can be readmitted to the first year of the programme if he/she satisfies the eligibility norms applicable to the regular candidates prevailing at the time of readmission.

3. Eligibility for the Degree

Candidates for award of the Degree of Bachelor of Architecture shall be required to have undergone the prescribed course of studies in an Institution maintained by affiliated to or recognised by the Cochin University of Science & Technology for a period of not less than 10 semesters (including Practical training and Thesis Project) and to have passed all the B. Arch Degree Examination specified in the annexure and conducted by the University.

4. Subjects of Study

The subjects of study shall be in accordance with the scheme and syllabi prescribed in the annexure.

5. Evaluation

Candidates in each semester will be evaluated both by continuous assessment and end semester University examination. The individual maximum marks allotted for continuous assessment and University examination for each subject is as prescribed by the scheme of study.

6. Continuous Assessment (C.A)

The marks awarded for the continuous assessment will be on the basis of the day-to-day work, periodic tests (minimum two in a semester) and assignments/class projects (minimum of two). The faculty member concerned will do the continuous assessment for each semester. The C.A. marks for the individual subjects shall be computed by giving weightage to the following parameters.

- 6.1** All subjects of the B. Arch Degree Course excluding Dissertation, Practical Training, Thesis & Viva Voce are grouped into two. They are: Group I: Basic Design, Architectural Designs I, II, III, IV, V, VI and VII Building Materials and Construction – I, II, III, IV, V and VI, Architectural Drawing and Graphics, Architectural Graphics I and Architectural Graphics II, Interior Design and Architectural detailing.
Group II :All subjects other than mentioned in Group I.

- 6.2** C. A. Marks shall be awarded as per the following norms for each group.

Group I: Assignments/class projects – 70%
 Test – 20%
 Attendance – 10%

Group II: Assignments – 30%
 Test – 50%
 Attendance – 20%

- 6.3**

The C. A. marks allotted for attendance for all subjects shall be awarded full only if the candidates have secured 95% attendance in the subject. Proportionate reduction will be made in the case of subjects in which he/she gets below 95% of the attendance. The CA marks obtained by the student for all subjects in a semester is to be announced at least 5 days before the commencement of the University examinations. Anomalies if any may be scrutinized by the department committee and the final CA marks after publication in the Dept. notice board are to be forwarded to the university within the stipulated time.

- 6.4** The Practical Training, the Dissertation and the Thesis and Viva Voce, Jury for Basic Design, Architectural Design II to VII, Tour & Documentation, shall be conducted as per the manuals given along with the syllabus.

7. Examinations

- 7.1** There shall be University Examinations at the end of combined first and second semester and at the end of every semester from III semester onwards in subjects as prescribed under the respective scheme of examinations for B. Arch Degree course except practical training. Semester classes shall be completed at least 10 working days before the commencement of the University examination.
- 7.2.** The examinations will be held for all the semesters except for practical training Jury, twice in a year-April/May session and October/November session.
Supplementary examinations shall be conducted along with regular examinations upto 4th semester. From 5th semester onwards supplementary examinations shall be conducted twice in an academic year except for practical training.
- 7.3** During the first year and in each semester thereafter, a student will be permitted to appear for the end semester university examination only if he/she satisfies the following requirements:
- a) The student shall be physically present in at least 60% of total working periods for each subject.
 - b)
 1. Either the student shall have an attendance not less than 75% of the total number of working periods, including the duty leaves sanctioned by the college and shall be physically present for a minimum of 60% of the total working periods.
 2. Or the student gets condoned by the University as per the rules of the university.
 - c) He/she must earn a progress certificate from the Head of the institution of having satisfactorily completed the course of study in the semester as prescribed by these regulations.
 - d) It shall be open to the Vice-Chancellor to grant condonation of shortage of attendance on the recommendation of the Head of the institution in accordance with the rules of the university.
- 7.4** A student who is not permitted to appear for the University examinations for a particular semester due to the shortage of attendance and not permitted by the authorities for condonation of shortage of attendance shall repeat the semester at the earliest opportunity offered to him/her. This provision is allowed only once for a semester. However, prior permission from the University should be obtained before readmitting the student to the respective semester.
- 7.5**
- i) A student who does not register for the university examination of a particular semester/evaluation for practical training, will not be eligible to enroll for next higher semester.
 - ii) For promotion to higher semester, a separate minimum marks of 45% must be obtained for the jury examination for Basic Design and Architecture Design II to VII and he/she shall also secure 50% marks in aggregate (C.A marks + Jury) examination.
 - iii) The student who fails to get 50% marks in aggregate for Basic Design & Architecture Design II to VII and 45% marks for the jury will get a make-up chance to improve the portfolio of class assignments and get the portfolio of the works done evaluated by another panel of examiners. However, he/she should request to the Head of the Architectural institution/Department and seek permission in the prescribed format to avail make up chance and improve the assignments under the guidance of a faculty nominated by the Head. Improvement examinations shall be conducted within one month from the date of announcement of the result of the regular jury examination by the Head. In case of intervening University examinations, it can be suitably extended, giving one month for improvement.
- 7.6** Examinations for all subjects (Theory, Drawing, Architectural Design Jury and Thesis Viva Voce) shall be conducted by the University.
- 7.7** Head of the Institution shall publish the marks of the Jury Examination on the next working day after the completion of the Jury.

7.8 A student can register for X semester University Thesis and Viva Voce Examination only if he/she has passed fully all examinations upto VI semester examination.

8. Letter Grades

- i) For each subject in a semester, a letter grade (S, A, B, C, D, and F) will be awarded, based on the total marks obtained by the student in the University examination and Continuous assessment put together.
- ii) Letter grade 'F' will be awarded to the student for a subject if either his/her mark for the University examination is below 45 % or the total mark (C.A marks + University Exam mark) is below 50 %.
- iii) For subject with no university examination, Letter grade 'F' will be awarded if CA marks is below 50%.
- iv) Both absolute mark and Grade will be indicated in the grade card.
- v) Letter grade corresponding to total marks (C.A marks+ University Exam mark) and the corresponding grade point in a ten-point scale is described below.

% of Total marks (C.A marks + University Exam mark)	Letter Grade	Grade Point (GP)	Remarks
90 – 100	S	10.0	
80 – 89	A	9	
70 - 79	B	8	
60 - 69	C	7	
50 - 59	D	6.0	
Less than 50	F	0	Failed

Total marks in decimals shall be rounded to the closest integer.

VI) The percentage of attendance of a candidate for a semester shall be indicated by a letter code as given below.

Attendance percentage	Letter Code
90% and above	H
75% and above but less than 90%	N
Less than 75%	L

9. Grade Point Average (GPA) and Cumulative Grade Point Average (CGPA)

- i) A student is considered to have credited a course or earned credits in respect of a course if he/she secures a grade other than F for that course.
- ii) Grade Point Average.
The academic performance of a student in a semester is indicated by the Grade Point Average (GPA).

$$\text{GPA} = (\text{G}_1\text{C}_1 + \text{G}_2\text{C}_2 + \text{G}_3\text{C}_3 + \dots + \text{G}_n\text{C}_n) / (\text{C}_1 + \text{C}_2 + \text{C}_3 + \dots + \text{C}_n)$$

Where 'G' refers to the grade point and 'C' refers to the credit value of corresponding course undergone by the student.

CGPA for all the semesters of the B. Arch programme shall be calculated as follows:

$$\text{CGPA} = \frac{\sum (\text{GPA for a semester} \times \text{total no. of credits in the semester})}{(\text{Total number of credits for the programme})}$$

iii) The Grade Card

The grade card issued at the end of the semester to each student by the Controller Examinations will contain the following

- a) The code, title, number of credits of each course registered in the semester
- b) The letter grade obtained,
- c) The attendance code for the semester,
- d) The total number of credits earned by the student upto the end of that semester
- e) GPA
- f) The month and year of passing each course and whether the candidate has improved his marks by reappearance.

A consolidated grade card will be issued on successful completion of the programme indicating the following:

- a) The GPAs obtained in each semester, the attendance code for the semester, and the month and year of successful completion of that semester.
- b) The CGPA obtained

iv) Classification

Classification based on CGPA is as follows:

- CGPA 8 and above : First Class with distinction
- CGPA 6.5 and above, but less than 8 : First Class
- CGPA 6 and above, but less than 6.5 : Second Class.

10. Study tour and documentation camp

- 10.1 Students shall undertake study tours in S3 or S4 and S7 or S8 semesters of the course as part of architectural design course and shall undertake a documentation camp in S6 as per the manual attached. Concerned faculty members shall accompany the students during the tour.
- 10.2 The working days used for educational tour will be considered as working periods of a semester. For students who are permitted not to attend the tour, measures should be taken to record their attendance in college or make alternate arrangements for academic tasks to be done by such students to compensate for the same.
- 10.3 The tour may be conducted during the vacation / holidays taking not more than 5 working days, combined with the vacation / holidays if required. Total number of Tour days shall not exceed 15 days.

11. Revision of Regulations

The University may from time to time revise, amend or change the regulations, curriculum, scheme of examinations and syllabi within the frame work of the statutory regulations prescribed by the Council of Architecture. These changes unless specified otherwise will have effect from the beginning of the academic year following the notification by the University.

B ARCH. DEGREE COURSE

MANUALS

1. BASIC DESIGN AND ARCHITECTURAL DESIGN II TO VII

- 1.1 The Evaluation of Basic Design and Architectural Design II to VII is based on continuous evaluation and by a panel of Jury.
- 1.2 The jury may be conducted by a panel of examiners appointed by the university.
- 1.3 The marks for the Continuous Assessment will be awarded by the staff member in charge.
- 1.4 University shall nominate a Chairman, two panels of external examiners and internal examiners as panel of Jury. First pair of examiners (consisting of one external examiner and one internal examiner) shall conduct the main Jury Examination (Regular chance) and the second pair of external and internal examiners shall conduct the make-up improvement chance, if required.
- 1.5 Internal examiner shall be one member from among the faculty members of teaching institution other than the faculty member who evaluated the work for awarding the internal marks.
- 1.6 External Examiner shall be from among the faculty members of other teaching institutions or an Architect registered with the Council of Architecture, incorporated under Architect's Act 1972, with not less than 5 years' experience.
- 1.7 Students shall submit the portfolio consisting of the assignments done for the subject during the course period, as per the instructions from the head of the architectural institution/ department, latest before noon on the previous working day of the commencement of the jury.
- 1.8 The staff members -in-charge of the subject shall submit a report consisting of the details of assignments given and its objectives and weightage given to each work to the external jury through the head of the Department.
- 1.9 The jury members (internal and external examiners together) will evaluate the portfolio on the basis of the report of the staff members -in-charge and in consultation with them.
- 1.10 Students shall be physically present to explain their work to the Jury members at the time of evaluating their portfolio.
- 1.11 The Jury members shall submit the consolidated marks to the head of the architectural institution/dept. on the last day of Jury.
- 1.12 The Head of the architectural institution shall forward the original mark list to the chairman for approval and for transmission to the University. A copy of the same should be forwarded to the University also by the Head of the architectural institution/Department.
- 1.13 A separate minimum mark of 45% should be obtained for the jury examination for Basic Design and Architectural Design II to VII. For promotion to higher semester, a separate minimum marks of 45% must be obtained for the jury examination for Basic Design and Architecture Design II to VII and he/she shall also secure 50% marks in aggregate (C.A marks + Jury examination).

The students who fail to get 50% marks in aggregate for Basic Design & Architecture Design II to VII and 45% marks for the jury will get a makeup chance to improve the portfolio of class assignments and get the portfolio of the works done evaluated by another panel of examiners. However, he/she should request to the Head of the Architectural institution/Department and seek permission in the prescribed format to avail make up chance and improve the assignments under the guidance of a faculty nominated by the Head. Improvement examinations shall be conducted within one month from the date of announcement of the result of the regular jury examination by the Head of the department. In case of intervening University examinations, it can be suitably extended, giving one month for improvement.

Students who fail to secure the separate minimum of 45% for external jury examination or aggregate minimum of 50% even after the makeup chance shall register for the particular subject and improve /repeat the course assignments /tests as per the instructions of the Head of the department and on satisfactory progress shall register for the University examination along with next immediate batches of students and shall reappear for the Jury examinations as per the instructions of the Head of the concerned institution. Attendance for the subject may not be made mandatory in such cases. The component of marks for attendance in awarding C.A. marks may be added to the assignment component. Maximum C.A. marks for such cases shall not exceed the class average of the current batch for the particular subject.

2. MANUAL FOR PRACTICAL TRAINING (IX Semester)

(Immediately after the completion of university examination of eighth semester B.Arch. Degree programme)

Contents

- 1 Introduction.
- 2 Selection of firm for practical training.
- 3 Type of works expected to be done during training.
- 4 Monthly work report.
- 5 Documents to be submitted after completion of training
- 6 Evaluation of Practical training

As per the B.Arch. curriculum students shall undergo practical training of one semester (100 working days) duration immediately after the completion of the eighth semester University examination. No candidate shall be eligible for practical training without passing all the studio oriented- subjects included in the group I of the curriculum, of all semesters upto sixth semester of the B.Arch. course. The training shall be done under a senior architect registered in India or abroad with minimum of five years' professional experience. Place of training shall be decided with the prior approval of the Head of the Architecture institution concerned. Only those who have completed the practical training successfully as directed in this manual shall be eligible for the award of the B.Arch.degree.

2.1 Selection of Firm for Practical Training.

Candidates shall select a registered architect with good experience and reputation in the field of Architectural practice for practical training. The students shall get approval of the trainer Architect from the Head of the concerned Architecture institution in advance.

2.2 Type of works to be carried out during training period

The students are expected to get exposure in the following aspects:

- I. Site visit and Site Supervision.

- ii. Preparation of drawing for getting building permissions, working drawings, service drawings etc.
- iii. Preparation of estimates, specifications, contract documents, and tender documents.
- iv. Discussion with clients and other consultants.

2.3 Monthly work report

The students are required to send copies of the monthly report of the work done to the concerned institution, every month. The reports shall be duly signed by the Principal Architect or the authorized officer supervising the work in the prescribed format.

2.4 Documents to be submitted after the completion of training

The students are required to submit to the Head of the concerned Architecture institution, a report including the details of their work with illustrations with sketches, prints and other documents connected with the projects on which he/she has worked both in office and at site, a work diary, original of monthly reports, a certificate regarding their conduct and performance of work done during the training period and regarding the successful completion of training of six months under the approved Architect /Firm.

2.5 Evaluation of practical training

A Panel of examiners consisting of an internal examiner from among the faculty of the Architecture of the concerned teaching institution and an external examiner appointed by the university shall evaluate the work of the students through a viva-voce and award marks out of 300. Sessional marks out of 200 shall be awarded by the concerned teaching institution through continuous assessment based on monthly progress reports received from the respective offices imparting training and office work (100 marks), field observation study (50 marks) and critical appraisal of an important historical or modern building in the town where training is done. (50 marks)

*Anything if not explicitly covered in these regulations shall be decided by the practical training monitoring committee constituted by Head of the concerned Architecture institution.

3. MANUAL FOR DISSERTATION

3.1 Aim of the dissertation

To provide the students, an opportunity to undertake research work on a topic of their choice.

3.2 Area of research

Any topic approved by the concerned Architecture Institution, related to built environment. It shall involve a compilation of secondary data followed by a study at primary level, to achieve the aim and objectives of the research work.

3.3 Selection of the topic

Students admitted to the 8th semester B.Arch. Degree programme shall submit their choices of topic for dissertation for approval from the head of the concerned institution.

3.4 Allotment of Guide

The head of the institution shall allot a guide to each student for supervising his/ her dissertation work.

3.5 Evaluation:

1. The dissertation will be considered as an individual subject of the 8th semester B.Arch. Degree programme.

2. The 200 marks allotted to the dissertation will be awarded in the following manner.

Marks. 3. Sessional marks to be awarded by the allotted guide as per the schedule -100

4. (a) The Head of the concerned Architecture Institution shall constitute a jury of three members for evaluating the final presentation of the dissertation work.

(b) The jury panel shall be constituted by the Head of the concerned Architecture Institution from among the faculty of the institution and/or from among the Architects registered with the council of Architecture, incorporated under the architects act 1972, with not less than 5 years experience.

(c) The jury members will independently evaluate the final presentation as described below.

Evaluation of the final report in the form of bound volume - 50 marks.

Evaluation of the technical paper presented in a seminar organized for this purpose by the Dept. of Architecture of the teaching institution -50 marks.

3.6 Failures in Dissertation

Failure in the dissertation shall be treated as failure in the university examination for the purpose of promotion to higher semesters.

4 MANUAL FOR THESIS AND VIVA VOCE

4.1 Tenth semester of B.Arch. Degree programme shall consist of Thesis and Viva voce. Students shall do a thesis on an approved Architectural Design project under the guidance of the faculty and present it for evaluation and Viva voce. The approval of the topic for the thesis shall be obtained before the end of eighth semester from the thesis monitoring committee constituted by the Head of the concerned Architecture Institution. Head of the concerned Architecture Institution shall be the chairperson of the committee.

4.2 The duration of the thesis and viva voce shall be for one semester, approximately 18 weeks from the date of commencement of the tenth semester of B.Arch. Degree programme.

- 4.3 The Head of the concerned architecture Institution will allot a guide for each student.
- 4.4 The thesis project shall be a major live or hypothetical architectural project .In this project the student is expected to individually synthesize the knowledge gained in the previous semesters, conduct investigative research through library and other sources. Coordinate all pertinent architectural issues connected with the selected project. The project and its programming shall be worked out by the student under the supervision of the guide. Thesis project may also be a theme- based research on architectural projects, involving collection of data, analysis, synthesis, architectural design and preparation of drawings and report.
- 4.5 The work should include an intensive and systematic study of the socio-economic, environmental and technical issues relevant to the project.
- 4.6 The Institution shall assess the progress periodically and award internal marks through four stage reviews. Jury may consist of internal faculty/external practicing architects, appointed by the Head of the concerned Architecture Institution. Format for the stage presentations and appointment of jury shall be as decided by the thesis monitoring committee. Minimum marks to be secured in a review to be eligible for appearing for the subsequent stage evaluation is 40%. Any candidate who fails to secure 40 % in any of the internal reviews shall have to resubmit and present their improved work and appear for the supplementary review on the date announced by the Head of the Institution. There shall be only one supplementary review for each stage. If a candidate fails in the supplementary review, thesis project shall be repeated along with the next immediate batch.
- 4.7 Every thesis student shall maintain a work diary. All students are required to schedule their thesis work, get it approved by the guide, at the beginning of the thesis and submit a copy of the same to the thesis coordinator.
- 4.8 250 marks to be awarded as marks for internal assessment and shall be awarded through the four reviews and regularity. The split up of the same shall be normally as follows.

Review 1 Introduction of the Thesis Topic, Feasibility studies, Basic data, Case studies/ Primary surveys, Analysis, synthesis and Design Program, Site analysis and Conceptual development, Introduction of Special Topic.

75 marks

Review 2 Review of Previous stage, Arriving at layout plan, Sketch design for various building blocks including Floor Plans, Sections, Elevations, Views, Block Models etc. Conformity to Relevant Standards, Bye laws etc. Achievement of Basic Objectives of Architectural Design and Further studies on Special Topic.

75 marks

Review 3 Review of Previous stages, Final Layout, Final Design for various building blocks through relevant Plans, Sections, Elevations, Views etc. Details of Building and Site Services, Site Planning and Landscape schemes. Preparation of relevant Detailed Drawings, Application of Special Topic in the design scheme, Preparation of Draft Report.

75 marks

Review 4 Preview of Final stage of all finalized drawings and schemes, Structural Details, Working Details etc. Review of Final Draft of the Report.

25 marks

- 4.9 Special Topic shall be relevant to the project and shall be such that it will have significant application in the solution of the project like environmental and energy studies, building technology, fire protection, earth quake resistance, design for differently abled, air conditioning, illumination, landscaping, urban design and interior design.
 - 4.10 Three copies of the Data Collection in the preliminary design stage (up to the design and including the case studies) shall be compiled and presented along with the final submission in A3 size and in the format which shall be prescribed by the thesis monitoring committee.
 - 4.11 Three copies of the Final Report in A4 size shall be submitted in the format and time, which shall be prescribed by the thesis monitoring committee.
 - 4.12 The total number of design sheets for final submission shall not normally exceed 30 (thirty) A1 sheets
 - 4.13 Optional Model and / or perspective views shall be submitted at 9.00 AM on the date of the Viva-Voce examination announced by the University.
 - 4.14 The format and other instructions regarding the schedule of reviews, preparation of the bound volumes of Data Collection, Final Report, Final Sheets, Model, etc. will be announced by the Head of the concerned Architecture Institution. Internal jury for the reviews shall be constituted by the Head of the concerned Architecture Institution. The jury shall consist of three members, either constituted from the faculty of Architecture of the concerned institution and / or from among the Architects registered with the Council of Architecture, constituted under the architects act 1972, and having not less than five years' experience.
 - 4.15 External and internal Jurors shall be appointed by the University
 - 4.16 The jury appointed by the University shall evaluate the thesis documents. The respective guide shall be normally the internal juror of the candidate to conduct viva voce. Marks shall be independently awarded by the jury out of the maximum of 250. The tabulated marks list with the average marks secured by the candidate along with the original mark list signed by each juror shall be forwarded to the controller of examinations through the chairperson by the Head of the concerned Architecture Institution.
 - 4.17 The Head of the concerned Architecture Institution shall have the freedom to send the thesis documents after the final Jury evaluation for participating in competitions organized by the Council of Architecture etc. with due intimation to the concerned candidate.
 - 4.18 Anything if not explicitly covered in these regulations shall be decided by the thesis monitoring committee.
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