COIMBATORE INSTITUTE OF TECHNOLOGY

(Government Aided Autonomous Institution Affiliated to Anna University, Chennai)

COIMBATORE - 641 014, TAMILNADU, INDIA

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REGULATIONS

REGULATIONS FOR FOUR YEAR
B.E. / B.Tech. DEGREE PROGRAMMES

(For the students admitted from 2019 - 2020 onwards)

Under
CHOICE BASED CREDIT SYSTEM

COIMBATORE INSTITUTE OF TECHNOLOGY

(Government Aided Autonomous Institution Affiliated to Anna University, Chennai)

Coimbatore, Tamilnadu, India

REGULATIONS FOR FOUR YEAR B.E. / B.Tech. DEGREE PROGRAMMES

(For the students admitted from 2019 - 2020 onwards under Choice Based Credit System)

The regulations hereunder are effective from the academic year 2019-2020 and are applicable to students admitted in Coimbatore Institute of Technology, affiliated to Anna University, Chennai. The regulations are subject to amendments as may be made by the Academic Council of the Institution from time to time. Any or all such amendments will be effective from such date to such batches of students (including those already in the middle of the Programme) as may be decided by the Academic Council.

1. PRELIMINARY DEFINITIONS AND NOMENCLATURE

In this Regulation, unless the context specifies otherwise

a) **"Programme"** means Degree Programme, i.e. B.E. / B.Tech. Degree Programme.

b) **"Branch"** means specialization or discipline of B.E. / B.Tech. Programme like Civil Engineering, Mechanical Engineering, Chemical Engineering, etc.

c) **"Course"** means a theory or practical subject like Engineering Physics, Calculus and Differential Equations, Engineering Graphics, etc. that is normally studied in a semester.

2. CONDITIONS FOR ADMISSION

Students are admitted to B.E. / B.Tech. Degree Programme as per the procedures and norms prescribed by the Government of Tamilnadu every year.

3. BRANCHES OF STUDY

Candidates shall be admitted to one of the following branches of study at the beginning of the First Year. The programme shall procure a Degree of Bachelor of Engineering / Bachelor of Technology of the Anna University, Chennai and would extend over a period of eight semesters spreading over four academic years with two semesters per year.

Branch / Discipline

- B.E. Civil Engineering
- B.E. Mechanical Engineering
- B.E. Electrical and Electronics Engineering
- B.E. Electronics and Communication Engineering
- B.E. Computer Science and Engineering
- B.Tech. Chemical Engineering
- B.Tech. Information Technology

Additional branches may be added as and when approved by the AICTE and affiliation is obtained from the university.

4. CURRICULUM

The curriculum shall comprise courses of study as given under respective branches in accordance with the prescribed syllabi. The following are the broad divisions of the various theory and practical courses.

a) **Humanities and Social Science (HS)** courses include Technical English, English for Employability, Basic German, Basic French, Communication Skills, Environmental Science and Engineering, Engineering Economics and Management.

b) **Basic Science (BS)** courses include Mathematics, Physics, Chemistry, etc.

c) **Engineering Science (ES)** courses include engineering practices, Engineering Graphics, Basics of Electrical/Electronics/Civil/ Mechanical/Computer Engineering, Programming Practices, etc.

d) **Professional Core (PCC)** courses include the core courses relevant to the chosen branch.

e) **Professional Elective (PEC)** courses include the elective courses relevant to the chosen branch.

f) **Open Elective (OEC)** are the courses which a student can choose from the curriculum of **same** department, or from **other** B.E. / B. Tech. programmes or from the departments under the **faculty of Science and Humanities.**

g) **Employability Enhancement Courses (EEC)** include Project Work, Internship, Seminar, Professional Practices, Case Study and Industrial/Practical Training.

4.2 Each semester curriculum shall normally have a blend of theory courses and practical courses.

4.3 **Electives** : Every student shall opt for electives from the list of electives related to his/her degree programme in consultation with the Faculty Advisor, Programme Coordinator and the Head of the Department. The student has to study **eight electives** from the elective courses listed under Open Electives and Professional Electives. The student can study **not more than two open elective courses.** The student can study elective courses from **fifth semester to eighth semester.**

4.4 **Credit Assignment :**

Each course is normally assigned a certain number of credits

a) One Lecture period per week : 1 credit

b) One tutorial period per week : 1 credit

c) Two periods of laboratory practicals per week : 1 credit

d) Two periods of seminar/project work per week : 1 credit

e) Two weeks of internship : 1 credit

4.5 Online Courses : A student has the choice to study or learn online courses conducted by State and Central Government Educational Institutions for which certificates are provided by the authority offering the courses. A Department committee comprising of Head of the Department, and two subject experts will analyze the quality of the course and recommend the online course. If required, the Committee will monitor the progress of the student and evaluate the student in continuous assessment pattern and recommend the grade. The student may opt for online courses during fifth, sixth and seventh semesters. Students will be permitted to credit online courses not exceeding 50% of the total elective courses offered in the curriculum. The list of online courses to be considered must be of 12 weeks duration to be credited for 3 credits and this must be approved by the Chairman, Academic Council on the recommendation of the Head of the Department at the beginning of each semester, subject to ratification in the next meeting, to facilitate offering of the latest online courses, if necessary.

4.6 Self-study Courses : The student can opt for self study courses during **seventh and eighth semester of the programme,** provided the student does not have standing arrears and has earned a CGPA of **8.0 or more.** The students shall study on their own under the guidance of a faculty member approved by the Head of the Department and no formal lectures will be delivered. The assigned faculty member shall be responsible for periodic monitoring of the progress of the student and internal assessment.

4.7 One Credit Courses : The student can study one credit courses offered by their respective departments from the following categories i) department faculty ii) industrial experts iii) online courses. Students can opt for these one credit courses from **first semester to sixth semester.** A student will be permitted to register for the one credit courses offered by other departments also provided the student has fulfilled the necessary prerequisites of the course and is approved by both the respective Heads of the Departments.

4.8 Internship : Every student is required to complete two 2 weeks (1 credit) of internship during **fourth and fifth semester vacations.**

Internship can be undergone in Higher learning institutions / Industry / Govt / NGO / PSU / Micro small / Medium enterprise/online internship/virtual internship. Also, participation in innovation related competitions, hackathons or development of new product/business plans/registration of start-ups can be considered for internship.

4.9 Project work : Every student is required to undertake a suitable project in consultation with the project faculty guide and Head of the Department and submit the project report on dates announced by the Department / College.

4.10 Course Enrolment and Registration :

a) Each student will be assigned to a Faculty Advisor who shall advise and counsel the student about the details of the academic programme and the choice of courses considering the student's academic background and career objectives.

b) Each student shall register for all the courses prescribed in each semester of the curriculum up to fourth semester.

c) Enrolment for the courses of semesters V to VIII will commence twenty working days prior to the last working day of the preceding semester. The students shall enroll for the courses with the guidance of the faculty advisor.

d) From fifth semester onwards the student has the option to drop **only one elective theory course** offered in that semester. The student also has the option to study **a maximum of two theory courses additionally in a semester.** However, the maximum number of credits the student can register for in a particular semester cannot exceed 30 credits including the redo courses which the student has registered for.

e) A student after registering for an elective course can unenroll from the course within thirty days from the commencement of the semester with the approval of Head of the Department.

4.11 Regulation for studying additional courses : From fifth semester onwards, the student has the option to study a maximum of two

theory courses additionally in a semester provided the student satisfies the following conditions :

a) Total credits in a semester shall not exceed 30.

b) Student should have a CGPA of 8.0 or more and not have standing arrears.

4.12 Co-curricular activities: All students, on admission, shall enroll in any one of the co-curricular activities (NSS/YRC/RSP/Sports and Games) and undergo mandatory training for forty hours (1 credit) during second semester for regular students and during fourth semester for lateral entry students.

Youth Red Cross (YRC) will have activities related to social service.

National Service Scheme (NSS) will have social service activities in and around the Institution.

Sports and Games activities will have sports, games, and physical exercise.

Road Safety Patrol (RSP) will help the traffic movement in front of the college and at other places.

4.13 For the award of degree, a student must earn a certain number of credits specified in the curriculum of the respective branch of study. For regular students the number of credits shall be between 160 to 170 and for lateral entry students the minimum number of credits should be not less than 120 depending on the branch of study recommended by the respective Board of Studies and approved by the Academic Council.

4.14 The medium of instruction for the entire programme is English.

4.15 Duration of the Programme

The minimum duration of B.E. / B.Tech. Programme is 8 semesters (four academic years). The maximum duration allowed to complete the programme is 16 semesters (8 academic years) for H.S.C. candidates and 14 semesters (7 academic years) for Lateral Entry Diploma candidates. Each semester will normally have 90 working days.

5. REQUIREMENTS OF ATTENDANCE AND PROGRESS

A student will be eligible to register for the examination of any course in a semester only if :

a) He / She has put in not less than 75% of attendance in that course.

b) The student secures more than 65% but less than 75% attendance in any course in a semester due to medical reasons or due to participation in college/university/state/national/ international level sports events with prior permission from the Director, Physical Education and the concerned Head of the Department. The student will be given exemption from the prescribed attendance requirement and shall be permitted to appear for the end semester examination of that course.

c) His / Her progress has been satisfactory.

d) His / Her conduct has been satisfactory.

e) A student who has less than 65% attendance in any course will not be permitted to appear for the end semester examination / evaluation of that course. The student has to register and redo that course in a later semester.

6. ASSESSMENT AND PASSING REQUIREMENTS

The assessment of various courses is carried out as given below:

a) **Theory Courses :** The assessment of theory courses comprises of both internal evaluation (sessional marks) and performance in the end semester examination. Sessional marks shall be awarded on the basis of continuous evaluation. The maximum marks for each theory course is 100, out of which 25 marks shall be for the internal assessment (sessional marks) and 75 marks for the end semester examination. A candidate who secures not less than 50% of the total marks prescribed for the courses with minimum marks specified for individual theory courses at the end semester examinations shall be declared to have passed the examination. The marks shall be converted into corresponding grade points as per the prevailing system.

b) **Practical Courses :** Continuous assessment shall be carried out in laboratory practicals / engineering practices laboratory and engineering graphics. The performance of the student shall be assessed throughout the semester. The maximum marks for each course is 100. The marks shall be converted into corresponding grade points as per the prevailing system.

c) **Mini project work :** The mini project work shall be carried out in the V and VI semester of B.E. / B.Tech. programme and the evaluation will be carried out in the VI semester. The internal and external examiners shall be appointed by Controller of Examinations on the recommendations of the respective Head of the Department and with the approval of the Principal.

1. 40 marks for internal assessment.
2. 60 marks for report and viva - voce examination.

d) **Internship :**

Department shall allot faculty members to guide and supervise the students undergoing internship during fourth semester and fifth semester vacations. Students shall report the progress to the supervisor periodically. Evaluation of the internship shall be carried out in fifth semester and sixth semester respectively. Students shall submit a report with the certificates for attendance and completion to the department with recommendation by supervisors. A three member Departmental committee appointed by Head of the Department and approved by the Principal will evaluate and submit the marks to Controller of Examinations.

a) Internship report 40 marks

b) Presentation 40 marks

c) Viva-Voce Examination 20 marks

e) **Project Work and Viva - Voce :** The B.E. / B.Tech. Project work shall be carried out in the VII and VIII semester and project work viva- voce examination shall be jointly conducted by an internal and an external examiner in the VII and VIII Semesters respectively. The internal and external examiners shall be appointed by the

Controller of Examinations on the recommendation of the respective Head of the Department and with the approval of the Principal.

VII Semester

1. 40 marks for internal assessment.
2. 60 marks for report and viva-voce examination

VIII Semester

1. 80 marks for internal assessment.
2. 120 marks for report and viva-voce examination

f) **One credit courses** will be evaluated by the course instructor or concerned faculty member under continuous assessment scheme.

g) **The co-curricular activities** will be evaluated by the course instructor or concerned faculty member under continuous assessment scheme. Physically challenged students who are not in a position to participate in the above mentioned co-curricular activities may be exempted with the approval of the Principal.

h) **Bridge Course for Lateral entry students :** Lateral entry students should study the following courses and obtain not less than B grade to become eligible for the award of degree. The credits earned in these courses will not be counted for calculation of GPA.

- Engineering Mathematics (2 credits)
- Physical Sciences (2 credits)

i) The guideline for the internal assessment shall be given by the concerned teacher at the beginning of the semester.

j) Improvement examination is not permitted for any course.

7. REGULATIONS GOVERNING ELECTIVE COURSES

a) The students have the option to study more than eight electives. However, the grades obtained in the first eight electives studied

shall only be considered for CGPA calculation.

b) If a student has lack of attendance in a professional elective or open elective course, the student shall register for the same or any other professional elective or open elective course in subsequent semesters.

8. PROCEDURE FOR COMPLETING THE COURSE

a) **Theory Courses :**

A student who has the required attendance and secures not less than B grade is deemed to have passed the course.

b) **Practical Courses :**

A student who has the required attendance and has secured not less than B-grade under continuous assessment scheme is deemed to have passed the course.

c) **Internship :**

A student who has submitted the internship report on or before the prescribed date and has attended the viva-voce examination and has secured not less than B grade (by securing atleast 50% in the viva-voce examination) is deemed to have passed the course.

d) **Project Work / Mini Project Work :**

A student who has submitted the project report on or before the prescribed date and has attended the viva-voce examination and has secured not less than B grade (by securing atleast 50% in the viva-voce examination) is deemed to have passed the course.

e) **Co-Curricular activities :**

A student who has participated in any one of the Co-Curricular activities (NSS, YRC, RSP or sports and games) and obtained not less than B grade is deemed to have passed the course.

9. REGULATIONS FOR COMPLETING THE COURSE ON FAILING IN THE FIRST ATTEMPT

a) **Theory Courses :**

A student who has the required attendance and is absent for the end semester examination or has failed in the end semester examination in any theory course having internal assessment marks should register for the supplementary examination. For such students, the internal assessment marks earned will be retained for the **first two attempts** only. After two attempts, the student has to appear for the end semester examination for the maximum marks and the student has to score 50% of the maximum marks for a pass in that course.

b) **Practical Courses / Continuous Assessment Courses:**

A student who has the required attendance and has failed in any course of continuous assessment type shall register for the supplementary examination and be assessed solely by the performance in that examination for maximum marks of that course.

c) **Project work / Internship :**

(i) A candidate shall not be permitted to appear for the final year project work/internship viva - voce examination unless he / she has submitted the project/internship report on or before the prescribed date as notified by the Controller of Examinations from time to time.

(ii) Candidates who fail to submit the final year project report/internship report on or before the due date shall submit the report as advised by the Head of the Department in the subsequent examination.

(iii) Candidates who have submitted the final year project/internship report but failed to attend the viva - voce examination shall appear for the viva - voce examination only in the subsequent examination.

(iv) A candidate failing in final year project work/internship viva - voce examination for want of marks or due to absence shall register and appear as a supplementary candidate in the subsequent semester examination. For such supplementary candidates, the internal assessment marks obtained in project work shall be retained for the **first two attempts only.**

10. REGULATIONS GOVERNING ATTENDANCE SHORTAGE

For candidates with attendance shortage in a course, the re-registration for that course will be based on the system prevailing at that time. The student can register for that course with the approval of the Faculty Advisor designated by the Head of the Department and continue to study, subject to the maximum limitation of 30 credits for that semester. These courses will be considered as redo courses.

11. AWARD OF LETTER GRADES

a) All assessments of a course shall be done on absolute marks basis. However, for the purpose of reporting the performance of a candidate, letter grades, each carrying certain points, will be awarded as per the range of total marks (out of 100) obtained by the candidate, as detailed below.

Range of total marks	Letter Grade	Grade Points
90 to 100	O (Outstanding)	10
80 to 89	A + (Excellent)	9
70 to 79	A (Very Good)	8
60 to 69	B + (Good)	7
50 to 59	B (Above average)	6
0 to 49	RA (Reappearance)	0
Absent	AB	0
Incomplete	I	0
Withdrawal	W	0

"RA" denotes reappearance and "AB" denotes absence and hence the result is fail in the course.

"I" denotes incomplete as per clause 5 and hence prevention from writing end - semester examination.

"W" denotes withdrawal from appearing for the examination in the course.

After results are declared, Grade Sheets will be issued to each student which will contain the GPA details :

GPA is the ratio of sum of products of the number of credits and the points earned corresponding to the grades scored in all courses

registered and passed to the total number of credits of all courses passed in the semester.

$$GPA = \frac{\text{Sum of } [\ C \times GP\ ]}{\text{Sum of } C}$$

where C = Credits allotted for the courses GP = Grade Points earned.

CGPA will be calculated in a similar manner, considering all the courses enrolled from first semester. "RA", "I" "AB" and "W" grades will be excluded for calculating GPA and CGPA.

b) In the case of students originally admitted to other colleges and subsequently transferred to Coimbatore Institute of Technology, the total number of credits earned for the award of degree shall be the sum of two components mentioned below :

(i) Total credits earned in Coimbatore Institute of Technology, as per curriculum specified by the Institute.

(ii) Total credits earned by the student as per the curriculum of the Institution where the student was admitted earlier.

(iii) A committee headed by the HOD concerned shall recommend equivalent subjects and rectify the deficiency in credits, if any.

12. PROVISION FOR WITHDRAWAL FROM EXAMINATION

a) (i) A candidate may, for valid reasons, be permitted to withdraw from appearing in the semester examination in any course or courses only once during the entire duration of the degree programme. Also, only one application for withdrawal is permitted for that semester examination in which withdrawal is sought.

(ii) Withdrawal application shall be valid only if the candidate is otherwise eligible to write the examination and if it is made prior to the commencement of the examination in that course or courses and also recommended by the respective Head of the Department and the Head of the Institution.

(iii) Withdrawal shall not be construed as an appearance for the eligibility of a candidate for First Class with Distinction.

b) A student who is absent in End Semester Examination in a course/ project work after having registered for the same shall be considered to have appeared for that examination [except approved withdrawal from end semester examinations as per clause 12(a)] for the purpose of classification.

13. REVALUATION

A candidate can apply for viewing of graded answer script and / or revaluation of his / her semester examination answer paper in a theory course, within two weeks from the declaration of results, on the dates specified by the Controller of Examinations after payment of prescribed fee along with proper application. The Controller of Examinations shall arrange for viewing / revaluation and the revaluation result shall be published soon after the revaluation process is completed.

14. CLASSIFICATION OF THE DEGREE

a) First Class with Distinction:

A student who satisfies the following conditions shall be declared to have passed the examination in **First Class with Distinction :**

- Regular full time students should have passed the examination in all the courses of all the eight semesters in the student's First Appearance within **five** years, which includes authorized break of study of one year. The lateral entry students should have passed the examination in all the courses of all the six semesters in the First Appearance within **four** years, which includes authorized break of study of one year. If availed, withdrawal from examination [vide clause 12(a)] will not be considered as an appearance.
- Should have secured a CGPA of not less than 8.50.
- Should not have been prevented from writing end semester examination due to lack of attendance in any of the courses.

b) First Class:

A student who satisfies the following conditions shall be declared to have passed the examination in **First Class:**

- Regular full time students should have passed the examination in all the courses of all the eight semesters within **five** years. Lateral entry students should have passed the examination in all the courses of all the six semesters within **four** years. This includes one year of authorized break of study (if availed) or prevention from writing the end semester examination due to lack of attendance (if applicable).
- Should have secured a CGPA of not less than 7.00.

c) Second Class :

All the other students (not covered in clauses 14.a and 14.b) who qualify for the award of the degree shall be declared to have passed the examination in **Second Class.**

15. TEMPORARY BREAK OF STUDY FROM A PROGRAMME

a) A student is not normally permitted to avail a temporary break of study. However, if a student intends to temporarily discontinue the programme in the middle for valid reasons (such as accident or hospitalization due to prolonged ill-health) and wishes to rejoin the programme in a later semester he / she shall apply to the Head of the Institution in advance as per the procedures and norms prescribed by the competent authority.

b) The student permitted to rejoin the programme after the break of study shall be governed by the rules and regulations in force at the time of rejoining.

c) The duration specified for passing all the courses for the purpose of classification (vide Clause 14.a and 14.b) shall be extended if such break of study is approved by competent authorities.

d) The total period for completion of the programme reckoned from the commencement of the first semester to which the student was admitted shall not exceed the maximum period specified in clause 4.15 irrespective of the period of break of study in order that he / she may be eligible for the award of degree.

e) If any student is detained for want of required attendance, progress or conduct, the period spent in that semester shall not be considered

as permitted "Break of Study" and Clause 15(c) is not applicable for this case.

16. FACULTY ADVISOR

To help the students in planning their courses of study, the Head of the Department / Senior Faculty Advisor will allot a certain number of students to a teacher of the department who shall function as Faculty Advisor for those students throughout their period of study. The Faculty Advisor will guide the student during enrolment, registration of courses and authorize the final registration of the courses at the beginning of each semester and monitor their attendance and counsel them periodically. If necessary, the Faculty Advisor may also inform the parents about the progress of the students.

17. INDUSTRIAL VISITS

Industrial visits shall be arranged for students to help them understand the academic - industry environments. This will help them to prepare themselves to meet the requirements of industry when they go for employment or when they become entrepreneurs.

18. GENERAL DISCIPLINE

Every student is required to observe discipline and maintain decorum both inside and outside the college and not indulge in any activity which lowers the prestige of the Institute.

19. MALPRACTICE IN EXAMINATION

A student who indulges in any type of malpractice in any of the examinations is liable for the punitive action as per the guidelines of Anna University.

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COIMBATORE – 641014, TAMILNADU.

Phone: 0422 – 2574071 & 2574072 E-mail: hodcivil@cit.edu.in www.cit.edu.in

DEPARTMENT OF CIVIL ENGINEERING

CIT/CIVIL/CED/2024/082 02.08.2024

CIRCULAR

The guidelines for the course 19CE66 – Mini Project is attached for your kind reference. All the project guides are requested to advise the students to co-ordinate and adhere the schedule as per the guidelines and instructions received from the Project Co-ordinator.

02/08/2024

Head (i/c) of Civil Engineering
Dr. M. P. MUTHURAJ, M.E.,Ph.D
Head in-charge of the Department
Department of Civil Engineering
Coimbatore Institute of Technology
Coimbatore - 641 014

COIMBATORE INSTITUTE OF TECHNOLOGY
Department of Civil Engineering
COIMBATORE-14

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III YEAR B.E.CIVIL ENGINEERING – V & VI SEMESTER
19CE66 MINI-PROJECT- GUIDELINES

1. Introduction:

The course 19CE66 Mini-Project in V & VI semester of B.E. Civil Engineering introduces the students to the various aspects of civil engineering and encourages them to review classroom based learning against Mini-Projects under execution. The present document presents guidelines for conduct and evaluation of the course 19CE66 Mini-Project. The Mini-Project is to be documented and prepared as per guidelines given by the department of Civil Engineering, Coimbatore Institute of Technology, Coimbatore

2. Batch Selection

Based on the interest of students the Mini-Project batches may be grouped. Maximum of four students can form a batch. In unavoidable circumstances, 3 or 5 number of students can form a batch with approval of 'Mini-Project Coordinator'. If any group of students motivated to submit their Mini-Project for government or private bodies like INSDAG, TNSCT, etc., can form with the approval of Mini-Project Coordinator.

3. Topic Selection and Approval:

Students are required to submit the details listed below within a week of the beginning of the V and VI Semester. The same will be collated by "Mini-Project Coordinator". Batch of students should be approved by HoD before the start of the Mini-Project along with following details.

(a) List of Construction site/structure to be involved with schedule to cover
(b) Name of the Mini-Project Guide and list of students engaged.
(c) Industry expert associated with the Mini-Project if any.

4. Method of Conduct:

All students have to submit a proposed schedule for completing the mini- project work along with their proposals signed by the respective Mini-Project guides. Weekly progress review and attendance will be marked by their respective project guide and the same should be submitted weekly to the Mini - Project Coordinator for evaluation. Mini-Project progress can be reviewed by the coordinator at any time during the course. Mini-Projects will be evaluated for each review of the project (Review I, II and III) as per the schedule indicated below with the following three reviewers.

1. Ms. M. Hannah Angelin
2. Mr. D. Arul
3. Dr. P. Jagadesh

5. Mini-Project phases

Mini-Project consists of two phases, phase I for site visit which includes structural elements inspection, traffic study, plumbing study and electrical energy study along with

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Department of
Civil Engineering
COIMBATORE-14

other civil engineering related components and phase II consist of design of load bearing structure, structural elements (slab, staircase, lintel beam, sunshade, beam (if necessary)) and stone masonry design (if required).

Phase I

A. Construction site visit

Students are required to visit at least 3 sites with a view of examining and understanding the works involved in the construction of a 2 storied residential building. They are required to identify the type of construction being carried out whether load bearing or RCC Frame. In case a student wishes to work in a different Mini-Project type specific approval of the HoD may be taken after framing similar guidelines.

They should familiarize themselves with the plan, layout and sizes of various rooms and record the various construction activities such as construction of boundary walls, establishment of bore wells, foundation excavation, masonry/ brick work, plinth details, plinth protection and filling, wall, lintel, door and window elements, water and electric supply etc. They should familiarize themselves with all the various building materials used in the construction and the various finishing materials in joinery, doors and windows, glazing, stoneware, tiling, kitchenware as well as the construction schedule. The student should record and document the construction and details of all structural elements such as foundations, columns, beams, slabs, staircase, UG sump and OHT, various joints and junctions etc.

Site visit should be extended to know about steel works, i.e., type of bolts, type of weld, type of sections, type of connection, components of members, girders, etc.

B. Traffic study

Students are required to analysis a traffic flow in a road stretch/intersection with type of vehicles (PCU count) at least for a period of week. Study also includes type of roads (single lane/double lane as per IRC) and other Cross sectional elements of road Markings and signals in road should also be noted during their visit. All other related Transportation/traffic engineering parameters can be include in their visit based on the stretch selected

C. Plumbing study

Students are required to analysis the water flow in building. Pipe type, size and length available in market should be familiarized by student during their site visit. They also familiarize with calculation of diameter of pipe, pipe fittings, plumping layout. They need to know type of pumps and motor required for water pumping.

D. Electrical energy study

Students are required to calculate the electrical energy required for a simple residential building (maximum 2BHK). They need to analysis the electrical energy required for each equipment's used in residential building. They need to familiarize with different phases of electrical current.

E. Irrigation Study

Students are required to study about any canal study or any one type of irrigation work and they should be able to identify and explain it with photographs. Advantages and

disadvantages of irrigation systems, along with neat topographical sketch should be produced during review.

F. Environmental Study

Students are required to study the case study for water treatment plants and sewage treatment plants and they able to explain with the documents. They are able to know about processing techniques, flow, type of material used for construction and drawings.

Phase II in VI Semester

Students should submit four plans with minimum 2 BHK along with joinery details of minimum area of 1500 Sq.ft as per DTCP and NBC guidelines. The plan should include set back distances on sides of building. Student should able to calculate plinth area, build up area, floor area, amenity area, carpet area, etc. Joiner details should be included in plan along with building key plan as per NBC guidelines

Based on review by Mini-Project guide, best among one of the four plans is selected for further design. Students should produce the site plan, key plan, plumbing layout, electrical layout, architectural plan, etc., Building should be designed for load bearing structure. Suitable materials for load bearing and the design should be done based on Indian standards.

Calculation of labour rate per square feet should be familiarized by the students. Quantity calculation, estimation and abstract for the plan should be calculated.

6. Method of evaluation

The Mini-Project consists of four reviews and a final viva voce. Following aspects should be covered for every review.

(a) Zeroth Review:(Completed in V Semester)

The students are required to cover the following aspects in the initial review scheduled to be conducted towards the end of V Semester based on the schedule promulgated by the Mini-Project Coordinator in consultation with the HoD. In this review marks will not be awarded.

(i) Batch of students, guide name

(ii) Schedule of work to be completed

(b) First Review: (Completed in V Semester)

The students are required to cover the following aspects in the initial review scheduled to be conducted towards the end of V Semester based on the schedule promulgated by the Mini-Project Coordinator in consultation with the HoD

(i) Details of Mini-Project site visited, plan, section and elevation and site layout, budget and schedule of any one site.

(ii) Description along with photographs of all the construction works such as leveling, excavation of foundation, PCC and RCC works, brickwork, fixing of doors and windows and joinery, finishing works and plastering, electrical and plumbing works.

(iii) Photographs, dimensions and structural details such as steel, cover, mix design etc of RCC components from visited Mini-Projects such of any one

foundation, column, beam, slab, staircase and UG sump. Capacity calculation for said structural element of foundation, column, beam and slab.

(iv) Traffic study in any junction, photographs, road layout, usage of excel sheet for relationships. Road markings, road signals and cross section of road with parts should be produced.

(v) Plumping study includes calculation of pipe diameter, sump size, OHT size and diagram of pipe line (inlet and outlet) and pipe fittings. Cost of pipe, pipe fittings. Familiarize with pump size, type of motor, motor power and size of pipe outlet from borewell.

(vi) Electrical energy study includes the power requirement for a single room, kitchen, etc., for a residential building. Study about phases of current.

(b) Second Review: The second review is to be carried out on rejoining for the VI Semester as per the promulgated schedule. The aspects to be covered are listed below:

(i) Development of 4 plans with joiner details, orientation of buildings, setback to be indicated. Method of access to the first floor, roof to be clearly indicated, whether external or internal. Line plans to be as per provisions of NBC. Select one of best plan from this 4 and justify it.

(ii) Approved line plan to be developed completely and sections and elevation to prepared. Reasons for orientation of buildings, size of roads and clearances and setbacks to be indicated. Proposed structural scheme for the building to be designed as a load bearing structure.

(iii) Garden with plantation, boundary wall, entrance and exit, storm water drain, road and various amenities proposed to be clearly indicated.

(iv) The building materials envisaged to be used in the building to be listed along with specifications and cost per unit, arrived at; after carrying out a detailed market survey.

(v) Review of labour rates for skilled and unskilled workers in the market and Govt. Labour rates.

(c) Third Review

(i) Load calculation, load distribution factor,

(ii) Design of slab, design of staircase, design of beam

(iii) Design of masonry walls as load bearing structures. Load bearing sketch, slenderness ratio of walls, design of wall opening, wall carrying axial load

(iv) Design of wall foundation

(v) Structural drawings of the building designed as a load bearing structure along with design of all component elements such as wall foundation, Portico columns, beams and slabs.

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(vi) Quantity calculation, estimation, abstract
(vii) Labour rate, labour rate calculation per square feet

(d) Final Review and Viva Voce: The final review is to be carried will be carried out immediately after the Mid-Semester II and will require the submission of the Mini-Project Booklet and all drawings submitted in duplicate. A CD of the submission and drawings in pdf format is to be included. Mini-Project Guide is also required to finalize his assessment of the Mini-Project simultaneously. Two phases of Mini-Projects are evaluated separately by an internal and external examiner.

7. Mark Evaluations

The distribution of marks for evaluation of the Mini-Project is as indicated below:

RUBRICS FOR EVALUATION FOR FIRST INTERNAL REVIEW

Sl.No	Item	Maximum Marks
1	Description all the construction activities visited with geo tagged photographs /documents	20
2	Dimensions and structural details for foundation, column, beam, slab, staircase and UG sump from visited sites	30
3	Details of Traffic study and other parameters related to Transportation/Traffic Engineering	20
4	Details of Plumbing study includes calculation of pipe diameter, sump size, OHT size and diagram of pipe line and fittings.	20
5	Electrical energy study which includes the power requirement for a single room, kitchen for a residential building.	10
6	(Marks out of 100)	

RUBRICS FOR EVALUATION FOR SECOND INTERNAL REVIEW

Sl.No	Item	Maximum Marks
1	Key plan, site plan, plan, set back distances, orientation of building, cross sectional elevation of the best plan selected.	20
2	Slab/Beam designs (slab layout of each floor , load calculation, design procedure, reinforcement drawing, bar bending schedule)	30
3	Staircase design (Load calculation, Design procedure, reinforcement drawing ,bar bending schedule)	20
4	Lintel /Sunshade beam design, beam layout, design procedure, reinforcement drawing, bar bending schedule etc.	20
5	Wall foundation layout and design of wall footing.	10
	(Marks out of 100)	

RUBRICS FOR EVALUATION FOR THIRD INTERNAL REVIEW

Sl.No	Item	Maximum Marks
1	Plumbing layout and Electrical Layout showing details	20
2	Design of sump, water tank and rain water harvesting tank	20

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3	Design of Septic tank	10
4	Labour rate and material rate for building designed.	25
5	Estimation of overall construction cost.	25
	(Marks out of 100)	

All submissions should be as per relevant IS codal provisions, NBC, DTCP or other Town and Country Planning Guidelines. The marks awarded for the final Mini-Project will be based on the judgement of the panel of examiners; no specific criteria have been laid down.

8. Tentative Schedule for Mini-Project Review:

Zeroth Review	Review I	Review II & III	Final Review & Viva Voce
16.08.2024	15.11.2024	Dates will be intimated later	
23.08.2024	22.11.2024		

9. Conclusion:

The III Year Mini-Project helps the student understand practical aspects of civil engineering and provides a glimpse of work involved in planning a two storied building. The student will gain an insight into the sequence of construction of a structure including the initial planning, layout, design and execution. The students will be able to appreciate the involvement of various aspects of the work like the planning, preparation of architectural and structural drawings, plumbing, electrical layout etc. Also the students be able to develop an understanding for materials and finishes used in the work and the market cost for various materials.

CODES FOR REFERENCE

1. Time Saver Standards for Architectural Design Data (1997).
2. NBC 2005 (SP7) - National Building Code.
3. SP 32 (1986) – Lighting and Ventilation.
4. SP 30 (2011) – National Electrical Codes.
5. SP 35 – Handbook on water supply and Drainage
6. SP20-Handbook on Masonry Design and Construction.
7. IS 1172(Reaffirmed 2002) -Code for basic Requirement for Water Supply, Drainage and Sanitation
8. IS 2065(Reaffirmed 1996) - Code of Practice for Water Supply in Buildings.
9. IS 1742(Reaffirmed 2002) - Code of practice for building drainage
10. IS 12183(Reaffirmed 2004) - Code of Practice for Plumbing in Multi-Storeyed Buildings.
11. IS 13727(Reaffirmed 2004) - Cluster Planning For Housing.
12. SP 10- Nomograms for thickness of Masonry walls.
13. IS 456:2000 Code of practice for plain and reinforced concrete
14. IS 10262:2019 Guidelines for concrete mix proportioning
15. SP 23(S&T): 1982 Handbook on concrete mixes (Based on Indian 1 Standards)
16. SP 62(S&T): 1997 Handbook on building construction practices (excluding electrical work)

COIMBATORE INSTITUTE OF TECHNOLOGY
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COIMBATORE-14

02/08/2024

Dr. M. P. MUTHURAJ, M.E.,Ph.D
Head in-charge of the Department
Department of Civil Engineering
Coimbatore Institute of Technology
Coimbatore - 641 014

COIMBATORE INSTITUTE OF TECHNOLOGY

(Government Aided Autonomous Institution Affiliated to Anna University)

COIMBATORE – 641014, TAMILNADU.

Phone: 0422 – 2574071 & 2574072 E-mail: hodcivil@cit.edu.in www.cit.edu.in

DEPARTMENT OF CIVIL ENGINEERING

CIT/CIVIL/CED/2024/078 29.07.2024

CIRCULAR

The guidelines for the course 19CE76 - Project Phase I is attached for your kind reference. All the project guides are requested to advise the students to co-ordinate and adhere the schedule as per the guidelines and instructions received from the Project Co-ordinator.

29/07/2024

Head (i/c) of Civil Engineering

Dr. M. P. MUTHURAJ, M.E.,Ph.D
Head in-charge of the Department
Department of Civil Engineering
Coimbatore Institute of Technology
Coimbatore - 641 014

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COIMBATORE INSTITUTE OF TECHNOLOGY

(Government Aided Autonomous Institution affiliated to Anna University)

COIMBATORE – 641014, TAMILNADU

Phone: 0422 – 2574071 & 2574072 E-mail: hodcivil@cit.edu.in www.cit.edu.in

DEPARTMENT OF CIVIL ENGINEERING

29.07.2024

19CE76 PROJECT PHASE I- GUIDELINES

Introduction:

1. The final year project is representative of the knowledge and skills assimilated by the students in the UG programme. The present document presents guidelines for conduct and evaluation of the same. The project is to be documented and prepared as per guidelines circulated by the Department of Civil Engineering, Coimbatore Institute of Technology, Coimbatore-641014.

Topic Selection and Approval:

2. Students are required to submit the following details listed below within a week of the beginning of the VII Semester of B.E. Civil Engineering Programme. The same will be collated by the "Project Co-ordinator" and approved by the HoD.

(a) Project Guide
(b) Title of project selected
(c) List of students engaged in the project (As per guidelines provided by the Project Coordinator)
(d) Industry expert associated/ Internship with the project if any.

3. Students are encouraged to choose projects that include aspects of experimental works (Structural Engineering, Geotechnical Engineering, Transportation Engineering, Environmental Engineering, Construction Management and or any other topics related to civil engineering), Analytical works (Structural Engineering, Geotechnical Engineering, Transportation Engineering, Environmental Engineering, Construction Management and or any other topics related to civil engineering) and Inter-disciplinary Projects. Topics other than these may be taken up, after obtaining approval from Project Reviewers and HoD; with reasons justifying the same during the review.

Method of Conduct:

4. All students have to submit a proposed schedule for completing the project work along with their proposals signed by the respective project guides. Weekly progress review and attendance will be marked by their respective project guide and the same should be submitted weekly to the Project Coordinator for evaluation. Project progress can be reviewed by the Project coordinator at any time in a week. The same will be reviewed by the Head of the Department once in 15 days. Projects will be evaluated for each review of the project (Review I, II and III) as per the schedule indicated below with the following three evaluators

1. Dr.T.Balasubramaniam
2. Mr.S.Karthik Kumar
3. Mr.J.Cyril Santhosh

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Method of Evaluation:

5. The distribution of marks for evaluation of the project is as indicated below:

(a) First Review	- 5 Marks.
(b) Second review	- 10 Marks.
(c) Third Review	- 10 Marks.
(d) Guide Marks	- 15 Marks.
(e) Final Review	- 60 Marks.
Total	- 100 Marks

Evaluation Sheet:

6. The Sample review Evaluation sheet is attached for all the three review for reference purpose. The review Evaluation sheet for each and every project may be different and this can be prepared by the respective guides. The review Evaluation sheet should be approved by the Project Co-ordinator and HoD one week before the review date

Conclusion:

7. The final year project helps the student assimilate the various courses covered in the previous years and helps bridge the gaps in his knowledge, moulding him into a proficient engineer. If sincere efforts are put in, the project work will help him understand the various aspects of Civil Engineering and the inter-relation of various sub-disciplines in the delivery of a product.

29/07/24

Head of the Department

Dr. M. P. MUTHURAJ, M.E.,Ph.D
Head in-charge of the Department
Department of Civil Engineering
Coimbatore Institute of Technology
Coimbatore - 641 014

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Appendix A

Analytical project

Review I

S. No	Item	Marks Awarded			Max Marks (100)
		1	2	3	
1	Submission of topographic plan and layout including building, roads, paths, culverts, drains, STP, OSR, Transformer etc.,				10
2	Planning of building, road levels, drains, STP based on RL's				10
3	Supporting calculations for floor plans based on codes/NBC, carpet area, open areas and OSR.				10
4	Architectural plans - floor plans, sections and elevations including all details and justifying orientation and alignment of building, road sizes, Clearances and setbacks.				10
5	External and internal layout drawings for electrical, plumbing and firefighting works, calculation for electrical loads and pipe sizes, generator capacity.				10
6	Lift calculations based on the number of people using the lift				5
7	Soil investigation report, SBC calculations, Suggested foundation				5
8	Landscaping and arboriculture layout				5
9	Waste water collection and Rainwater scheme				5
10	Schedule of finishes				5
11	Presentation of structural scheme and other Structural parameters				5
12	2D Analysis (Manual & Software) and Comparison of Results				20
	Total Marks (out of 100)				
	Reviewer Mark (out of 5)				

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Review II

S. No	Item	Marks Awarded			Max Marks (100)
		1	2	3	
1	2D Analysis (Manual & Software) and Comparison of Results				20
2	3D Analysis and Design				30
3	Detailing of structural elements				20
4	Design and drawing of OHT/Basements/Sump/Ramps or other non-structural elements				10
5	Design Calculations (In Excel sheet)				10
6	Design and detailing of STP or Septic Tank, RWH technique adopted				10
	Total Marks (out of 100)				
	Reviewer Mark (out of 10)				

Review III

S No	Item	Marks Awarded			Max Marks
		1	2	3	
1	**Submission Schedule wise of all quantities**				15
2	**Costing with specifications**				10
3	**Market analysis of rates** Ground Floor/ Typical Floors/ Roof Floor (including Lifting Charges)				10
4	**Allocation of time and Resource**				5
5	Allocation of time				5
	Allocation of resources				5
6	**Project management** Planning of activities				5
	Float available				5
	Time required for completion of work as per schedule				5
	Net costing per sqft Ground /Typical/Roof Floor				10
7	**Abstract Sheet**				15
8	**Comparison with current market rates** Ground Floor /Typical / Roof Floor/Miscellaneous works				15
	Total Marks (100)				
	Reviewer Marks (out of 10)				

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Head of the Department

Dr. M. P. MUTHURAJ, M.E.,Ph.D
Head in-charge of the Department
Department of Civil Engineering
Coimbatore Institute of Technology
Coimbatore - 641 014

Appendix B

Experimental Project

Review - I

S.NO	Item	Marks Awarded			Max Marks (100)
		1	2	3	
1	Introduction				10
2	Literature Review – 1 (Refereed Journals)				5
3	Literature Review – 2 (Refereed Journals)				5
4	Literature Review – 3 (Refereed Journals)				5
5	Literature Review – 4 (Refereed Journals)				5
6	Literature Review – 5 (Refereed Journals)				5
7	Observation from literatures				10
8	Objective of the work				10
9	Scope of the work				10
10	Methodology				5
11	Materials used				10
12	Preliminary tests				10
13	Discussion on results				10
	Total Marks (out of 100)				
	Reviewer Mark (out of 5)				

Review - II

S.No.	Item	Marks Awarded			Max Marks
		1	2	3	
1	Mix Design				10
2	Trial Mix Results				10
3	Casting of specimens				20
4	Methodology adopted for each experiment				10
5	Experiments conducted				30
6	Graphical Plot of Experimental Values				10
7	Discussion on Results				10
	Marks (out of 100)				
	Marks (out of 10)				

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Review - III

S.NO	Item	Marks Awarded			Max Marks (100)
		1	2	3	
1	Comparison of Results from Literatures				20
2	Experimental Analysis				40
3	Result and Discussions				20
4	Conclusion				10
5	Recommendation for further work				10
	Total Marks (100)				
	Reviewer Marks (out of 10)				

Appendix C

Rubrics for Supervisor:

S.No	Item	Marks
1	Collaboration and communication in a group situation and integrates the views of others	20
2	Extensive knowledge related to the project	20
3	Contribution to the Project	20
4	Continuity in attending the modification/correction suggested by the Project Guide	20
5	Weekly progress in terms of distribution through the period	20
	Total	100

Tentative Schedule for Project Review:

Review I	Review II	Review III
First week of September	First week of October	Second week of November

COIMBATORE INSTITUTE OF TECHNOLOGY
Department of Civil Engineering
COIMBATORE-14

29/07/2024

Head of the Department
Dr. M. P. MUTHURAJ, M.E.,Ph.D
Head in-charge of the Department
Department of Civil Engineering
Coimbatore Institute of Technology
Coimbatore - 641 014

COIMBATORE INSTITUTE OF TECHNOLOGY
COIMBATORE - 641 014

DEPARTMENT OF MECHANICAL ENGINEERING

GENERAL INSTRUCTIONS FOR THE PROJECT/MINI PROJECT WORK

1. Maximum no. of students for a batch is 4. However, batches having 1 or 2 or 3 members may be permitted by receiving suitable explanations from those student batches.
2. A supervisor can have **one main project batch** and **one mini project batch**.
3. The student batches are required to meet their respective supervisor on every project work hour in order to get their internal marks (Guide).
4. For main project, publication of their project work in a Journal/Conference is compulsory.
5. Totally 4 project presentations, 2 presentations in each semester will be conducted.
6. Students are asked to strictly adhere to the project work schedule suggested by the project coordinators and supervisor.

COIMBATORE INSTITUTE OF TECHNOLOGY, COIMBATORE - 641014
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
Academic Year 2024-2025
19EC66 MINI PROJECT
III YEAR B.E ECE
GUIDELINES AND RUBRICS FOR AWARDING MARKS
Rubrics for First Review (30 Marks)

Component Category	PI	PI Code	RUBRICS	Max. Marks	Needs Improvement	Acceptable	Proficient
				30	Mark Split-up		
Purpose of the Project	Articulate problem statements and identify objectives	PI-2.1.1	Objective & Problem Statement	3	0 - 1	1.1 - 2	2.1 - 3
Research	Read, understand and interpret technical and non-technical information	PI-10.1.1	Literature Survey	6	0 - 2	2.1 - 4	4.1 - 6
Alternative Designs	Compare and contrast alternative solution processes to select the best process.	PI-2.2.4	Inference from Literature survey	3	0 - 1	1.1 - 2	2.1 - 3
Choices	Identify engineering systems, variables, and parameters to solve the problems	PI-2.1.2	Proposed System/ Model/ Algorithm/ Pseudo code & Justification	6	0 - 2	2.1 - 4	4.1 - 6
	Identify existing processes /solution methods for solving the problem, including forming justified approximations and assumptions	PI-2.2.3					
Written Communication & Presentation with Visual Aids	Create flow in a document or presentation - a logical progression of ideas towards the objective of the project	PI-10.1.3	Abstract & PPT	6	0 - 2	2.1 - 4	4.1 - 6
Oral Presentation & Body Language	Deliver effective oral presentations to audiences	PI-10.2.2	Oral Presentation & Answering Questions	6	0 - 2	2.1 - 4	4.1 - 6

(S. BALA DHANALAKSHMI)

(R. Vidhyalakshmi)

Dr. A. RAJESWARI
HEAD
Department of Electronics and Communication Engineering
COIMBATORE INSTITUTE OF TECHNOLOGY
COIMBATORE - 641 014

Rubrics for Second Review (30 Marks)

Component Category	PI	PI Code	RUBRICS	Marks	Needs Improvement	Acceptable	Proficient
				40	Marks		
Application of Engineering Principles	Apply formal idea generation tools to develop multiple engineering design solutions	3.2.1	Proposed System/ Model/ Algorithm/ Pseudo code	03	0 - 1	1.1 - 2	2.1 - 3
Alternative Design Solutions	Identify suitable criteria for the evaluation of alternate design solutions	3.2.3	Justification / Evaluation of the proposed system	03	0 - 1	1.1 - 2	2.1 - 3
Development of Proposed System	Apply formal decision-making tools to select optimal engineering design solutions for further development	3.3.1	Hardware / Software tools used	06	0 - 2	2.1 - 4	4.1 - 6
Demonstration and Interpretation of Results	Build models/prototypes to develop a diverse set of design solutions	3.2.2	Models/ prototypes to demonstrate the Proposed System	12	0 - 4	4.1 - 8	8.1 - 12
Presentation & Body language	Create flow in a document or presentation - a logical progression of ideas so that the main point is clear	PI-10.2.2	Oral Presentation & Answering Questions	6	0 - 2	2.1 - 4	4.1 - 6

(S. Bala Dhanalakshmi)

(R. Nithyalakshmi)

Dr. A. RAJESWARI
HEAD
Department of Electronics and Communication Engineering
COIMBATORE INSTITUTE OF TECHNOLOGY
COIMBATORE - 641 014

Rubrics for Third Review (40 Marks)

Component Category	PI	PI Code	RUBRICS	Marks	Needs Improvement	Acceptable	Proficient
				40	Marks		
Application of Engineering Principles	Identify suitable criteria for evaluation of design solutions	PI-3.2.3	Proposed system – Hardware / Software /Algorithm used	6	0 - 2	2.1 - 4	4.1 - 6
	Apply formal decision-making tools to select optimal engineering design solutions for further development	PI 3.3.1					
Final Design & Interpretation of Results	Use appropriate procedures, tools and techniques to conduct experiments and collect data	PI-4.3.1	Experimentation & Interpretation of Results	10	0 - 3	3.1 – 6	6.1 - 10
	Analyze data for trends and correlations, stating possible limitations	PI-4.3.2					
Relevance to Societal Responsibilities	Interpret legislation, regulations, codes, and standards relevant to your discipline and explain its contribution to the protection of the public	PI-6.2.1	Relevance to Societal Responsibilities	3	0 - 1	1.1 - 2	2.1 - 3
Team Work & Contribution	Present results as a team, with smooth integration of contributions from all individual efforts	PI-9.3.1	Team Work & Contribution / Publication	3	0 - 1	1.1 - 2	2.1 - 3
Written Communication & Presentation with Visual Aids	Create flow in a document or presentation - a logical progression of ideas towards the objective of the proposed system	PI-10.1.3	Project Report & PPT	12	0 - 4	5 - 8	9 - 12
Oral Presentation & Body Language	Deliver effective oral presentations to audiences - IA	PI-10.2.2	Oral Presentation & Answering Questions	6	0 - 2	3 - 4	5 - 6

(S. Bala Dhanalakshmi) (R. Nithyalakshmi)

Dr. A. RAJESWARI
HEAD
Department of Electronics and Communication Engineering
COIMBATORE INSTITUTE OF TECHNOLOGY
COIMBATORE - 641 014

COIMBATORE INSTITTUE OF TECHNOLOGY, COIMBATORE-14
DEPARTMENT OF COMPUTER APPLICATIONS
20MCA41- PROJECT WORK & VIVA-VOCE
2022-24 BATCH M.C.A.

Instructions:

- Full attendance is mandatory for all presentations and reviews.
- Each student has to maintain the major project diary and record the minutes of meeting the Supervisor (Internal / External).
- Students should communicate regularly with their respective faculty guide in the scheduled time and present the progress of their project work.

Review schedules and Rubrics for evaluation are listed in the table below:

Review	**Schedule**	**Works to be Reported**	**Marks**	**Expected % of Completion on the Project work**
Offer Letter Submission	Jan 22, 2024	• Submission of Offer Letter		
Review I	3rd week of Feb, 2024	• Submission of Title and Abstract • Presentation • Domain study with proof • Functional requirements/ Complexity of the project • Analysis Model	10 5 15 10	30%
Review II	1st week of April, 2024	• Presentation • Design Models • Implementation of modules • GUI and Output Reports • Test Plan and Test Case Design	10 15 15 5 5	80%
Draft Document submission	3rd week of April, 2024	• Documentation correction and submission		100%
Final Document Submission	1st week of May, 2024	Overall completion of the project	50	
Supervisor Communication		Reporting to Supervisor and submission of work progress periodically	60	
Total			*200	
Tentative Date of Viva		**10th May, 2024**		

*Converted to 100 as Internal Marks for Project Work Viva Voce

Criteria	Marks
Review I	40
Review II	50
Supervisor Marks	60
Documentation	50
Total	**200**

1. **Assessment of Project Documentation (50 marks)**

First draft submission	10
Document formatting as per Dept. guidelines	15
Relevance of chapter contents	15
Regularity in correction and completion on time	10

3. **Assessment of supervisormarks (50 marks)**

Regular Communication with the guide	15
Review I	10
Review II	10
Regular Completion of guide Recommendations	10
Overall project completion	15

4. Rubrics for the marks to be awarded during all reviews and Assessment

Grade	Marks		
A - Excellent	5	10	20
B - Good	4	8	18
C - Average	2.5	5	10
D - Fair	1	3	6
E - Fail	0	0	0

5. **Final Mark Split Up Submitted to COE (300 Marks)**

Internal Marks submitted from Review Panel and Supervisor	100
Project Work Final Viva Voce – Internal	50
Project Work Final Viva Voce – External	150

6. All project documents are to be checked up to 12% plagiarism before submission and first page of report is to be attached in appendix section.

19CH78 - PROJECT WORK PHASE-I

L	T	P	C
0	0	6	3

ASSESSMENT : PRACTICAL

COURSE OUTCOMES

After completion of the course, the students are able to

CO1 : *Prepare a detailed report on the project work carried out by the students.*

CO2 : *Conduct experiments to solve complex engineering problems effectively as an individual or team work.*

CO3 : *Perform as a leader with good ethical principles to meet societal needs in the field of chemical engineering.*

The students should carry out the project work allotted to them in the stipulated time duration. They should submit a detailed report prior to the final semester examinations. The dates for allocation of the questions and for the submission of the final report will be notified by the department. The following Instructions should be followed by the students regarding the project.

INSTRUCTIONS

1. The answers should be made on preferably 22 x 28.5 cm. size (A-4 Size) papers and the number of pages should be around fifty.
2. The written part should be type written.
3. Drawings must be as blue/ammonia prints or in Indian ink on good quality drawing paper.
4. Detailed flow sheets for the Process, Material and Energy should be given.
5. All symbols used in the flow diagrams should follow the norms prescribed as per IS. Code 3233-1965 (Recommendations on Graphical Symbols for Process Flow Diagrams).
6. All calculations should be made by application of fundamental principles and from available published data.
7. All Physical and Thermodynamic properties required for calculations should be obtained from standard Text books, Handbooks or International Critical Tables. In the absence of such data these properties must be calculated using other known techniques (like group contribution, etc.,). No data should be assumed.
8. Design of equipments should be from first principles as per Indian Standard Codes and other standard text and REFERENCES.
9. A complete drawing of the designed equipment should be furnished.
10. All dimensions, mechanical details and materials of construction should be furnished as per norms prescribed in IS-696: 1972 (Code of Practice for Engineering Drawings). Wherever possible detailed or working drawings should be given.
11. Complete layout diagrams including conveying equipment must be furnished and the floor area should be evaluated for calculating building costs.
12. Cost estimation must be done as per methods followed by text and REFERENCES in Cost Engineering. Current market prices should be obtained from Trade literature or periodicals.
13. References must be given in detail to all sources of published information made use of by the students. The names of the journals/periodicals should be abbreviated as in the Chemical Abstracts (Published by the American Chemical Society).
14. All calculations should be done in SI. Units only.

19CH84 - PROJECT WORK PHASE - II

L	T	P	C
0	0	10	5

ASSESSMENT : PRACTICAL

COURSE OUTCOMES

After completion of the course, the students are able to

CO1 : *Prepare a detailed report on the project work carried out by the students.*

CO2 : *Conduct experiments to solve complex engineering problems effectively as an individual or team work.*

CO3 : *Perform as a leader with good ethical principles to meet societal needs in the field of chemical engineering.*

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3. Drawings must be as blue/ammonia prints or in Indian ink on good quality drawing paper.
4. Detailed flow sheets for the Process, Material and Energy should be given.
5. All symbols used in the flow diagrams should follow the norms prescribed as per IS. Code 3233-1965 (Recommendations on Graphical Symbols for Process Flow Diagrams).
6. All calculations should be made by application of fundamental principles and from available published data.
7. All Physical and Thermodynamic properties required for calculations should be obtained from standard Text books, Handbooks or International Critical Tables. In the absence of such data these properties must be calculated using other known techniques (like group contribution, etc.,). No data should be assumed.
8. Design of equipments should be from first principles as per Indian Standard Codes and other standard text and REFERENCES.
9. A complete drawing of the designed equipment should be furnished.
10. All dimensions, mechanical details and materials of construction should be furnished as per norms prescribed in IS-696: 1972 (Code of Practice for Engineering Drawings). Wherever possible detailed or working drawings should be given.
11. Complete layout diagrams including conveying equipment must be furnished and the floor area should be evaluated for calculating building costs.
12. Cost estimation must be done as per methods followed by text and REFERENCES in Cost Engineering. Current market prices should be obtained from Trade literature or periodicals.
13. References must be given in detail to all sources of published information made use of by the students. The names of the journals/periodicals should be abbreviated as in the Chemical Abstracts (Published by the American Chemical Society).
14. All calculations should be done in SI. Units only.

COIMBATORE INSTITUTE OF TECHNOLOGY

(Government Aided Autonomous Institution Affiliated to Anna University, Chennai)

COIMBATORE - 641 014, TAMILNADU, INDIA

DIAMOND JUBILEE

(1956 - 2016)

DEPARTMENT OF CIVIL ENGINEERING

M.E. STRUCTURAL ENGINEERING

Curriculum and Syllabi

Under Choice Based Credit System

(For the students admitted during 2019 - 2020 and onwards)

19MCE41 - PROJECT WORK AND VIVA-VOCE

L	T	P	C
0	0	36	18

ASSESSMENT : PRACTICAL

CATEGORY : Employability Enhancement Course

COURSE OUTCOME

On completion of the project work students will be in a position to

- *Carry out analytical and / or experimental research on a real time and inter disciplinary projects and bring out sustainable solutions*

COURSE CONTENT

Identification of thrust areas

Problem Identification

Scope & Objective of research

Literature survey

Methodology specifying the process / specifications / parameters

List of alternate methodology if available

Justification for the methodology adopted

Time line of activities

Carrying out experimental / theoretical work as per the specified time line of activities

A presentation including all the above along with final results and conclusions

Consolidated report preparation.