PROJECT GUIDELINES SESSION AUG – DEC 2023

Documents to be kept for record

1. Notice, requesting project problems from the faculty with the last date.
2. Notice, inviting project proposals from students with the last date.
3. Notice for the announcement of the Project Approval Committee team and Audit dates.
4. Record of Project Approval Committee comments against each project proposal.
5. Record of Approved project basket.
6. Notice, sharing the project basket for allocation and guidelines (for project allocation) with the last date.
7. Notification for the allocated projects, names of supervisors and evaluators.
8. Record of students with allocated projects, supervisors, and evaluators.
9. Notice for evaluation guidelines, dates, and evaluation rubrics.
10. Record of continuous evaluation (phase-wise, component wise).
11. Reflection report (continuous improvement, analysis of the outcomes, supervisor-student interactions, quality of project report)

INTRODUCTION

Chandigarh University offers an opportunity for outcome-based project works to encourage students to think critically, solve challenging problems, and develop skills such as oral communication, public speaking, research skills, media literacy, teamwork, planning, self-sufficiency, or goal setting—i.e., skills that will help prepare them for further learning, modern careers, and adult life.

Project work

Project work provides students with complex problem soving skills through a process that involves identifying opportunities, developing requirements, performing analysis and synthesis, generating multiple solutions, evaluating solutions against requirements, considering risks, and making trade-offs, to obtain a high-quality solution under the given constraints (e.g. accessibility, aesthetics, codes, constructability, cost, ergonomics, extensibility, functionality, interoperability, legal considerations, maintainability, manufacturability, marketability, policy, regulations, schedule, standards, sustainability, or usability to name a few.provides).

Forms of Project work

Any planned piece of work designed with a specific purpose/outcome (to find information about something, to produce something new, or to improve something), to be completed within a specific period can be categorized as project work.

A few examples to illustrate both the concept and the general educational intentions:

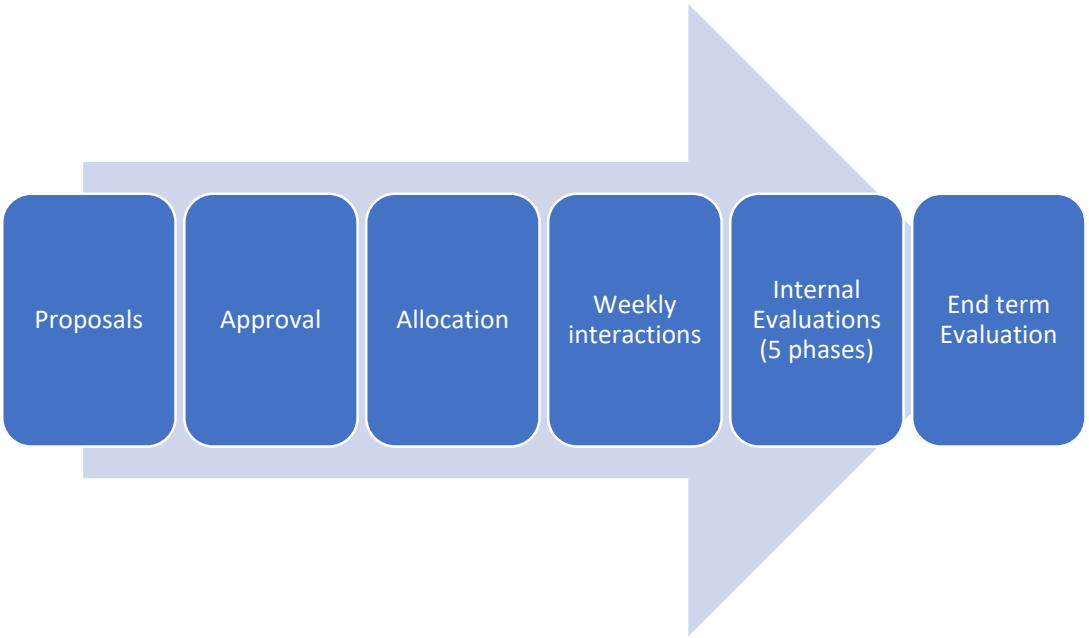
- Designing and building a product, computer program, app, or process to address a particular need as specified by the client/beneficiary (Individual/organization).
- Interning at an organization/industry to work on solving accessibility, aesthetics, codes, constructability, cost, ergonomics, extensibility, functionality, interoperability, maintainability, manufacturability, marketability, standards, sustainability, or usability issues.
- Interning at NGOs or legislative offices to work on strategies and policies intended to address social problems, such as poverty, hunger, or homelessness.
- Researching an industry or market, and creating a viable business plan for a proposed company that is then “pitched” to a panel of local business leaders

- Conducting and publishing a scientific study to determine the ecological or environmental impact of changes to a local habitat.
- Writing, directing, and filming a public-service announcement that will be aired on public-access television.

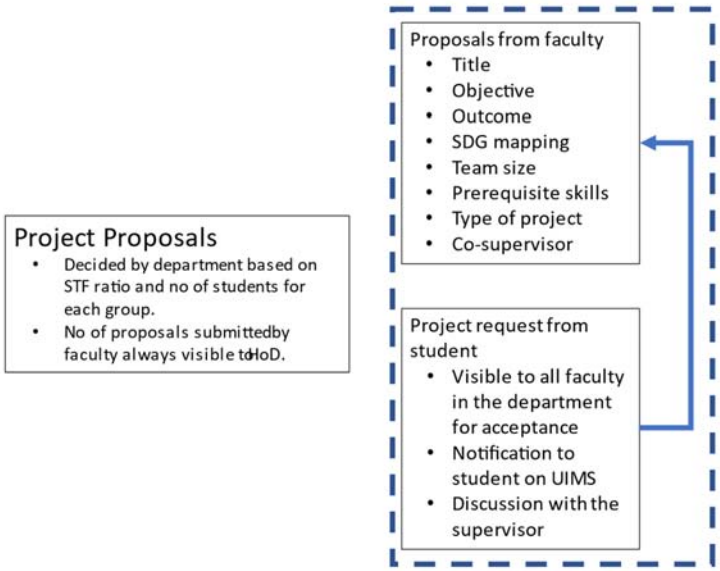
Types of project work

- A particular need as specified by the client/beneficiary (Individual/organization)
- Competitions/hackathons (Govt or industry).
- Work leading to IPR (Patents, trademarks, copyrights).
- Research work leading to paper publishing.
- Surveys and field work leading to publication.
- Problems through Internships/consultation/Industry collaboration.

STEP-BY-STEP PROCEDURE FOR PROJECT COURSES

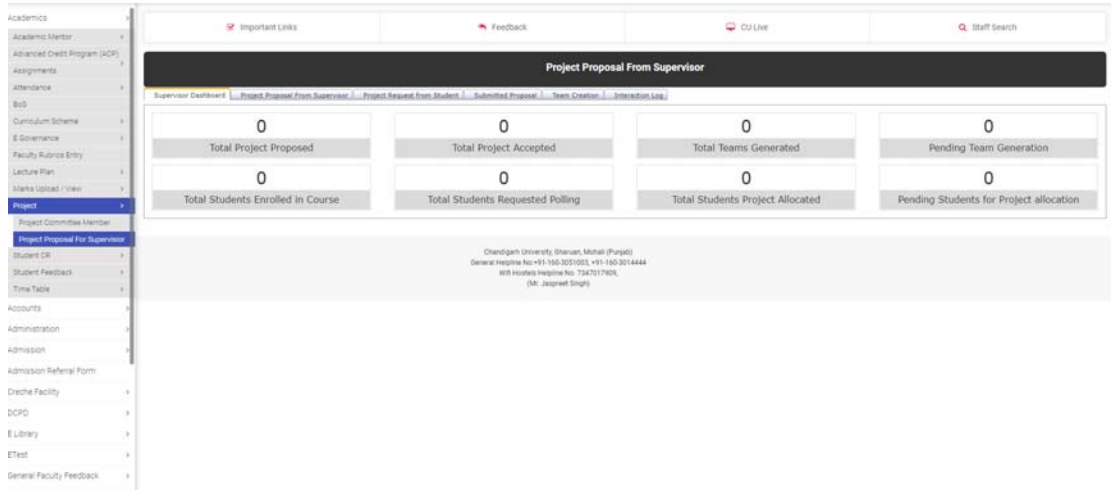


1. PROJECT PROPOSALS



1.1. Proposals from supervisors

- Option will be available to all the faculty members where they can propose the projects for students and select the co-supervisor.



- The No of projects proposed by the faculty will be decided by the respective Heads, considering the student-to-faculty ratio involved and no of students allowed per group (not exceeding 5)

  For example:

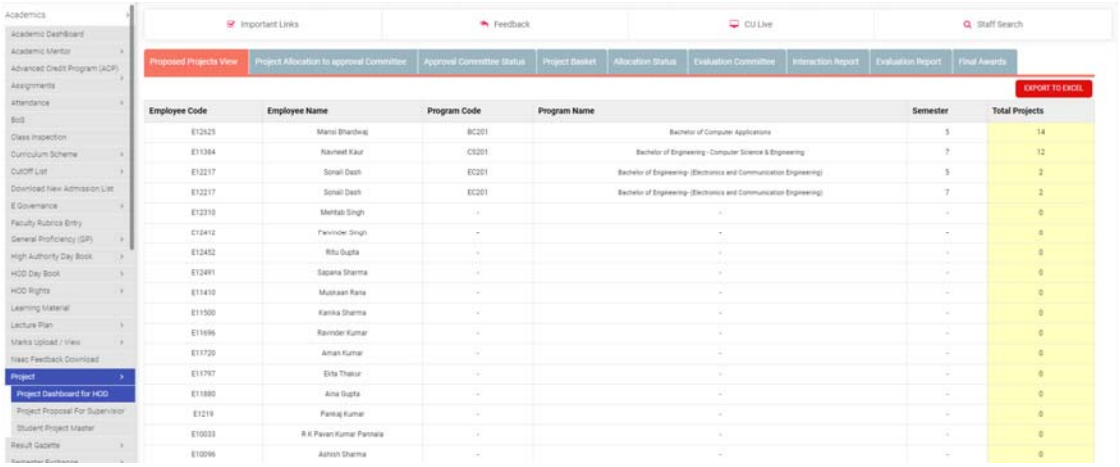
  Total students in a semester enrolled in project course – 60

  Allowed team size – 4

  Total no of faculty in the department – 3

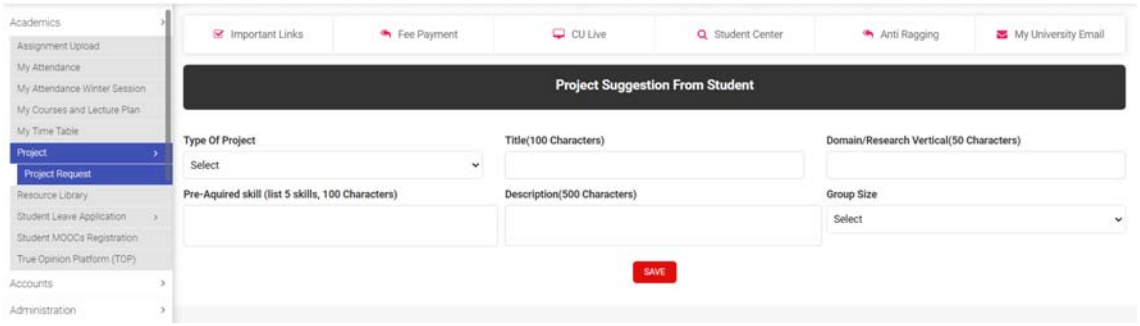
  No projects proposals are required from each faculty - $\left(\frac{60/4}{3}\right) = 5$

- Proposals once submitted can be withdrawn/cancelled before the vetting process
- No of the projects proposed by the faculty will be visible to HoD's (P**roposed projects –** numbers against each faculty).

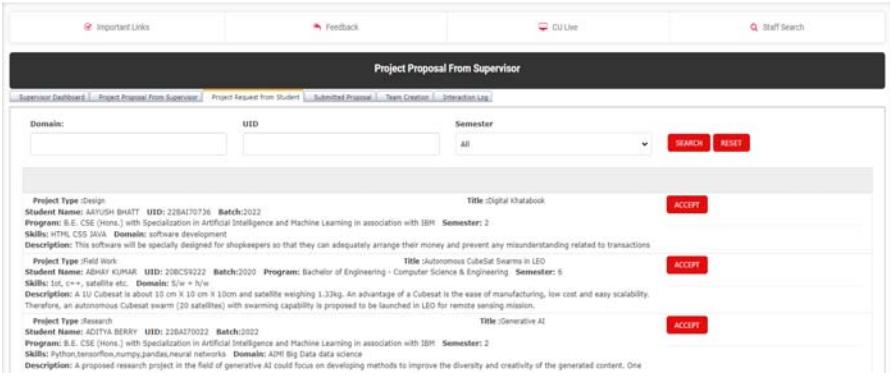


1.2. Proposals from students

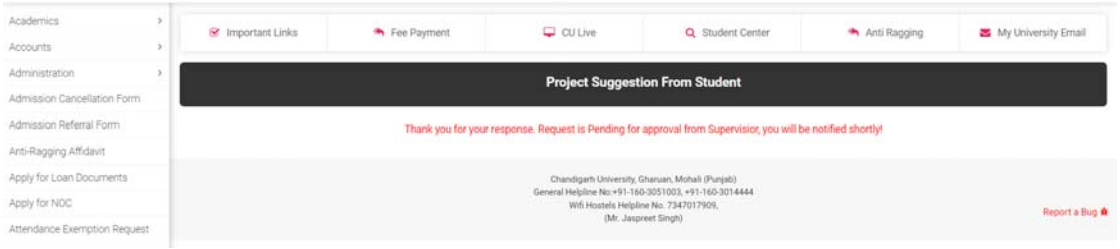
- Students can request projects by proposing an idea available in their CUIMS accounts.



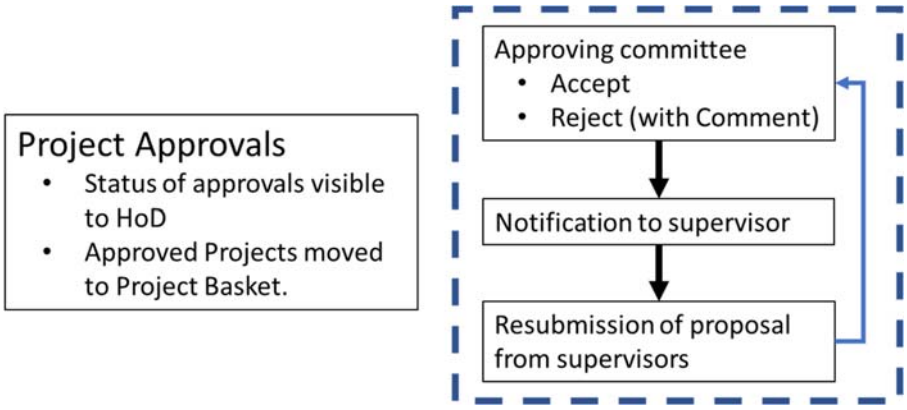
- Students can propose only 1 idea.
- The suggested idea will be visible to all the faculty in the department.



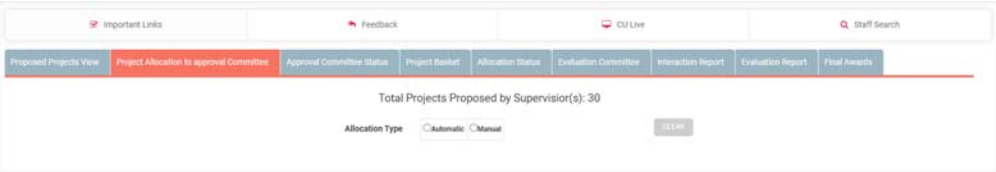
- Any faculty member interested in supervising the project can accept the idea and, after discussion with the student, will frame the objective and propose the project for approval through vetting committee (**same as Point 1.1**).
- The status of the project will be notified to the student on CUIMS from time to time.



2. PROJECT APPROVALS



- HoD will formulate project approval/vetting committee with an objective to check the quality and feasibility of the submitted projects.



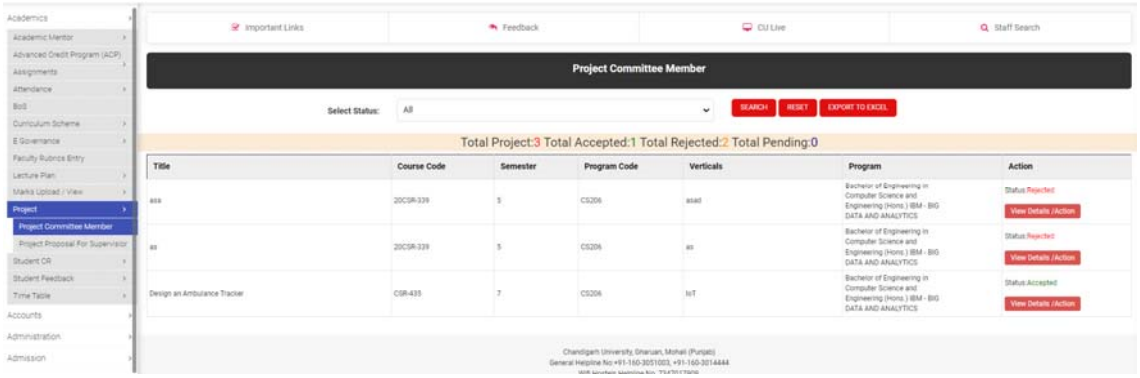
- Projects can be allocated to approval committee automatically (equally distributed randomly between all selected committee members) or manually (allocated as per manual selection, to a specific committee member)

Automatic mode

Manual Mode

- The status of all projects allocated for approval/vetting to Project Approval Committee will be visible in the HoD Dashboard.

- All projects allocated for approval/vetting to the Project Approval Committee (as deputed by the HoD) will be visible in their CUIMS account for approval/rejection.

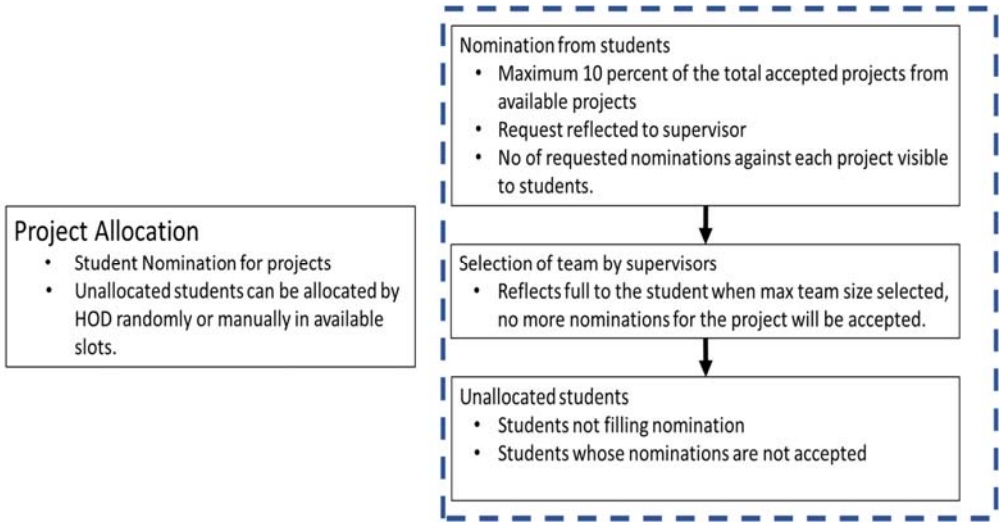


- Projects can be accepted or rejected with a comment.

- The status of the project after approval/rejection will be visible to the supervisors

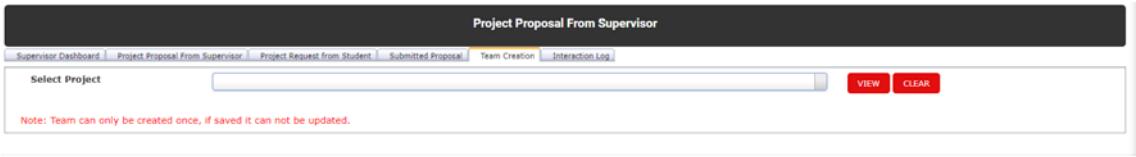
- If rejected, the supervisor can propose the project again by incorporating the required changes.
- Accepted projects will be visible as project basket on the HoD account.

3. PROJECT ALLOCATION



3.1. Based on project preference

- All the students enrolled in the course will be able to give preference for projects (maximum 10 percent of the total projects in the basket).
- Supervisor will be able to see all requests for the project in their portal.



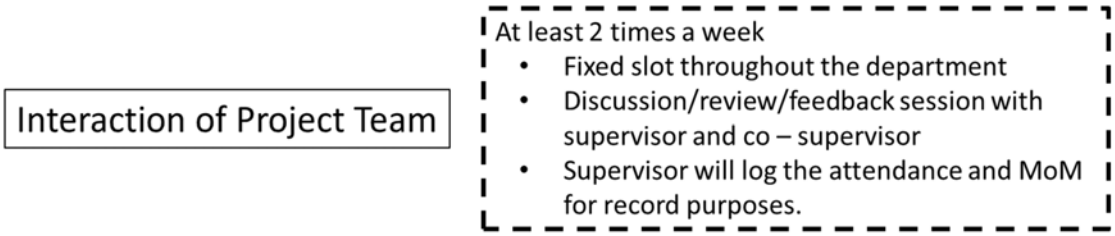
- Supervisors will approve the students (out of students who have selected the project) to create the team.
- Students not selected under the preference will be eligible for other selected projects.
- Students not selected under any preference will be able to request again.

3.2. Unallocated students and non-selected projects

- Student not filling the preference will be considered as unallocated.
- Students not selected for any project team will be considered unallocated.
- The status of polling requests will be available to the HoD.

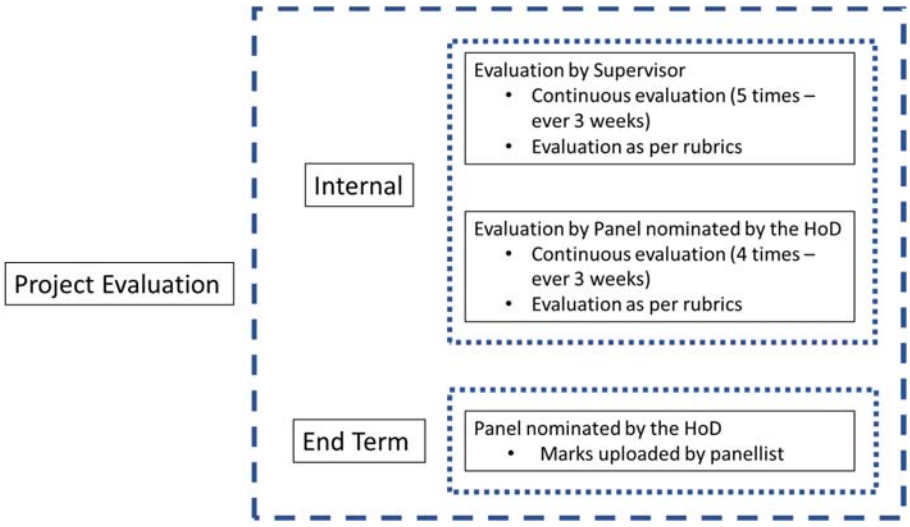
- After the polling dates, unallocated/Non polled students can only be polled by the HoD.

4. INTERACTION OF THE TEAMS



- At least 2 contact hours for project courses (frequency 2 times a week).
- Fixed time slot throughout the department where all faculty and students will be available for discussion/review/feedback.
- Supervisor will be able to create a log of interaction with the students of the project (attendance and minutes of the meeting)
- Details of log will be visible to student for necessary instructions.
- The log can be downloaded by the faculty and HoD for analysis and record.

5. PROJECT EVALUATION



5.1. DEFINING THE RUBRICS

- The departments can create the rubrics (approved rubrics from Office of AA) and assign a program code that will follow the rubrics for evaluation.
- The rubrics will follow continuous evaluation containing 5 internal phases (including work ethics) and the end-term phase.

5.2. PROJECT EVALUATION INTERNAL

- Continuous evaluation will be done by the evaluation panel (2 members) and supervisor individually on their CUIMS portals.
- Evaluation panel can be created and allocated projects by the HoD. The supervisor cannot be a panellist in their own project.

- Multiple evaluation committees can be constituted if required.
- The project team is required to show their progress on the tasks completed during the period of the respective phase through documentation and presentation.

5.3. PROJECT TIMELINES - INTERNAL

- Project work will be divided into 4 phases that will start only after the allocation of the project.

Phase 1: Project scope and task planning

- Recognize the need (beneficiary/client) or relevant contemporary issues to define the scope of the project work.
- Identify the problem either by engagement with the beneficiary/client or by correlating the identified problem against the contemporary issue.

- Divide the work, identify the tasks, and create a Gant chart/ timeline to plan the project.

Phase 2: Background study/Literature review

- Identify relevant topics for background study/ literature review.
- Review previous solutions or related materials and identify the extent and relevance of materials reviewed to the project at hand.
- Summaries, how reviewed literature helped in defining the problem statement.
- Define the problem (under the scope of previous solutions)
- Set goals and define objectives.

Phase 3: Selection of Design flow/process/ methodology

- Identify the Constraints of the project based on
    - Regulations & Design Constraints considered in the design.
    - Economic, Environmental, Health, manufacturability & Safety constraints are considered in the design.
    - Professional and Ethical Issues considered in design.
    - Social & Political Issues considered in the design.
- Analyze and finalize the Features/ characteristics of the solution subject to constraints.
- Generate multiple design alternates/ solutions.
- Selection of Best Design/ solution and create implementation plan (plan to validate the solution/ proof of concept).

Phase 4: Detailed System Design/Technical Details

- Implement the design/solution using Modern tools in analysis, design drawings/schematics/solid models, report preparation, project management, and communication.
- Perform Testing/characterization/interpretation/data validation to support the solution.
- Documentation in the form of the project report.

5.4. PROJECT EVALUATION - END TERM

- Students will upload all project-related material (project document, simulation/code/survey data/ survey report/ design etc.) on UIMS before end-term evaluation.
- The supervisor will close the project and declare it suitable for the end-term evaluation.
- End-term evaluation will be done by a committee recommended by the HoD.

General Guidelines

1. The Courses having subcategory as “PR” shall run in “Guided learning” mode (earlier “Self-Study” mode).
    - Contact hours for review/discussion and evaluation will be given in the timetable of the students *(minimum 2 hours/week, punched on CUIMS without teacher name)
    - The slots in the timetable should be fixed throughout the department so that the availability of the supervisor, co-supervisor and students can be ensured at the same time.
    - Faculty supervising projects will be allowed maximum 2 hours of load (not to mandatorily be punched in the timetable module for faculty)

Note: The load can be preferably taken from 10 hours of non-contact hours as shared in the teaching load policy, Page 7.

2. To maintain the quality of the projects, HoD’s shall ensure that supervisors are not taking more than 6 projects (**6 x 5=30 students**) (for more projects/faculty, inform the office of Academic affairs in advance)
3. Supervisors will only be able to propose academic projects for the programs allocated to them (linked to CUIMS, depending upon the current deputation).
4. For proposing project in department other than deputed department, request can be raised from the HoD (of other department) to the office of Academic Affairs for including the faculty in the list.
5. **Team size**
    - Project courses for UG programs will be done in teams with a group size of 3-5 students depending upon the requirement of the project work. Supervisors can fix the group size on CUIMS for projects while proposing the project.
    - **Exception for team size:** Size below the minimum limit of 3 and beyond the maximum limit of 5 is allowed when suggested by a governing council or the outcome of project work is participation in govt/industrial competition. In such a case, team size will be based on the guidelines issued by the agency.
6. Members of the “Project Approval Committee” shall be responsible for the quality of the projects.

- They shall ensure that the level of the projects is as per the current skill set of the students.
- The outcome is achievable in the mentioned period.

7. The Department shall notify the seating of supervisors during the project contact hours, with all the students.
8. Hod's shall ensure that supervisors are not allocated any administrative work during project contact hours, and supervisors are available for discussion with the project teams.
9. Attendance marking in CUIMS can be exempt from the project course.
10. For the monitoring of the student interactions, Supervisors shall maintain the CUIMS log of the discussion with the project teams.
11. In case the supervisor leaves before the end of the session, HoD's/project coordinator shall ensure that project is shifted to a new supervisor, and it is allocated on CUIMS.
12. Rubrics will be accessible to students on CUIMS, and all the supervisors and co-supervisors shall evaluate the students strictly as per the RUBRICS.
13. Dates for Internal evaluation will be spread across a week (shall be visible to faculty and students on CUIMS).
    - Supervisors/panelists who fail to evaluate the groups and submit marks on CUIMS during the allocated time will have to get permission in writing from the Dean of Academic Affairs stating the reason for the same.
    - Project groups/members failing to appear for the evaluation during the allocated time shall be **marked zero** by the evaluators.
    - Course will be considered incomplete under following conditions:
        a) Student is not enrolled in the course (NR).
        b) Student is enrolled in the course but not registered for project (not polled).

Roles and Responsibilities of the Stakeholders

Students

1. **Selection**
   - (Self-Ideated) - Students can forward a request to all the faculty members of the department for being the supervisor.
   - (From Basket) - Select the project from the basket shared by supervisors.
2. **Discussion**
   - Meet the supervisor and co-supervisor twice a week for discussion/review/evaluation.
     i. Log of interaction (minutes of the meeting) will be maintained by the supervisor on CUIMS.
3. **Evaluation**
   - Appear for evaluation within the specified timelines (5 times internal and 1 time for end-term)
   - Failing to appear for evaluation within the timeline will result in **zero marks** for the particular phase.
   - Evaluation will be as per the rubrics (visible on CUIMS)
   - Evaluation will be done by the supervisor and co-supervisor and marks will be reflected on CUIMS.
   - Hod/project coordinator can be approached (if not satisfied with the evaluation)
4. **Submission**
   - Complete the project and attain the predefined outcome.
   - Incorporate the inputs of the supervisor and co-supervisor.

HOD

1. **No of the projects/faculty**

   Decide the no of projects per faculty, considering the student-to-faculty ratio involved and no of students allowed per group (not exceeding 5)

   For example:

   Total students in a semester enrolled in project course – 60

   Allowed team size – 4

   Total no of faculty in the department – 3

No projects proposals are required from each faculty - ((60/4)/3) =5

2. Fix the time slots in the timetable, when the availability of the supervisor, co-supervisor and students can be ensured at the same time.
3. Constitute Project approval Committee
4. Appoint Project Coordinator (can be multiple, if the batch size is bigger).
5. Monitor the process, through CUIMS (project proposals, discussion sessions, evaluations)
6. Ensure a new supervisor is allocated for the project teams, in case the supervisor leaves the university.
7. Constitute the panel for end-term evaluation.
8. Ensure that the marks are uploaded for the evaluations.
9. Create grades for submission to the office of the controller of examination.

Project Approval Authority

1. Ensure that the level of the projects is as per the current skill set of the students.
2. Ensure that the outcome mentioned in the proposal is achievable in the mentioned period.

Project Coordinator

1. Will be given responsibility as MSC for the Project Courses (for allocation of rights on CUIMS).
2. Ensure equal no of projects to all faculty members.
3. Documentation for the record.
4. Timely dissemination of information to supervisors, co-supervisors and students.
5. Assist HoD in monitoring the process, through CUIMS (project proposals, discussion sessions, evaluations).
6. Assist HoD in creating grades for submission to the office of the controller of examination.
7. Grievance redressal of students.

Supervisor

1. Propose the project for the students.
2. Choose a co-supervisor to support the project (if required)
3. Accept the request of the students to supervise their project ideas.

4. Accept the student's request and enroll into project teams.
5. Interact with project teams twice a week for feedback/review.
6. Create a log of the interaction with the project teams on CUIMS.
7. Evaluate the students as per rubrics.
8. Help the students achieve the targeted outcomes.

Evaluation panelist

1. Evaluate the students as per rubrics.

Office of Dean Academic Affairs

1. Coordinate with ERP to digitize the process.
2. Sharing monthly status reports.
3. Review reflection reports received from the departments after the academic session.

ERP

1. Support the office of Dean Academic Affairs in digitizing the process on CUIMS.

Controller of Examination

1. Collect the distributed marks along with Grade sheets for Award submission.