# GUJARAT TECHNOLOGICAL UNIVERSITY

## Integrated Master in Computer Application (IMCA)

## Year-V (Semester-X) (W.E.F. December 2017)

## Subject Name: Project

## Subject Code: 4401601

1. **Learning Objectives :**
   - To solve industrial (or society or research) problems.
   - To plan, schedule, and monitor the software project
   - Development, coding, and testing of a large project cohesively.
   - Documentation of project

2. **Prerequisites**:
   Software Engineering, Programming / Coding language, RDBMS

3. **Guidelines**
   - The project definition should be finalized during the summer break after 4th year Examinations. "Shodh Yatras' to industries in Sankuls (industry clusters) will help achieving this first major step. Any 'good' internal definition having a high application potential will also be acceptable.
   - It is recommended that the team should be about 2-3 students, but not more than 4 students.
   - Project plan along with the division of work amongst teammates would have been prepared and got approved within a maximum of 5 days of the start of the project.
   - Coding standards should be followed meticulously. At the minimum, the code should be self-documented, modular, and should use the meaningful naming convention.
   - It is advisable that object-oriented methodology is used with the reusability of classes and code, etc.
   - The output reports must include MIS reports, if applicable.
   - The documentation should include a chapter on "Learning during Project Work", i.e. "Experience of Journey during Project Duration".
   - Data structure (database design) is mandatory. At least portions of code (preferably full code) are mandatory. The student may be asked to write the code related to the project during the examination.
   - If a student is compelled to follow certain instructions (by the external, i.e. organization's Guide) which he/she does not agree to, such a student must prepare a supplementary report to document his/her version and present it to the examiners if such a need arises.
   - Internal guides (i.e. the faculty members) must devote the time allocated as per the timetable to guide the students for the project. The time allocation will be in accordance with the scheme for the 6th semester project as given.
   - Internal guides (i.e. the faculty members) should preferably visit external guide to track the project.
   - Project document should be printed on both sides of paper.

4. **Accomplishments of the student after completing the course:**
   - Doing the project will enable the student to go through rich experience in developing large projects. Such an experience will include encountering various technical issues, finding sources to resolve the issues and finally finding the solution of all these issues satisfactorily.
   - Thinking analytically, analyzing, and synthesizing requirements and complicated information for getting a good comprehension of the solution methodology to be adopted.
   - Ability to document and write well.
   - Organizing the time effectively.
   - Working with teammates and generating substantial output of the efforts.
   - It will prepare the students for analyzing and programming for industrial problem and large projects work in future.

5. **Documentation:**
   - The project has to be well-documented in the form of a Project Report (at least 50 pages comprising of the design, data dictionary, source code, screen-shots, etc.).
   - Format: Print out on both the side of page with single line (preferably one-and-a-half line) spacing. Use Times New Roman of size 12 for normal text.
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6. **Evaluation Parameters :**

- Evaluation of the projects would be done considering the framework available at the Institute. The main parameter of assessment would be the ability of the students to code. Though the project and domain specific knowledge would be assessed for, the evaluation would predominantly depend on the students' ability to explain, modify or revise of code.
- Coding standards should have been implemented.
- Though the project would be evaluated for the entire team, the examiner should emphasize on the contribution of each team member in the project development
- Total Marks ( 700 = 500 External + 200 Internal )

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| Explanation of Code | 100 |
| Documentation - Agile | 100 |
| Explanation of Analysis and Design | 200 |
| Presentation | 100 |