



Teaching and Examination Scheme

Teaching Scheme			Credits	Examination Marks				Total Marks
L	T	P		Theory Marks		Practical Marks		
			ESE(E)	PA (M)	PA (I)	ESE(V)		
0	0	40	20	0	0	60	140	200

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 for Project

- It is advised that each student do their own projects.
- The project should be free from plagiarism of any kind.
- Internal guides (i.e. the regular faculty members) must be allocated to projects.
- Project plan 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”.
- It is strongly recommended that Data structure/Database design is included in the report. 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 regular 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 10th semester project as given.
- Internal guides 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, screenshots, etc.).
- Format: Print out on both the side of page with single line spacing. Use Times New Roman of size 10 for normal text.
- Follow SDLC Model for development of your project.

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 - 1.2. Need for the New System
 - 1.3. Objective of the New System
 - 1.4. Problem Definition
 - 1.5. Core Components
 - 1.6. Project Profile
 - 1.7. Assumptions and Constraints
 - 1.8. Advantages and Limitations of the Proposed System
2. Requirement Determination & Analysis
 - 2.1. Requirement Determination
 - 2.2. Targeted Users
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 - 3.1. Use Case Diagram
 - 3.2. Class Diagram
 - 3.3. Interaction Diagram
 - 3.4. Activity Diagram
 - 3.5. Data Dictionary
4. Development
 - 4.1. Coding Standards
 - 4.2. Screen Shots
5. Agile Documentation
 - 5.1 Agile Project Charter
 - 5.2 Agile Roadmap / Schedule
 - 5.3 Agile Project Plan
 - 5.4 Agile User Story (Minimum 3 Tasks)
 - 5.5 Agile Release Plan
 - 5.6 Agile Sprint Backlog



GUJARAT TECHNOLOGICAL UNIVERSITY

Syllabus for Integrated MSc, 10th Semester

Branch: Information Technology

Subject Name: Project/Research Work

Subject Code: 13100501

5.7 Agile Test Plan

5.8 Earned-value and burn charts

6. Proposed Enhancements

7. Conclusion

8. Bibliography

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.