

College of Computer Science and Information Systems
 Course Code : 491CSS-4
 Contact Hour : 4(0)

Department of Computer Science
 Graduation Project 1
 Prerequisite : 342CSS-3

Coordinator -

2. Course Description

Graduation project-1 will guide students to conduct a critical background study on their chosen topic. It will assist them on requirements gathering including analysis and synthesizes of gathered data and will aid students to perform feasibility study and functional and non- functional requirements to accumulate problems respective to their topic/environment .It will facilitate them to identify and apply appropriate methods/design to overcome those problems, identify the scope of their project in real world, will support students to critically evaluate proposed design using suitable methods and techniques. Student will develop communication skills through presentation and able to work individually as well as in a team. Students will be guided to maintain ethical issues, documentation formats, use of references and checking plagiarism. And finally students will produce a formal report describing their findings, contributions, and future development/implementation.

3. Course Learning Outcomes

| SL | By the end of this course, students should be able to: | Linkages to POs |
|----|--|-----------------|
| 1. | Classify various CS related problems and project live cycle activities such as selecting, planning, analysis, design, implementation, testing, deployment, and maintenance | a(S),b(S),h(S) |
| 2. | Conduct (Survey) an effective background study and be able to contrast and critique related work. | a(S) |
| 3. | Generate functional and non-functional requirements. | b(S) |
| 4. | Analyze the problem and develop an initial solution. | b(S) |
| 5. | Apply a multi-disciplinary approach to designing the project. | c(S),i(S),k(S) |
| 6. | Demonstrate his/ her ability to work independently and in a team. | d(S) |
| 7. | Demonstrate his/ her ability to communicate effectively. | f(S) |
| 8. | Prepare report for the project. | c(S),i(S),j(W) |

4. Learning Resources

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|------|--|
| Text | Information Technology Project Management , Kathy Schwalbe, 7th edition, 2014. |
| Text | Modern System Analysis & Design- Jeffrey Hpffer, Joey George, Joseph Valacich, 6th edition, Pearson |
| Text | Benjamin Rosenzwing, Elena Silvestrova, Oracle PL/SQL by Example, Printice Hall, Latest Edition. |
| Text | Sommerville, Software Engineering, Edition 8, 2007 |
| Text | Herbert Schildt The Complete Reference, JAVA 2, Latest Edition, McGraw Hill Publishing Company Ltd . |

5. Course Content : The list below provides a summary of the material that will be covered during the course

| Week | Topics | References Book / Others Source | Special Event | Tutorial Activities | Lab Activities |
|------|--------|------------------------------------|---------------|---------------------|----------------|
|------|--------|------------------------------------|---------------|---------------------|----------------|

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|-----|---|---|----------------|--|--|
| 1. | Class1: Review of graduation policy Class 2: Project Proposal (Vision document/feature list) Class 3: Basics of project management (Tasks, plan, scope) Class 4: Presentation tools and techniques | GP Guideline Supervisor proposal GP Guideline | | | |
| 2. | Class5: Requirements / Requirements Validation / Functional Specification Document | TBD | | | |
| 3. | Class 6: Use case Diagram, Use Case Description / Activity Diagram / Sequence Diagram Class 7: Data Flow Diagram , System Architecture | TBD | | | |
| 4. | Class 8: Database/ ER Diagram Class 8: UML | TBD | | | |
| 5. | INTRODUCTION Introduction; Problem Statment.; Purpose of this Document; Project Structure; Modules (users, database, ...); Scope; System Limitations; Objectives; | | | | |
| 6. | INTRODUCTION Introduction; Problem Statment.; Purpose of this Document; Project Structure; Modules (users, database, ...); Scope; System Limitations; Objectives; | | Presentation 1 | | |
| 7. | BACKGROUND STUDY | | | | |
| 8. | METHOD OF INVESTIGATION AND ANALYSIS Functional and nonfunctional Requirements; Project Methodology | | | | |
| 9. | SYSTEM DESIGN Use case Diagram; Activity Diagram; Sequence Diagrams; Database Entity Relationship Diagram ; Class Diagram; database Tables Structure | | | | |
| 10. | SYSTEM DESIGN Use case Diagram; Activity Diagram; Sequence Diagrams; Database Entity Relationship Diagram ; Class Diagram; database Tables Structure | | | | |
| 11. | CONCLUSION AND FUTURE WORK | | | | |
| 12. | Prepare final report | Presentation 2 | | | |
| 13. | Exam | Final presentation | | | |

6. Evaluation Scheme: The following list is the contribution of course components to the final grade for the course.

| Component | Weight (%) |
|---|------------|
| TasksAssignment (Participation, Tasks Evaluation) | 26 |
| Presentations (Presentation 1 and Presentation 2) | 12 |
| Reports (Report 1, Report 2, Final Report) | 12 |
| Project Supervisor | 50 |
| Total | 100 |

