# System Analysis and Project Management MIS 6308: Spring 2024 GROUP PROJECT GUIDELINES

**Objective:** The objective of this project is to give students hands-on experience in analyzing and designing a new <u>or</u> redesigning an existing, enterprise system while managing the project lifecycle.

### **Project Description:**

- 1. Select a Business Case:
  - Choose a business or organization that needs systems upgrade or redesign or a new system. This could be in areas such as finance, human resources, inventory management, or customer relationship management.
- 2. Conduct Systems Analysis:
  - Conduct a thorough systems analysis. This should include:
    - Interviewing stakeholders to understand current system functionalities, pain points, and desired improvements.
    - Documenting existing processes, workflows, and data flows.
    - Identifying requirements for the new system.
- 3. Create a Project Plan:
  - Develop a comprehensive project plan that includes:
    - Project scope and objectives.
    - Work breakdown structure (WBS) outlining tasks and subtasks.
    - Resource allocation, including roles and responsibilities for team members.
    - Timeline with milestones and deadlines.
    - Risk management plan.
- 4. Prototype and Design:
  - Based on the analysis, create a prototype or design for the new system. This could include:
    - Wireframes or mock-ups illustrating the user interface.
    - Data models and architecture diagrams.
    - A description of how the proposed system will meet identified requirements.

- 5. Project Implementation:
  - Develop a plan for implementing the new or redesigned system. This should cover:
    - Development and coding (if applicable). You do NOT need to code anything for this project.
    - Testing phases, including unit testing, integration testing, and user acceptance testing.
    - Rollout strategy and user training.
- 6. Project Presentation:
  - Each group presents their findings and proposed solution to the class. Presentations should cover:
    - The rationale for the new/redesign.
    - Details of the systems analysis phase.
    - The project plan and its execution.
    - Challenges faced and how they were addressed.
    - Demonstrations of the prototype or design.

#### **Assessment Criteria:**

- Thoroughness of systems analysis.
- Clarity and completeness of the project plan.
- Creativity and feasibility of the proposed new/redesign.
- Effectiveness in addressing identified challenges.
- Quality of the final project presentation.

There are **FOUR** milestones for the project to help you work on this throughout the semester instead of working on it at the end. The cover page of each of the milestones should have the class information, name of your project and the names of the team members. The milestones are:

- 1. Project Proposal and Selection (Milestone 1): DUE by 2/6/24 11:59 pm [25 points]
  - **Description:** In this milestone, teams submit a project proposal outlining the business case they have selected for the enterprise systems new/redesign. Proposals should include a brief overview of the organization, the rationale for the new/redesign, and initial thoughts on potential improvements or new features.

#### Tasks to consider:

- Develop a project charter/vision outlining project objectives, scope, and stakeholders.
- Define high-level project requirements.

### 2. Project Initiation and Planning (Milestone 2): DUE by 3/19/2024 11:59 pm [50 points]

• **Description:** This milestone focuses on initiating the project and developing a comprehensive project plan. Teams should clearly define project scope, create a work breakdown structure (WBS), and allocate roles and responsibilities.

#### Tasks to consider:

- Develop a detailed project plan, including a timeline with milestones and deadlines.
- Define roles and responsibilities for team members.
- Document the minutes of all project meetings and project related events (date, time, team members present, topics discussed, action items, etc.)
- Identify and assess potential risks and develop a risk management plan.

## Systems Analysis with Requirements (Milestone 3): DUE by 4/2/2024 11:59 pm [75 points]

• **Description:** This milestone involves conducting a thorough systems analysis to understand the current state of the enterprise system or requirements of the new system.

#### Tasks to consider:

- Prepare the requirements section that describes functional and non-functional requirements.
- Document current processes, workflows, and data flows.
- Develop a detailed requirements document.

- Create a use case diagram covering all major use cases.
- Like milestone 2, document meeting minutes.
- Create class and sequence diagrams.

### 4. Design with Project Management Integration (Milestone 4): DUE by 4/23/24 11:59 pm [100 points]

 Description: In this milestone, teams move from analysis to the design phase. They create prototypes or detailed designs for the new system, ensuring alignment with the identified requirements. Project management tasks focus on planning for the implementation phase.

#### Tasks to consider:

- Create prototypes or detailed designs for the redesigned system.
- Develop an implementation plan, including development, testing, and rollout phases.
- Include meeting minutes and details like milestones 2 and 3.
- Identify at least 3 test cases for the system and write a short description of your testing approach.
- Review and refine the project plan based on insights from the analysis phase.
- Prepare for the final project presentation. The final project should contain:
  - 1. Title Page
  - 2. Table of Contents
  - 3. Executive Summary
  - 4. System Proposal and Problem Statement
  - 5. Requirements Definition
  - 6. Structural Models this may include class diagrams.

- 7. Behavioral Models this includes use case diagrams and use case description of major features.
- 8. Dynamic Models this should include sequence diagram.
- 9. Design this should include user interface design and design specifications.
- 10. Testing
- Project Management Documentation this should include the detailed project plan with project activities, planned timeline, etc.
- 12. Lessons Learned

These milestones are designed to guide the teams through the key phases of the project, ensuring that they apply both systems analysis and project management principles at each stage. The integration of project management tasks helps you to understand the importance of planning and coordination throughout the project lifecycle.

FINAL PRESENTATION in class on 4/24/24 (50 points). You should ideally create a PowerPoint presentation (does not have to submit this in eLearning) for inclass presentation.

While only one student from the team is required to submit the milestones, all team members must submit the feedback form for your team before the presentation. Additionally, each team member is responsible for providing ratings for every presentation. Further details will be provided at a later time.