Southern New Hampshire University

IT 415 Milestone Two Guidelines and Rubric

You will develop three deliverables for your final submission. You have already submitted the proposal in Module Three, and now you will submit a draft of the last two deliverables: the project plan and system design**.** The final versions of the project plan and system design will be submitted together at the end of the course. These deliverables will be used to direct the implementation effort in your next course, IT 420. If the scope of your planned project is not fully implementable due to constraints on time and resources, you will need to prepare to deliver at the end of the next course a prototype, simulation of the information system vision, or a detailed projection of what the fully implemented system would look like. This projection of a fully implemented system is expected to be much more detailed than a system design.

Specifically, the following **critical elements** must be addressed:

I. **Project Plan:** The project plan will be drafted early in the course but further refined as you develop the system design. This way, the work breakdown structure and tasks identified in the design in need of development are added to the project plan.

   A. **Work Breakdown Structure:** Clearly communicate a logical work breakdown structure for stakeholders to ensure successful completion of the project. Identify all tasks and artifacts to be developed.
   B. **Timeline:** Illustrate the overall project timeline, identifying start and finish dates, major milestones, and any other relevant data points during the design and implementation of the project/solution. (Implementation should happen in IT 420, the implementation course.)
   C. **Dependencies:** Clearly communicate any dependencies between tasks or resources for ensuring successful communication of needs.
   D. **Use of Tools:** Professionally document project plan using Microsoft Project or Excel.

II. **System Design Document:** Although you will individually develop your recommended information technology project, the project design should contain enough detail to support another skilled information technology practitioner in implementing the solution. Determine a reasonable scope for your project so that it can be implemented within the timeframe of the IT 420 course. The following sections should be included:

   A. **Introduction:** Articulate the overall purpose and scope of the system design in terms of addressing the problem or challenges identified in your proposal.

B. **Requirements:** Determine all relevant and necessary system requirements based on analysis of the problem faced. The requirements should be written as "system shall" statements that are testable and include functional, design, security, safety, and performance requirements.
C. **Constraints:** Determine the constraints of the system design and any assumptions made in terms of the problem being solved.
D. **Resources:** Identify necessary resources—hardware, software, servers, virtual desktop resources, and so on—that are required to complete the project, based on analysis of the problem being solved.
E. **System Overview:** Describe the overall design in terms of the integration of tools and technology for successfully constructing your solution. In this section, you should describe the high-level design and architecture, making sure that details are congruent with the type of project you are working on. For example, use of case and class diagrams would need to be included if your project focused on a software application, website wireframe, screen mock-ups for a web application, and so on.
F. **Documented Detailed Design:** Your detailed design should illustrate and annotate all important details to be developed of the system and its components, interfaces, subsystems. It further breaks down the high-level design into small enough chunks to be properly implemented. The detailed design should align with the work breakdown structure in the product plan. The detailed design should inform the tasks identified and included in the project plan.

Guidelines for Submission: Submit assignment as a Word document with double spacing, 12-point Times New Roman font, and one-inch margins.

Critical Elements	Exemplary (100%)	Proficient (85%)	Needs Improvement (55%)	Not Evident (0%)	Value
Project Plan: Work Breakdown Structure	Meets "Proficient" criteria and evidences sophisticated understanding of the nuanced communication needs of various stakeholders relevant to the scenario	Communicates a logical work breakdown structure that clearly identifies tasks and artifacts for stakeholders to ensure successful completion of the project	Communicates a work breakdown structure that identifies tasks and artifacts for stakeholders, but with gaps in logic, clarity, or detail that could prevent successful completion of the project	Does not communicate a work breakdown structure that identifies tasks and artifacts for stakeholders	6
Project Plan: Timeline	Meets "Proficient" criteria, evidences a high level of detail, and is drawn in a professionally formatted manner	Comprehensively illustrates the overall project timeline for design and implementation of the project	Illustrates the overall project timeline for design and implementation of the project, but with gaps in detail	Does not illustrate the overall project timeline for design and implementation of the project	6
Project Plan: Dependencies	Meets "Proficient" criteria and evidences keen insight into the nuanced relationships between	Clearly communicates any dependencies between tasks and resources for ensuring successful	Communicates dependencies between tasks and resources , but with gaps in detail or clarity that	Does not communicate dependencies between tasks and resources	6

	needs, requirements, tasks, and available resources	communication of needs	prevent successful communication of needs		
Project Plan: Use of Tools	Meets "Proficient" criteria and evidences exceptionally advanced or successful use of tools for project planning	Project plan is documented professionally using an appropriate tool	Project plan is documented, but with gaps in professional delivery or use of an inappropriate tool	Does not document project plan with a tool	6
System Design Document: Introduction	Meets "Proficient" criteria and evidences keen insight into the nuances of scoping system design projects	Articulates the overall purpose and scope of the system design in terms of addressing the needs and challenges identified in proposal	Articulates the overall purpose and scope of the system design but lacks detail or specificity regarding the needs and challenges identified in proposal	Does not articulate the overall purpose and scope of the system design	25
System Design Document: Requirements	Meets "Proficient" criteria and the description is communicated using a highly professional tone	Determines relevant, necessary, and testable system requirements based on problem analysis	Determines system requirements, but not based on problem analysis, or lacks relevance, necessity, or testability	Does not determine system requirements	6
System Design Document: Constraints	Meets "Proficient" criteria and is exceptionally thorough and detailed in determining constraints	Accurately determines the constraints of the system design and any assumptions made in terms of the problem being solved	Determines the constraints of the system design and any assumptions made in terms of the problem being solved, but with gaps in accuracy	Does not determine the constraints of the system design and assumptions made	5
System Design Document: Resources	Meets "Proficient" criteria and evidences sophisticated understanding of required resources without indicating superfluous resources	Identifies necessary resources required to complete the project, based on analysis of the problem	Identifies necessary resources required to complete the project, but does not base conclusions on analysis of the problem or is not comprehensive in identifying resources	Does not identify necessary resources required to complete the project	5
System Design Document: System Overview	Meets "Proficient" criteria and description is exceptionally thorough, comprehensive, and well-articulated	Accurately describes the overall design and architecture of solution in details congruent with the type of project being designed	Describes the overall design and architecture of solution, but with gaps in details or in a manner incongruent with the type of project being designed	Does not describe the overall design and architecture of solution	5
System Design Document: Documented	Meets "Proficient" criteria and evidences advanced, professional, or exceptionally creative	Detailed design accurately and clearly illustrates and explains important aspects of the system,	Detailed design illustrates and explains important aspects of the system, its components, interfaces,	Does not detail and explain important aspects of the system, its components, interfaces,	25

Detailed Design	illustration of design	its components, interfaces, subsystems, and more to be developed	subsystems, and more to be developed, but with gaps in accuracy, detail, or coverage of necessary items	subsystems, and more to be developed	
Articulation of Response	Submission is free of errors related to citations, grammar, spelling, syntax, and organization and is presented in a professional and easy-to-read format	Submission has no major errors related to citations, grammar, spelling, syntax, or organization	Submission has major errors related to citations, grammar, spelling, syntax, or organization that negatively impact readability and articulation of main ideas	Submission has critical errors related to citations, grammar, spelling, syntax, or organization that prevent understanding of ideas	5
				Earned Total	**100%**