Southern New Hampshire University

IT 657: Final Project Guidelines and Rubric

There are two final projects for this course.

Final Project One: Board Presentation: Overview

Organizations in every industry are continually attempting to streamline business practices and processes, efficiently allocate resources, and improve overall business value. More and more, information technology (IT) provides the best solutions for organizational issues, making it important for IT professionals to gain an understanding of resource management and business needs, both at the procedural and technical levels. As such, your final project for this course centers on the use of Enterprise Resource Planning (ERP) systems. You will be constructing a proposal for decision-makers that explains the function and value of such systems and will develop a basic structure and implementation plan for an ERP system catered to the organization outlined in the scenario below. This project will provide you with the opportunity to highlight the value of ERP systems and to make recommendations for improving enterprise resource management in an organization.

The project is divided into **five milestones**, which will be submitted at various points throughout the course to scaffold learning and ensure quality final submissions. These milestones will be submitted in **Modules One, Three, Five, Six and Seven. The final submissions will occur in Modules Eight and Nine.**

In Final Project One, you will demonstrate your mastery of the following course outcomes:

- Integrate software and technology used in collecting, storing, and sharing data into cohesive enterprise resource management systems
- Evaluate the effectiveness of tools and technology for managing enterprise resources within specific industries
- Assess the extent to which existing and proposed information systems have the potential for consolidating technologies and successful integration into organizationalenvironments
- Analyze existing and proposed business processes for opportunities to improve efficiency across enterprises
- Construct enterprise resource planning proposals that address organizational needs and optimize business processes

Scenario

Imagine you are the IT director of the George Washington School District, a 30,000-student district spanning 30 elementary, six middle, and four high schools. As the district expands, you are continuously trying to improve the use of technology across the schools, specifically in the areas of resource and information management.

The superintendent has informed you that the district was awarded a $100,000 grant from the Bill and Melinda Gates Foundation to improve technology within the district, and the board is awaiting your determinations on what improvements may best serve the district. After meeting with the IT staff and talking to faculty and staff across the district, you have decided that integrating a district-wide ERP system would be the best use of the grant.

Currently, data is stored centrally in the district office as well as in each of the 40 school databases. The IT team provides maintenance and support for the student information system, a district portal, 40 individual school websites, voice-over-internet protocol (VoiP), and the individual district office departments. The district office consists of the human resources department, budget, maintenance and operations, accounting, information technology, education technology, child welfare and attendance, risk management, special programs, and the special education department. The student system consists of a 2014 SQL Server with a Microsoft Access front end database. The business system is a proprietary system that runs on an IBM AS/400 Mainframe.

Ideally, you would like to connect the following systems: student information system, human resources system, payroll, research and assessment, and risk management. In order to appropriate the recent funds to implement the ERP system, you must brief the school board at the next meeting on your proposal and the value of enterprise resource planning for the district. Additionally, you must construct a proposal detailing how the funds will be utilized and the steps for implementation of an ERP system. While the board members will be primarily concerned about your presentation and your expected allocation of funds, IT staff will need the detailed proposal to prepare for implementation and potential challenges. Therefore, it is important to balance the technical needs with the organizational needs while drafting your written proposal in order to connect with both audiences. Be sure to provide the appropriate resources and examples for support when necessary. In the professional IT world, research is key, and supporting your claims becomes one of the most successful means of persuasion.

Prompt

Your board presentation must address the following prompt: What value could the ERP system provide the George Washington School District and, in general, how do you plan to allocate the grant funds?

Specifically, the follow critical elements must be addressed:

I. *Introduction*:
   a) *Summary of Issues*: Summarize the IT issues that the district is facing because of its lack of an ERP system. In other words, provide a brief assessment of the existing information systems (the technology/software/hardware) used throughout the district and how effective or ineffective the current systems are. Explain your reasoning, and provide examples or instances of issues to substantiate your claims.
   b) *Current Business Processes*: Analyze the current high-level business processes (the procedure that each terminal, such as each school, employs to store and analyze information, for example) used in relation to the flow of information shared across the district to identify areas that could be altered to improve efficiency.
   c) *Enterprise Resource Planning (ERP) Systems*: Provide an overview of enterprise resource planning systems. Specifically, review the concepts of ERP for board members to facilitate their understanding of the purpose and functionality of the concepts. Be sure to address the following questions:
      i. What is ERP and what is its purpose?
      ii. What are the leading tools?
      iii. What are the types of systems that you can connect to ERP systems?
      iv. What types of reporting can ERP systems produce?

II. **_Examples of Use_**: What other organizations or school districts utilize ERP systems? Provide a brief evaluation of that organization's use of a particular ERP system/tool for managing enterprise resources. To what extent has the implementation within this organization improved the management of resources?

III. **_Pros/Cons of Implementing ERP:_** Weigh the pros and cons of implementing an ERP system for George Washington School District. Some areas to consider include cost, limitations of reporting, and impact(s) on current users and process.

    A. **_Limitations_**: Assess the extent to which there are limitations of ERP that will not allow for consolidation and successful integration of all existing and potential systems. Will the ERP system be able to connect to all systems? Is there any information that might be difficult to obtain from the ERP system? How can you address these limitations? Provide sources relevant to the scenario to support your claims.

    B. **_Key Considerations_**: For George Washington School District, what are the key considerations before implementing an ERP system? What level of implementation needs to happen (full, partial, etc.)? What software purchases are necessary? Will you need to purchase software to implement the ERP design?

    C. **_Integration of Software and Technology_**:

        1. **Integration**: How will you handle implementation? Outline a brief big-picture plan for handling integration of software and technology that attends to the key considerations around data collection, storage, and sharing across the district. To what extent will you need to integrate different software and technologies?

        2. **Organizational Needs**: What organizational needs and factors need to be considered when planning for integration? Will you need to hire a consultant to ensure proper implementation or will your IT staff be able to support the new system? What type of training will be required for your users and who will have access to the system?

IV. **_Closing Statement: Return on Investment_**: What is the goal of the ERP system? How can the information in an ERP system add value to the organization? How can we ensure the implementation will be worth the investment?

Final Project Two: Structure and Implementation Proposal: Overview

Organizations in every industry are continually attempting to streamline business practices and processes, efficiently allocate resources, and improve overall business value. More and more, information technology (IT) provides the best solutions for organizational issues, making it important for IT professionals to gain an understanding of resource management and business needs, both at the procedural and technical levels. As such, your final project for this course centers on the use of enterprise resource planning (ERP) systems. You will be constructing a proposal for decision-makers that explains the function and value of such systems and will develop a basic structure and implementation plan for an ERP system catered to the organization outlined in the scenario below. This project will provide you with the opportunity to highlight the value of ERP systems and to make recommendations for improving enterprise resource management in an organization.

In Final Project Two, you will demonstrate your mastery of the following course outcomes:

- Integrate software and technology used in collecting, storing, and sharing data into cohesive enterprise resource management systems
- Evaluate the effectiveness of tools and technology for managing enterprise resources within specific industries

- Assess the extent to which existing and proposed information systems have the potential for consolidating technologies and successful integration into organizational environments
- Analyze existing and proposed business processes for opportunities to improve efficiency across enterprises
- Construct enterprise resource planning proposals that address organizational needs and optimize business processes

Prompt

Assuming that you obtained board approval to move forward with this project, you will next create a structure and implementation proposal that details the steps required to complete the implementation from start to finish. Remember: you are providing an implementation strategy for IT staff that outlines the structure and steps for successful implementation. When you make assumptions based on the context and scenario, be sure to identify them and explain your reasoning. As a professional, you will want to provide support for your assumptions and conclusions to ensure your projects maintain validity.

Specifically, the follow critical elements must be addressed:

I. **Introduction**: Provide an introduction that lays the groundwork for your proposal and tells the audience the importance of the proposal and how, in general, it will benefit the school district.

II. **Enterprise Resource Planning (ERP)**:
   a) **Existing Systems**: What existing systems will need to be replaced, updated, or integrated with new software? Assess the existing systems for their potential to be successfully integrated into the new structure.
   b) **Enterprise Resource System**: Provide your justification and rationale for the specific type of ERP system you have selected. Why was the tool you selected the best choice for the school district? What particular aspects were appealing for providing a cohesive representation of resources across the district?
   c) **Software Integration**: Which systems will you include in the ERP? What type of information will you need to identify from each system? How will you integrate collection, storage, and sharing tools to ensure a cohesive representation of district resources?
   d) **Visualization**: Provide a visual representation of the overall structure you intend to implement. This should include a view for both board members and IT professionals to refer to. Be sure to make reference to any remaining systems and highlight how the new system will allow each remote office to link to the central location.
   e) **Assessment of Proposed Integration**: Assess the extent to which you feel the new system will have consolidated the old variety of disparate systems that currently exist. How will such consolidation improve efficiency across the district? Provide appropriate support to your reasoning.

III. **Implementation**:
   a) **Timeline and Steps**: Include a reasonable timeline for implementation. Some things to consider: Is there sufficient time between milestones? What milestones and key deliverables will be required to complete the data warehouse from start to finish?
   b) **Tools**: What tools are available to help integrate existing software? What criteria will you use to determine how effective the tools are in meeting the needs of the organization?
   c) **Business Processes**: How will you determine the workflow of common processes within the organization? To what extent will the ERP system improve efficiency of business processes?

Milestones

Milestone One: *Overview of the Implementation Process*

In **Module One**, you will submit a two- to three-page paper discussing an overview of the implementation process. Provide an overview of the implementation process (e.g., the ERP life cycle, business process reengineering, project management, and change management). Discuss the role of staff, vendors, consultants, and the organization in making the ERP implementation process successful. **This milestone is graded with the Milestone One Rubric.**

Milestone Two: *Service-Oriented Architecture*
In **Module Three**, you will submit a two- to three-page paper discussing the three major ERP vendors: SAP, Oracle, and Microsoft Dynamics. Compare the Service-Oriented Architecture (SOA) in a tablet format, and discuss the advantages and disadvantages of each system. Discuss which system you would recommend for your organization and your rationale and justification for your decision. **This milestone is graded with the Milestone Two Rubric.**

Milestone Three: *Board Presentation*
In **Module Five**, you will create a Board Presentation that addresses the following prompt: What value could the ERP system provide the George Washington School District and, in general, how do you plan to allocate the grant funds? **This milestone is graded with the Milestone Three Rubric.**

Milestone Four: *Implementation Proposal*
In **Module Six**, you will submit the Implementation Proposal to the School Board. Assuming that you obtained board approval to move forward with this project, you will next create a structure and implementation proposal that details the steps to complete the implementation from start to finish. Remember: you are providing an implementation strategy for IT staff that outlines the structure and steps for successful implementation. When you make assumptions based on the context and scenario, be sure to identify them and explain your reasoning. As a professional, you will want to provide support for your assumptions and conclusions to ensure your projects maintain validity. **This milestone is graded with the Milestone Four Rubric.**

Milestone Five: *Presentation and Implementation Revisions*
In **Module Seven**, you will use the feedback provided by your instructor from Milestones Five and Six to improve the Board Presentation and Implementation Proposal you submitted. Assume that the Board liked your proposal but had several questions regarding the implementation schedule, more specific costs, and how you would address potential roadblocks. You really want to have a solid and bulletproof plan, so you use your feedback to make revisions to submit to the Board one last time. **This milestone is graded with the Milestone Five Rubric.**

Final Submission One: Presentation to the Board
In **Module Eight**, you will submit the **Presentation to the Board.** It should be a complete, polished artifact containing **all** of the critical elements of the final product. It should reflect the incorporation of feedback gained throughout the course. **This submission will be graded using the Final Project Rubric One.**

Final Submission Two: *Structure and Implementation Proposal*
In **Module Nine**, you will submit the **Structure and Implementation Proposal.** It should be a complete, polished artifact containing **all** of the critical elements of the final product. It should reflect the incorporation of feedback gained throughout the course. **This submission will be graded using the Final Project Rubric**

Two.

Deliverables

Milestone	Deliverables	Module Due	Grading
1	Overview of the Implementation Process	One	Graded separately; Milestone One Rubric
2	Service-Oriented Architecture	Three	Graded separately; Milestone Two Rubric
3	Board Presentation	Five	Graded separately; Milestone Three Rubric
4	Implementation Proposal	Six	Graded separately; Milestone Four Rubric
5	Presentation and Implementation Revisions	Seven	Graded separately; Milestone Five Rubric
	Final Submission One: Presentation to the Board	Eight	Graded separately; Final Project Rubric One
	Final Submission Two: Structure and Implementation Proposal	Nine	Graded separately; Final Project Rubric Two

Final Project Rubric One

Guidelines for Submission: Your presentation does not have to be in the form of a PowerPoint; however, should you use another tool (such as Prezi), you must prepare note pages with your intended speech or you must record yourself presenting your visual presentation. Remember that effective presentations contain main points and visuals, but the heart of your presentation is in your verbal communication. The presentation should be approximately 10–12 slides with notes indicating intended speech or a recording of yourself giving your presentation. Remember, this is a professional presentation to the district school board members, so errors of spelling or unprofessional elements could result in a less-than-favorable outcome for your proposal.

Critical Elements	Exemplary (100%)	Proficient (90%)	Needs Improvement (70%)	Not Evident (0%)	Value
Summary of Issues	Meets "Proficient" criteria, and examples provided are authentic to the context of the scenario and real-world application	Provides a brief, accurate assessment of existing information systems that focuses on the issues caused by a lack of an ERP system, providing reasonable examples for support	Provides a brief assessment of existing information systems that focuses on the issues caused by a lack of ERP system, but with gaps in accuracy or examples that are not reasonable	Does not provide a brief assessment of existing information systems that focuses on the issues caused by a lack of ERP system	6
Current Business Processes	Meets "Proficient" criteria and utilizes specific examples for clarity of understanding the areas for improvement	Accurately analyzes the existing high-level business processes and flow of information to identify areas that could be altered to improve efficiency	Analyzes the existing high-level business processes and flow of information to identify areas for improvement, but with gaps in accuracy	Does not analyze existing high-level business practices and flow of information to identify areas for improvement	18
Enterprise Resource Planning (ERP) Systems	Meets "Proficient" criteria, and overview is exceptionally well articulated	Provides an accurate overview of ERP concepts, clearly articulating their purpose and functionality	Provides an overview of ERP concepts, but with gaps in accuracy or lack of clarity in articulation	Does not provide an overview of ERP concepts	6
Examples of Use	Meets "Proficient" criteria, and evaluation is strengthened with specific examples that allow for direct comparison to organization from scenario	Evaluates a comparable organization's use of ERP for success in improving resource management	Evaluates an organization's use of ERP, but the organization is not comparable, or the use of ERP is not evaluated for success in improving resource management	Does not evaluate an organization's use of ERP	6

	Exemplary	Proficient	Needs Improvement	Not Evident	
Pros/Cons of Implementing ERP: Limitations	Meet "Proficient" criteria, and sources are reliable for the claims made and exceptionally well catered to the specific context of the scenario	Assesses the extent to which there may be limitations of ERP that would prevent full consolidation or successful implementation of existing systems and utilizes relevant sources to support claims	Assesses the extent to which there may be limitations of ERP that would prevent full consolidation or successful implementation of existing and potential systems, but claims are unsupported or overlook relevant factors	Does not assess the extent to which there may be limitations of ERP that would prevent full consolidation or successful implementation of existing and potential systems	18
Pros/Cons of Implementing ERP: Key Considerations	Meets "Proficient" criteria, and defense of claims is particularly well qualified with logic driven from business context, real-world examples, and scholarly/professional support	Determines key business considerations from the scenario and research and supports claims with examples and sources that highlight relevance of considerations to increasing business opportunity	Provides key business considerations, but discussion lacks detail or does not support claims with examples and sources to highlight relevance of considerations to increasing business opportunity	Does not provide key business considerations	6
Integration of Software and Technology: Integration	Meets "Proficient" criteria, and plan is detailed enough to provide necessary information to stakeholders, but not so detailed as to dilute the high-level plan	Outlines a brief plan for handling the integration of existing software and technology with new technology into a cohesive system that attends to key considerations of data collection, storage, and sharing	Outlines a brief plan for handling the integration of existing software and technology with new technology, but plan would not lead to a cohesive system or does not attend to key considerations of collection, storage, and sharing	Does not outline a brief plan for handling the integration of existing software and technology with new technology	18
Integration of Software and Technology: Organizational Needs	Meets "Proficient" criteria and evidences keen, conceptual understanding of the organizational needs in relation to integrating technologies into an ERP system	Accurately outlines the organizational needs and factors that need to be considered while planning for integration with relevant supporting evidence	Outlines the organizational needs and factors that need to be considered while planning for integration, but with evidence that is not relevant or with gaps in accuracy	Does not outline the organizational needs and factors that need to be considered while planning for integration	6
Closing Statement	Meets "Proficient" criteria, and summary of presentation highlights the value of ERP in a manner that is persuasive, leading to potential buy-in and approval	Summarizes the overall presentation with attention to audience and emphasis on the value of ERP	Summarizes the overall presentation, but summary overlooks relevant factor(s), does not emphasize the value of ERP, or fails to cater to the audience	Does not summarize the overall presentation	6

					10
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	
				Earned Total	**100%**

Final Project Rubric Two

Guidelines for Submission: Your structure and implementation proposal should be logically organized with all of the key elements of a professional proposal. There are several types of proposals (click here for a general guideline for writing professional proposals), so you must work to cater yours to your specific content and audience. Your proposal must include a visual representation of your ERP architecture or structure, as well as properly cited sources where appropriate. Submission lengths will vary.

Critical Elements	Exemplary (100%)	Proficient (90%)	Needs Improvement (70%)	Not Evident (0%)	Value
Introduction	Meets "Proficient" criteria, and introduction is particularly well articulated with specific examples and logical identification of key business factors	Includes an introduction that lays the groundwork for the proposal by articulating the business context, business processes, and problems at hand	Includes an introduction that lays the groundwork for the proposal, but lacks detail around the business context and problems at hand	Does not include an introduction that lays the groundwork for the proposal	10
Enterprise Resource Planning (ERP): Existing Systems	Meets "Proficient" criteria, and assessment is contextualized with supporting information from the scenario or resources that would apply to the scenario	Accurately assesses the existing systems for their potential to be successfully integrated into a new structure	Assesses the existing systems, but with gaps in accuracy for their potential to be successfully integrated into a new structure	Does not assess the existing systems	9
Enterprise Resource Planning (ERP): System	Meets "Proficient" criteria, and justification is contextualized to the scenario with specific examples that highlight potential use	Justifies the selection of a specific ERP system/software for the district with detail regarding the potential benefits that were appealing for use in the scenario	Justifies the selection of a specific ERP system/software for the district, but lacks detail or does not attend to potential benefits that were appealing for use in the scenario	Does not justify the selection of a specific ERP system/software for the district	10

Enterprise Resource Planning (ERP): Software Integration	Meets "Proficient" criteria, and the plan is substantially detailed to include potential difficulties and the specifics of integration within the context of the scenario	Outlines a plan for the integration of various software and technology for collection, storage, and sharing data into the new system with detailed descriptions of how these disparate systems will be linked to provide a cohesive system for viewing resources	Outlines a plan for the integration of various software and technology for collection, storage, and sharing data into the new system, but lacks detail regarding how these disparate systems will be linked to provide a cohesive system for viewing resources, or the plan overlooks relevant factors	Does not plan for the integration of various software and technology for collection, storage, and sharing data into the new system	10
Enterprise Resource Planning (ERP): Visualization	Meets "Proficient" criteria, and visualization is appropriate for both board members and IT professionals for the purpose of implementation	Provides a clearly depicted visualization of the overall structure of the system that highlights how each remote office will link to the central location for the flow of information	Provides a visualization of the overall structure of the system, but visualization is not clear or lacks detail regarding how each remote office will link to the central location for the flow of information	Does not provide a visualization of the overall structure of the system	9
Enterprise Resource Planning (ERP): Assessment of Proposed Integration	Meets "Proficient" criteria, and examples are specific to the scenario or relate the scenario to comparable instances of efficiency	Assesses the extent to which the proposed system will have consolidated the old variety of disparate systems and improved efficiency across the district and supports claims using relevant, reliable sources and examples	Assesses the extent to which the proposed system will have consolidated the old variety of disparate systems and improved efficiency across the district, but without support from credible sources and examples	Does not assess the extent to which the proposed system will have consolidated the old variety of disparate systems and improved efficiency across the district	10
Implementation: Timeline and Steps	Meets "Proficient" criteria, and timeline detail is focused on the key deliverables required to complete the warehouse or milestone needs are exceptionally well defined	Includes a reasonable timeline for implementation that identifies all key steps and milestones	Includes a timeline that identifies steps, but the timeline is not reasonable or not all key steps or milestones are identified	Does not include a timeline that identifies steps and milestones	10
Implementation: Tools	Meets "Proficient" criteria, and determinations are supported with relevant examples	Determines available tools and establishes valid criteria against which the tools are determined to be effective in assisting with integration	Determines available tools and establishes criteria against which the tools are judged for effectiveness in assisting with integration, but lacks detail or criteria is not valid for judging effectiveness	Does not determine available tools and establish criteria against which the tools are judged for effectiveness in assisting with integration	12

Implementation: Business Processes	Meets "Proficient" criteria, and support is contextualized with details relevant to the scenario, relevant examples, and scholarly resources	Defends the proposal in terms of the workflow of common processes within the organization and the potential to improve efficiency with relevant support	Defends the proposal in terms of the workflow of common processes within the organization and the potential to improve efficiency, but lacks relevant support	Does not defend the proposal in terms of the workflow of common processes within the organization	10
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	10
				Earned Total	**100%**

Rubric Annotations

Term	Context/Definition
Appropriate for both board members and IT professionals	Exceptionally well visualized to facilitate understanding across multiple levels of conceptual IT knowledge and experience
Reasonable	The timeline points of interest are spaced in a realistic manner without unnecessary lapse time