

Exam Guidelines

This exam contains four essay questions. Students are to arrive at the exam prepared to answer each one without the support of notes nor internet connectivity.

In the course of the exam, direct citations are not required. However, story telling and narrative surrounding your most recent project is acceptable, in elucidating course topics.

The content presented in lectures, textbook are required for discussion. Please present your paraphrased understanding, with subsequent discussion of your own application of these concepts.

Questions to answer within the exam time block, without length limit are as follows.

1. What linkages exist between Class Diagrams and Sequence Diagrams? How are we to understand how one diagram supersedes the next in the process of Systems Analysis? How is the contribution of the Class Diagram meant to translate into the sequence diagram, and refine its design? Ultimately, which diagram is presented lastly, the class or the sequence?

2. Using Business Process Model Notation (BPMN), how is the existing business process represented, as compared to modeling an existing business process using a Use Case?

Where do important distinctions exist, that help differentiate the contributions of the Use Case versus the BPMN? Are both required, in the course of Systems Analysis, or can one diagram replace the other?

3. What is a direct and linear relationship between Use Case Diagrams and subsequent Class Diagrams? Define the role that Wireframe diagramming plays in constructing a class diagram, does the wireframe precede production of classes? Recalling the production of interfaces in our own project, how integrated is the production of user interfaces with the production of classes? How are we to distinguish the role that UI design plays, in constructing a Use Case, where software plays a role?

4. In composing unit tests, what role does the sequence diagram play? What relationships exist between sequence diagrams and the creation of unit tests? Can many unit tests be created in the course of a project? What role does the sequence diagram play in the maintenance of software quality over the long term of a software product's lifecycle?