

**COMPUTER ENGINEERING AND COMPUTER SCIENCE
UNIVERSITY OF LOUISVILLE
LOUISVILLE, KENTUCKY, 40292
CECS 550 SOFTWARE ENGINEERING Fall 2021**

Homework 1

Due Feb 3rd , 2022

(List full names of your team members, who have contributed to this homework)

Task 1: Term Project

- a. SRS - Prepare the Systems Requirements Document as per the IEEE Standards [For example check the textbook. There is a template for SRS in Blackboard].
- b. Identify interacting requirements, through dependencies. A table or matrix of dependency is the best approach for documenting these (see e.g., https://en.wikipedia.org/wiki/Traceability_matrix). From this matrix, develop priority index for each requirements

Task 2: Team Structure

- a. Document a team organization plan, indicating areas of responsibilities and specific skills.
- b. Based on this plan, identify software processes to be managed and how these will be done.
- c. Think of contingencies and how you can continue the project.
- d. Read the Chapter on Project Management and identify metrics for product and process relevant to your scheme. Address both tracking during development and at release. (These could be revised later. You will need to use these in the project.)

Task 3: Initial Estimation

- a. Outline an Initial Development Plan of major software phases as you understand at this stage. This plan should allocate responsibilities and tasks. Do understand that you have an opportunity later to tweak this

plan in response to your design and architecture, when you freeze the same for the development life cycle.

- b. Based on this plan schedule, determine the total effort in hours each of you expects to put in for your project. This will be the initial estimate. In the next homework you will calculate this effort based on the design document. The difference will give you a basis for forming estimates. At the end of the semester, you will match these with the actual effort, obtained from your logs.

Task 4. Languages, Tools, and Resources Assessment

Identify languages, tools and resources needed for the project.

- a. Note the merits and shortcomings of tool candidates and the made choice.
- b. List the resources you project will need to use and contact CECS IT personnel for availability.