

Capstone Evaluation Rubrics

- ◇ Project appropriateness (which includes the level of difficulty)
 - 5 – the project addresses a significant application in the area of computing and information technology; the project encompasses major areas of CS where the student has done course work; the project requires exploration into technical areas outside of the scope of the curriculum.
 - 4 – the project addresses a significant application of computing and information technology; the project focuses on a particular area within curriculum, and the project doesn't require significant new knowledge.
 - 3 – the project addresses an application of computing and information technology; the project focuses on a particular area within curriculum, and the project doesn't require much new knowledge.
 - 2 – the project addresses an application of computing and information technology, which is, however, comparable to a term project; the project focus on a particular area within curriculum, and the project doesn't require much new knowledge.
 - 1 – the project addresses an application of computing and information technology, which is, however, not comparable to a term project; although the project focuses on a particular area within curriculum, the implementation requires substandard knowledge of curriculum.
- ◇ Project planning and follow through (which includes a document on project scope/specs and development planning, daily log evaluations, weekly reports, project web site, etc)
 - 5 – has solid project scope and planning document, which includes a software development process model to follow, risk mitigation strategies, as well as project milestones; kept detailed weekly development journal or project tool; took an active role and effort in handling all unexpected occurrences; regularly kept the supervisor informed.
 - 4 – had good project scope and planning document, which did have project milestones; however it didn't not include a software development process model to follow and risk mitigation strategies; kept weekly development journal; took an active role but less than sufficient effort in handling all unexpected occurrences; regularly kept the supervisor informed.
 - 3 – had project scope and planning document, which, however, didn't include project milestones, a software development process model to follow, and risk mitigation strategies; had weekly development journal but not complete; acted passively in handling all unexpected occurrences; kept the supervisor informed, but not regularly.
 - 2 – poorly written project scope and planning document that didn't include project milestones, a software development process model to follow, and risk

- mitigation strategies; missed most of weekly development journal; acted passively in handling all unexpected occurrences; supervisor was seldom informed
- o 1 – poorly written project scope and planning document that didn't include project milestones, a software development process model to follow, and risk mitigation strategies; little weekly development journal; inadequate handling of unexpected occurrences, which led to compromising the completion of the project; supervisor was not informed
- ◇ Software analysis and design
- o 5 – made clear distinction between software analysis and design, and had document for each; design document (which includes ER design of database) was complete, correct, and diagrams are well drawn; the implementation was based on what was designed.
 - o 4 – made no clear distinction between software analysis and design and had no separate document for each; design document (which includes ER design of database) was complete, correct, and diagrams were well drawn; the implementation was based on what was designed.
 - o 3 – made no clear distinction between software analysis and design and had no separate document for each; although the diagrams may be well drawn, design document (which includes ER design of database) was not complete, or correct; the implementation was based on what was designed.
 - o 2 – made no clear distinction between software analysis and design and had no separate document for each; design document (which includes ER design of database) is far from being complete and correct; the diagrams were poorly drawn; the implementation didn't quite follow what was designed.
 - o 1 – made no clear distinction between software analysis and design and had no separate document for each; design document (which includes ER design of database) was simply poor; the diagrams were poorly drawn; the implementation didn't follow what was designed.
- ◇ Code quality (not about styles, but about variable naming, modularity, proper inheritance, cohesion, coupling, etc), sophistication, and commenting
- o 5 – classes and independent modules were reasonably defined with appropriate class inheritance and aggregation, and appropriate level of cohesion and coupling among independent modules; code was well organized using separate files and/or components; coding convention (variable-naming, proper indention, etc) was well followed.
 - o 4 – classes and independent modules were reasonably defined with improvable class inheritance and aggregation, and/or the improvable level of cohesion and coupling among independent modules; code was well

- organized using separate files and/or components; loops and conditions were well written, although coding convention was not well followed.
- o 3 – classes and independent modules were defined with no effort to employ inheritance, or poor level of cohesion and coupling among independent modules; code organization can be improved; loops and conditions statements can be improved; no coding convention was followed.
 - o 2 – classes and independent modules were not well defined (poor modularity), much less with class inheritance and level of cohesion and coupling among independent modules; code organization can be much improved; loops and conditions statements can be much improved; no coding convention was followed.
 - o 1 – classes or modules were not defined where they should; bad code organization; loops and conditions statements were poorly written; no coding convention was followed.
- ◇ Software usability (including user manuals, user error checking and interface user-friendliness, etc)
- o 5 – concise yet easy to follow user manuals; interfaces are self-explanatory and require minimum scrolling
 - o 4 – concise but not as easy to follow user manuals; interfaces are self-explanatory, but require scrolling
 - o 3 – concise but difficult to follow user manuals; interfaces are not self-explanatory, and require scrolling
 - o 2 – not concise yet difficult to follow user manuals; interfaces are poorly designed (often containing certain misleading GUI components or instructions), and requires heavy scrolling with minimal error checking
 - o 1 – simply poor user manuals and software interfaces, little to no error checking ...
- ◇ Project verification (which includes testing strategies and completeness)
- o 5 – development process and milestones were well followed; had well designed and executed testing plan; delivered what's promised.
 - o 4 – development process and milestones were basically followed; had testing plan that was basically executed; delivered basically what's promised.
 - o 3 – development plan (not necessarily process and milestones) was basically followed; had testing plan, which was not well executed; minor components of the project were not delivered.
 - o 2 – development plan was basically not followed; no testing plans; major components of the project were not delivered.
 - o 1 – even with a poor development plan, there was basically no execution of the plan; no testing plans and the project underwent poor testing; major components of the project were not delivered.

- ◇ Effort (which includes difficulty for student, easily improvable, etc)
 - 5 -- more than 200+ hours of work time; the quality of the final product beyond what's expected given the academic preparation of the student; hard to imagine where to improve the project in time frame
 - 4 – invested a number of work hours between 150 and 200; the quality of the final product matches what's expected given the academic preparation of the student; the project was pretty tight with little to be improved.
 - 3 – invested a number of work hours between 100 and 150; the quality of the final product was lower than what's expected given the academic preparation of the student; the project, though delivered what's promised, can be easily improved.
 - 2 – invested a number of work hours between 50 and 100; the quality of the final product was much lower than what's expected given the academic preparation of the student; the project was not delivered as promised due to lack of effort in dealing with difficulties and/or unexpected events
 - 1 – invested number of work hours less than 50; no quality of the final product can be spoken of; the project was not finished due to lack of work time invested.

- ◇ Binder
 - 5 – included all required documents and format requirements; well organized; easy to read
 - 4 – included all required documents; not well organized and easy to read; missing some format requirements
 - 3 – missed some minor required documents; not well organized and easy to read; missing some format requirements
 - 2 – missed some major required documents; poorly organized and hard to read; minimal format requirements
 - 1 – documents were significantly insufficient; no organization and not readable; minimal to no format requirements met

- ◇ Presentation (which includes status report presentations and the final presentation)
 - 5 – attended all scheduled meetings with well prepared presentations; the final presentation was rated excellent based on commonly accepted criteria (such as length, organization, quality of visual aids, pace, volume, concise yet to the point, etc)
 - 4 – attended all scheduled meetings with well prepared presentations; the final presentation was rated good based on commonly accepted criteria
 - 3 – missed some scheduled meetings with less prepared presentations; the final presentation was rated average based on commonly accepted criteria

- o 2 – missed some scheduled meetings with less prepared presentations; the final presentation was rated below average based on commonly accepted criteria
- o 1 – missed most scheduled meetings within unprepared presentations; the final presentation was rated poor based on commonly accepted criteria