**Montana State University Computer Science Department**

**Senior Team Portfolio**

**Section I. Grading Rubrics**

**Indicator 1: Program.**  Attach a source listing of the program that you wrote for your capstone course (CSCI 468, CSCI 483 or ESOF 423). Include the specifications for the program.

**Evaluation:**

**1 – No program in portfolio.**

**2 – Program submitted with no, or incomplete, specifications.**

**3 – Program did not meet specifications**

**4 – Specifications and a matching program both submitted.**

**Indicator 2: Teamwork.** Describe how your team worked on this capstone project. List each team member’s primary contributions and estimate the percentage of time that was spent by each team member on the project. Identify team members generically as team member 1, team member 2, etc.

**Evaluation:**

**1 – No team project information in portfolio.**

**2 – One or more team members did not affect the success of the project.**

**3 – Some team members only completed a specific component of the project, without regard to the rest of the project.**

**4 – Demonstrated genuine teamwork, where the team worked together to develop the project.**

**Indicator 3: Design pattern.** Identify one design pattern that was used in your capstone project and describe exactly where in the code it is located. Highlight the design pattern in yellow. Explain why you used the pattern and didn’t just code directly.

**Evaluation:**

**1 – No design pattern information in portfolio.**

**2 – A design pattern was used, but wasn’t justified as the best approach.**

**3 – A design pattern was used, but with incomplete justification.**

**4 – A fully justified design pattern was used.**

**Indicator 4: Technical writing.** Include the technical document that accompanied your capstone project.

**Evaluation:**

**1 – No technical documentation example in portfolio.**

**2 – Documentation contained ten or more grammatical and/or spelling errors per page, or was poorly formatted.**

**3 – Documentation had less than ten grammatical or spelling errors per page, but did not accurately describe the project.**

**4 – Documentation fully described the project.**

**Indicator 5: UML.** Show UML diagrams for your capstone project. What parts of the UML diagrams did you create?

**1 – No UML information in portfolio.**

**2 – Diagrams and code don’t match.**

**3 – Diagrams and code match, at most two types of UML diagrams used in the project.**

**4 - Diagrams and code match, more than two types of UML diagrams used in the project.**

**Indicator 6: Design trade-offs.** Describe a design trade-off decision (e.g. execution time *vs.* space requirements or compile time) in your capstone project and justify the design decisions that you made.

**Evaluation:**

**1 – No design trade-off information in portfolio, or the example given is not explained as a design trade-off.**

**2 – A design trade-off is described, but no justification is given.**

**3 – A design trade-off is described, but the decision made was not justified correctly.**

**4 – A design trade-off is described, with correct analysis.**

**Indicator 7: Software development life cycle model.** Describe the model that you used to develop your capstone project. How did this model help and/or hinder your team?

**Evaluation:**

**1 – No life cycle information in portfolio.**

**2 – Development did not follow the life cycle described.**

**3 – Development followed the life cycle model described.**

**4 – Development followed the life cycle model described, and benefits and/or problems were described.**

**Section II. Desired Performance Level**

The assessment committee decided that the desired performance level on each indicator would be achieved if more than 50% of the students taking the exam achieved a 3 or better.

**Section III. Evaluation Methodology**

Two of the assessment committee members independently graded the portfolios. Each grader then identified the indicators where the desired performance level was not achieved. If there had been serious disagreement about the scores, a third member of the assessment committee would have graded in order to break the tie.