

# Memorandum

**From:** Abdel Belkharraz

**To:** MAT107 Instructors

**Re:** Inquiry and Problem Solving Competency: Depositing

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Every student enrolled in MAT107 must complete a project that addresses the “Inquiry and Problem Solving” core competency. The project will engage learners in thinking critically about how to make decisions in a situation having incomplete information and uncertainty regarding future events. They are expected to perform some analyses and computations in order to make their decisions and justify them in writing.

The “Problem-Solving Essay” assignment is to be given to students during the second half of the semester, so that they may utilize some of the analytical tools and techniques that were presented in the class, should they want. **Every student will be asked to deposit their essay into the Digication ePortfolio for the course.**

Please ask the students to make a copy of his or her essay and place the text into a (PDF or Word) file with the name “MAT107\_Section#”. They are to open the ePortfolio associated with the class and submit the file to the “Inquiry and Problem Solving” competency.

If you are not able to instruct your students about how to perform the deposit of their files you may schedule a workshop with a representative from the ePortfolio support group who will provide instructions during class. The Digication system allows you to see which students have completed this very important task.

Below is a suggested rubric for grading the Problem-Solving Essay. If you would like to choose a different written assignment to assess your students’ abilities to solve a problem, please contact the MAT 107 course coordinator at [scosares@lagcc.cuny.edu](mailto:scosares@lagcc.cuny.edu) Alternative assignments must be reviewed to confirm that they can be used to adequately assess the associated core competency.

## Composition: Suggested Rubric

	Exemplary	Competent	Developing
<p><b><u>Comprehension:</u></b></p> <p><b>Demonstrates an understanding of the situation and enumerates the potential consequences of the decision alternatives</b></p>	<p>The consequences associated with the alternatives are clearly identified. Some creative alternative is identified.</p>	<p>The key factors for making the decision are identified.</p>	<p>Some crucial aspect of the situation is ignored, so a reasonable decision may be missed.</p>
<p><b><u>Analysis:</u></b></p> <p><b>Quantifies the "costs" and benefits associated with the decision alternatives. Considers the distribution of uncertain parameters, e.g., by estimating an expected value. Some sensitivity analysis is performed.</b></p>	<p>All potential consequences are quantified and compared, e.g., a decision tree or table is used to aid in the comparison of alternatives. A summative value is given to each alternative for comparison and selection. Sensitivity or "what if" analysis on the problem parameters is performed correctly.</p>	<p>Most of the outcomes are given (positive or negative) values for evaluation/comparison. Uncertainty about some problem parameter and its impact on the decision is addressed.</p>	<p>Only qualitative assessments of the potential outcomes are made. The values of problem parameters are given limited consideration.</p>
<p><b><u>Consistency:</u></b></p> <p><b>The decision represents the "best" alternative, based on the analysis performed/described.</b></p>	<p>The final decision selected is that with the highest summative evaluation.</p>	<p>The decision incorporates evaluation and comparison of the alternatives.</p>	<p>The decision is made with at least one (qualitative) justification.</p>

**Clarity:**

**The composition is well written**

The final decision is clearly stated and the justifications are evident. Any caveats are relegated to subsequent discussion. Discussion flows from one paragraph to the next. Correct grammar is used. Concluding remarks convince the reader that all factors have been considered.

The final decision is clear. Discussion flows from one paragraph to the next. Limited number of grammatical errors. Concluding remarks provide reasonable summarization and justifications for decision made.

The decision is presented with multiple caveats that confuse the reader. Sentences answer the questions without a narrative flow. The message is clear, despite grammatical errors.