

MIT OpenCourseWare
<http://ocw.mit.edu>

ESD.71 / 1.146 / 3.56 / 16.861 Engineering Systems Analysis for Design
Fall 2008

For information about citing these materials or our Terms of Use, visit: <http://ocw.mit.edu/terms>.

Application Portfolios: Grading Criteria

Each of the Following Elements are weighted equally:

1. **System Description:** A coherent definition of system being considered
2. **Sources of Uncertainty:** Presentation of Uncertainties being used in analysis. Their range and variability should be justified, preferably by reference to past experience with them, or by reference to similar situations or cases.
3. **Fixed and Flexible Designs:** Specification of the designs chosen for analysis, clearly indicating how the flexible design can be exercised.
4. **Decision Tree Structure:** Correct, complete two-stage decision tree, showing how when you could take advantage of flexibility in design.
5. **Decision Analysis:** Correct analysis.
6. **Lattice Set-up:** Correct calculation of parameters, consistent with trends and variability specified earlier, and correct projection of future possibilities.
7. **Lattice Analysis:** Correct Analysis of when flexibility should be exercised, properly working backwards using dynamic programming concepts.
8. **Evaluation, VARG:** Correct presentation of VARG for preferred analysis (Decision or Lattice Analysis).
9. **Evaluation, Multiple Criteria:** Display of different criteria for choice (ENPV, CAPEX, Return on Investment, etc), together with a discussion of why you prefer flexible or fixed design, based on this set of criteria.
10. **Discussion of Lessons Learned:** A thoughtful analysis of (1) your conclusion concerning which method of analysis is more appropriate in your situation and (2) how the application did (or did not) help you learn the concepts of the course.
11. **EXTRA CREDIT:** Slide set summarizing the key points of the application.