field of study Specific Guidelines

Operations Stratagy & lean principles Projects

Operations or Lean based projects must be real projects (no hypothetical projects) that can be documented. The proposed project and solutions the student develop do not have to be adopted by the customer. However, the student must have, at a minimum, a properly executed simulation of the solution showing the potential improvements.

Proposals must include

1. Overview of project problem should be done in layman’s terms (so that faculty not involved in the specific industry can understand and evaluate the project). This should only be in the executive summary and the introduction. The technical plan should contain the detailed technical information, using appropriate terminology.
2. Written approval from the company/entity where the project is being performed. Approval must be by someone who is of a sufficient level that they are able to approve not only the project but any associated expenditures that would arise from implementing the improvements.
3. List of tools and methods to be used
4. A discussion of the skills (classes) currently in the student’s arsenal and a plan for how missing skills will be obtained in order to complete the project. This includes a demonstrable understanding of the machines, operations and processes that will be under review.

The following are the typical minimum final report requirements for an operations or lean project:

1. Full description of current problem and need for improvement
   1. Current state diagram
   2. Time studies/production data showing current state data – data should be statistically sound (e.g. correct number of samples, appropriate descriptive statistics, etc.)
   3. Future state diagram(s) – multiple solutions are encouraged
2. Quantified evidence of improvements gained through changes via
   1. actual data (e.g. time studies, production records, etc.)
   2. simulated data (e.g. Monti Carlo simulation results) from an accepted simulation package
3. Summary analysis of the achieved (or potentially achieved) improvements. This should be in an executive summary type format that would be of a sufficient quality to present to the company executive who sponsored (approved) the project.