3.c.i. Identified project objectives based on general project/client requirements

- All important project objectives are identified.
- Important objectives are identified but one or two minor ones are missing.
- Most objectives are identified but at least one or two important ones are missing.
- Most or all important objectives are not identified.

3.c.ii. Gathered and used relevant customer information

- All relevant information is obtained and used to support design recommendations.
- Sufficient information is obtained and used to support design recommendations.
- Some information is obtained but more design recommendations are needed.
- No significant background information is gathered.

3.c.iii. Applied concepts learned

- Did not
- Could have
- Should have
- Exemplary
- Proficient
- Satisfactory
- Deficient

3.c.iv. Considered relevant aspects

4. Exemplary
5. Proficient
6. Satisfactory
7. Deficient

3.4. Economic

- Have economic implications of proposed solution or process changes been considered?
- Poor design; information obtained of little value.

3.5. Manufacturing

- What is the impact of the solution on manufacturing? If so, what is involved in doing that? This may also involve production system design: layout, inventory, scheduling, logistics, etc.
- Exemplary
- Proficient
- Satisfactory
- Deficient

3.6. Ethical/health and safety

- Are there ethical considerations built into the proposed solution? Does the proposed solution have safety benefits or raise safety concerns?
- Exemplary
- Proficient
- Satisfactory
- Deficient

3.7. Social/political

- Are there social or political impacts of the proposed solution; and have they been addressed? (e.g. vehicle routing for meals on wheels, etc.)
- Exemplary
- Proficient
- Satisfactory
- Deficient

3.8. Environmental/sustainability

- Does the proposed solution have any positive or negative environmental impacts? Does the proposed solution long term use and maintainability (i.e., reverse logistics)?
- Exemplary
- Proficient
- Satisfactory
- Deficient

3.b.i. Conducted necessary experimentation

- Experiment well-designed to obtain needed information; conducted and documented in a professional manner.
- Design adequate, but not outstanding; lacked some control, information reliable, but not definitive.
- Poor design; information obtained of little value.

3.b.ii. Conducted necessary data analysis

- Appropriately statistical/analytical analysis performed; proper assumptions made; results correctly interpreted.
- Analysis and/or interpretation contain a few serious flaws.
- Analysis and resultant information seriously flawed or non-existent.

3.c. Considered the best solution based on technical and economic criteria and considering relevant constraints

- Best solution is recommended based on stated criteria and constraints.
- Satisfactory solution is recommended; better solutions were available and should have been considered.
- Only one solution considered; better solutions were available; most constraints ignored.

3.g.i. Written communications (based on executive summary and poster)

- Written report error-free, logically presents recommendations and analysis, well organized, easy to read, and contains high quality graphics.
- Written report contains a few, minor grammatical and/or rhetorical errors; logically presents recommendations and analysis, well organized, easy to read and contains high quality graphics.
- Written report generally well written but contains some grammatical, rhetorical and/or organizational errors; recommendations and analysis are mentioned but not fully discussed.
- Written report does not present recommendations or analysis clearly, is poorly organized, and/or contains major grammatical and/or rhetorical errors.

3.g.ii. Oral presentation

- Exceptional presentation; logically organized; group members well prepared and professional; high quality graphics.
- Adequate but not outstanding presentation; lacked some professionalism in quality and organization.
- Unacceptable, disorganized presentation; not all members participated; professionalism was lacking.