The **B** project is good, solid and well done. Student has done everything asked of them but not much more. Evidence of earning a B will include:

- Student completes all of MER 497 or 498 requirements competently, professionally and on time.
- MER 497 student is on course to complete and MER 498 student completes all project goals.
- Student documents that they have consistently worked at least 12 hours each week on project.
- Student performs somewhat independently but requires creative input from advisor. When input is given, student consistently follows through with it.
- Project clearly makes use of some analysis, theory or methods which go beyond mere "cut and try" or "build and break" design techniques. If applicable, student demonstrates competency with advanced software tools or experimental instrumentation.
- Project deliverables (e.g., reports, posters, technical drawings) are of good quality, well organized and free of major errors of content or style.
- Overall, advisor feels positive about project.
- For **team based projects**, student actively participates in team discussions and activities, meets team deadlines and demonstrates a clear commitment to the priorities of the team. Team peer evaluation may be used in this evaluation.
- For **design-build-test projects**, test data or simulations exist demonstrating proof of concept and/or function.

The **B+** project goes beyond a B project as follows:

- Student shows greater independence and is coming up with most of creative solutions and ideas on their own but still needs some creative input from advisor. When input is given, student acts on it to maximize its usefulness.
- Progress is very consistent. Many weeks, the student exceeds minimum expectations for time worked on project.
- Advisor learns a few things about project area from student.
- Project deliverables are all of high quality with only a few minor errors or deficiencies.
- Project demonstrates significant use of analysis and engineering science as well as brainstorming and "cut and try". If applicable, student demonstrates independence with advanced software products or experimental instrumentation.
- Additional evidence of eligibility for a B+ could be provided by student presenting their work at an internal conference, e.g., Steinmetz Symposium.
- For **team based projects**, student is recognized as crucial to the success of the team. Student willingly takes on additional "team based" responsibilities (administrative tasks like registration, travel logistics etc.)
- For **design-build-test projects**, all phases are complete. Test data go beyond proof of concept/function and demonstrate range of capabilities, efficiency or performance levels.

To earn an **A**, all requirements of B+ must be met plus final project outcome must be of very high quality. Evidence indicating grade of A- is warranted includes:

- Student is very independent and takes lead in developing creative solutions and ideas.
- Project meetings are at high, almost graduate level. Advisor learns from student weekly.
- Progress is rapid and steady throughout term. Student consistently exceeds weekly expectations.
- Project deliverables are all of very high quality.
- Additional evidence for an A- might include student presenting their work at external student conference, e.g., NCUR, at student sessions at other professional conferences or competing in a major competition.
- For **team based projects**, student shows major commitment to the team and makes team priorities their top priorities.
- Student demonstrates leadership and is taking on significant team related responsibilities, e.g., high level budget management or taking lead responsibility for competition reports.
- For **design-build-test projects**, all phases are complete. The need for an initial redesign based on performance data has been acknowledged.

To earn an **A**, project must meet and significantly exceed expectations and requirements for an A-. The A project is so good that advisor wants to run down the hall and tell their colleagues about it! Strong evidence of meeting this mark will be required and might include:

- Project is recognized as extremely challenging.
- Review by external experts who indicate project to be of excellent quality.
- Project produces outcomes that could result in publication or patent.
- Project attains high ranking in an external competition.
- Project brings significant innovative design or idea to completion in all respects, e.g., analyze, design, build and demonstrate. A design project, e.g., results in a working prototype or provides for future experimental capabilities. A research project, e.g., answers a significant research question, develops new theory or expands fundamental understanding.
- For **team based projects**, student evaluated continuously as outstanding by peers. Student provides significant, even if informal, leadership to the team and is recognized as the "go to" person when there are problems that need to be solved. Team priorities are the top priorities of the student.
- For **design-build-test projects**, all phases are complete. Initial redesign based on performance data has been undertaken.
The **B**- project will have gotten very close to project objectives but will not quite have met all of them. A project will earn a B- when:

- All requirements and deliverables are complete and on time but have some deficiencies in style, organization, grammar or polish.
- Advisor is somewhat concerned with the progress of project during term. Progress may not be steady but rather is "on and off" from week to week.
- Advisor provides most ideas and guidance on project; student merely implements ideas.
- For team based projects, student does not always show complete commitment to the needs of the team.
- For design-build-test projects, the design is complete, but the build, although perhaps complete is not supported by test data.

<table>
<thead>
<tr>
<th>The C+ project will be similar to a B- however:</th>
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<tbody>
<tr>
<td>• Student shows less independence and may not follow through on guidance or ideas provided by advisor.</td>
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<tr>
<td>• Deliverables will be substantially complete but might be of slightly poor quality.</td>
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<tr>
<td>• Project will likely have has failed to meet some, but not all of its major objectives.</td>
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<tr>
<td>• Designs rely substantially on &quot;cut and try&quot; or &quot;build and break&quot; methods.</td>
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<tr>
<td>• For team based projects, student has let the team down in some minor way, e.g., delayed the progress of the team by missing internal deadlines.</td>
</tr>
<tr>
<td>• For design-build-test projects, the design is complete, but the build is not.</td>
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</tbody>
</table>

| C or C-: Project will have failed to meet one or more major objectives. There will be substantial lapses in quality of some deliverables or some deliverables may be missing. Student will have shown little self starting or independence. Student will not consistently have put forth major effort towards project. For team based projects, student has let the team down in some major way, e.g., by not completing necessary work in time thereby causing the team to miss a critical deadline. For design-build-test projects, the design is complete or nearly complete, but the build is not underway. |

| D: Project is substantially incomplete in some way, attributable to lack of effort by student. Despite this, student still put forth effort and completed a sufficient number of deliverables to earn a passing grade. |

| F: Student failed to meet minimum requirements associated with the project, e.g., not completing reports, limited progress, significant lack of effort. |

**Note:** Student attendance and active participation in weekly department seminars will impact the MER 497 and MER 498 grade.