



Panel 3A: Evaluation and Grading of Capstone Projects

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Panelists: Meg Harkins (UNC Charlotte), Jim Hartman (UNC Charlotte), Tiffany Ling (University of St. Thomas)

Description: Capstone projects are open-ended, and evaluating them is not always straightforward. This discussion will let you trade ideas and best practices with our panelists

General Notes:

- Rubrics are often used to try and normalize grading procedures and expectations
- Showing mentors, partners, and industry reps how to appropriately grade rubrics is critical
- With regard to peer evaluations: One suggestion was using the team grade as a set point for peer evaluations. Above average within the group boosts a team above and below shifts a team member below.
- Connecting peer feedback to skills needed for technical leadership.
- For formative assessment relying on mentoring and advising infrastructure primarily; in some cases using comments reviews.
- Asking mentors or advisors to provide one or two sentences supporting the grade enables assigned grades to be better supported.
- Grading: Group based versus individual contribution.
- One suggestion for balancing input into papers is to have students clearly identify which section they have written vs. reviewed.

Q: Firing?

- Generally students can not fire each other; Students can be failed; teams can be broken up; students asked to repeat; Sponsors (supporters) or supporters often are removed or not invited back.
- One panelist uses other faculty to create teams that should not face industry.

Q: How do you engender more professional behavior?

- Discussions have occurred around outcomes as an evaluation but some concerns around not being compatible with the academic environment.

Q: Hours spent evaluating?

- Varies, but was between 2-5 hours per week per team for all panelists
- Reasonable as an estimate for mentors/firms, but course instructor grading is very unequally distributed.
- Each time students turn in reports and give presentations, there's probably 20 to 30 hours of grading that week



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Q: Poorly contributing students (riding on coattails)?

- One option is to allow peers or advisors to recommend individual students to be put on “individual grading”, which means those poorly contributing students would not automatically get the team grade. Instead, they would be evaluated independently and get a percentage of the team grade for that assignment.
- Suggested syllabus wording: "All team deliverables will be graded collectively, unless otherwise specified as individual assignments. Each team member will receive the same grade for these deliverables, except in cases where an individual student demonstrates a substantial lack of contribution to the team effort."
- If this occurs, the student can be put on individual grading, receiving a percentage of the team grade that reflects their level of contribution compared to their teammates. If a student believes there is a significant discrepancy in work contribution among team members, they should discuss this with the course instructors before the assignment due dates to allow for consideration and potential implementation of individual grading.

Q: Different evaluation types/areas?

- Performance
 - Peer
 - Team

Additional Resources

- Rubrics:
 - AAC&U Value based rubrics - <https://www.aacu.org/initiatives/value-initiative/value-rubrics>
 - CATME (from Purdue) can be used for peer evaluations and team formation
 - LAK- do not recommend for team formation for capstone (not enough variables); do use for evals and then use modifiers to adjust group grades according to student evals
- Previous research on evaluating design products - <https://peer.asee.org/two-instruments-for-assessing-design-outcomes-of-capstone-projects>