



Teacher: Rowzee Email/Phone: mrowzee@naperville203.org Office: Rm 150
Department Chair: Jim Konrad

District Mission	To educate students to be self-directed learners, collaborative workers, complex thinkers, quality producers, and community contributors.
Department Mission	At Naperville North High School, our mission is to provide high-quality, innovative, and engaging science education that fosters deep understanding, critical thinking, and a lifelong passion for scientific inquiry. Grounded in the Next Generation Science Standards (NGSS), our curriculum and teaching approach empower students to develop the knowledge, skills, and attitudes necessary to thrive in a rapidly changing world. We are dedicated to nurturing curiosity, collaboration, and scientific literacy, preparing our students to become informed citizens who can contribute to solving local and global challenges through the application of scientific principles.
Course Description	<p>The STEM Capstone course offers students a unique opportunity to investigate, in-depth, a Science, Technology, Engineering, or Math (STEM) topic of interest. The design of the course is to afford students a unique learning opportunity that exceeds that of other NNHS courses. The learning theme of the course is “active producers of Knowledge and understanding.” The course structure focuses as much on the process of learning as it does the content of learning. Because of the personalized and unique nature of this STEM Capstone course, I will be more closely aligned as your learning partner and classroom facilitator, rather than a content expert. Yes, that’s right, I intend to learn <i>with</i> you, and help when guidance is needed. (I also tend to have great connections to people or resources).</p> <p>Generally speaking, students in the course will be directed toward one of two pathways. One pathway is designed for those students interested in research - including planning the research/experiment, gathering data, organizing and analyzing data, and communicating the analyzed data, supported conclusions, and ideas for future study. The second pathway is designed for students interested in researching, designing, constructing, and testing a project of their choice. Both STEM pathways are equally acceptable and important in the STEM community. Students will choose the pathway that best aligns to their course and project goal(s).</p> <p>The course will begin with students identifying a research topic (pathway 1) or a technology/engineering challenge (pathway 2). Students will be provided instruction and resources on effective research strategies. If needed, students will be paired with a mentor-style teacher (not your teacher of this course) or an industry expert who will serve as a content advisor to the student. If so desired, you will need to help identify your own mentor(s). Preferably, the mentor will be a “community mentor” (i.e. not a relative). At the conclusion of the course, students will be expected to have a completed capstone project. Presentation opportunities will be provided for students to showcase their capstone projects.</p>
Course Textbook & Resources	See STEM Capstone Canvas Page
Course Standards & Weights	<ul style="list-style-type: none">Engage in a sustained research project to answer self-generated questions or solve a problem.Synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.Ask relevant questions that provide an emergent and deeper understanding of the subject of choice.Build experiences based on an area of interest that cannot be fulfilled within the existing district curriculum.Demonstrate autonomy and ownership of learning.

Naperville North High School STEM Capstone Syllabus 2023/2024



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Units of Study:

- Demonstrate safe working habits and ethical research skills.
- Engage in "Citizen Science" (to be explained in class- typically interacting with resources, and demonstrably contributing to the base of data or knowledge).

Grade Calculation Definitions

Assignments, Progress Checks, Weekly Reflections, and more, will be graded throughout the course. The assignments will be focused on planning and THEN implementing your plan (i.e. building or gathering data for your project) NOT the reverse. Most of these grades will be formative - meaning that the grades are more like a checkpoint along the way to make sure you are progressing through the course you have designed for yourself, as mutually agreed upon with me. Your final project documentation and submission will be summative - meaning the assignment is designed to be a final summary of your project. However, even with this final project document, you will have peer review opportunities before submitting your final work.

Assignment Types

- Formulating/Refining research idea ~ Rough Draft + Revision(s) (50 pts)
- Project design discussion(s)/documentation (100 pts)
- Background research w/evidence & support (100 pts)
- Finalized (and approved) Project Proposal (20 pts)
- On-time Daily/weekly documentation (25 pts each)
- Substantive peer editing (when applicable) (10 pts)
- *Final project submittal/presentation (50 pts) (as Final Exam Grade)
- On-time Progress Checks/Weekly Reflection/ Updates (25 pts each)
- Verified "Citizen Science" Contributions/Efforts (25 pts each- totalling up to 150pts)
- Citizen Science Culminating Presentation (50 pts)

Grading Disbursement

A = 100-90%, B = 89-80%, C = 79-70%, D = 69-60%, F = 59-0%

Semester Grade:

- Coursework = 85%
- Final Exam = 15% *Final Exam Format:* Culminating Project Presentation

***Final Exam:** This course does not have a final exam. Final project status/presentation/update will serve as a final exam grade as noted above.

As a rule, no extra credit will be issued.

Grading Practices

Grades communicate each student's progress toward mastery of goals/standards for the course.

- Infinite Campus Symbols/Comments:
 - A score of "Missing" (M) will indicate an assessment has not been turned in and the comments



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	<p>section will include a specific date by which students can still submit. After that date, a zero (0) will be recorded.</p> <ul style="list-style-type: none">○ Any score may also have a comment indicating the due date, turned in, late, reassessment eligibility including the timeline and/or reassessment final scores.○ A zero indicates that no attempt was made by the student. If a legitimate attempt is made on an assessment and practice work has been completed in a consistent and timely manner (<i>completing 80% of practice listed in Infinite Campus.</i>), a score of 50% will be the lowest possible grade.● Late Work:<ul style="list-style-type: none">○ Evidence of Learning work submitted after the original due date cannot be penalized more than a total of 10% and can be submitted for credit up to 5 days after the original due date.○ Practice Work is not accepted for credit after the due date.● Other:<ul style="list-style-type: none">○ No extra credit will be issued.
Academic Integrity Code	<p>District 203 students are challenged to address the academic process enthusiastically, diligently, and most importantly, honestly. It is the responsibility of our students, teachers, and administration to uphold the fundamental academic values of honesty, responsibility, fairness, respect, and trust. The integrity of our district's academic programs is built upon these principles.</p> <p>Academic integrity violations include cheating; plagiarism, self-plagiarism or copy infringement; obtaining or providing an unfair advantage; falsification of documents; unauthorized access to records; and inappropriate collaboration, whether intentional or unintentional. The classroom teacher and administration will collaborate and exercise professional judgment in determining academic integrity violations.</p>
Reassessment Policy	N/A
Student Communication	<ul style="list-style-type: none">● You are encouraged to communicate with me regarding questions.● I will make every effort to respond to emails and phone calls within 24 hours during the workweek.● The best way to communicate with me is through email or the school Google Chat; however, if you haven't received a response within 48 hours, please resend the email. Your email may have been filtered if you aren't using school e-mail.
Additional Resources for Support	<ul style="list-style-type: none">● You can make an appointment with me should you need additional instruction or support in learning material. Email: mrowzee@naperville203.org, Google Chat.● *Office: 150; Classrooms: 142. Office hours: Contact me, let me know you'd like to meet. With ample advance planning, we can almost always find a common time.
Parents or Guardians Partnership	<p>Naperville North believes in a collective partnership with parents/guardians which provides students the best opportunities for success.</p> <p>Some ways parents/guardians can support their student's learning are:</p> <ul style="list-style-type: none">● Actively check Infinite Campus for their student's grades.<ul style="list-style-type: none">○ Infinite Campus is a tool to progress monitor student work until the final course grade is posted.○ Monthly progress grades are posted and represent the current grade of a student in the course at that moment in time.

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- Discuss missing assignments, reiterate due dates, help organize folders, materials, assignment notebooks, and review upcoming projects and assessments.