The Honors Capstone Handbook offers students, faculty mentors, Departmental Honors Advisors, and academic advisors clear guidelines and advice for the successful completion of Honors capstone projects. Because a traditional long essay—or thesis—is just one of many possible capstone options, the handbook uses the broader term "capstone" to describe this final Honors project.

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What is the Purpose of an Honors Capstone Project?

Designed to cap off the Honors curriculum, Honors capstone projects both showcase the value of an Honors education and act as springboards to the future. Honors students completing capstone projects develop as creative, critical, and engaged thinkers. They can research independently, communicate and collaborate across disciplines, and articulate the community impact of their ideas. These skills will continue to shape their work on every future project they undertake. The capstone may be the first long-term project of a research or creative career, or it may allow students to practice other important professional skills, including humility in times of success and resilience when faced with unexpected difficulties. Capstones are polished projects that demonstrate undergraduate knowledge and skill, but they certainly do not have to be perfect. The goal is to teach students how to become better thinkers, problem-solvers, and professionals who can manage and complete a major undergraduate project.

Because these projects are designed to be both personally and professionally valuable to students, their topics vary according to each student's major(s) and interests. One of the first things Honors students learn about the program is its motto, from the poet Horace: "*Sapere aude*"—or "Dare to Know." Following that motto, the entire Honors curriculum challenges students to ask questions, seek answers, and share knowledge. As the final piece of that curriculum, the Honors capstone project is the ultimate "Dare to Know." Students who complete an Honors capstone leave USU as skillful advocates for the value of their own work and developing researchers or creative practitioners in their fields. These qualities distinguish them from their peers as they apply for jobs, graduate programs, fellowships, internships, or volunteer opportunities.

What Do Honors Students Value in the Capstone?

Honors students find the process of completing a capstone project both challenging and valuable. Our recent graduates can perhaps articulate most clearly the value of an Honors capstone:

Madeleine Alder (International Studies and Economics): "My capstone project pushed me to continue daring to learn new things and daring to bring together years of work in one cumulative project. [It] helped me learn to think critically, build a relationship my mentor, and synthesize much of what I learned throughout my undergraduate education."

Hayden Hoopes (Management Information Systems): "Completing a capstone project has been a tough, but worthwhile experience. It gave me a safe way to complete innovative research under the guidance of a talented mentor and has helped me to learn about my own skills."

Tanner Pruett (Choral Education): "This capstone project created a unique opportunity for me to research a topic in depth and use it to make a positive change."

Emily Bonebrake (Wildlife Ecology and Management): "The Honors Capstone experience has proved to be a great end cap to my experience at Utah State University, and I will forever appreciate the memories, skills, and relationships that I have gained."

Quick Overview: Who, What, Where, When, Why, and How?

Who? Every Honors graduate completes a capstone, which is the final building block in the Honors curriculum.

What? The capstone is an exciting opportunity for students to grow and prepare for the future. Regardless of subject matter, the Honors capstone project demonstrates a student's ability to take responsibility for their learning by thinking independently, managing a long-term project, and communicating their ideas with others. The requirement to collaborate with a mentoring professor guarantees every Honors student an intellectual, professional, and personal guide on the path to their future goals. Students earn a total of **5 Honors points** when they complete the capstone process, one for the proposal, one for the work plan, and three for the capstone itself.

Where? The foundational research or creative work of a capstone project can take place anywhere—in the field or at the library, on an internship or in the community, at USU or abroad. Students can also choose specific pathways to Honors graduation that shape where, how, and with whom they work. All Honors graduates will have completed the requirements for the Undergraduate Research transcript designation as part of Honors requirements, but they must apply to the Office of Research to earn that designation. Those who study abroad and master a language can become Global Engagement Scholars. Those whose work clearly engages with and serves the community can earn the Community-Engaged Scholar designation. These transcript designations help to demonstrate where and how students engaged in their capstone work.

When? Students usually begin planning for capstones a year in advance (3-4 semesters before graduation). Most students enroll in the pass/fail HONR 3900 capstone preparation course because it helps them understand how to propose and complete an Honors capstone project. Submitting an Honors capstone proposal is the final assignment of HONR 3900, and students earn 1 Honors point upon final approval of the proposal. Students can also use Honors Mentoring Agreements to complete preliminary capstone research, although the substantial research and writing required for the capstone itself cannot be part of any Honors Mentoring Agreement, in keeping with USU's Academic Honesty/Integrity policy. Students typically take HONR 4900 or another approved Honors capstone course (e.g., ENGR Senior Design) in the term that they will finish the project, since faculty mentors submit final grades for capstones and verify completion at the end of that course. Most students complete the capstone course in their graduation term, although other arrangements can be made.

Why? Capstones are required for Honors graduation because they are the culmination of each student's Honors undergraduate experience and the foundation for their future work. Honors capstones offer professional training, opportunities to shape graduate school essays and publications, and evidence of independent initiative. Capstone mentors provide students with detailed recommendation letters, reliable advice about how to structure and complete their projects, connections to other professionals in their fields, and insight into the pursuit of professional goals.

How? This question might initially seem overwhelming, but our goal is not just to dare students to complete capstone projects, but to prepare them for success. To that end, the Honors program makes many resources available to students, including caring faculty and staff, the HONR 3900 course, this handbook, and the opportunity to apply for up to $500 per term in research, service, and creative funding. Honors is committed to helping students understand the capstone process, gain confidence in their abilities, and create projects they are proud to call their own.

Required Parts of Every Honors Capstone

Honors capstones allow students to make and share research and creative discoveries with the help of faculty mentors. To that end, all Honors capstones include the following parts:

Research and Creative Work

Both research and creative work require students to ask questions, seek knowledge and understanding, and share ideas with others. Honors capstone projects allow for discovery through a range of activities, including lab work, field research, creative projects, professional apprenticeships, archival investigation, and close reading of literature.

Students and faculty mentors collaborate to determine the subject of the research or creative work. Students typically consult with their mentors as they construct annotated bibliographies or literature reviews that illustrate the place of their own work within their disciplines. This contextual research is begun during the writing of the Honors capstone proposal and then typically polished, extended, and included in the capstone itself.

Students and mentors decide together on a final product that best meets discipline-specific norms and expectations (e.g., co-authored or individual publications, engineering or other discipline-specific data-analysis reports, business plans with professional analysis, argumentative thesis writing, and performances or other creative productions with thoughtful process analysis). As students near completion of this final product, they also communicate their findings publicly through events such as poster sessions, conferences or research/creative symposia, and the Honors Capstone Showcase.

NOTE: Students whose research involves animals or human subjects (e.g., work with laboratory animals or human subjects and/or distribution of surveys) often need approval from the Institutional Review Board and/or the Institutional Animal Care and Use Committee. Mentors and students should work together early and consult these websites for more information:

IRB Basics: Getting Started
Institutional Animal Care and Use Committee Information

Faculty Mentoring

All Honors students form a capstone committee that includes a primary faculty mentor and <u>at least one additional</u> faculty member. The second committee member is often the Departmental Honors Advisor in the student's or the primary mentor's home department; however, if the DHA is a student's primary faculty mentor, another faculty member must also serve on the committee. Students may add a third member in a field related to the project's topic, if they so choose.

The role of primary faculty mentors is crucial: they work closely with students, helping them focus and refine their capstones, develop realistic timelines and work plans, address research and writing challenges, present their work publicly, and complete outstanding final products. The nature of this role demands that all primary mentors be full-time USU faculty members with a terminal degree or appropriate credentials in the major field. Visiting or part-time instructors may serve as committee members, if they are available for the duration of the project. Graduate students may not serve on an Honors capstone committee. See pages 10-14 for details about mentor and committee responsibilities.

Honors Capstone Proposal

All students who plan to complete an Honors capstone project must first gain approval for and submit an Honors capstone proposal. Most students begin work on the proposal by enrolling in HONR 3900, a one-credit pass/fail class that helps them think seriously about their own capstone project. This highly recommended course requires students to read past proposals, capstones, and reflections on the process. As they think about other students' work, they begin to articulate ideas for their own capstone projects, to contact faculty and start forming their own committee, and to draft and submit an Honors capstone proposal. Whether students complete this work in HONR 3900 or on their own, the proposal ensures that they have the faculty support and approval they need to complete a capstone project. The Honors Capstone Proposal form clearly outlines all parts of a proposal. Students should work with their mentor and DHA to draft a strong proposal that sets them up for success.

Students who choose to work with a professor on an existing research project may quote and/or cite briefly from that mentor's research in their Honors capstone proposal, but they must very clearly define their own role in an existing research project and distinguish their words and roles from those of the mentor.

Similarly, students whose major or minor requires a non-Honors senior capstone course may use that work as a starting point for an Honors project that deepens and extends the regular capstone experience in the major. Their proposals should explain how their Honors capstone will extend substantially beyond the work of the regular capstone experience in the major. Please see page 8 for more information on capstones in the major.

Honors Capstone Work Plan

The work plan adds detail to the general timeline that students submit with their capstone proposals and is therefore due as soon as possible after earning Honors approval of the proposal (*by early in the term before capstone completion and graduation*). Work plans should include specific completion dates for each part of the research, every submission of a draft to specific committee members, all planned mentor meetings or progress updates, the public presentation or defense, the submission of the final draft to the committee, and the final delivery to Honors. Work plans may be adjusted, so long as all committee members agree to every change. These plans ensure that students and faculty agree on deadlines and expectations. Students earn one Honors point when their work plans are submitted and then approved in the Honors Canvas course.

Final Product

Just as the pursuit of knowledge may involve various types of creative, analytical, or experiential work, the resulting final product and public presentation can take various forms. Regardless of where or how the student worked on the project, their final product should meet discipline-specific norms and expectations. Some examples include co-authored or individual publications, engineering or other discipline-specific data-analysis reports, business plans with professional analysis, argumentative thesis writing, and creative productions with thoughtful process analysis. Public presentation of the work often occurs at events such as poster sessions, conferences or research/creative symposia, and the Honors Capstone Showcase. In some cases, the final product is primarily the public presentation of the project itself. With creative work in particular, the bulk of the final product can often be a show, performance, or organized event. All capstones involve research and thus ask students not only to seek knowledge, but also to communicate that knowledge to others. Whatever its form, the final product must be high quality work that makes both student and mentor proud. Students and faculty should

allow plenty of time for multiple drafts, rehearsals, tests, revisions, etc. Future students and faculty will examine this work as a model, and Honors therefore approves only Honors capstone proposals and projects that clearly demonstrate the value of such projects.

Please see page 8 for detailed information about tuning the project to the student's interests, major requirements, and disciplinary expectations.

Reflection

All capstones include a detailed **1000–1500-word reflection** on the **value and method** of the project, submitted with the capstone to the entire committee. This reflection is the last in a series of reflections that define Honors work. Throughout the program, Honors students learn to articulate the value of their education and tell the story of their intellectual development.

Reflections are different from the body of the capstone itself. This difference is crucial: the capstone writing presents and analyzes the research or creative work of the project; the **reflection** articulates the **value and method** of the capstone **experience**.

Great capstones achieve all of the following learning outcomes. Their **reflections** articulate both the **value and the method** of meeting each outcome:

1. Create a capstone experience for the student's undergraduate education
2. Add substantially to the student's overall education and/or future goals
3. Build a positive, meaningful mentor relationship in support of the student's education and/or future goals
4. Deepen the student's research experience within the major
5. Require critical thinking about topics in that major
6. Broaden the student's experience across disciplines
7. Engage the student in their local or global community

Depending on the project, the way that the capstone broadened the student's experience across disciplines and/or engaged the student in the local or global community might not immediately be obvious. However, students can still think broadly about their work and contemplate the impact their work might have on others.

Although students focus their reflections on these seven learning outcomes, they should weave in reflection on the problems, challenges, and triumphs that came with completing their capstone. They can also offer specific advice to future Honors students.

Course Credits/Hours of Work

Honors students should register for Honors capstone credit in the term that they plan to **complete** the project, since their mentors will grade the finished capstone in that term. Most students register for HONR 4900, but they may also enroll in an approved independent-study course in their majors, if necessary. Honors recommends registering for three credits to ensure that students complete approximately nine hours of work per week in their completion term. This work can include meetings, research, planning, project construction, and writing. Please remember that most students spend time on research and/or creative work prior to this final semester, and they should therefore discuss the project timeline with their mentors during the proposal stage early in the capstone process. Ultimately, the number of credits for the final capstone course is negotiable, depending on each student's schedule

and needs, but the overall amount of work is not. Capstone projects require at least as much time as an entire course would, but the student's capstone work is focused on the management of one substantial project, often over the course of at least a full year.

Public Presentation

All Honors capstone projects must be presented publicly at a conference, campus research symposium, public defense/discussion, performance, show, or other appropriate venue. Students must document that presentation by submitting a signed Verification of Honors Capstone Public Presentation form along with their capstone. In special cases of artistic performances, shows, major service projects, or extensive organized events, the public presentation will actually be the final product of the capstone project. In such cases, a detailed professional portfolio of artistic or other relevant documentation can serve as the record of this crucial public presentation. In all cases, faculty mentors should help students find the most appropriate venue for presenting their work and documenting its completion. Spring graduates may participate in USU's Student Research Symposium on campus in April and/or the Honors Capstone Showcase during SRS, while fall graduates may choose to present at the Fall Research Symposium. Like faculty mentors, the University Honors Program is committed to helping students arrange public presentations, but it is the student's responsibility to seek this support. Honors offers financial support of up to $500/term for presentation at off-campus venues; students must apply for this funding.

Digital Commons

All Honors capstone projects are archived in the Merrill-Cazier Library's Digital Commons, as well as in the University Honors Program's records. Before graduating, students must submit a signed Electronic Capstone Approval form, which either grants permission to publish the project in Digital Commons or requests an embargo or delay of posting in Digital Commons if their research is in the process of publication or is restricted by copyright or patent. The Honors Program must have this form on file before any capstone project can be made available on Digital Commons. Outstanding projects in Digital Commons may be used as examples for future Honors students preparing to complete capstone projects.

Guidelines for Creating Final Products: Tuning the Project to the Student

Since the final product of a capstone can vary greatly from student to student, each student should follow these guidelines to ensure that their capstone meets the academic standards within the Honors Program and their specific discipline.

Length, Content, and Word Count: Students and faculty should consider the role of writing itself in the research/creative work as they determine the appropriate final product(s) for their project. Although materials such as experiential or field data, laboratory results, mathematical calculations, performances, photographs, and art are valuable components of a capstone, Honors capstones must also include analytical, process-oriented writing (**typically at least 5,000 words**). Such word counts are guides; any discipline-appropriate body of work may be acceptable if the mentor and committee agree that the project represents substantial work in the field and serves the student's present and future goals. For example, a capstone could include a professional portfolio of artistic documentation, scientific diagrams, comparative charts, mechanical plans, or mathematical work, and each of these formats might require a different final word count. Such decisions are made at discretion of the committee on a case-by-case basis.

In capstones taking the form of a thesis, the writing itself is the primary final product. These projects analyze textual or archival materials and are typically the length of a publishable manuscript (**about 10,000 words**). Because academic standards vary across disciplines, mentors and students should discuss expectations as they draft Honors capstone proposals and embark on the projects themselves. Suggested minimum word counts typically do not include bibliography, supplementary material, or appendices, unless that material is central to project documentation.

Capstones in the Major, Group Projects, and Honors (ENGR and some other majors): If a student's major or minor requires its own non-Honors senior capstone, Honors students must clearly indicate in both the final product itself and the reflection how their Honors capstone project exceeded requirements for the standard capstone in the major. Students who complete a capstone paper for a course in the major can either (1) complete a separate Honors capstone project on a different topic, or (2) identify an aspect of their major capstone that they will explore in more depth for the Honors capstone project. DHAs and other faculty mentors can help students meet both Honors and major requirements. Please note the importance of discussing and articulating the differences between a major capstone and an Honors capstone as early as possible in the planning and proposal process.

Students completing **group capstone projects** in **engineering** or other fields should not simply re-format and submit the group project as an Honors capstone project. Instead, they must take one of the following two paths: (1) Students can take the lead organizational and/or writing roles on a project and clearly define how their role(s) required them to take on work that extended well beyond the requirements of the major, or (2) Students can identify a part of their group project that they would like to explore further, and complete the additional work for that exploration alongside the group project (submitting both as the Honors capstone project). Again, DHAs and other faculty mentors can help students organize and/or expand projects in these ways.

Finding a Topic

This part of the Honors capstone process varies widely, depending on the student and their past academic experiences. Keep in mind that there is not one perfect capstone project waiting to be discovered by each Honors graduate; the journey is almost always as important as the subject matter of the project. An Honors capstone is a big undergraduate project, but for most students, it will be the first of many major professional projects. Students should find a topic that inspires them to take ownership of their capstone project, but they should not allow indecision to cause them undue stress.

To reduce stress and expedite the capstone process, students often explore potential topics in HONR 3900, the capstone preparation course. They can start this preparation even earlier if they remember that capstone topics often grow organically out of mentoring relationships and develop over time. As students imagine possible topics, they should look back at some of the academic questions that have excited or perplexed them during their time at USU. Students can also look to the future for inspiration, considering what might help them take steps toward their long-term personal and professional goals.

 One of the most useful approaches a student can take as they consider capstone topics is to talk with people whose research and teaching they respect. Students can explain their own ideas and listen carefully to the responses of their respected mentors. Such conversations can turn thoughts and excitement into concrete research plans. It is normal for students to struggle as they consider capstone ideas, but this struggle can be productive. The very act of exploring ideas with other people leads to new connections and an ability to describe academic passions more clearly. If students are willing to listen to and observe others, opportunities often arise. Choosing a mentor first can even create a place on an existing research project. The role of research apprentice can lay the groundwork for future original research or creative project management. Remember that the capstone is just the first of many future projects that students will almost certainly be called upon to lead, manage, and complete. We recommend that students just get started, following their passions toward a project idea.

As students identify promising capstone topics, they should remember that topics can (and often do!) change and develop as students and faculty mentors collaborate. Students do not need to submit a new capstone proposal every time their ideas shift or change, <u>unless</u> the topic changes enough that the faculty mentor and DHA believe that a new proposal is necessary to define the parameters of what has become a substantially different project than the one initially proposed (See FAQs on page 19).

The following tips might help students find a topic as they embark on their capstone journey:

- Consider every class assignment, research opportunity, study abroad experience, internship, and co-curricular activity as an Honors "Dare to Know." Take the dare by getting excited about ideas, developing academic passions, and exploring new interests wherever possible.

- Keep a journal or file of intriguing ideas, which might occur in classes, Book Labs, conversations (with peers, professors, or staff), or extracurricular activities. No engaging idea is insignificant, and a pattern of academic excitement just might emerge.

- Build strong relationships with professors in classes and through research and creative work. Then choose a faculty mentor—or possibly a few mentors—whose classes or research/creative work have been particularly meaningful. Discuss potential ideas with that mentor or consider the possibility of becoming an apprentice on the mentor's research or creative work.

- Consider final products that might be most useful in moving into a future career, graduate school, or other life goals, and talk to professors about how to create such products.

Building a Mentoring Committee: Members and Responsibilities

Every Honors student's capstone committee consists of at least <u>two different professors</u>: the student's <u>primary faculty mentor</u> and a <u>Departmental Honors Advisor (DHA)</u> in the student's or primary faculty mentor's home department. *If the mentor and DHA are the same, students must add a second faculty member with useful expertise*. Any student may add a third faculty member to their committee if they see a need for additional expertise. The Honors Program Executive Director also reads each final capstone to ensure a high level of achievement across the program as a whole.

Students should choose their faculty mentors carefully. Mentoring an Honors capstone project is a lot of work, but most faculty enjoy working with passionate students who share their academic interests.

Because professors are much more likely to agree to mentor the capstone project of a student who has proven themselves to be curious, passionate, or otherwise engaged with the field, students often find a primary faculty mentor in one of three ways: (1) by explaining their interests to the DHA, whose knowledge of faculty research/creative interests in the department might help connect students with mentors; (2) researching faculty interests and then finding connections between those interests to their own project ideas; or (3) building several close working relationships with professors over time, demonstrating their ability in classes, research projects, Honors Mentoring Agreements, and departmental clubs or organizations that collaborate with faculty.

When choosing a second (or third) faculty committee member, students can continue to consult with their [DHAs](), whose understanding of both their disciplines and Honors makes them a great resource in building a committee. Students who have difficulty identifying faculty for these roles should make advising appointments with both their DHAs and an Honors Academic Advisor.

Brief Overview: Responsibilities (*Please see pages 11-14 for detailed descriptions of responsibilities for the student, faculty mentor, committee member(s), and University Honors*.)

Students are responsible for building a committee that consists of at least two faculty members, completing an [Honors capstone proposal](), submitting an [Honors work plan](), meeting all project deadlines, communicating regularly with committee members, arranging and documenting a public presentation, and formatting and submitting the final product according to Honors guidelines.

Faculty mentors are responsible for guiding students in proposing projects and developing work plans, mentoring research/writing processes, and ensuring high-quality work within the discipline.

DHAs are responsible for ensuring that the student is meeting both Honors requirements and disciplinary standards, and for approving each step in the capstone process. An optional third (or alternative second, if the DHA and mentor are the same) committee member can add expertise to the project. This committee member shares the review and consultation responsibilities of the DHA but is not responsible for communicating Honors requirements to either the student or the faculty mentor.

The University Honors Program is responsible for providing guidance in HONR 3900, supporting students and faculty mentors, and ensuring that all Honors capstone projects meet program standards and deadlines and thus merit the award of the student's final capstone Honors points, as part of meeting the requirements for earning the University Honors transcript designation upon graduation.

Student Responsibilities

COURSES AND ADVISING:
- Enroll in HONR 3900, a one-credit pass/fail course that asks students to read sample capstones and proposals, identify topics, find faculty mentors, finalize committee membership, and submit an Honors capstone proposal. Students who cannot complete this course meet with an Honors Advisor a year before capstone completion to ensure that they are prepared to propose and complete a project.
- Enroll in HONR 4900 or other Honors-approved capstone course (i.e., ENGR Senior Design) in the project completion term. Pass any required non-Honors major capstone courses first.
- Schedule an Honors Graduation Audit with an Honors Academic Advisor *by the third week of the term before graduation* to assess progress on Honors points and make a plan to graduate with Honors.

PROPOSAL:
- Working with faculty mentor, complete an Honors capstone proposal following the format on the form and including all seven parts listed on that form. Submit to committee and revise to earn full committee approval with signatures.
- Upload signed, completed proposal to Honors Canvas course; get final approval from Honors *by the beginning of the term before capstone completion/graduation.*
- In rare cases, if a project changes in fundamental ways, students may need to gain approval for and submit a new proposal, at the discretion of the faculty committee. No major project changes may be made after the second week of classes in the student's final capstone/graduation term.

WORK PLAN:
- Complete and upload an approved, signed work plan, using the proposal timeline as a starting point. Include a detailed list of deadlines for research/creative work, draft submission, updates to be sent to DHA/committee, regular (twice/month) meetings with mentor, and public presentation time/place.
- Plan must include key dates, particularly submission of final draft to DHA and any other committee members (*one week before the last day of classes*), public presentation/defense (*by the last day of classes*), and final deadline to Honors (*one week after the last day of classes*).
- Agree upon the work plan with mentor and DHA/committee members. Upload signed form and plan to Honors *early in the term before graduation or as soon as possible following approval of proposal.*

PROFESSIONALISM AND DRAFTING:
- Follow the work plan in a timely and professional manner.
- Apply for appropriate research or travel funding to support the project (e.g., Honors Research and/or Study Abroad funding, URCO grants, USUSA support, departmental or college funding).
- Discuss any proposed changes to the work plan with faculty mentor well in advance of affected deadlines; failure to do so might jeopardize Honors graduation.
- Submit to mentor all required drafts of the project and revise as instructed.
- Proofread and edit carefully. USU and/or STEM writing tutors can help guide this work—start early.
- *Submit final draft to the DHA/committee one week before the last day of classes.* Revise as instructed.

PUBLIC PRESENTATION:
- Schedule public presentation of the project. Students should decide on the venue and make all arrangements, with mentor/Honors support. Public presentation or defense must be completed and documented *by the last day of classes in student's final completion/graduation term.*

FINAL PRODUCT:
- Make all revisions suggested by faculty mentor, DHA, and/or other committee members.
- *Submit the final product to Honors no later than one week after the last day of classes* (see page 15).
- The final product should be carefully proofread and formatted, and it must include both a signed and an unsigned Honors Capstone Cover Page, a reflection and author bio, and signed Verification of Honors Capstone Public Presentation and Electronic Capstone Approval forms (see Honors website).

Faculty Mentor Responsibilities

COURSES:
- Work with students enrolled in HONR 3900 to finalize committee membership and to draft and revise a strong Honors capstone proposal.
- Serve as instructor of record for HONR 4900 or other approved Honors capstone course (e.g., ENGR Senior Design) in the completion term. If students are required to complete a major capstone course, help them understand how the Honors capstone extends that work.

PROPOSAL:
- Mentor the student in shaping capstone idea and writing the proposal. Ensure that the student follows the proposal format, including a basic list of deadlines and brief annotated bibliography or literature review. The proposal should meet standards for high-quality work in the discipline.
- Remind student of proposal deadlines: they must submit to Honors by end of HONR 3900 and gain Honors approval early in the term before capstone completion/graduation.
- In rare cases, if a project changes in fundamental ways, students may need to submit and get approval for a new proposal, at the discretion of the faculty mentor and committee. No major project changes may be made after the second week of in the student's final completion/graduation term.

WORK PLAN:
- As soon as possible after proposal approval, help the student create a more detailed capstone work plan, building on the brief timeline in the proposal. Include specific deadlines for research/creative work, writing and draft submissions, reports to DHA/committee members, regular (twice/month) meetings with faculty mentor, and time/venue for public presentation.
- Ensure that the work plan includes all key dates, particularly submission of mentor-approved final draft to committee/DHA (*one week before last day of classes*), public presentation/defense (*completed by the last day of classes*), and final Honors deadline (*one week after last day of classes*).
- Prompt student to seek approval from DHA/committee member(s) and then to upload the plan to the Honors Canvas course *early in the term before graduation or soon after proposal approval.*

PROJECT OVERSIGHT:
- Communicate with the student about the professional importance of following the work plan.
- Encourage the student to apply for research/travel project funding (e.g., Honors Research and/or Study Abroad funds, URCO grants, USUSA support, departmental or college funding).
- Students may not change deadlines without getting mentor approval well before the deadline they propose to change. If students miss two deadlines or ask for frequent, disruptive changes to the work plan, mentors should notify the Honors Program immediately.
- Require several drafts of the project and give the student prompt, detailed feedback. Final mentor-approved draft is due to committee *no later than one week before the last day of classes in final term.*

PUBLIC PRESENTATION:
- Discuss with the student possible venues for public presentation and encourage application for Honors, university, and departmental travel funding, if needed. Public presentation or defense must be completed and documented *by the last day of classes in the student's completion/graduation term.*

FINAL PRODUCT:
- Ensure that the student has made all of the committee's required revisions and that the final product represents high quality Honors work in the discipline. Insist on proofreading and editing.
- Communicate with student about final deadlines and requirements: students must submit carefully proofread and formatted final products, reflections, bios, and forms (see page 15) to Honors *no later than one week after the last day of classes in the term of graduation.* Sign only once read/approved.

Departmental Honors Advisor/Committee Member Responsibilities

Committees consist of 2-3 faculty members, depending on student and project needs. DHAs from the student's or mentor's home department typically serve as a second committee member, although some departments share this work among a group of Honors faculty members. If the mentor is the DHA, the student must add an additional committee member. While secondary committee members should have detailed knowledge of Honors, students and mentors may add tertiary members who bring additional expertise.

COURSES:
- DHAs are responsible for meeting with students enrolled in HONR 3900 and helping them identify suitable faculty mentors, finalize committee membership, and review the capstone requirements outlined in this handbook and on the Honors website.
- Students enroll in HONR 4900 or another approved course (e.g., ENGR Senior Design) for Honors capstone credit in their term of completion/graduation; substitutions require the entire committee's (and Honors) approval.

PROPOSAL:
- Read the proposal promptly once the mentor and student complete it; a signature indicates approval, so committee members may offer feedback and should sign only once required changes are made.
- Support the student in meeting proposal deadlines; students must upload proposals to the Honors Canvas course and gain Honors approval *early in the term before capstone completion/graduation.*
- In rare cases, if project changes in fundamental ways, students may need to get approval for and submit a new proposal, at the discretion of the faculty mentor and committee. No major project changes may be made after the second week in the student's final term.

WORK PLAN:
- Verify that the work plan includes a timeline for regular updates to committee members on project progress and all key dates, particularly submission of mentor-approved final draft to committee (*one week before last day of classes*), public presentation/defense (*by last day of classes*), and final deadline to Honors (*one week after last day of classes*).
- Suggest changes and sign/approve plan; students should upload to the Honors Canvas course soon after proposal approval or as early as possible *in the term before capstone completion/graduation*.
- DHAs/committee members may choose to require students to submit a draft or drafts to them; please build due dates into the work plan.

PROJECT OVERSIGHT:
- Meet with the student as requested and indicated in the work plan. DHAs and committee members are not responsible for initiating meetings.
- DHAs/committee members who require drafts are responsible for returning prompt, detailed feedback, as indicated in the work plan.
- Expect to receive the mentor-approved final draft of project *one week before the last day of classes*.

PUBLIC PRESENTATION:
- Discuss with the student and mentor venues for public presentation and encourage application for appropriate funding from Honors, USU, and department/college. Public presentation or defense must be completed and documented *by the last day of classes in the student's completion/graduation term.*

FINAL PRODUCT:
- Ensure that the student has made all of the committee's revisions and that the final product represents high quality Honors work in the discipline. Insist on proofreading and editing.
- Communicate with the student about deadlines and requirements for the final product, which must be proofread, formatted, and submitted to Honors with all forms *one week after the last day of classes.* Sign only once read/approved.

University Honors Program Responsibilities

The Honors Program takes an active role in preparing students for capstone work but does not then oversee each project. Instead, Honors Program approval ensures that all projects meet Honors standards.

COURSES AND ADVISING:
- Each term, Honors offers HONR 3900, a one-credit pass/fail course that requires students to read completed Honors capstone proposals, projects, and reflections; explore topics; find a faculty mentor; settle on a topic; finalize committee membership; and submit an Honors capstone proposal.
- Students enroll in either HONR 4900 or another approved course (e.g., ENGR Senior Design) for Honors capstone credit in their final completion/graduation term; Honors advises students to take any required non-Honors capstone course in the major before enrolling for Honors capstone credit.
- Hold an Honors Graduation Audit with the student *by the third week of the term before graduation* to assess progress on Honors points and map the path to Honors graduation.

PROPOSAL:
- The Executive Director is responsible for final approval of the Honors capstone proposal and communication with faculty mentors/committee members about requirements and next steps. *Students must earn Honors approval by the beginning of the term before capstone completion/graduation.*

WORK PLAN:
- Honors archives capstone work plans and shares examples with students and faculty.
- Honors advisors remind students to submit work plans soon after proposal approval (*early in the term before graduation*) and notify students and mentors if deadlines are missed.
- Once work plans are submitted, Honors verifies that they include key dates for submission of mentor-approved final draft to the committee (*one week before the last day of classes*), public presentation or defense (*by the last day of classes*), and submission of revised final project to Honors (*one week after the last day of classes*).

PROJECT OVERSIGHT:
- Honors advisors are available for individual consultations to answer questions about the capstone process and provide support, as requested, to Honors students, faculty mentors, DHAs, and committee members.
- Honors guarantees timely review of applications to the Honors Research and Study Abroad Fund and supports students in applying for other funding.
- Honors staff members communicate with students about upcoming or missed deadlines, as appropriate.

PUBLIC PRESENTATION:
- Upon request, Honors can assist students in finding appropriate venues for public presentation and funding travel to off-campus presentation locations through the Honors Research Fund. *Public presentation or defense must be completed and documented by the last day of classes in the student's completion/graduation term.*

FINAL PRODUCT:
- Honors refers students to USU and Science Writing Centers, which can help students edit, proofread, and format the final project. Honors staff members then ensure that students submit a high-quality project by the deadline (*one week after last day of classes*) and include with the project the signed Honors Cover Page (indicating that mentor and committee members have read and approved the project), reflection and author bio, Verification of Honors Capstone Public Presentation, and Electronic Capstone Approval (see Honors website).
- The Honors Program Executive Director reads all capstone projects to ensure that they meet or exceed program standards and signs the cover page to indicate final program approval.

Checklist: Steps in the Honors Capstone Process

o **ENROLL IN HONR 3900** _at least one year before_ capstone completion/graduation. Students in disciplines requiring extensive laboratory research, focused fieldwork, or practicum work/student teaching may enroll as sophomores to allow time for capstone completion. Students who cannot enroll must create a capstone-completion plan with an Honors Academic Advisor _at least a year before graduation_.

o **SUBMIT HONORS CAPSTONE PROPOSAL,** either as the final assignment of HONR 3900 or independently (if not taking HONR 3900), _by the beginning of the term before graduation_.

o **COMPLETE ANY NON-HONORS MAJOR CAPSTONE COURSE** _by the term before capstone completion/graduation (ask an Honors Academic Advisor and/or DHA about timing). Students ideally complete such courses before HONR 4900, since Honors capstones often expand the work of a major capstone._

o **SUBMIT A DETAILED WORK PLAN** _as soon as possible_ after earning Honors approval for the proposal, but _no later than the beginning of the term before completion/graduation._

o **COMPLETE AN HONORS GRADUATION AUDIT** with an [Honors Academic Advisor](#) by the end of the third week in the term before graduation. The audit identifies remaining Honors requirements, and the advisor helps create a plan for meeting requirements and graduating with Honors.

o **FOLLOW THE WORK PLAN**, meeting with committee as scheduled and submitting drafts to the mentor and/or committee with plenty of time for revision.

o **ENROLL IN HONR 4900** or other Honors-approved Honors capstone course (e.g., ENGR Senior Design) _in the term of project completion_. Honors builds individual HONR 4900 sections and assigns the student's faculty mentor as their instructor to facilitate end-of-term evaluation.

o **SCHEDULE/IDENTIFY VENUE FOR PUBLIC PRESENTATION OR DEFENSE** (_more information about requirements below under "Defense and/or Public Presentation" below.)_

o **SUBMIT FINAL MENTOR-APPROVED DRAFT TO DHA/COMMITTEE MEMBERS** _no later than one week before the last day of classes_ in the student's completion/graduation term.

o **PUBLIC PRESENTATION AND/OR DEFENSE** must be _completed by the last day of classes in the student's completion/graduation term_ and verified with signatures on the [Verification of Honors Capstone Public Presentation](#) form.

o **SUBMIT FINAL APPROVED CAPSTONE TO HONORS** _no later than one week after the last day of classes in the student's completion/graduation term_. Submission details below.

Important Formatting Guidelines

*Because disciplines have different standards and conventions, capstone projects do not all look the same. Below is the standard structure of an Honors capstone. Students should organize their projects in this recommended order, unless their faculty mentors decide that another discipline-specific format is more appropriate. All capstones must include **REQUIRED** sections indicated in **BOLD**.*

1. **Title page (REQUIRED**, *not paginated*—see template): Include signature lines for all committee members (mentor, DHA, other committee members) and the University Honors Program Executive Director. Please spell all names and titles correctly.

2. Copyright notice (*recommended – not paginated*): Honors recommends that students include a copyright page immediately following the title page as the first page of the capstone. Exceptions to this recommendation include work that is subject to provision-of-research contracts, patent rights, or other agreements made between the student or faculty mentor and USU or another entity. Faculty and students should be aware that all capstone projects submitted to the Merrill-Cazier Library are for public use. If included, the copyright notice page should not be numbered. Center the notice on the page and format it as follows:

    <div align="center">
    Copyright 2024 Student's Name
    or
    © 2024 Student's Name
    All Rights Reserved
    </div>

3. **Abstract (REQUIRED: begin pagination here with lower-case Roman numerals—e.g., i, ii, iii…)**: The abstract is typically 250-500 words summarizing the project's research question, methodology, and results/conclusions. An abstract is designed to help readers quickly understand what the project does. Please include any crucial part of your project (thesis statement, hypothesis, etc., depending on your field). See USU Digital Commons for examples.

4. Dedication/preface (*optional: continue Roman pagination*): usually very brief (e.g., "*For my family*").

5. **Acknowledgements (REQUIRED: *continue Roman pagination*)**: Students typically thank their faculty mentors, any members of their research teams, their departments and colleges and/or Honors, and anyone else who has supported the project. They often thank organizations that helped fund any part of the project (USUSA, URCO, the University Honors Program, departments or colleges, etc.). They may also add personal acknowledgments (e.g., support from spouse, family, friends), as desired.

6. Table of Contents (*recommended*: *not paginated itself; may be brief for some capstone projects*): Indicate major sections of project and their initial page numbers, including chapters and appendices or, at a minimum, Final Written Product, Bibliography, and Reflection sections.

7. List of Tables, Figures, Photos, Definitions, etc. (*recommended if project includes such information*; *not paginated itself*): Include page numbers on which tables, figures, or photos appear.

8. **Final Written Product (REQUIRED: *begin Arabic (1, 2, 3) pagination*)**: Must be completely edited and free of errors. <u>Include word count of this section, if applicable, on the final page</u> (see pages 5-6 of this handbook for requirements).

9. **Reflection (REQUIRED: *continue Arabic pagination*)**: <u>Include word count</u> and see page 8 of this handbook for requirements.

10. Endnotes (*optional, depending on bibliographic style: continue Arabic pagination*): Not necessary if using footnotes or if not including any notes.

11. Bibliography or Works Cited list (*highly recommended but guided by discipline*: *continue Arabic pagination*): Typically, at least 15 sources that the paper quotes or uses as background, formatted correctly according to disciplinary conventions.

12. Appendices (*optional, depends on project*: *continue Arabic pagination for cover sheets or any included pages*): If project includes non-written materials, please include those materials in this section using Box or YouTube links, photos, charts/tables, etc.

13. **Professional Author Bio (REQUIRED: *continue Arabic pagination*)**: <u>Written in third person</u>, this paragraph includes student's major/minor, college academic accomplishments, and future plans.

Capstone Submission Instructions

All capstone forms are fillable PDFs that work only when downloaded to a computer and then filled/signed in Adobe Acrobat. All students and faculty can download Adobe Acrobat software free of charge by requesting a license for Adobe Creative Cloud through USU's Information Technology Department.

Students submit their capstones by sending two important email messages to honors@usu.edu:

MESSAGE #1: Sent by regular email, this message should include **FOUR separate PDF documents**, as described below. Do not submit these documents with the Big File Transfer of your capstone project. Only the project itself will be submitted through the Big File Transfer in message #2. The four PDF attachments are described below:

1. **The Electronic Approval Form** must be completed and attached to message #1 as a single PDF file. Please name this file with your personal information: "Last name, First name_TERM YEAR_Electronic Approval Form" (*Note: change "TERM YEAR" to "SPRING 2023" or appropriate graduation term).*

2. **An unsigned copy of the Capstone Cover Page** must be completed and attached to message #1 as a single PDF file. This document **has no signatures** and is for Honors and USU records. Please name this file as follows: "Last name, First name_TERM YEAR_Capstone Cover Blank."

3. **A signed copy of the Capstone Cover Page** must be completed and attached to message #1 as a single PDF file. This document requires **all signatures except that of the Honors Program Executive Director** and demonstrates project approval. The signed Capstone Cover Page must include the electronic or physical signatures of your capstone mentor, DHA, and any additional committee members. Once your mentor and committee have approved your final capstone project, please send the cover sheet to them one at a time, asking each of them to indicate approval by signing electronically with Adobe Acrobat or physically, depending on your preference. Please name this file as follows: "Last name, First name_TERM YEAR_Capstone Cover Signed."

4. **The Honors Presentation Verification Form** indicates successful completion of your required public presentation or defense of the capstone project. It must be completed, signed, and attached to message #1 as a single PDF file. Please name this file as follows: "Last name, First name_TERM YEAR_Presentation Verification Form."

MESSAGE #2: Using the Big File Transfer system, please send to honors@usu.edu your complete capstone project. Remember that the only page you will <u>not</u> include for this email is the cover page, two copies of which were sent in message #1. Remember to include in your capstone project all sections listed in **bold (required)** in the "Important Formatting Guidelines" on page 16 of this handbook, in addition to any optional sections you have decided to include. Please name this PDF file as follows: "Last name, First name_TERM YEAR_Capstone."

Before you send your completed capstone to USU Honors, confirm that you have followed all formatting instructions and that all required sections are part of your PDF document. For detailed capstone formatting guidelines, return to page 16 of this handbook or go to the Honors Canvas course.

Remember that these submission messages are due to Honors no more than one week after the last day of classes in the student's graduation/completion term.

Frequently Asked Questions

Are students required to complete Honors capstone projects in their majors?

THEY USUALLY DO, BUT IT IS NOT REQUIRED. Designed as the culmination of every Honors student's undergraduate educational experience, the Honors capstone project typically focuses on some area of interest in the student's major (or minor) field, although a project focused on an intellectual passion outside the major is also acceptable. This flexibility allows students to develop close professional relationships with faculty in their academic disciplines or an area of particular interest. Because interdisciplinary learning is central to the Honors experience, students may also choose to pursue interdisciplinary projects, provided these projects extend disciplinary knowledge in meaningful ways. Students working in disciplines outside their majors often choose to add the DHA from the faculty mentor's home department, rather than the DHA from the student's home department, to the capstone committee.

Can students submit work completed in a major capstone or other course for Honors credit?

NO, USU's Academic Honesty/Integrity policy emphasizes that it is academically dishonest to reuse a paper already submitted for a grade or Honors in Practice work already submitted for Honors points with minor additions or changes. A student who proposes simply to change the introduction or conclusion of, add some examples to, or include illustrations with an existing paper is not proposing anything that can be considered the capstone of an Honors education. Such work is therefore unacceptable.

HOWEVER, a capstone project that extends a student's past work in new and deeper ways is indeed the capstone to an undergraduate education. Students often develop capstone ideas from successful Honors Mentoring Agreements, which students can productively use to test ideas and complete preliminary research in their areas of interest. Similarly, a required non-Honors capstone course in the major often allows a student to complete a chapter or groundwork for an Honors capstone. Students completing group capstone projects in Engineering or other fields may include the group project as part of their Honors capstone, but they must also do one or both of the following: (1) take the lead organizational and/or writing roles on a project and clearly define how those roles went substantially beyond the requirements of the major, and/or (2) identify a part of the project that they would like to explore further, complete the additional work for that exploration alongside the group project, and submit both the group project and the individual addition.

What if a student's capstone changes from what was originally proposed?

CHANGES OFTEN OCCUR—AND IT'S PART OF THE PROCESS. As students work on their capstone projects, they will almost certainly find that the project changes and develops in unexpected ways. Such changes are part of the research and creative process and should cause no concern, so long as the project continues to grow and progress. As students complete preliminary research and creative work, they often collaborate with their faculty mentors and committee members to narrow or refocus the project as necessary.

HOWEVER, if the project changes in fundamental ways, students may need to gain approval for and submit a new Honors capstone proposal, at the discretion of the faculty mentor. Such changes must earn approval of the entire committee and the Honors Program. No substantial project changes may be made after the second week of the student's final term.

What if a student cannot complete all of the work described in their Honors capstone proposal or work plan?

CHANGES TO THE WORK PLAN AND TIMELINE ARE PART OF THE PROCESS, and it is always acceptable for students to shift the focus of the project so that it is doable, if they do so with the help of their mentor and the agreement of their capstone committee. For example, if a student discovers that essential materials or equipment are unavailable, they can work with their mentor and committee to adjust the project

appropriately. Likewise, if a student initially proposes a project that turns out to be too ambitious, they can work with their committee to narrow the project to an appropriate scale. If students and committee members cannot come to an agreement about how to modify a project, the Honors Program Executive Director can help the group find a solution.

What happens if a student fails to complete their Honors capstone project?

IMMEDIATELY NOTIFY THE HONORS PROGRAM EXECUTIVE DIRECTOR AND WORK WITH AN HONORS ADVISOR TO WITHDRAW FROM THE CAPSTONE COURSE. Students graduate with Honors only if they complete their capstone projects, and the Honors Program makes every effort to help students succeed. When a student decides that they cannot complete their project and graduate with Honors due to extenuating circumstances, the program tries to mitigate the negative impact of this decision on the student. Students who cannot finish the project should (1) immediately notify the Honors Program and Executive Director of the decision, and (2) attempt to withdraw from HONR 4900 or another Honors capstone course with the help of an Honors Advisor. If students can no longer withdraw, the Honors staff will work with the student and the faculty mentor to navigate course grading when the student does not complete the capstone project and graduate with Honors.

Resources and Assistance

Advising: [Make an appointment](#) to talk with an Honors Academic Advisor or a peer advisor.

Scholarships: Please see the [Honors website](#) for a complete list. Scholarships specifically designed to support students working on capstones include the following:

- **Helen B. Cannon and Lawrence O. Cannon Awards**: These $1500 scholarships are awarded to two outstanding juniors preparing to complete capstones in the coming year. One scholarship goes to a student in the humanities, arts, social sciences, business, or education; the other is awarded to a student in science, technology, engineering, or math. The awards committee reviews capstone plans, achievements in Honors, and future goals. Spring and fall graduates are welcome to apply by FEBRUARY 1.
- **Morse Scholarship**: This $1000 scholarship is awarded to outstanding juniors working toward graduation with Honors in the coming year. The awards committee reviews capstone plans, achievements in Honors, and future goals. Apply by FEBRUARY 1.
- **Honors Research/Study Abroad Funds**: Students may apply for up to $500 per term to support research, conference travel, or other scholarly/creative activity and up to $1000 one time to support study abroad. Honors accepts applications on a rolling basis.
- **Undergraduate Research and Creative Opportunities (URCO) Grants:** Many Honors students apply for and win UCRO grants for their capstone research. There are three application windows throughout the year that correspond to each semester: Fall (June 1-15), Spring (October 1-15), and Summer (February 1-15). More information is available on the [Office of Research](#) website.

Community Spaces and Resources: Honors students are invited to relax in our small student lounge (LLC A, Room 112) and to make use of these additional resources:

- **Honors Capstone Archives:** Honors projects completed since 2009 are available through [USU Digital Commons](#). If you are interested in a particular pre-2009 capstone, please contact the Honors staff to make a request.
- **Library Computer and Study Room**: Honors students enjoy exclusive access to the Joyce Kinkead Honors Study Room (334H) on the third floor of the Merrill-Cazier Library. The room features computers and is open during regular library hours. Honors students can contact honors@usu.edu for the access code to the study room. We encourage students working on capstone projects to use this resource.
- **Honors Capstone Support on Canvas:** Honors creates and maintains a Canvas support course for all students working on capstone projects. All students who earn final approval on their Honors capstone proposals are automatically added to this cohort. Students may chat with peers, ask Honors staff specific questions, and find information about upcoming deadlines and opportunities in this course. Honors also holds occasional cohort meetings and lunch Q&As for this group.

Writing and Editing: Honors encourages students to make use of tutors in the USU Writing Center and the Science Writing Center, who are trained to help improve student writing at any level, from a paper for an introductory course to an Honors capstone project. While writing tutors can help students learn to proofread and edit effectively, the students themselves MUST do this polishing work on their capstone projects themselves and submit a polished, high quality final product.

Advice from Past Honors Students

Most Honors students find the capstone to be a very rewarding experience. Designing and managing a project and gaining the respect of admired professors is often the high point of an undergraduate career, and these projects help students achieve their future goals. Students use their capstones as writing samples for graduate-school applications, evidence of project-management skill in job applications and interviews, and examples of the kind of work they can do.

Many of our graduates advise students to pay particular attention to these five areas in the Honors capstone process:

1. **Develop relationships with your professors.**

   Professors can help you find projects you are interested in, connect you to opportunities and resources, provide expert feedback, and serve as valuable mentors. Capstone mentors can also write strong, specific recommendation letters because they know you and your work so well.

2. **Gain practical experience.**

   Capstones allow students to put knowledge into practice and learn to navigate real-world situations. As you prepare for and complete the capstone project, think about—and pursue— practical experiences that will help you reach your personal and professional goals in the future.

3. **Explore and refine possible capstone topics.**

   Honors Mentoring Agreements can help you discover topics that you are passionate about and can serve as springboards to your Honors capstone project. They can also introduce you to potential faculty mentors and give you experience that will make your capstone project stronger.

4. **Seek out an internship or study abroad.**

   Internships and study abroad experiences will help you discover your interests, gain valuable personal and professional skills, and make important connections. Honors Research and Study Abroad funding can help support these experiences, so remember to apply for financial support.

5. **Present or share your work.**

   Presenting your work at a conference or other public forum gives you the opportunity to gain valuable insight from professionals in your field, share your knowledge with others, and refine your communication skills. Honors Research Funding can help support this work, and your mentors can help you find opportunities to present or share your work with others.

Examples of Outstanding Capstones

These projects are available in the Honors Archive or in Digital Commons (2009-present). Please notice that some of these capstone projects have been published (citations and links included).

Caine College of the Arts

Art
- Olivia Brock, "Visions of Science: An Art Historical Exploration of Medieval Scientific Manuscripts," Spring 2022.
- Hannah Baldwin, "Shared Roots: An Examination of the Interconnectedness of Cultures and Nations Manifest Through Art and Design," Spring 2020.
- Janell Amely, "How Combining Constructivism and Open Source Code Can Open New Realms for Interactive Sculpture," Spring 2015.

Interior Design
- Laura Taylor, "Common Threads: An Examination of Common Threads of Design Value, Woven Together by Designers to Achieve Elevated Products Across Disciplines," Spring 2015.

Music
- Tanner Pruett, "Bridging the Divide Between Upper and Lower Classmen: Resources for Mentors and Freshmen in the Choral Education Program," Spring 2022.
- Gianna Patchett, ""Let Thy Conscience Act Her Part": Republican Motherhood in Civil War Popular Song," Spring 2021.
- Kirsten Barker, "Pastoralism, Loss, and Nostalgia: Vaughan Williams's *The Lark Ascending* as an Elegy for Environmental Disruption," Spring 2021.
- Collette Cook, "Becoming an Artistic Entrepreneur: The Nuts and Bolts of Running a Successful Artistic Venture," Spring 2019.

Music Therapy
- Marti Bowles, "African Drumming: An Examination of Drumming in Ghana, Its Intentions, and Application in Music Therapy Practice," Spring 2013.
- Rebecca Tanner, "Using Songwriting to Assist the Healing Process of Victims of Domestic Violence," Spring 2012.

Theatre Arts
- Aubrey Felty, "Margin of Error," Spring 2022.
- Claire Harlan, "Much Ado About Acting," Spring 2018.

College of Agriculture and Applied Sciences

Animal, Dairy, and Veterinary Sciences
- Heather Hamblin, "Analyzing Fear Free Veterinary Practices and Their Effectiveness in Managing Client and Patient Fear, Anxiety, Stress, and the Profitability of These Techniques," Spring 2019.
- Michaela Brubaker, "Fermentation of Prebiotics in Whole Food Powders by Probiotic Lactic-Acid Producing Bacterial Strains to Identify Symbiotic Combinations," Spring 2019.
- Sara Calicchia, "DNA Methylation Analysis of LIN28A and HAND1 in Electrostimulated Genetically Unmodified Porcine Fibroblast Cells Grown In Vitro," Spring 2015.

Applied Economics

- Viviane Baji, "The Relationship Between Water Shortage Concern and Age in Utah," Spring 2016.

Applied Sciences, Technology, and Education
- Jacob Briscoe, "Factors of Profitable Field Crop Selection," Spring 2016.

Landscape Architecture
- Nicholas Decker, "Public Art and Land Value: Spatial Relationships in Denver, Colorado," Spring 2015.
- Laura Patricia Reyes Romero, "Bioclimatic Design Guidelines: A Valuable Tool for Landscape Architects," Spring 2012.

Nutrition, Dietetics, and Food Sciences
- Anneka Walton, "The Evolution and Unraveling of the American Eugenics Movement," Spring 2022.
- Marin Easton, "A Study on the Impact of Diet on Unified Fire Authority Firefighter Performance," Spring 2022.
- Amanda Spackman, "EBT at Farmer's Markets is a SNAP," Spring 2013.

Plants, Soils, and Climate
- Lauren McFadden, "Antimicrobial Assay of Sagebrush Roots," Spring 2022.
- Kristen Bullough, "Effect of Wood Chips as a Component of Soilless Media on Growth and Nutrition of Food and Ornamental Crops," Spring 2018.
- Kevin Cope, "Developing an Optimized Light Spectrum for Plant Growth and Development," Spring 2013 – published at https://journals.ashs.org/hortsci/view/journals/hortsci/48/4/article-p504.xml (Cope, Kevin, and Bruce Bugbee. "Spectral Effects of Three Types of White Light-emitting Diodes on Plant Growth and Development: Absolute versus Relative Amounts of Blue Light" *HORTSCIENCE* 48.4 (2013): 504–509.)

College of Engineering

Biological Engineering
- Daniel Derrick, "Characterization of *RHODOPSEUSOMONAS PALUSTRUS* on Strains for the Production of Fixed Nitrogen Fertilizers for Mars," Spring 2020.
- Mitchell Heap, "Oxidative Protection Using Pluronic Micelles," Spring 2020.
- Tess Armbrust, "Designing a Synthetic Spider Silk Based Coating for Urinary Catheters to Reduce the Risk of CAUTIs," Spring 2018.

Civil and Environmental Engineering
- Jeffrey Kennedy, "Informed Polluters: A Comparison Between Pollutant Sources of Two Lakes and Resulting Remediation Strategies," Spring 2021.
- Paolo Consalvo, "Designing Technology for Different Scales of Irrigation Scheduling," Spring 2020.
- Ren Gibbons, "Right Hand Fork Pedestrian Bridge Final Report," Spring 2015.

Electrical and Computer Engineering
- Jarren Worthen, "Regression Tree Predictive Filter," Spring 2022.
- Riley Roberts, "English-to-IPA Transcription," Fall 2021.
- Thomas Bradshaw, "Comparison of Locational Beamforming Algorithms for Audio Targeting," Spring 2020.
- Sarah Watkins, "Software Defined Radio for CubeSat Communication," Spring 2018.

Mechanical and Aerospace Engineering
- Gabrielle van Brunt, "NG-Torque/Tension Testing of Bolts with Epoxy Primer," Spring 2022.
- James Mullen, "Small Spacecraft Thermal Control Louvers," Spring 2022.
- Carly Lofthose, "Coin Recovery II," Fall 2020.
- Marcus Cronin, "Rickshaw for Common Ground," Spring 2018.

College of Humanities and Social Sciences

Anthropology
- Daniel Sykes, "Queertility," Spring 2020.
- Amanda Cook, "Enamel Hypoplasia and Its Relation to Ethnicity and Socioeconomic Status in the 19th Century United States," Spring 2018.
- Brandi Jensen Allred, "Wickiup Site Structure: A Comparison of Aboriginal Wooden Features from the Great Basin and Colorado Plateau," Spring 2015.

English
- Carrigan Price, "Mining for Gold: Reimaging the Role of Curricular Texts in Writing Instruction," Fall 2020.
- Andrea Carlquist-Sagers, "Jefferson's Sensitivities: How Thomas Jefferson's Discussions on Race and Slavery are Influenced by Audience," Spring 2020.
- Emma Hallock, "Literary Labyrinths: Reading Like a Detective," Spring 2020.
- Morgan Sanford, "On the Mantelpiece for You: Letters in the Novels of Thomas Hardy," Spring 2018.

History
- Daniel Bertrand, "Building the Medieval Trebuchet," Spring 2019.
- Frankie Urrutia-Smith, "Crafting a Legacy - The Late Widowhood of Lady Elizabeth Cooke Hoby Russel, 1590-1609," Spring 2019.
- David R. Youd, "Gigantomachy in *Aeneid* 2," Spring 2015.

Journalism and Communication
- Libbie Anderson, "A Sentiment and Content Analysis of Facebook Posts Regarding Wild Horse Management," Spring 2022.
- Pono Suganuma, "Talking Stories: An Analysis of Haolewood's Attempts to Tell Hawai'i's Stories Through Movie Trailers," Spring 2018.

Political Science
- Madison Wadsworth, "The Patriot Act: How it Hurts Democracy," Fall 2020.
- Dawn Dimick, "The Effectiveness of Education Aid in Kenya: Using Women's Access to Education as an Indicator of Welfare," Spring 2020.
- Tessa Carver, "An Analysis of State Heterogeneity and Voting Patterns in the United States Senate," Spring 2018.

Sociology
- Rachel Jaggi, "Queering Gender: How Transgender College Students Navigate Gender," Spring 2011.

Language, Philosophy, and Communication Studies

- Corrine Clarkson-Heaps, "Saudades da Minha Terra Amada: Brazilian Immigrants in Utah," Summer 2021.
- Naomi Ward, "Get out, Hiroki Tanaka: Asian American Characters in Black Films and Black Activism," Spring 2020.
- Cassidy Hansen, "Between Commercial and Nonprofit: Communicating Social Business," Spring 2019.
- Chasen Robbins, "A Dane's Philosophical Attack and a Monk's Ladder: Comparing Kierkegaard's *PHILOSOPHICAL FRAGMENT* and St. John's Climacus' *LADDER OF DIVINE ASCENT*," Spring 2019.

College of Science

Biology
- Eliza Stewart, "Effect of Basal Diet and Black Raspberry Supplementation on Gene Markers of "Leaky Gut" in a Mouse Model of Colitis-Associated Colorectal Cancer," Spring 2022.
- Hailey Hatch, "Evolution of Floral Microbes and the Resulting Effects on Pollinator Preferences," Spring 2022.
- Kip Dooley, "Effects of Sex and Autism on Oxytocin Receptors in the Substantia Nigra of the Human Brain," Spring 2021.

Chemistry and Biochemistry
- Keith Wilson, "Utah Tick Surveillance: An Animated Public Service Announcement," Spring 2022.
- Autumn Slade, "Caffeine and Acetaminophen Concentration and Other Water Quality Parameters Along the Middle to Lower Bear River," Spring 2017.
- Jamie Kingsford, "Spa47 is an Oligomerization - Activated Type Three Secretion System (T3SS) ATPase from *Shigella flexneri*," Spring 2016.
- Brooke Siler, "Investigating the Importance of the N-Terminal Negative Residues in Human PRMT1," Fall 2013.

Computer Science
- Steven Scott, "High Dimensional Event Exploration over Multiple Simulations," Spring 2020.
- Michael Ward, "Algorithmic Trading for Cryptocurrencies," Spring 2018.

Geology
- Melissa Jackson, "Bracketing the Age of the Great Gallery Rock Art Panel in Horseshoe Canyon, Utah by OSL Dating of Associated Alluvial Terraces," Spring 2010.

Mathematics and Statistics
- Gerald Jones, "Optimal Control of Algae Biofilm Growth in Wastewater Treatment Using Computational Mathematical Models," Spring 2021.
- Bryce Frederickson, "Demystification of Graph and Information Entropy," Spring 2020.
- Lux Miranda, "The Two Types of Society: Computationally Revealing Recurrent Social Formations and their Evolutionary Trajectories," Spring 2020.
- Matthew DeAngelo, "Boolean Rank and Isolation Number of N-Regular Tournaments," Spring 2020.

Physics
- Christian Lange, "The Reflection of Light from Periodic Conducting Interfaces," Spring 2021.
- Robert Welch Call, "Carbon Nanotube Growth Via Spray Pyrolysis," Spring 2011.

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Communicative Disorders and Deaf Education
- Jessica Martin, "Language Revitalization: Strategies to Reverse Language Shift," Spring 2022.
- Madison Buntrock, "Does Talker Familiarity or Time of Testing Facilitate Sentence Recognition When Listening in Noise," Spring 2018.
- Kalley Ellis, "Classroom Amplification: The Necessity of Sound-Amplification in the Classroom," Fall 2014.

Kinesiology and Health Science
- Tucker Gamble, "Choice of End State Comfort Based on Time Spend at the Beginning State and the Precision Requirement of the End State," Spring 2020.
- Megan Elwood, "The Vestibular Contribution to Balance Control in Older Adults During Locomotion and Stair Negotiation," Spring 2018.
- Daisha Cummins, "The Influence of Prior Moto Actions on Motor Planning in Children with Autism Spectrum Disorder," Spring 2016.

Teacher Education and Leadership
- Tessa Tureson, "A=A: A Change in Social Movement and Leadership Should Equal a Change in Civic Education," Spring 2022.
- Michelle Pfost, "The Effectiveness of Storytelling in Mathematics Teaching," Spring 2015.
- Lindsay Prettyman, "Using Writing to Explore Human-Environment Interactions: An Integrated Approach," Spring 2013.

Psychology
- Emma Greenwood, "Detecting Accurate Emotions in Faces," Spring 2022.
- Haley Hand, "Self-Regulated Learning in a Pandemic: Implementing the SEE Framework in an Online Teaching Environment," Spring 2021.
- Audrianna Dehlin, "Young Women's Sexist Beliefs and Internalized Misogyny: Links with Psychosocial and Relational Functioning and Sociopolitical Behavior," Spring 2018.
- Elizabeth Wynn, "Modeling Change Trajectories for Mental Health Symptoms and Functioning During Psychotherapy," Spring 2018.

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Accounting
- Charity Parkinson, "Maximizing Returns for Investors Using Modern Portfolio Theory and the Efficient Frontier," Spring 2020.

Economics and Finance
- Madeleine Alder, "Anticipatory Intelligence Resilience Modeling Evaluation of ASPIRE Research Center," Spring 2022.
- Tanner Schulz, "Measuring the Intensity of MyMotivators™ / Whole Brain® Communication in Print Advertising," Spring 2022.
- Jacob Alder, "Limits of Growth: An Ecological Approach to Mainstream Economics," Spring 2020.

Management
- Bailey Burningham, "An Investigation of the Impact of Changing Social Norms on Female Clothing Attire Pre and Post WW II," Spring 2018.

- Gracie Arnold, "Women-Owned Business Branding: Consumer Behavior Based on Hedonic vs. Utilitarian Positioning," Spring 2015.

Data Analytics & Information
- Hayden Hoopes, "Curriculum Complexity and Graduation Rates at Utah State University," Fall 2021.
- J. Myles Powell, "The Impact of Virtual Private Network (VPN) on a Company's Network," Spring 2010.

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Watershed Science
- Katie Fisher, "Comparing Trophic Level Position of Invertebrates in Fish and Fishless Lakes in Arctic Alaska," Spring 2013.

Wildland Resources
- Emily Bonebrake, "Estimating Cattle Density Using Wildlife Cameras," Spring 2022.
- Emma Jones, "Environmental Racism in a Growing City: Investigating Demographic Shifts in Salt Lake City's Polluted Neighborhoods," Spring 2021.
- Anders Hart, "The Effect of a Surfactant Seed Coating on the Germination and Growth of Three Native Bulrushes," Spring 2019.