

University Honors Faculty-Mentor and Student Capstone Project Handbook

*A resource for faculty-mentors and students to guide them through
the capstone project experience.*



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Goal of the Capstone Project:

The goal of the University Honors capstone project is to enable an undergraduate student to explore, develop, and complete an original project resulting from faculty-mentored research or creative activity. Through this experience, a University Honors student contributes to the advancement of knowledge, or to a creative endeavor, consistent with the role of a research university.

Expectations of the University Honors Student:

Completion of the University Honors capstone project involves effort beyond ordinary coursework. The responsibility for developing and completing the project rests with the student, in collaboration with his/her faculty-mentor. Throughout the capstone project experience, the student must demonstrate initiative, dedication, and determination, and be willing to invest the time and intellect to produce an original project consistent with the ideals of University Honors.

Each student will be responsible for securing a faculty-mentor. In consultation with his/her faculty-mentor, the student should utilize the resources provided in HNPG150 to develop his/her capstone project. The student should also consult with his/her designated Honors Counselor, as needed, for guidance. If a student experiences challenges with his/her capstone project that are not being addressed by his/her faculty-mentor, or if a student is experiencing challenges with his/her faculty-mentor, it is the student's responsibility to contact his/her designated Honors Counselor immediately.

It is important to understand that, consistent with the nature of an open-ended, intellectual activity, not every project in research or creative activity will lead to clear-cut conclusions. One of the many roles of the faculty-mentor is to guide the student through the process of handling a failed experiment, a null hypothesis, inconclusive results, or any other obstacle related to the research or creative activity. "Unsuccessful" research can still be developed into a capstone project, as the student still learned something, and the "unsuccessful" research still contributes to the student's knowledge of the particular topic.

Each University Honors student will participate in one of three general types of University Honors capstone projects. A student may:

- 1.) Conduct **research** under the direction of the faculty-mentor, for example, a scientific experiment.
- 2.) Engage in **creative activity**, in which he/she creates an original work, for example, a collection of poetry.
- 3.) Conduct an analysis of a meaningful **experiential activity**, for example, a study-abroad experience. For this third type of capstone project, a student must evaluate his/her experience as part of a larger concept. The experience should become an example, not the focus, of the project, a lens into wider issues, not simply an exploration of personal growth. This type of project should involve research beyond that expected as part of the experience itself, for example, archival information, observational data, literature reviews, and/or interviews. A student choosing this pathway should outline a project with his/her faculty-mentor prior to the start of the experiential activity.

Student Note Regarding Expectations of the University Honors Student:

You can pursue any topic that interests you for your capstone project, within the parameters specified above. The topic of your capstone project can be related to your major, but it does not have to be. Similar to other assignments, you need to make a significant effort. The capstone project is a major undertaking, and you are responsible for developing a project and producing something original. However, "original" doesn't mean you have to do something that has never been done before.

Your project can be your own idea, or an idea related to the research of your faculty-mentor. Even if your experiment/research/activity is unsuccessful, you can still develop it into a capstone project. The capstone project is about discovery, not about whether or not you prove your original hypothesis.

Please contact your Honors Counselor if you are experiencing a challenge that your faculty-mentor isn't addressing. Although your faculty-mentor is your primary resource throughout your capstone project, University Honors provides a variety of tools and support to help you throughout your capstone project journey.

Expectations of the Faculty-Mentor:

Only a full-time faculty member (Assistant Professor, Associate Professor, Full Professor, LPSOE, LSOE, or Cooperative Extension Specialist) is eligible to serve as a faculty-mentor. The faculty-mentor serves a crucial role in the exploration, development, and completion of a student's capstone project, which typically, but not always, culminates in a written document and represents the final requirement for graduation with University Honors distinction. Listed below are suggestions that reflect a positive mentor-mentee relationship:

1. Attend a college/school-specific, faculty-mentor orientation at the beginning of fall quarter.
2. Read, and become familiar with, the "University Honors Faculty-Mentor and Student Capstone Project Handbook."
3. Mentor no more than three University Honors students during a given academic year.
4. Provide periodic progress reports regarding the student's research/creative activity to the Faculty Director of University Honors, who will serve as the instructor-of-record for a one-unit, letter-graded, in-progress, HNPG 199H course, which the student will enroll in during fall quarter, winter quarter, and spring quarter.
5. Listen to the student, as he/she explains his/her idea for a capstone project, and guide the development of forming the idea into a realistic project.
6. Communicate with the student about the methodologies that are needed to develop the idea, including, but not limited to, the process and timeline involved with obtaining Institutional Review Board (IRB) approval, as needed.
7. Introduce the student to other personnel in the applicable research program, establish clear reporting lines between the student and the other personnel, and explain the culture of the research group, if applicable.
8. Inform the student of the unpredictable nature of research; the need for individual initiative, accountability, and adaptability; the prospect that the project may not achieve expected results, even if the student performs at full capacity; and the process of responding to a failed experiment, a null hypothesis, or inconclusive results.
9. Inform the student of the expected time commitment for conducting the project and for writing the final document and assist the student with developing, and adhering to, a realistic timeline.
10. Apply for funding from University Honors, if necessary, to support the student's research/creative activity.
11. Establish timelines and expectations for periodic progress reports from the student and meet with the student on a regular basis, at least bi-weekly, to monitor progress and offer support and guidance regarding research/creative activity, content, editing, troubleshooting, discipline-specific formatting, IRB approval (if applicable), research results, timeline, and expectations.
12. Review drafts of the abstract, prospectus, all project components, and the final project and provide feedback.
13. Assist the student in preparing his/her required oral presentation or poster presentation of the capstone project, help the student to identify an appropriate venue for the oral

presentation or poster presentation (e.g., discipline-specific conference; Undergraduate Research, Scholarship, and Creative Activity Symposium; classroom setting; lab meeting; community event; etc.), and attend his/her oral presentation or help the student to identify another faculty member to attend.

14. Complete the University Honors Capstone Project Rubric (appended), which will be e-mailed to you upon the student's submission of his/her capstone project and which will be due no later than the end of Week 10 of the quarter of the capstone project submission. The rubric will be used solely as an evaluation tool for the capstone project and not as a mechanism for assigning a grade for HNPG 199H.
15. Accept the invitation to be present at the University Honors Cording Ceremony, which will occur near the end of spring quarter.
16. Agree to have University Honors archive the student's research/creative activity in eScholarship, the open-access repository for UC scholarly works, upon submission of the capstone project, or no later than within three years of submission of the capstone project, in accordance with University-wide policy.
17. Contact the student's University Honors Counselor, the Administrative Director of University Honors, or the Faculty Director of University Honors with any issues or concerns related to the student and/or his/her capstone project.

At the beginning of fall quarter, the faculty-mentor will be required to attend a college/school-specific, faculty-mentor orientation, conducted by the Faculty Director of University Honors. At the orientation, the faculty-mentor will be required to sign a University Honors Faculty-Mentor Contract, which outlines the expectations listed above.

Student Note Regarding the Expectations of the Faculty-Mentor:

Although the information in the "Expectations of the Faculty-Mentor" is a guide for the faculty-mentor, it is also intended for you, the student. Ensure that both you and your faculty-mentor are in agreement about your expectations of one another. Although the aforementioned information provides a general overview of the support that a faculty-mentor can provide, you should also consider what type of mentoring relationship will work best for both of you. For example, you may prefer to work with a mentor who provides detailed instructions and feedback, or you may prefer to work with a mentor who provides more freedom and only general support. Before selecting a faculty-mentor, confirm that he/she will be available, on campus, and have the time to mentor you throughout the duration of your capstone project. Define what feedback, guidance, communication styles, and timeline work best for both of you. If you have concerns or challenges with your faculty-mentor that you are unable to resolve with the faculty-mentor, please contact your University Honors Counselor immediately.

Support provided by University Honors

University Honors will support the development of each student, in the following ways, to prepare him/her to conduct research, engage in a creative activity, or participate in an experiential activity at a level worthy of University Honors distinction. The outcome of this distinctive work will be the completion of a capstone project.

1. Provide assistance to each student during the development of the capstone project, including:
 - a. Providing each student, through Honors coursework, Honors counseling, and Honors events, with resources and opportunities for interacting with faculty members, in an effort to select a faculty-mentor.
 - b. Assigning each student to submit an abstract (Capstone Project Proposal Form), prospectus, and timeline related to his/her proposed capstone project in the HNPG 150 course required either fall quarter or winter quarter.
 - c. Exposing each student to the process of discovery in HNPG 150 and how to respond to difficulties during the discovery process.

- d. Requiring each student to enroll in one unit of HNPG 199H during each of his/her final three quarters at UCR.
2. Train each student, in HNPG 150, to optimize appropriate research materials and resources, including, but not limited to:
 - a. Navigating databases.
 - b. Accessing Intercampus Library Loans.
 - c. Reviewing special collections.
 - d. Developing bibliographic management tools.
 - e. Utilizing proper source citations based on his/her discipline-specific style-guide.
 - f. Distinguishing reputable and current academic sources.
 - g. Contacting appropriate scholars as primary resources.
 - h. Identifying, and applying for, research grants, scholarships, and other funding sources.
3. Refer each student to the Writing Support Program, in the Academic Resource Center, as needed, to write and review the capstone project.
4. Communicate with the faculty-mentor to foster a team effort in assisting the student with the capstone project.

Student Note Regarding the Support Provided by University Honors:

Although University Honors provides numerous resources related to the capstone project, it is your responsibility to access them. The more you apply yourself in HNPG 150, the more you ask questions, the more you communicate with your Honors Counselor and your faculty-mentor, the smoother the capstone project process will be. At times, students attempt to resolve challenges with the capstone project themselves and do not notify University Honors about the challenges until it is too late to resolve them. Occasionally, students refrain from telling anyone about their challenging experiences and sacrifice their own health, wellness, academics, and/or relationships. When students do not seek timely assistance with the challenges they face, the options available to resolve those challenges become limited and, occasionally, additional challenges result. The University Honors team is prepared to assist you with any challenge you encounter. There will never be a penalty for seeking assistance. We will treat your concern with confidentiality and work with you to resolve any challenges you may encounter. You have an entire team of people ready to assist you, but you need to let us know how we can help you.

Timeline for the Capstone Project

The capstone project typically takes place during the student's final two years at UCR. While some students may initiate their projects earlier, the steps required to initiate a capstone project begin with the development of an original, creative idea (or a hypothesis) and a framework to conduct the project.

Each University Honors student is encouraged to begin thinking about his/her capstone project as early as his/her first year. University Honors Counselors encourage each student to consider his/her general areas of interest and then to think of a specific issue, topic, question, problem, or hypothesis related to that general area of interest. As each student progresses through HNPG 16/17/18 and HNPG 2W during his/her first two years in University Honors, he/she is exposed to interdisciplinary thinking and civic engagement, in an effort to help the student develop and/or refine his/her idea for an eventual capstone project.

The timing of when the capstone project begins varies across the disciplines. In the natural and social sciences, it is not unusual for a student to initiate a research experience early on, resulting in a full two (or three) years of research in a laboratory or field environment. Honors students in the Bourns College of Engineering (BCOE), who choose to use their senior design projects for their capstone projects, will follow the timeline required to complete the senior design project in their major, which is explained in more detail in the following section. In contrast, a student in the arts or humanities may require less formal preparation, and the majority of the creative output can be completed in the final year. Regardless of when

a student begins his/her research, by his/her third year in University Honors, he/she is required to take HNPG 150, which will introduce him/her to how research is conducted in various disciplines and to the elements that will constitute his/her capstone project. Continuing third-year University Honors students will take HNPG 150 during fall quarter, and incoming third-year and transfer students will take HNPG 150 during winter quarter. Regardless of when the course is taken, each student will be provided resources in HNPG 150 for identifying and securing an appropriate faculty-mentor.

A student's fourth year in University Honors is designated for a student to conduct his/her research or creative activity and to complete his/her capstone project. Involvement of the faculty-mentor is crucial during this period, in order to ensure successful and timely completion of the project. Throughout a student's fourth year, the faculty-mentor should be available to meet regularly with the student, preferably bi-weekly; to offer information, support, and guidance throughout the research process and the writing process; to assist the student with overcoming obstacles and challenges; to proactively communicate with the student and his/her University Honors Counselor regarding any concerns; to offer suggestions pertaining to the format of the content; to review drafts of the project and offer constructive feedback; to generally encourage the student throughout the entire process; and to provide periodic progress reports to the Faculty Director of University Honors.

A student's capstone project is due no later than 12:00 p.m., on the Thursday of Week 6, of his/her quarter of graduation (usually spring quarter). This deadline may differ for BCOE Honors students (as outlined in the section to follow).

Student Note Regarding the Timeline for the Capstone Project:

The capstone project is the final requirement for graduation with University Honors distinction, but it is also a unique opportunity for you to explore, with depth and complexity, a passion or area of interest. That passion or area of interest can be related to your academic interests, extracurricular interests, social interests, political interests, hobbies, or any other area of interest. The capstone project is also an experience that will help to differentiate you from other students on a graduate school application, a professional school application, or a job application. In all cases, the capstone project is an opportunity for you to explore a topic and become engaged in the process of creating and/or innovating knowledge related to that topic. You should carefully consider what you truly want to discover and then develop a timeline to take you to your destination.

While we've presented you with a general timeline, only you know what other obligations you have in your life. Consider all of your other obligations and responsibilities as you work with your faculty-mentor to develop a realistic timeline for the completion of your capstone project. As with the entire capstone project process, University Honors offers you several tools and resources to help you establish a realistic timeline for your unique project. Work closely with your faculty-mentor, Honors Counselor, and Honors Faculty Fellows to develop your capstone project idea and to develop a timeline that will allow you to enjoy, and benefit from, the capstone project process at a pace that you can realistically manage.

Using an Engineering Senior Design Project for the Capstone Project

While not mandatory, a BCOE Honors student can use his/her senior design project as his/her capstone project for the 2019-2020 year¹. He/she still has the option to complete a separate capstone project, but should note that he/she will also still be required to complete a senior design project for his/her major as a requirement of BCOE. All BCOE Honors students complete their senior design project at some point during their senior year, and each student should ask his/her academic advisor for details pertaining to the timeline. This generally involves taking one or more senior design courses in the senior year, under

¹ After the 2019-2020 year, BCOE Honors students will not be allowed to use his/her senior design project as his/her capstone project.

the direction of a senior design project instructor, and completing the senior design project within the span of those courses.

If opting to use the senior design project as a capstone project, the following items count for both the senior design and capstone project:

- The senior design project instructor can serve as the faculty-mentor for the capstone project.
- The senior design course will require an oral presentation and this will also satisfy the capstone project oral presentation requirement. (The student will need to submit proof, as outlined in the capstone formatting & submission instructions.)

If opting to use the senior design project as a capstone project, the following requirements will have a few alterations:

- When senior design projects involve multiple students, the Honors student will be required to indicate in the “Acknowledgements” section of the capstone project that the project was completed in satisfaction of a senior design project, identify his/her group members, and explain his/her individual contribution to the project.
- As most senior design projects are completed in the last quarter of the graduation year (generally spring quarter), BCOE Honors students may turn in their capstone projects by Thursday, at 12:00 p.m., of Week 10 of that quarter, instead of by the regular deadline of Thursday, at 12:00 p.m., of Week 6. However, there will be no extensions granted past the Week 10 deadline. Students are, of course, more than welcome to turn in their capstone projects earlier.

Capstone Project Submission Process and Formatting

The capstone project must be a minimum of 15 pages in length, excluding references. Given the variety of research, creative activities, and experiential activities that exist, the student, together with his/her faculty-mentor, will determine the appropriate content and format of the final project. In general, the format should be consistent with the discipline-specific style guide. The student will be required to submit his/her capstone project electronically, according to the instructions provided by the University Honors Office, with the exception of the title page, which will be submitted in hard copy, also according to the instructions provided by the University Honors Office. The title page will need to be signed by the student’s faculty-mentor, indicating that the faculty-mentor approves the capstone project as honors-quality work. University Honors will obtain the Faculty Director’s signature on behalf of the student. With the faculty-mentor’s approval, a student’s capstone project will be archived in eScholarship, the University of California’s open-access institutional repository.

In addition to the electronic submission of the capstone project and the hard copy of the title page, the student will also be required to make an oral presentation or poster presentation of his/her project, no later than the capstone project submission deadline. The oral or poster presentation must be at least 15 minutes long and presented in an appropriate venue, such as: a discipline-specific conference; the Undergraduate Research Symposium, which is the preferred venue for the oral or poster presentation; a classroom setting; a lab meeting; a research-group meeting; a performance; an exhibition; or an appropriate community setting. The oral or poster presentation must be attended by the student’s faculty-mentor or another UCR faculty member, regardless of where it is presented. The student will need to submit proof of his/her oral or poster presentation, according to the instructions provided by the University Honors Office.

The step-by-step capstone project submission process, general formatting guidelines, applicable forms, and sample capstone projects can be found at: http://honors.ucr.edu/current_students/capstone/

Student Note Regarding the Capstone Project Submission Process and Formatting:

There is no page limit for the capstone project, but it must be at least 15 pages long, not including references. The capstone project is not evaluated on quantity, but quality. While University Honors provides the general format for your title page, abstract, acknowledgements, and table of contents, in the form of fillable documents that are available on the University Honors website, we defer to you and your faculty-mentor for all other formatting aspects of your capstone project.

Capstone Projects with Shared Authorship and/or Collaboration with Others

In rare cases, Honors students may work on a capstone project that involves shared authorship and/or collaboration with others, including other Honors students. In these circumstances, which must be approved in advance by the Faculty Director, Honors students will be required to indicate in the “Acknowledgements” section of the capstone project that the project was completed as a group-project, identify his/her group members, and explain his/her individual contribution to the project. If a capstone project results in a paper that is authored by multiple parties for submission to a publication, the Honors student will be required to complete the items indicated above and submit a project separate from the paper submitted for publication, which highlights his/her contribution. If the Honors student is the first-author of a paper submitted for publication, the paper can also be submitted as the capstone project. Students who have questions or concerns about this matter should contact their designated Honors Counselor.

Capstone Project Copyrights

The University of California and Capstone Project Copyrights

Per the University of California policy, the copyrights to student works are generally retained by students, and not the university, as outlined at <http://copyright.universityofcalifornia.edu/ownership/works-created-at-uc.html>. University Honors does not own any copyrights to any capstone projects, under any circumstance. Questions about copyrights should be directed to the Office of Scholarly Communications, at <https://osc.universityofcalifornia.edu/>.

University of California’s Open Access Policy and eScholarship:

The University of California has an Open Access Policy for Senate and non-Senate members, which can be found at <https://escholarship.org/ucopolicies>. When a student’s capstone project is made accessible through eScholarship, it is not being “published” in the traditional sense. It is, however, being deposited into a digital library, making it accessible to the general public. If a student’s capstone project has any prior, pending, or potential publication elsewhere, the student should contact the publisher and check if there are any rules/conflicts pertaining to submitting the work to an open access platform.

If the student and/or faculty-mentor and/or any other relevant parties do not wish for the student’s capstone project to be uploaded to eScholarship upon submission of the capstone project, the student can indicate that preference on his/her capstone project submission form.

Student Note Regarding Capstone Copyrights:

Generally speaking, neither the University of California nor University Honors owns copyrights to your capstone project. When your capstone project is submitted to eScholarship, it is not being published; it is merely being made accessible via the Internet. However, if you, your faculty-mentor, and/or any relevant contributor(s) have any concerns with having your capstone project submitted to eScholarship, you can contact the Office of Scholarly Communications. If you determine that there is an issue with your capstone project being submitted to eScholarship, you can indicate on your capstone project submission form that you do not want your capstone project uploaded to eScholarship upon submission.

	1	2	3	4	5
	Unacceptable	Needs significant improvement	Satisfactory Does an adequate job of meeting the criteria	Good Does a good job of meeting the criteria	Excellent Goes above & beyond the criteria
RESEARCH, CREATIVE, AND/OR EXPERIENTIAL CAPSTONE					
Capstone Content					
65%					
	<p>Capstone demonstrates evidence of originality, creativity, and innovation Score should indicate the degree to which each of the 3 markers are demonstrated in comparison to similar types of established works within that genre/discipline, with the consideration that it is an undergraduate capstone project.</p> <p>Capstone demonstrates evidence of superior academic merit Score should indicate the degree to which it is academically rigorous, has a comprehensive literature review, is well-referenced, and other markers applicable to that genre/discipline.</p> <p>The research, creative, and/or experiential question is clearly identified within an academic framework Score should indicate the degree to which goals/objectives/hypothesis are clear & effective and contexts are identified and developed.</p> <p>Methodology/approach appropriate for topic and discipline Score should indicate the degree to which the methodology is comprehensive & well-developed and the topic is clearly contextualized among sources and materials cited</p> <p>Supporting evidence and body of knowledge Score should indicate the degree to which the body of knowledge is thoroughly discussed; evidence is sufficient and well-utilized; contrasting perspectives are discussed; information is evaluated, analyzed, and synthesized.</p> <p>Conclusions and implications Score should indicate the degree to which conclusions and implications are well presented and developed, assertions are qualified and well supported, and the significance of the project is clearly and well stated.</p> <p>There are no grammar, spelling, punctuation, or discipline-specific formatting errors. Organization is clear and effective. Sources and citations are used correctly throughout the content. Language clearly and effectively communicates ideas through clarity, style, diction, and readability, as appropriate to the genre/discipline.</p>				
10%	Writing				
5%	Capstone Oral Component				
	<p>Oral Presentation Score should be filled as follows: (1) Completed an oral presentation past the deadline in an informal setting (such as a classroom, lab meeting, community setting, or other venues as listed in the Honors approved list) - 1 (2) Completed an oral presentation past the deadline in a formal setting (such as a professional meeting, conference, or other venues as listed in the Honors approved list) - 2 (3) Completed an oral presentation on time in an informal venue (such as a classroom, lab meeting, community setting, or other venues as listed in the Honors approved list) - 3 (4) Completed an oral presentation on time in a formal venue (such as a professional meeting, conference, or other venues as listed in the Honors approved list) - 4 (5) Completed an oral presentation according to the criteria in (4) and also received a grant or award for his/her presentation at the formal venue - 5</p> <p>Student practiced excellent time management in progressing on his/her capstone by setting, reflecting upon and adjusting priorities and timelines (i.e., capstone and progress goals were all completed on time or early). Student was able to work independently as needed. Student was able to work collaboratively as needed. Student was a "self-starter" and consistently demonstrated initiative. Student was able to identify potential issues, causes, and solutions for his/her capstone project and deal with these items in a professional manner.</p>				
10%	Relationship w/capstone project				
10%	Relationship w/Faculty-mentor				
TOTAL SCORE:					

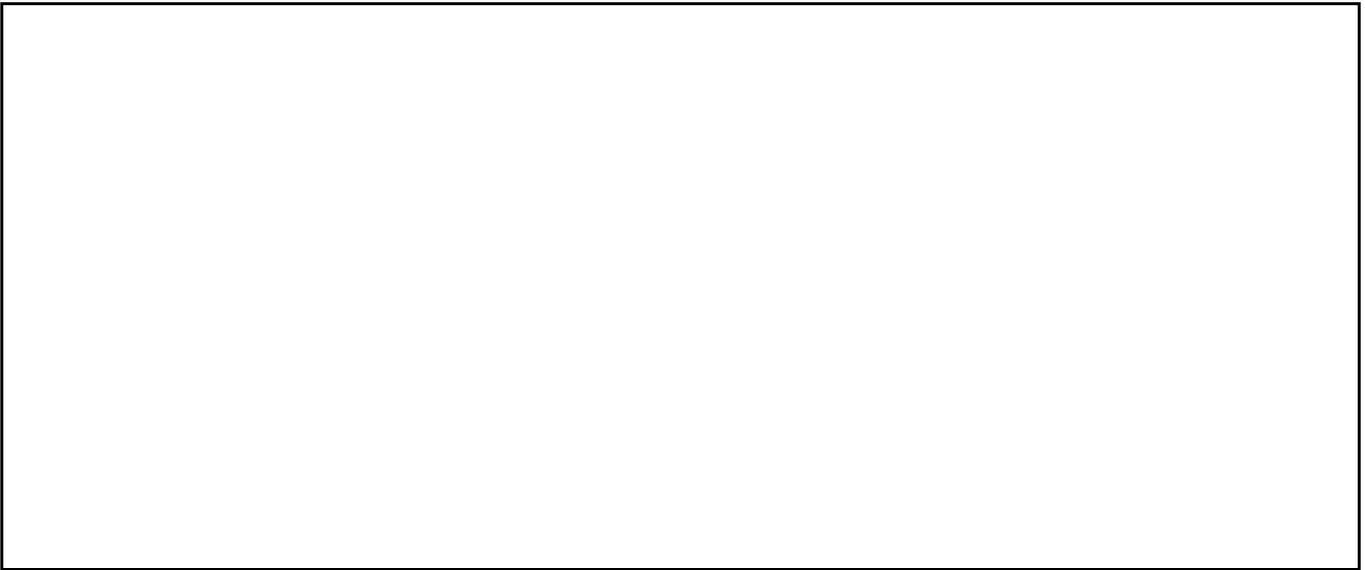
Timely Submission of Capstone	YES	NO
Did the student turn in his/her capstone by the capstone deadline of noon on Thursday in week 6 of the quarter they graduate ?		

*NOTE: This rubric is not intended to provide a letter grade for the student's capstone or his/her HNP199H course. It is an evaluative tool to provide Honors and the student with insight into the quality of their capstone and a means to determine a student's possible nomination for "High Distinction" or "Highest Distinction."

*SUBMISSION: Faculty-mentors will receive an electronic link to this rubric once an Honors student submits his/her capstone.

Highest and High Distinction Capstone Nominations:

Students who have a score of at least 95 on the capstone rubric are eligible to be nominated to graduate with "Highest Distinction" from University Honors. In order to nominate your student, please detail the reasons you believe the student should be considered for "Highest Distinction." Capstones in this category should contribute substantially to their academic discipline; be of significant length, scope, and ambition; and worthy of publication in a peer-reviewed journal or equivalent platform, based on discipline. Students who turned in their capstone after the deadline, regardless of total score, will be ineligible for nomination.

A large, empty rectangular box with a black border, intended for providing details for a "Highest Distinction" nomination.

Students who have a score of at least 90 on the capstone rubric are eligible to be nominated to graduate with "High Distinction" from University Honors. In order to nominate you student, please detail the reasons you believe the student should be considered for "High Distinction." Capstones in this category should include all criteria for "Highest Distinction," but to a lesser degree. Students who turned in their capstone after the deadline, regardless of total score, will be ineligible for nomination.

A large, empty rectangular box with a black border, intended for providing details for a "High Distinction" nomination.