Capstone Project Advisor/Mentor Handbook

Honors Program
Clarkson University

2021 Version 2
## Contents

Welcome

Honors Program Mentor-Mentee Relationship: Expectations and Mentoring Resources

Honors Program Capstone Mentor Expectations

Honors Program Capstone Expectations for Students in Student-Mentor Relations

What are Honors Program Students Seeking in Mentors?

Mentoring Resources/Websites

Honors Curriculum Overview and General and Capstone Timelines

Four Year, Early Graduation, and Away Semesters Coursework Plans

General Honors Timeline – Gantt Chart

Typical Timetable for the 3rd and 4th Year Honors Capstone Project Activities

Fall Junior Year

Spring Junior Year (HP 390)

Jr/Sr. Summer

Fall Senior Year (HP 490)

Spring Senior Year (HP 491 optional)

Honors Capstone Projects

Overview

**Listing and Description of Types of Capstone Projects**

Traditional Capstone Projects

**Business Plan Projects**

Creative Projects

Descriptive or Historical Projects

Engineering Design Projects

Qualitative Research Projects

Quantitative Research Projects

Alternative (Non-traditional) Capstone Projects

Honors Internship/Co-Op Capstone Projects

Honors Capstone Co-op/Internship Requirements

**Honors Signature Work Capstone Projects**

General Expectations/Requirements of Honors Program Signature Work Capstone Project

Guide to Capstone Project Proposals and Final Reports
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submission of the Honors Capstone Project Report</td>
<td>10</td>
</tr>
<tr>
<td>Evaluation of the Honors Capstone Project Report</td>
<td>10</td>
</tr>
<tr>
<td>Capstone Resources for Honors Program Students and Faculty Mentors</td>
<td>11</td>
</tr>
<tr>
<td>HEES Scholarship for Students</td>
<td>11</td>
</tr>
<tr>
<td>Faculty Mentor Resources</td>
<td>11</td>
</tr>
<tr>
<td>Summer Research Program</td>
<td>11</td>
</tr>
<tr>
<td>Capstone Project Forms and Considerations</td>
<td>13</td>
</tr>
<tr>
<td>Student Agreement</td>
<td>13</td>
</tr>
<tr>
<td>Advisor Agreement</td>
<td>13</td>
</tr>
<tr>
<td>Human Subjects (IRB) Approval</td>
<td>14</td>
</tr>
<tr>
<td>Confidentiality of Information</td>
<td>14</td>
</tr>
<tr>
<td>Use of Materials Copyrighted by Others</td>
<td>14</td>
</tr>
<tr>
<td>Honors Program Office Hours and Staff</td>
<td>15</td>
</tr>
<tr>
<td>Honors Program Office Hours</td>
<td>15</td>
</tr>
<tr>
<td>Honors Program Staff and Roles</td>
<td>15</td>
</tr>
<tr>
<td>List of References</td>
<td>15</td>
</tr>
</tbody>
</table>
Welcome

Primarily, THANK YOU for being an Honors Program Capstone Project mentor/advisor (we will use capstone “mentor” or “advisor” interchangeably in this document). It would be extremely difficult, if not impossible, to have an honors program without the dedication, passion, and compassion of mentors to help guide students through their capstone experiences and grow personally and professionally. We recognize that being an undergraduate mentor takes time, patience, and resources, but we also hope that you find your efforts rewarded as you work with motivated, talented, creative, thoughtful, and passionate honors students.

The goal of this handbook is to outline the minimum expectations for being an honors capstone project mentor and to provide a resource on the Honors Program Overall Curriculum and the Capstone Project expectations, timelines, and resources available to honors students and their capstone mentors. This handbook provides minimum mentor and mentee expectations and resources, an overview of the honors curriculum for reference, details on the honors capstone project, proposal, and reporting requirements, and information on the honors program office and office staff.

Again, thank you for serving as an Honors Program Capstone Project mentor. We hope this handbook is a useful resource, but feel free to reach out to us if you have any questions or concerns. We want to make this experience as efficient, effective, and rewarding as possible.

Honors Program Mentor-Mentee Relationship: Expectations and Mentoring Resources

Honors Program Capstone Mentor Expectations

- Aid in developing a proposal for the capstone project:
  - Guiding the student in framing a question that is both feasible and of appropriate scope;
  - Specifying project methods and strategies;
  - Identifying useful sources in the literature;
  - Recommending other faculty with whom the student should consult;
  - Ensuring that the proposal meets the Honors Program requirements.

- Communicate
  - Your expectations for work-setting behavior including but not limited to effort, environmental health and safety protocols, compliance protocols (IACUC, IRB, etc.), and professional behavior;
  - Your communication style and approach regarding the structure of regular check-ins, as the Honors Program requests that regular communications and meetings occur throughout the mentor-mentee relationship;
  - Your mentoring style (hands on / off, scholarly / pedagogical / research approach) and any mentoring or supervisory hierarchy in your group/lab;
  - Capstone project expectations in terms of effort, dependence / independence / interdependence continuum, timelines, cut-offs, contingencies, etc.;
  - Your expectations, plans, and authorship for project presentations and post-capstone project report publications
Capstone Project Advisor/Mentor Handbook

● Supervision for the capstone project:
  ● Meet regularly with the student to evaluate progress on the student’s project;
  ● Help establish deadlines for the completion of various stages of the project;
  ● Provide constructive criticism of the student’s work in a timely fashion including drafts of proposal and final reporting;
  ● Give encouragement to the student;
  ● Identify and discuss problems with the student;
  ● Complete progress reports;
  ● Report serious problems to the Honors Program.

● Assist in the preparation of the capstone project and the final presentation of the project:
  ● Ensure that student prepares the capstone project according to guidelines as it is submitted to the Honors Program for review by the appointed independent expert readers;
  ● Mentor the student in preparation for the oral presentation of the capstone project.

● Work with the honors capstone student in a professional and compassionate manner with the highest professional standards and following university policies, procedures, and best practices regarding responsible conduct in research, ethics, harassment, diversity, equity, inclusion, accessibility.

Honors Program Capstone Expectations for Students in Student-Mentor Relations
● Acknowledge, understand, and take ownership and responsibility for meeting the capstone project requirements of the Honors Program, which includes the required courses, HP 390 and HP 490, and research, writing, and presentation of the capstone project itself.
● Find a capstone mentor with whom you regularly communicate and meet and have a discussion of best ways to communicate and frequency of meetings.
● Develop a focused and feasible project in coordination with your mentor.
● Present work-in-progress on a regular basis and along established timelines for both the capstone project mentor and the honors program.
● Conduct research responsibly and ethically following Clarkson Universities policies, procedures, and best practices;
● Adhere to professional norms established by your mentor, Clarkson University, and their field / profession.

What are Honors Program Students Seeking in Mentors?
In recent honors program courses, early third year honors students were asked about key characteristics they would like to see in their mentors. The following is a bullet list of common responses (in no order):
● Assistance with professional networking and promotion of students
● Help in understanding ethical, legal, social, and financial impacts of their work
● Mentoring and teaching for dependence to independence
● Mutual respect
● Previous experience mentoring other undergraduate and graduate students
● Previous experience publishing including publishing with students
• Supportive, timely, and direct/blunt critiquing of student work

Mentoring Resources/Websites
1. Institute for Broadening Participation (IBP) Pathways to Science: https://www.pathwaystoscience.org/manual.aspx?sort=7&subsort=74#298

Honors Curriculum Overview and General and Capstone Timelines
This section provides an overview of the Honors Program Curriculum and general timelines we feel are important knowledge for honors program capstone project mentors. We hope this provides mentors with a general appreciation of the Honors Program student academic experience. We have provided 4-year and alternative coursework plans, general timeline, and typical 3rd and 4th year timeline monthly timelines.

For reference, the honors program courses of HP 100, 101, 200, 201, 300, and 400 replace the Clarkson Common Experience Knowledge Areas requirements. In essence, these courses do not place an additional total course credit burden on honors program students.

Furthermore, with the inclusion of 3-credit HP 390 (Capstone Project Proposal) and the 3-credit HP490 (Capstone Project Report) courses, the honors program students can set aside 6 credits of effort (~270 hours) from capstone project inception to completion (i.e., initial discussions with mentors, literature reviews, proposal writing and revisions, capstone project product work, and capstone project report writing, revisions, and presentations). It is entirely possible, encouraged, and acceptable that honors students may take departmental independent study / research credit prior to and during their 3rd and 4th year honors program efforts.

Four Year, Early Graduation, and Away Semesters Coursework Plans
The following information are the four-year coursework plans, and other scenario plans, for required courses for honors program students.

Acronyms and Course:
• CGI = Contemporary and Global Issues Knowledge Area
• CSO = Cultures & Society Knowledge Area
• CP = Communication Points (need 6 CP for graduation)
• HP 100 = The Social and Ethical Implications of Research I
• HP 101 = The Social and Ethical Implications of Research II
• HP 200 = The Sophomore Problem Course
• HP 201 = The Sophomore Project Course
• HP 300 = Honors Program Junior Science Seminar
• HP 390 = Honors Program Capstone Proposal
• HP 391 = Honors Program Capstone Proposal (Independent Study Version)
• HP 400 = Honors Program Senior Modernity Seminar
• HP 490 = Honors Program Undergraduate Thesis
• HP 491 = Honors Program Undergraduate Thesis (Independent Study Version)
### Traditional Honors Program 4 Year Plan

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Year</td>
<td>HP 100 (1 CP; 4 credits)</td>
<td>HP 101 (1 CP; 4 credits)</td>
</tr>
<tr>
<td>2nd Year</td>
<td>HP 200 (1 CP; 3 credits)</td>
<td>HP 201 (1 CP)</td>
</tr>
<tr>
<td>3rd Year</td>
<td>HP 300 (CGI, CSO, UNIV, 1 CP; 3 credits)</td>
<td>HP 390* (2 CP; 3 credits)</td>
</tr>
<tr>
<td>4th Year</td>
<td>HP 490* (2 CP; 3 credits)</td>
<td>HP 400 (CGI, CSO, UNIV, 1 CP; 3 credits)</td>
</tr>
</tbody>
</table>

**Notes:** HP 390 and HP 490 are designed to provide dedicated time to work on your capstone project ranging on inception of idea, reading of literature, doing work, and drafting, revising, and finalizing the required proposal and thesis document. * = The workload for a 3-credit course is about 135 hours of effort towards the above capstone project activities including the writing of the proposal and thesis document. All honors graduates must have their proposal and thesis document reviewed and evaluated by an independent reader.

### Graduate 1 Semester Early (Fall Graduation) Honors Program 4 Year Plan

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Year</td>
<td>HP 100 (1 CP; 4 credits)</td>
<td>HP 101 (1 CP; 4 credits)</td>
</tr>
<tr>
<td>2nd Year</td>
<td>HP 200 (1 CP; 3 credits)</td>
<td>HP 201 (1 CP)</td>
</tr>
<tr>
<td>3rd Year</td>
<td>HP 300 (CGI, CSO, UNIV, 1 CP; 3 credits)</td>
<td>HP 390* (2 CP)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HP 400 (CGI, CSO, UNIV, 1 CP; 3 credits)</td>
</tr>
<tr>
<td>4th Year</td>
<td>HP 490* (2 CP; 3 credits)</td>
<td>No Longer Enrolled</td>
</tr>
</tbody>
</table>

**Notes:** * = HP 390 and HP 490 are designed to provide dedicated time to work on your capstone project ranging on inception of idea, reading of literature, doing work, and drafting, revising, and finalizing the required proposal and thesis document. All honors graduates must have their proposal and thesis document reviewed and evaluated by an independent reader.

### Graduate 1 Year Early Honors Program 4 Year Plan

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Year</td>
<td>HP 100 (1 CP; 4 credits)</td>
<td>HP 101 (1 CP; 4 credits)</td>
</tr>
<tr>
<td>2nd Year</td>
<td>HP 200 (1 CP; 3 credits)</td>
<td>HP 201 (1 CP)</td>
</tr>
<tr>
<td>3rd Year</td>
<td>HP 300 (CGI, CSO, UNIV, 1 CP; 3 credits)</td>
<td>HP 391** (2 CP) (optional; variable credits)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HP 400 (CGI, CSO, UNIV, 1 CP; 3 credits)</td>
</tr>
<tr>
<td></td>
<td>HP 491** (2 CP) (optional; variable credits)</td>
<td></td>
</tr>
<tr>
<td>4th Year</td>
<td>No Longer Enrolled</td>
<td>No Longer Enrolled</td>
</tr>
</tbody>
</table>

**Notes:** All honors graduates must have their proposal and thesis document reviewed and evaluated by an independent reader. ** If a student wishes to get credit for doing their efforts capstone project activities such time to work on your capstone project ranging on inception of idea, reading of literature, doing work, and drafting, revising, and finalizing the required proposal and thesis document, they may sign up for either or both HP 391 or HP 491, which are each 3-credit independent study courses associated with the proposal phase (HP 391; pre
proposal approval) or the thesis document phase (HP 491; post proposal approval); The workload for a 3-credit course is about 135 hours of effort towards the above capstone project activities including the writing of the proposal and thesis document.

**OTHER SCENARIOS**

- **Co-ops, study abroad, or other reasons for honors program course alternatives**
  - The Honors Program encourages students to seek experiential learning opportunities and we will work with students to ensure that students do not fall behind in Honors and Common Experience course/credit requirements. Credit will only be given, however, if you satisfactorily meet the following alternative requirements
  - *Before* leaving for co-op or study abroad (or making some alternative for a course), students must consult with an Honors advisor to identify an appropriate substitute course or activity. Students must complete the Petition Form (See Student Handbook) and gain approval before the experience begins. Students will need to provide a rationale for the substitute course or activity and explain how it meets the curriculum requirements and/or specific learning outcomes of the Honors course that will be missed. Students also will need to identify the “deliverables” for the course or activity: e.g., write a report and/or give a presentation.

### General Honors Timeline – Gantt Chart

<table>
<thead>
<tr>
<th>Activity</th>
<th>Pre-list Year</th>
<th>1st Year</th>
<th>2nd Year</th>
<th>3rd Year</th>
<th>4th Year</th>
<th>4th Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP and Major Coursework</td>
<td>X X</td>
<td>X</td>
<td>X X</td>
<td>X X</td>
<td>X X</td>
<td>X X X X</td>
</tr>
<tr>
<td>HP Service Activities</td>
<td>X X X X X X</td>
<td>X X X X</td>
<td>X X X X</td>
<td>X X X X</td>
<td>X X X X</td>
<td></td>
</tr>
<tr>
<td>HP Leadership Activities</td>
<td>X X</td>
<td>X X X X</td>
<td>X X X X</td>
<td>X X X X</td>
<td>X X X X</td>
<td></td>
</tr>
<tr>
<td>Possible Honors Program Summer Experience</td>
<td>X X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Possible Study Abroad</td>
<td>X X X X X</td>
<td>X X X X</td>
<td>X X X X</td>
<td>X X X X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Possible Co-op Experiences</td>
<td>X X X</td>
<td>X X X X</td>
<td>X X X X</td>
<td>X X X X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early Capstone Project Mentor Search</td>
<td>X X X X X X</td>
<td>X X X X</td>
<td>X X X X</td>
<td>X X X X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early Capstone Project Activities</td>
<td>X X X X X</td>
<td>X X X X</td>
<td>X X X X</td>
<td>X X X X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capstone Project Mentor Search</td>
<td>X X</td>
<td>X X</td>
<td>X X</td>
<td>X X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capstone Project Activities</td>
<td>X X X X</td>
<td>X X X X</td>
<td>X X X X</td>
<td>X X X X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capstone Project Proposal</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capstone Project Proposal Independent Evaluation</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capstone Project Activities</td>
<td>X X X X</td>
<td>X X X X</td>
<td>X X X X</td>
<td>X X X X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capstone Project Analysis</td>
<td>X X</td>
<td>X X</td>
<td>X X</td>
<td>X X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capstone Project Presentations</td>
<td>X X X</td>
<td>X X X X</td>
<td>X X X X</td>
<td>X X X X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Typical Timetable for the 3rd and 4th Year Honors Capstone Project Activities

Below is the monthly timeline for 3rd and 4th year honors students in relation to their capstone project development and completion. Please note that many honors students start their capstone projects with mentors prior to their third year.

**Fall Junior Year**
- Early October: Begin the process of capstone project topic/ advisor selection
- Mid-Late October: Topic and mentor selected
- Late October: Begin literature search
- Early November: Student & Advisor Agreement
- Late November: Draft Problem and Significance Statement
- Early December: Draft Bibliography

**Spring Junior Year (HP 390)**
- Early January: Annotated Bibliography
- Late January: Introduction
- Early February: Literature Review
- Mid-February: Methodology
- Late February: Presentations
- Mid-March: Draft of proposal
- Late March: Submission of revised capstone project proposal
- Early April: Evaluation by the Independent Evaluator
- Late April: Final revisions of proposal

**Jr/Sr. Summer**
- Ongoing research, continued background reading, fieldwork, etc.

**Fall Senior Year (HP 490)**
- Early September: Progress reports
- Mid-September-Mid October: Weekly “Project in Progress” presentations
- Late October: advisor progress reports
- Early November-Late November: Weekly “Project in Progress” presentations
- Early December: Completion plans

**Spring Senior Year (HP 491 optional)**
- Early January: Progress report
- Late March: capstone project final draft due to Honors Program (approved by advisor)
- Early April: Independent Evaluator/Reader review
- Mid-to-end April: Revision of capstone project
- April: RAPS Conference presentations
- Early May: Final Capstone Project due to Honors Program

**Honors Capstone Projects**

**Overview**

For most Honors students, completion of the Honors Capstone Project will be the apex of their college careers. Working on a capstone project provides ways of developing their ability to investigate a problem and to do conduct individualized critical reading, writing, and analysis work that will help them in their professions, society, and personal lives. Through this process, students develop the self-knowledge and initiative essential to meet future challenges. Students
will discover new ways of organizing time, managing stress, and synthesizing the ideas and thoughts that they develop over months rather than weeks (which is typical of other undergraduate courses).

Though the capstone project work may begin before the third year, the capstone experience requires scholarly maturity and makes an authentic contribution to the field and personal development. Overall performance in the Honors Program Capstone should demonstrate that the student has learned how to engage in a substantive scholarly undertaking that could continue to the advanced degree level, in a professional environment, or in society. This work is not meant to be equivalent to an MA thesis -- it is advanced undergraduate-level work and should be developed and assessed as such. Furthermore, the Honors Program curriculum has set aside a total of 6-credits in HP 390 and HP 490, roughly equivalent to 270 hours of effort towards the inception to completion of Capstone Project and associated proposal and final report. The capstone project should reflect only the student's own scholarly activity or their individual contribution to a collective project, which should be assisted via mentorship.

Furthermore, the honors program student must write capstone proposals and reports themselves, only garnering feedback from peers, mentors, and instructors. Moreover, a copy of a multi-authored publication is not acceptable as a capstone report. Writing a capstone project is a challenging task, but it is also rewarding. The experience will allow students to emerge with the confidence and ability to be successful in graduate-level scholarly activity or fast-track professional careers. In addition to independent work, the project involves a close relationship between the student and the capstone project mentor. Such sustained interpersonal interaction contributes to the quality of the experience and in many cases; the mentor provides advice and assistance that can help students realize personal and professional success beyond the capstone project.

All Clarkson University Honors Capstone Projects are automatically deposited in the University Libraries and available in print in the library and listed in the catalog. However, students or mentors may request a moratorium on or withholding of automatic deposition or after automatic deposition, students may submit a written request to the library to remove the report from circulation and the catalog.

**Listing and Description of Types of Capstone Projects**

**Traditional Capstone Projects**

Below is a listing of the traditional capstone project types with a brief description of each. Please note that throughout this document we provide descriptions of both general and specific outlines and descriptions of the acceptable formats based on the field of study of the capstone project.

**Business Plan Projects**

A business plan is a document that sets out a business’s future objectives and strategies for achieving them.

**Creative Projects**

Creative projects involve the implementation of the students' imagination or original pieces of work for a product. These may include authoring a novel, screenplay, services of poems, plays, short stories, or music, creating a portfolio of paintings, photographs, digital movies, making a documentary or file, installation of a sculpture or museum exhibit, creating a website or application, making a board game or video game.
Descriptive or Historical Projects
These projects include studies in which information is gathered without manipulating the environment and are typically done through reviewing the literature or obtaining artifacts from collections or sources. Examples are literature reviews or historical projects.

Engineering Design Projects
The engineering design process is a highly iterative process that often includes basic sciences, mathematics, and engineering sciences that may include the common stages of research, design requirements, feasibility, concept generation, preliminary design, detailed design, and production planning.

Qualitative Research Projects
Qualitative research is the process of collecting, analyzing, and interpreting non-numerical data, such as language. Qualitative researchers study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them.

Quantitative Research Projects
Quantitative research is referred to as the process of collecting as well as analyzing numerical data in a laboratory or in the field. Quantitative research is used to find patterns, averages, predictions, as well as cause-effect relationships between the variables being studied. Quantitative research projects include experimental, observational, and descriptive quantitative studies such as controlled “laboratory” experiments, non-controlled natural “observational” studies, and descriptive observations that collect numerical data.

Alternative (Non-traditional) Capstone Projects
Below is a description of the two alternative capstone projects and their general expectations. These include the honors internship/co-op capstone project and the honors signature work capstone projects.

Honors Internship/Co-Op Capstone Projects
The Honors Co-op/Internship capstone project is an alternative capstone project for the Honors degree at Clarkson University for students who are on a university approved co-operative education assignment during the junior and/or senior year or who will be doing a full-time (external to Clarkson University) summer internship. To qualify for an Honors Co-op/Internship Capstone, the external-to-Clarkson University work experience must be 10+ weeks at 35-40 hours/week (full time) for a minimum of 350 documentable hours across a continuous period at a single organization. The Honors Co-op Capstone involves the student conducting and evaluating a project while on assignment, which may be a design, technical implementation, managerial intervention, or other form of activity approved by the Honors Program. The project will be under the supervision of the internship / co-op supervisor in which the supervisor must submit a signed Advisor Agreement form. The student must write a capstone project proposal and have it approved by the Honors Program before going on co-op or doing a summer internship. Ideally, the student either does a co-op in the senior year or does the internship in the summer between their junior and senior year so that the student can plan the project during the fall semester and write a proposal during HP 390 in the spring semester of the junior year. Otherwise, the student must complete an honors capstone co-op/internship proposal independently, but prior to the start of the co-op or internship. A complete proposal will be due for review by the Honors administrators, advisors, and proposal reader/evaluator within one month of the start of the co-op
or internship. The proposal can take the traditional form or, depending upon the experience, be a detailed co-op/internship plan, which should be developed in concert with an Honors advisor.

**Honors Capstone Co-op/Internship Requirements**

- External to Clarkson University co-op/internship lasting 10 weeks at 35-40 hours/week (full time) for a minimum of 350 documentable hours across a continuous period at a single organization
- Students must also complete a proposal/co-op plan before or during the first month of the co-op and have it approved by:
  - Internship/Co-op supervisor
  - Honors Program Director
  - Proposal Reader/Evaluator
- Workplace Culture Reflection
- Keep Daily Journal (notebook or electronic)
- Write Honors Capstone Co-op/Internship Project Report

Please note that for some majors the Co-op/Internship capstone project may not allow the student to obtain credit for professional electives, in which case the student is advised to pursue disciplinary research while in co-op or internship instead. For example, an MAE major might research improvements in manufacturing design and an E&M major might investigate an operations management innovation in the workplace. If in any doubt, students should consult with an academic advisor and/or faculty member.

The Co-op/Internship capstone project is written in the form of an Introduction, Descriptive or Technical Report, and Reflective Essay that together form the Honors capstone project.

**Honors Signature Work Capstone Projects**

The Honors Program Signature Work Capstone Project is an option in which the project is: 1) substantial and broad, 2) reflects and demonstrates cumulative and integrative learning across specialized (e.g., major) and general (e.g., general education/common experience, honors curriculum) knowledge, and 3) integrates formal education and informal education (e.g., co-curricular, service, leadership, internship activities). Furthermore, this capstone option connects with issues (problems) in the larger world that correspond with the student’s interest and expertise. Thus, for the student’s signature work project, the student will address one or more local, regional, or global problems that matter to both the student and to society with the goal of producing students prepared to engage modern challenges (AAC&U 2018).

Students developing signature work projects must be responsible for identifying the nature of their project, must draw on multiple components of their education in the project, and must address a “big problem” in which the students apply their learning to real-world issues that matter to society and the student. A key component of the signature work project may be the integration of student experiences with high impact practices (HIP; Kuh and O’Donnell 2013) such as, but not limited to, First-Year Seminars, Common Intellectual Experiences, Learning Communities, Undergraduate Research, Diversity/Global Learning, ePortfolios, Service Learning/Community-Based Learning, Internship, and Collaborative Projects.
General Expectations/Requirements of Honors Program Signature Work Capstone Project

● The project is substantial in meaning and impact and synthesizes and integrates collective knowledge.
  o The project should be meaningful to the student in that the student identifies the question/topic independently or in collaboration with the instructor/advisor/mentor.
  o The project also applies learning and creates new knowledge

● The project integrates various elements of the student’s education in the major, co-curricular AND with specific emphasis (i.e., two or more areas) of the general education (common experience/honors) curriculum of professional experience, professional requirement/ethics/diversity, knowledge areas (Contemporary and Global Issues, Cultures and Society, Economics/Organizations, Imaginative Arts, Individual and Group Behavior, and Science and Technology), service, leadership, and technology requirements.

● The student will communicate why the project is meaningful and impactful via reflective (metacognition) components.
  o The project is reflective of one or more of (a) the nature of knowledge and inquiry in the three domains of cognitive (factual, conceptual, procedural, meta-cognitive knowledge), affective (attitudes), and psychomotor (skills) domains (Krathwohl 2002); (b) self-awareness and connection with others; (c) the relationship of individuals to a community. This will be demonstrated through appropriate forms of reflection on learning that illustrate inductive inference

● Presented at an internal or external conference such as Clarkson’s Research and Projects Showcase (RAPS)

● The written project report meets, honors program, professional, and disciplinary standards and is approved by an independent evaluator

Guide to Capstone Project Proposals and Final Reports
For more information on the formatting and timelines associated with Capstone Project proposals and final reports, please see the “Guide to Capstone Proposals and Final Reports” for more information (Honors Program 2021).

Submission of the Honors Capstone Project Report
Capstone project reports must first be approved by the capstone advisor, and this is usually after it has gone through multiple drafts. The draft must be complete, with cover page, table of contents and all figures, tables, and appendices. At this point, it does not require signatures on the cover page. You will complete the “Capstone Project Review Form” (see Honors Program Handbook) and obtain the signature of your advisor on this form. It should be scanned and submitted to the Director of the Honors Program together with the capstone project in the form of an electronic document, preferably in a common word processing format so that a Reader can conveniently make comments and corrections to the text.

Evaluation of the Honors Capstone Project Report
Readers are appointed, but can be recommended by the honors student or mentor, and are selected for their expertise, usually in the field of the capstone project or one that is closely related. Normally faculty members at Clarkson are chosen to review the final capstone project
but occasionally outside reviewers are recruited if the necessary expertise does not exist on campus. The procedure for review is like that used in scholarly publication. In some cases, the reviewer will judge the capstone project acceptable “as is” and no further work except for formatting will be required. More usually the reviewer will suggest revisions and provide some guidelines as to how the capstone project can be improved, in which case the Reader may want to see the capstone project again to ensure that the improvements have been made or may designate the responsibility to the Honors Program Director or Associate Director. The student must address the concerns of the Reader, either by making revisions as suggested or providing a reasoned argument for not doing so. The decision of the Honors Program Director is final, and a failed capstone project will mean that student does not earn a University Honors Degree.

Capstone Resources for Honors Program Students and Faculty Mentors

HEES Scholarship for Students

The Honors Program has limited funds available to support research and scholarly activities of students working on their Honors capstone project, in addition to the Honors Educational Enhancement Scholarship (HEES). Requests may be made by faculty advisors for direct costs that they sustain in supporting a student’s Honors capstone project research. It is assumed that HEES will be used to defray the student’s own research expenses, and for travel to professional conferences, costs of publication of the Honors capstone project, or other forms of academic enhancement.

Faculty Mentor Resources

Awards of up to $500 will be made on a competitive basis to faculty members who are supervising a student conducting research or project work for their Honors capstone project. The number and financial amount of awards given will vary according to availability of funds. Faculty advisors may submit requests over multiple semesters but may not receive more than $500 for each student advised. Faculty advisors may submit multiple requests for support, one for each student, and these may be combined, but are not to exceed a cumulative total of $1,500 per year. Faculty advisors must submit the appropriate form justifying the expenditure by the deadline announced each semester. Typical expenses include materials and equipment that are essential to the research project and are not covered by other research grants.

Faculty mentors and students must complete a "Request for Financial Support" form and submit it to the Honors Program by the announced deadline each semester. This form can be found online at:

http://www.clarkson.edu/honors/research/pdf/summer_research_expense_request.pdf

The form should be used for reimbursement of costs already incurred, but under hardship or exceptional circumstances it may be used for purchase of items by the Honors Program on behalf of the advisor or student. Please provide copies of all receipts for payments and keep all originals to facilitate processing of reimbursements and accurate bookkeeping.

Summer Research Program

Summer Research is a signature part of Honors experience and is available to all students starting from the pre-frosh summer. The Honors Program covers the cost of housing and provides food allowance for those who are approved to stay on campus to conduct research with
a faculty advisor. The Honors Program hosts a variety of field trips and other extracurricular activities during the program. Stipends are also available on a competitive basis.

For upper-class students, Summer Research takes place from the third week in May until the last day of summer school. You do not have to be on campus for the full ten weeks and students may take breaks for family vacations or other reasons. However, you will need to seek permission from your advisor and inform the Honors Program of any absences, and in no cases may you be on campus for fewer than five weeks. Any assignments that are missed, such as the proposal or RAPS conference presentation, must be made up.

Summer students are typically housed in facilities with access to a kitchen, usually our townhouses. Please note that it is not possible to stay on campus, nor receive Honors Program support, before the Summer Research officially begins or after it ends. Also, students who do not stay on campus in assigned housing are not eligible for financial support from the Honors Program.

Students who have campus jobs or a paid research position may obtain housing free of charge. If their total compensation is equal to or less than $1000, they are eligible to receive the full food allowance; if it is more, they will receive compensation in proportion to their compensation above this amount (e.g., $2000 = 50% food allowance; $3000 = 30% etc.).

An application for Summer Research should be submitted by mid-April to the Honors Office. It requires a brief description of the project and the support of a faculty advisor who agrees to supervise the project, together with a personal statement (250-500 words) that describes the relationship of the project to the student’s professional development and career goals. A written proposal will be required by the second week of the program.

Please note that Summer Research is only available to students who are in good standing in the Honors Program, and it is not an entitlement. We invest in student research projects in the hope that they will be “leveraged” in the future, perhaps into a co-op or an Honors capstone project or a Research Experience for Undergraduates (REU) at another institution.

Responsibilities of Summer Research Students

Summer Research provides the opportunity for developing a strong work ethic and the ability to make choices in an unstructured open-ended situation. However, even though research/project work is much less rigidly constrained than classroom work, there are basic rules that should be followed such as attending regular meetings to report the progress to the advisors, communicating with your advisor any challenges that may impact a research group, informing Honors office about any changes in your schedule. To monitor the progress, the Honors office has the following requirement in addition to requirements specified by each individual advisor. These requirements must be satisfied to remain in the Summer Research program:

- attend an Orientation session
- submit a weekly Time Sheet and Progress Report on-line by the required deadline;
- attend scheduled lunch meetings;
- submit a research/project proposal by the required deadline;
- attend a “mid-term” advisory meeting during the scheduled time slots;
- present proposal and project-in-progress at the “mini-conference” for Pre-Frosh students;
- present research /project results at the RAPS Conference;
- submit a written final report by the required deadline;
complete an evaluation form for your Summer Research experience by the required deadline.

In addition, summer researchers must be willing to serve as a peer mentor for a pre-frosh student and participate in future Open House events by presenting their research posters.

**Summer Resident Assistants**

Two Resident Assistants are hired each summer from the upper-class student group to assist the pre-frosh summer students and to run the social activities for all Honors summer students. The application and interview process are completed before final exams. RA positions are typically announced in April.

**Capstone Project Forms and Considerations**

**Student Agreement**

The Honors Capstone Project is a major endeavor that requires a great deal of personal commitment and demands considerable institutional resources, including the time and expertise of a faculty advisor who will supervise you individually in your work for at least a year. It is especially important that you realize the extent of this commitment and ensure that you meet the expectations of the Honors Program and your advisor. We will ask faculty mentors to sign an “Advising Agreement” as an indication of their commitment to mentoring you, and we ask you to sign a “Student Agreement” that indicates your commitment to your capstone project. It is vital that you and your advisor agree about your expectations of each other. The Student Agreement is found in the Honors Program Handbook.

**Advisor Agreement**

The Honors Program requests that a faculty member formally agrees to act as an advisor by signing the form, “Agreement to Serve as Advisor for an Honors Capstone Project” (Honors Program Handbook). By signing the Honors Program Advisor Agreement, the advisor agrees to perform the following roles:

- Provide assistance in developing a proposal for the capstone project: Guide the student in framing a question that is both feasible and of appropriate scope; specifying research methods and strategies; identifying useful sources in the literature; recommending other faculty with whom the student should consult; ensuring that the proposal meets the Honors Program requirements.
- Supervise the capstone project: Meet regularly with the student to evaluate progress on his or her project; help establish deadlines for the completion of various stages of the project; provide constructive criticism of the student’s work in a timely fashion; give encouragement to the student; identify and discuss problems with the student; complete progress reports and recommend grades; and report serious problems to the Honors Program.
- Assist in the preparation of the capstone project and the final presentation of the project: Ensure that student prepares the capstone project according to guidelines as it is submitted to the Honors Program for review by the appointed expert readers; assist in the publication of the capstone project if appropriate; and advise the student in preparation for the oral presentation of the capstone project. Typically, the advisor will do much more
than this and in some cases the capstone project may be the beginning of a life-long relationship.

**Human Subjects (IRB) Approval**

Clarkson University maintains an Institutional Review Board (IRB) with the mandate of protecting the rights and welfare of humans who participate in research. All activities related to research on human subjects must initially be reviewed and approved or exempted by the Clarkson University IRB whether they are conducted by faculty, staff, assistants, students, or any other research collaborator. If your research involves human subjects (for definitions see [CU Human Research Protection Program Manual](https://www.clarkson.edu/)), you will need to take the CITI Human Subjects Research Training Course (see [CITI Training](https://www.clarkson.edu/)) on the Clarkson Intranet, and prepare your IRB protocol using the official form according to the guidelines provided. Your materials should be submitted to the IRB Administrative Assistant, CU PO Box 5630, or at [irb@clarkson.edu](mailto:irb@clarkson.edu).

**Confidentiality of Information**

Students sometimes complete a capstone project on an internship or co-op, or otherwise cooperate with private companies or governmental organizations, and these external partners may request confidentiality of proprietary information. Also, sometimes a project completed on campus may be undergoing adaptation for publication and authors may wish to request a delay in release of the capstone project.

In this case, the Honors Program will provide a signed confidentiality agreement committing staff to comply with professional confidentiality procedures. Typically, this means that draft and final copies of the capstone project will be marked as “Confidential” and made available only to the appointed Reader and the Director of the Honors Program. Both the Reader and the Director will sign the confidentiality agreement, and the capstone project will not be provided to the library or distributed to others for a specified length of time. A sample confidentiality agreement is presented in the Student Handbook.

**Use of Materials Copyrighted by Others**

Students may use a variety of materials in their Honors capstone project, including quotations, tables, diagrams, photos, screenshots and even videos or music recordings. You do not need permission to use works in the public domain (works on which a copyright never existed or on which copyright has expired), but you must acknowledge such works and provide an appropriate citation. To determine if a work is in the public domain, go to the following website: [https://copyright.cornell.edu/resources](https://copyright.cornell.edu/resources)

If you use copyrighted works, refer to Section 107 of U.S. Copyright law, otherwise known as the fair use doctrine. The fair use of a copyrighted work, including such use by reproduction, for purposes such as criticism, comment, news reporting, teaching, scholarship, or research, is not an infringement of copyright. Again, you must acknowledge the source of the content. In determining whether the use of a work in any particular case is a fair use the factors to be considered shall include:

- the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;
- the nature of the copyrighted work;
● the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and
● the effect of the use upon the potential market for or value of the copyrighted work.

All four factors must be considered when conducting a fair use analysis. Please use the Fair Use Checklist in making a fair use determination:
https://copyright.columbia.edu/basics/fair-use/fair-use-checklist.html

If the use does not qualify as a fair use, you may not include the material without written permission of the copyright holder. You are solely responsible if you violate copyright law; neither the Honors Program nor Clarkson University will be held liable.

Honors Program Office Hours and Staff

Honors Program Office Hours
The Honors office is open from 8:00 am to 4:30 pm (4:00pm during the University’s summer hours). The phone number is 315-268-2290. For all general Honors questions, please contact honors@clarkson.edu (That’s the best email to use).

Honors Program Staff and Roles

Dr. Kate Krueger, Director kkrueger@clarkson.edu 268-6531
Dr. Alan Christian, Associate Director, Jr. and Sr. Advisor, Capstone Projects adchrist@clarkson.edu 268-2290
Dr. Ali Boolani, Honors Second-Year Professor aboolani@clarkson.edu 268-1663
Dr. Richard Dub, Honors First-Year Professor rdub@clarkson.edu 268-2160
Annie Helfgott, Associate Director of Student and Alumni Relations ahelfgot@clarkson.edu 268-4331
Davis Rogers, Honors Coordinator drogers@clarkson.edu 268-4221
Connor Coleman, Area Coordinator, Clarkson School and Honors Program cocoleman@clarkson.edu 268-7105

List of References