

Clarkson University
Honors Program
Handbook

Table of Contents

Honors Program Mission Statement	1
Honors Program Statement of Values	1
Responsibilities of the Honors Student	1
Honors Council	2
Student Government	2
Requirements for Graduation	3
Honors Program by Semester	3
Honors Advising	4
Academic Regulations	5
Requests for Exceptions to Honors Regulations	5
Exceptions to Extra Tuition Charge Rule	5
Honors Program Orientation	6
Honors Events	6
Honors Program Service Requirement	6
Honors Program Service Guidelines	6
Honors Facilities and Their Use	8
Honors Summer Research	8
Honors Thesis Instructions	10
Introduction	10
The Process	10
Choice of Topic	10
Choice of Thesis Advisor	11
Expectations of the Faculty Advisor and the Student	11
Thesis Guidelines	11
Overview	11
Outcome Objectives	12
Suggested Thesis Format	12
Junior Year Effort	13
Senior Year Effort	13
Honors Thesis Proposal Instructions	13
Report	14
Structure	14
Thesis Proposal Review Process	14

Final Thesis Review Process	15
Publishing	15
A Note of Plagiarism	15
Time Table	15
Thesis Expenses	16
Forms and Examples	
Thesis Cover Page	17
Thesis Title Page	18

HONORS PROGRAM MISSION STATEMENT

Focusing on current and emerging problems in science, technology, and society, the Honors Program offers special academic challenges and opportunities for Clarkson University's most promising students. Within the context of a small technological university, the program offers a personalized, vital community of its own, in which its members can take full advantage of their intellectual gifts. The Honors Program fosters collaborative relationships between exceptional students and faculty; offers specially developed classes; cultivates a talent for research and inquiry; and engages fully its members in the intellectual life of the University.

HONORS PROGRAM STATEMENT OF VALUES

Integrity

Work, communicate, and interact with honesty and honor.

Teamwork

Understand that a team is more than a collection of individuals and is vital to accomplishing tasks.

Vision

Be prepared to expand your knowledge beyond what is taught in the classroom.

Accountability

Be respectful of the deadlines and guidelines set before you; be someone that others are able to trust and rely upon.

Respect

Be flexible and considerate while considering the ideas and opinions of others.

Dedication

Be complete and thorough in your work; perform each task to the extent of your ability.

"Success seems to be largely a matter of hanging on after others have let go." ~ *William Feather*

RESPONSIBILITIES OF THE HONORS STUDENT

Although the Honors Program is shaped by formal rules and guidelines, it bears the character of its students. An energetic, fun, considerate, and intellectually vibrant Honors Program is a reflection of its constitutive student body. Honors students should see the larger Honors community as an extension of themselves. In turn, the Honors Program provides its students, faculty, and administrators with a space where intellectual excellence can flourish. The educational goals of the Honors Program go beyond the acquisition of knowledge. Values of creativity, cooperation, and self-reflection are fostered. These values are reflections of the character of Honors students, past and present, and are to be embellished by a spirit of participation, community, respect, and pride.

Translating these values into daily practice means attention to the details that facilitate the community's needs. Attending meetings, participation in committee work, sending an RSVP to invitations, and offering tutorial help to fellow students, all make for a stronger Honors Program.

HONORS COUNCIL

The Honors Council is the group of Clarkson administrators, faculty, and Honors students who serve as the board of directors for the program. All Honors policies and guidelines of the kind specified in this handbook require their approval. They also serve as a sounding board and as a source of guidance for the director, associate director, and members of the steering committee.

There are two standing committees of the Honors Council, the admissions committee and the research committee. The admissions committee is responsible for selecting the members of the Honors Program. The research committee is responsible for approving Honors thesis proposals and Honors theses. From time to time the Honors Council chair also establishes ad hoc committees. The Honors Council chair is appointed by the University provost. Faculty and administrative members of the council are selected by the director and the council chair and approved by the provost. Student members are elected by their peers.

STUDENT GOVERNMENT

Student government in the Honors Program gives students the opportunity to lead activities and initiatives and to share in the governance of the Honors Program. It also provides the student body with a vehicle to address grievances and concerns regarding the program and its activities. The student government of the Honors Program consists of the Steering Committee and its subcommittees.

The students who serve on the Steering Committee are elected each year by their peers: two representatives are chosen by each class, and the chairperson is elected by the student body as a whole. The Steering Committee serves as a liaison between the Honors Council, the Honors Program office, the student body and the subcommittees. It addresses policy issues when needed, and conducts general meetings of the student body. It also provides oversight to the actions of its four subcommittees: Service, Relations, Activities and Multimedia.

The members of the Service Committee are all elected representatives; the student body elects the chair, and each class elects one member. The main responsibility of this committee is to provide students with the opportunity to fulfill their service graduation requirement. This is done through various committee actions, which include organizing service activities, hearing proposals for alternative service projects and keeping participation records for each student in the program.

The other three subcommittees have the same basic structure. The student body elects the chair of each subcommittee, but the rest of the members are volunteers. The Relations Committee organizes volunteers for Honors Program orientation, open houses and other student recruitment events, and alumni activities. The Activities Committee organizes seasonal program get-togethers, casual events and large group trips. The Multimedia Committee maintains the program web page, computers and other electronic equipment.

REQUIREMENTS FOR GRADUATION

Clarkson University Honors Program Degree

Students must earn a minimum of 24 hours in Honors classes (18 if they enter the program after their first year) and graduate with a minimum 3.25 grade point average. They must also complete their Honors thesis, have it approved by their advisor, and accepted by the research committee. Finally, they must fulfill the Honors student organization service requirement.

Students who complete the class requirement and fulfill the grade point requirement, but do not complete their thesis and/or the service requirement do not receive a Clarkson University Honors degree; instead they receive a certificate and receive the designation, Honors graduate.

HONORS PROGRAM BY SEMESTER

First-Year - Fall

The Social and Ethical Implications of Research I (HP100/102)
This sequence provides 4 credits toward Common Experience and ES100 credit

Sophomore - Fall

Project Course (HP 200)
3 credits, contribute to Common Experience requirement and may count as a technology course

Junior - Fall

Junior Science Course (HP 300)
3 credits, contribute to Common Experience requirement and may count as a technology course

Senior - Fall

Undergraduate Thesis (HP 490)
3 or more credits

First-Year - Spring

The Social and Ethical Implications of Research II (HP101/103)
This sequence provides 4 credits toward Common Experience and ES100 credit

Sophomore - Spring

The Sophomore Problems Course (HP 201)
3 credits, counts as Common Experience credit

Junior - Spring

Undergraduate Thesis (HP 390)
3 credits

Senior - Spring

Senior Seminar on Modernity (HP400)
3 credits, counts as Common Experience credit

The Honors curriculum:

- replaces the six Knowledge Areas (KA) of the Common Experience Curriculum, except in cases where there are specific school or department KA requirements,
- gives credit for ES100,
- provides 10 communication credits, with the thesis courses HP390 and HP490 designated as 2 credits each,
- fulfills the technology requirement of the Common Experience Curriculum with its Sophomore Problem-Solving course, and
- provides extensive background and practice in exploring ethical issues in research and society.

Other Common Experience requirements and implementation plans are still under development, and until they are finalized direct any questions about how Honors courses might meet them to the director.

Students who leave the Honors Program early, received 2 KA credits after their first year, 4 after their second year, and all 6 after their third year.

Alternatives to the prescribed sequence of Honors courses

There are occasions in which students either by circumstance or by choice may substitute another course for an otherwise required Honors course. Among the occasions in which this is likely to occur are:

1. When a student misses a prescribed Honors course to participate in a co-op, semester abroad, or similar circumstances, that student in consultation with his or her Honors advisor may replace it with another Honors course or replace it with the Honors independent study course.
2. When a student wishes to replace an Honors course for reasons of personal intellectual development or career goals, he or she may do so by designing an Honors independent study course at an appropriate level of the required course being replaced (eg. a 200 level independent study for a sophomore course, a 300 level independent study for a junior course).
3. When a student wishes to participate in the Chemical Engineering Honors Program, he or she may replace the Honors Junior Science Seminar with CH490, Transport Phenomena.
4. When a student joins the Honors Program after being a member of an honors program at another institution he or she may transfer no more than 12 honors credits toward the requirements for a Clarkson University Honors Degree. In such cases the student, in consultation with his or her Honors advisor will determine the most appropriate Clarkson Honors courses for an Honors Degree. Thesis credits may not count.

HONORS ADVISING

The Honors program provides advising as well as having an adviser in their major department. **Students are required to meet with their Honors advisor at least once a semester, not including at course selection time.** However, the advising relationship will likely be much more productive if meetings occur more frequently than this. Appointments may be scheduled by calling or stopping by the Honors office.

For course selection and other meetings, students can take much fuller advantage of the advising relationship if they come prepared. For example, at course selection time it will be a help to one's Honors advisor if students have previewed the required courses for one's major and possibilities for electives or other choices.

Many other things of concern and interest to the Honors student can be discussed with one's Honors advisor as well. In a program that invites personal as well as intellectual development, advising relationships that can foster these goals are extremely important.

ACADEMIC REGULATIONS

Good Standing

In order to remain in good standing, first-year students must maintain a 3.25 cumulative grade point average.

Honors Warning

Students are placed on Honors warning when they fail to maintain a cumulative grade point average of 3.25.

Honors Separation

When a student fails to remove the conditions that placed him or her on warning in the subsequent semester, he or she is separated from the program.

Honors Grading

With the exception of thesis credits or Honors courses not taken in fulfillment of an Honors degree, Honors courses must be graded and may not be taken for pass/no entry.

REQUESTS FOR EXCEPTIONS TO HONORS REGULATIONS

Requests for exceptions to the Honors Program academic rules and regulations will be made to the director of the program. The director will either approve or disapprove the request. The director also has the discretion of sending the request to the Honors Council chair for his or her decision.

Appeal of the director's decision may be made to the Chair of the Honors Council. In appeals to matters concerning a student's standing in the program the chair and two other council members will ultimately decide the matter. In all other cases the Honors Council chair's decision is final.

EXCEPTIONS TO EXTRA TUITION CHARGE RULE

Students Registered for More Than 19 Credit Hours

Honors students in good standing may register for more than 19 credit hours without incurring extra charges. This exception is processed on a university request for exception form and requires the approval of the director and the provost. The conditions for students seeking this exception are that it cannot be used to graduate early and the extra course should be used for educational enrichment. If for any reason, a student drops below 19 hours after being granted an exception, he or she is not eligible for this benefit in the future.

HONORS PROGRAM ORIENTATION

Honors Program orientation is designed to kick off the academic year by introducing new members to the program, inviting self-reflection and personal goal setting by returning members, and confirming the communal plans and goals for the year ahead.

The traditional orientation activities include: orientation sessions for first-year students, upper-class students, and the parents of first-year students; the first meeting of each Honors class; and a variety of social events. The first Honors classes of the academic year are always held the week before regular classes begin. First-year students have special sessions designed to help them get to know each other as a class and to begin a four year process of self-examination and reflection. There are similar occasions of self-reflection for upper class students.

HONORS EVENTS

The Honors year is punctuated by a variety of social events: the orientation picnic, Thanksgiving dinner, the December Solstice party, Ben and Jerry's nights, the end-of-the year picnic, and Honors graduation.

Ben and Jerry's nights bear some explanation. They are relatively impromptu social occasions at which students get the flavor of ice cream that they designated when they signed the *Honors Book*. These occasions mark the legacy of the first Honors Program gift from a now deceased Clarkson University custodian, Shirley Nelson. She wanted a gift which would provide a time for student relaxation and enjoyment. She particularly admired people, including students who knew how to work hard and to strive for excellence in their daily lives.

HONORS PROGRAM SERVICE REQUIREMENT

As students in an evolving Honors Program, we are currently defining what it means to be honorable. Part of this definition includes a strong sense of service, in addition to a commitment to high academic standards. As a means for insuring program-wide involvement, Honors Students will be required to complete at least 40 hours of service during their undergraduate career at Clarkson. Students joining the Honors Program during their sophomore year or later must complete a minimum of 30 hours of service.

HONORS PROGRAM SERVICE GUIDELINES

Definition of Service

Any not for profit activity which directly benefits the public or environment.

Goals of Service

- Directly benefits members of the community by fulfilling needs within the community.
- Develops ties between Clarkson University and the surrounding communities.
- Builds a sense of community within the Honors Program;
- Provides an opportunity for Honors students to broaden their range of life experiences.

Requirement

The 40 hours (30 hours for students joining their second year) of service required can be completed in the following ways:

- A. Events planned by service committee, or advertised by the service committee (i.e. If sent out in an email from a serve representative)
- B. Individual service projects proposed by an Honors student and approved by the service committee
- C. Service to the Honors Program, planned by the Honors office (such as phone-a-thon, open house, orientation, etc)

Conditions for Service:

- No more than half of the required hours can be fulfilled using option C.
- At least half of the service hours must be performed while the student is at Clarkson.
- Uniquely fulfills the Honors Program requirement and no other. Service *required* for other organizations may not count as honors service.
- Students receive credit for the actual duration of an event, not for the planned duration of an event. If an event that was supposed to last 2 hours and only lasts 15 minutes, then only 15 minutes is counted.
- Does not express political commentary or otherwise render an opinion for or against a community issue (no protesting). May encourage political discussion, while remaining neutral.

Approval for Service Type B

A completed Individual Service Form must be submitted to and approved by the Service Committee in order for service type B to be counted towards the Honors Program Service Requirement. Service for the Honors Program organized by the service committee does not require written approval through the Individual Service Form.

The Service Committee reserves the right to reject all proposals that do not sufficiently meet the guidelines of service, even after the proposed service has been performed. It is recommended that the proposal be submitted well in advance of performing the service. Any incomplete proposal will not be considered. Any individual who proposes service which is rejected may appeal to the Steering Committee decision will be final, and cannot be overturned except to the University Appeals Committee.

Service Committee Duties

- Ensure that incoming students are introduced to the service requirement during orientation.
- Provide at least 500 person-hours of service per semester. One person-hour is one hour of service for one person, thus an event for three people that lasts two hours is 6 person hours.
- Assess proposals from students for individual service activities.
- Maintain a record of participation in service for each member of the Honors Program.
- Inform members of service opportunities.
- Remind members of the service requirement throughout the semester.
- Promote a spirit of service in the Honors Program.
- Recognize extraordinary participation in Honors service through awards and events.

Completion of Requirements

If a student does not complete the requirement before graduation, an Honors Program degree will not be granted. Appeals regarding interpretation of the service guidelines may be made in writing to the Steering Committee.

HONORS FACILITIES AND THEIR USE

Honors Seminar Room

Honors students may use the seminar room whenever it is not otherwise scheduled. It can be used for either Honors or non-Honors activities. If a student wishes to reserve the room, this should be done with Marcy Wilcox. When there are multiple requests for the room, use is prioritized as follows: 1) Honors class or council activities, 2) Honors student activities (student committees, study groups, etc.), 3) an Honors student for non-Honors program activities.

Lap Top Computer

The Honors Program lap top computer is available for student use for a limited time when not being used for Honors classes. It should be reserved and checked out through Marcy.

Photo Copier

The Honors office copier is available to students for any Honors related copying. Office copying always has priority over other requests. Please check with Honors staff before using.

Cookies, Candy, and Other Honors Fare

The Honors cookie tins and candy dishes are usually well stocked. When they're not or when one's favorite kind of cookie or candy is not available, it is generally not a good idea to complain.

Honors Program Office Hours

The Honors office is open from 8:00-12:00 and 1:00-4:30. The phone numbers are 2290/2320, and the fax number is 2344. Email addresses and phone numbers:

Professor Jon Goss, Director	jgoss@clarkson.edu	Price 249	x2320
Professor Hayley Shen, Associate Director	hhshen@clarkson.edu	Price 248	x6006
Marcy Wilcox, Assistant to the Director	mwilcox@clarkson.edu	Price-Lobby	x2290
Kevin Lobdell, Assistant Director for Student Life	klobdell@clarkson.edu	Price-225	x4425

HONORS SUMMER RESEARCH

Summer research is an integral part of the Honors Program starting from pre-frosh opportunities. The Honors Program covers the room and food allowance for those who are approved to stay on campus to conduct research with a mentor. For upper-class students, an application should be filled and submitted by mid March to the Honors Office. A mentor must be secured and the project should be well defined. Frequently, the Honors office assists in both of these steps. The duration of the summer research is decided between the mentor and the mentee. In general it starts from the first day of the summer school to the last day of summer school. Often students take breaks for family vacations or other reasons, but such matters are decided between the mentor and the student. The start and end dates as well as any absence from campus should be reported to the Honors Office in addition to the mentor.

For pre-frosh students, application should be done as early as possible, ideally by June 1. The Honors Office will find a mentor for the pre-frosh students. The duration coincides with the 5-wk period of the 2nd session of the summer school, in late June to the beginning of August.

Summer researchers are typically housed in the townhouse, receive a biweekly meal stipend (unless they have a paid research position), and may participate in a variety of trips and other Honors sponsored extracurricular activities.

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 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 mentors, communicating with your mentor any challenges that may impact the 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 mentor. These requirements must be satisfied in order to remain in the summer research program:

1. Weekly lunch meeting;
2. Weekly written reports (with the form from the Honors office);
3. Participation in the SURE conference at the end of the summer; for those who leave before the SURE conference you must present your research at the next spring SURE conference, and
4. A final written report due the day after the summer SURE conference.

The important research dates, responsibilities and requirements are listed below:

Upper-class student

Spring Semester	Find a mentor and discuss possible projects
Mid March	Submit the application
Mid July	SURE abstract due

Pre-frosh

May	Apply to the summer research by emailing the Honors office
May/June	Work with Honors office to identify possible projects and mentors
End of June	Begin the 5-wk research
End July	SURE Abstract due/Final report due

Summer Resident Assistants

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

Application and Other Forms

Application for Summer Research – go to the following url to apply:
http://www.clarkson.edu/honors/research/summer_research_app.php

Final Report Format and Requirements

Abstract - A succinct summary, 200-300 words, of the problem studied and the results obtained.

Introduction - Background materials to motivate readers of the importance of the problem, a brief summary of what has been done by others, a short statement of what your study is.

Methodology - Step by step description of your work: set of experiment, data collection procedure, analysis procedure.

Results and Discussions - Describe the findings, their meanings, what you have learned.

Conclusion - Discussion of where you got in terms of the research problem you stated in the Introduction, implications of your results, next steps, and bibliography.

Typically, the length of the report should be 5-10 pages.

HONORS THESIS INSTRUCTIONS

Introduction

For Honors students, the Honors thesis may be the most important capstone experience of their college careers. The completion of such a project--the research, experimentation, or design of a product--can focus your interests, provide perspective in a chosen major, develop basic scholarly skills, foster creativity and independent effort, and bring the educational experiences together. In addition to independent work, the project also involves close associations between the student and the faculty members, particularly with the professor supervising the research work. Such sustained interaction contributes greatly to the quality of the experience.

Working on a thesis project provides ways of developing your ability to investigate a problem and to do serious writing, research, experimentation, or creative work that will likely help you in your profession. Through this process, you can develop the self-knowledge and initiative that are essential to meet future challenges in your career. When you are pushed to the limit of your energy and creativity, you will discover new ways of organizing time and managing stress and long hours of work. This training is invaluable.

In summary, writing a thesis is a challenging task. Like most other challenges, it is also rewarding. The experience will allow one to emerge with the confidence and ability for graduate level research or fast track professional careers.

The Process

The process of a thesis project begins with the choice of a topic and an advisor, and ends with publication.

Choice of Topic

Often the choice of thesis topic and advisor go hand in hand: when you talk with several professors who do research in areas you find interesting, one of them may suggest a specific topic which you decide to work on. In choosing a topic, the student should ask several questions:

1. What do I want to know badly enough to go through the often time-consuming, frustrating, and joyful process of finding out? Am I willing to sacrifice nights of goofing off for nights in the library or lab working on this project?
2. Am I qualified? Do I have enough background in theory, languages, laboratory techniques, history to pursue this topic?
3. Is the topic significant, yet limited enough in scope to manage in the time that is available?

By answering these questions and generating others, you will begin to focus your interests on a specific area or topic. Normally you will choose a project in your own academic major, but this is not a requirement. Once you have an interesting question or idea, put it into a single sentence or phrase. This phrase now becomes a project title, for example, "Cultural Limitations on Women's Careers" or "Impact of Wireless Networking in Education" or "Effects of Earthquakes on Glacier Structures". The idea can be anything--as long as you created it and you care about it.

Once you have chosen your topic, create a one-page summary of the project proposal. In this summary you should provide information concerning your preparation to do the proposed research. This can include a list of relevant courses, experience, term papers, publications, research, etc. In addition, list the major sources you expect to use. It is quite normal to find out that you are unable to write this summary, and need a thesis advisor to help you.

Choice of Thesis Advisor

There are two main ways to choose an advisor to assist you in your work:

1. You may join a professor in research which he or she is already engaged in. You and your advisor form a research partnership, sharing ideas and background knowledge.
2. You may choose a professor who works in your area of interest, but is not working on the same topic. In this situation, you will be somewhat more on your own, although the thesis advisor will still be a vital resource.

If a project topic emerges, but you do not know a faculty member who would be suitable, contact the chair of the appropriate department and the Honors Program to assist you in identifying faculty members who might supervise your work. The choice of a topic and the advisor need to be done in the semester before you begin your thesis project. The process of identifying the thesis topic and advisor is not trivial. Give it time and care.

Once you have chosen a topic and an advisor, a good working relationship is needed to help you through the year-long thesis research. A thesis advisor sometimes becomes a life-long mentor. You need to learn how to build this precious professional relationship.

Expectations of the Faculty Thesis Advisor and of the Student

A faculty member who agrees to supervise your project expects three basic things of you:

1. to be genuinely committed to the research or creative project,
2. to have an adequate general preparation in the subject, and
3. to be responsible for working out the dimensions of the project and meeting deadlines.

You may expect that the faculty member who agrees to be your thesis advisor will help you to successfully complete your thesis. This means that he or she will work with you as you:

1. develop a research plan and an understanding of research methodology, including the use of special techniques or equipment,
2. do an adequate literature search and develop a bibliography,
3. limit the topic,
4. develop a good outline of your thesis, one that is well organized, and
5. prepare the final draft of your thesis, reading the thesis carefully, critically, and (providing you are on time) in time for you to make final revisions.

THESIS GUIDELINES

Overview

The purpose of this prospectus is to act as a guide for Honors Program research efforts required during the junior year, (through the summer, if possible), and into the fall of the senior year. These

guidelines are intended for use by mentors, the faculty Research Review Committee, and most importantly, the student.

Outcome Objectives

Overall performance in the Honors Program thesis project (6 credit hours total) should demonstrate that the student has learned how to engage in a substantive research undertaking that could continue to the advanced degree level. Specific research competencies mastered include:

- Problem Identification
- Framing the Problem Environment (proper scope)
- Formulating a Hypothesis
- Conducting an Investigation
- Analysis
- Supporting a Conclusion
- Presentation of Results in Multiple Formats (oral, written, web, formal, informal)

Suggested Thesis Format

Although the format of Honors theses varies, the following guidelines may help you as you formulate the structure for your thesis.

Title Page: Samples on pages 17 and 18

Acknowledgements: (optional) Acknowledging and thanking thesis mentor, thesis reader, family, and friends, anyone whose help and encouragement have assisted you in completing your thesis. Sources of financial support are also typically acknowledged.

Table of Contents

1-2 Page Executive Summary: (written in “layman’s terms”)

Chapter 1: Introduction with a description of the problem and the general environment in which the problem exists.

Chapter 2: Background material that supports that a significant research problem exists—literature search and presentation of the efforts/conclusions of others about this problem or its environment. The literature review is typically part of this chapter.

Chapter 3: Research methodology—experiments, data collection, quantitative factors, qualitative factors.

Chapter 4: Research results—presentation of quantitative and qualitative data.

Chapter 5: Discussion of results—presenting the data analysis, examining cause and effect relationships, correlations, and other interpretations of the research results.

Chapter 6: Conclusion—what worked or didn’t and why/why not, what the implications and applications of the research are, along with what the researcher learned from this effort.

References-list of publications directly cited in the thesis.

Junior Year Effort:

1. Conceptualizing the problem: what is the scope of the problem and subsequent investigation. Finding a mentor and with the mentor's help defining a thesis topic.
2. Literature search: a comprehensive review of journals, books, magazines and other credible sources that support the problem environment. Focusing on a subfield within the larger field of interest.
3. Emerging hypothesis: what is/are the "educated guess (es)" about a solution to the problem. Sharpening on the focus with a well-defined title of thesis.
4. Demonstration (to mentor and review committee) of initial investigatory skills: data collection, instrument operations, cause and effect analysis, and statistical analysis. Applying existing knowledge/skills and acquiring necessary new knowledge/skills.
5. Communication of process: proposal submitted by the middle of the second semester; progress report submitted by the end of the second semester. Details are in the Thesis Handbook.

Senior Year Effort:

1. Evidence gathering: completing experiments and other data collection efforts (some/all of this may occur during the intervening summer by the student).
2. Analysis of data and other evidence: use of cause and effect analyses, examining correlation and possibly causation.
3. Results: Logical/rational explanation of success(es) and/or failure(s); lessons learned, and next step(s).
4. Communication of process: substantive writing—updating the Introduction/Background/Bibliography of the proposal to include additional information; submitting the draft full thesis by the end of first semester; fine tuning thesis in the second semester; submitting the final thesis by the middle of second semester for review; preparation of formal presentations held before the end of second semester. Details are in the Thesis Handbook.

The student should realize (and periodically be challenged by the mentor) that this research project is non-linear in nature. While the guidelines listed above are presented in a linear fashion, the reality is that the process is iterative. Therefore, the student will find him/herself working on steps concurrently at some stages, and at other times there will be times that previously completed steps may have to be revisited because of something that occurred later on. Finally, it is how a student supports his/her results, not the results themselves that is what the Committee will ultimately use as a criterion for rendering its final evaluation.

HONORS THESIS PROPOSAL INSTRUCTIONS

The thesis proposal provides an initial definition of what the thesis project is and why it is important. It is also one of the main grading elements for HP390 or alternatively the first half of the thesis project. Once a proposal has been approved by the thesis advisor, the Honors research committee reviews it and approves or disapproves it. Committee members also forward any comments, questions, or suggestions to the student and thesis advisor.

The format of the proposal can vary from discipline to discipline. But in general, there are five essential elements; what is the problem; what do you know about the history of this problem; what do you want to add to the existing body of knowledge on this problem; are you equipped with the tools to do it; is your plan for completion realistic?

Sample proposals from all previous thesis projects are available in the Honors Office, and by visiting our web page at http://www.clarkson.edu/honors/research/search_project.php, and together with this document are intended to convey the Honors Program's expectations for thesis research.

Report: Details the following topics:

- Problem to be researched;
- Short review of literature that provides a scientific/engineering foundation for the research;
- Description of the work to be performed.
- Demonstration of ability to conduct the proposed work.

Structure

1. Problem Delimitation
 - Describe general problem area,
 - Discuss specific problem to be researched or discuss the goal of the thesis project,
 - Document why this is important from science/engineering/social/economic/etc. perspective.
2. Connect the literature on the topic to the problem description
 - Which concept(s);
 - Which topic(s);
 - Survey the “landscape” on the topic(s);
 - Scholarly writings
 - Applied articles
 - Internet citations must be validated by a primary scholarly source.
3. Detail Proposed Research or Project
 - Laboratory Experiments/Theory/Social Experiments;
 - Preliminary accomplishments;
 - Develop a “time line”;
 - Expected results;
 - Proposed Hypothesis,
 - Data to be collected,
 - Theoretical Prediction,
 - Probable comparison of data and theory,
 - Expected Conclusion(s) or outcome.

Thesis Proposal Review Process

The thesis proposal is reviewed by the Honors Research Committee. Normally at least two committee members read the thesis proposal. Occasionally outside readers are recruited to provide necessary expertise. The procedure for review follows the same way as in normal publications. Revision of the thesis proposal is required if reviewers recommend it. No oral defense is required. Failed thesis proposal will mean not completing HP390 (first semester of thesis work).

Final Thesis Review Process

The final thesis is reviewed by a reader who is an expert in a closely related area of the thesis topic and the Honors Associate Director or another expert chosen as expert in a related field by the Honors Office. Normally experts on campus are chosen as reviewers of the final theses. Occasionally outside readers are recruited to provide necessary expertise. The procedure for review follows the same way as in normal publications. Revision of the thesis is required if reviewers recommend it. No oral defense is required. A failed thesis will mean that student does not earn a University Honors Degree.

Publishing

One of the researcher's responsibilities is to publish his/her work. It costs society resources to support any type of research. Thesis projects are part of this endeavor. Therefore, sharing the knowledge is the researcher's return to society for its support. Some projects can contain confidential materials that must remain so under ethical, business development, or national security constraints. Withholding publication of these materials is the obligation of the researchers. However, the core knowledge that can benefit society should be made public as soon as possible.

Not all thesis research projects will end with a peer-evaluated publication, such as what is found in professional journals. However, all theses will be treated as published material by the library and made available to readers. Also, much thesis research appears in conference presentations. Both students and the thesis advisors should consider publications in the course of the project.

A Note on Plagiarism

In publishing any research work, some general ethical guidelines must be followed. Plagiarism is presenting the work or ideas of someone else as your own. Make sure that you always give proper citations to the works and ideas you obtained from others, whether verbally or through the literature. If in doubt, check with the thesis advisor and the Honors Office.

Time Table for Honors Thesis

Fall Junior Year

Mid September	Meeting* on thesis topic/mentor selection
Mid October	Follow-up meeting on topic/mentor selection
Mid November	Second follow-up (if necessary)
Early December	Finalizing topic and advisor (discuss what to do over the Christmas break)

Spring Junior Year

Mid January	Topic and mentor update meeting
Mid February	Progress meeting (at pre-registration time)
Mid March	Thesis proposal due (evaluated by the Honors Research Committee)
Early April	Proposal evaluation back to students and mentors
Early May	Progress report/extended proposal due (with some preliminary results)

Fall Senior Year

Early September	Meeting on thesis progress
Mid October	Meeting on thesis progress Preliminary thesis progress due (Honors Office discusses with all mentors afterwards)
End October	Thesis progress feedbacks return to students
Mid December	Thesis 1 st draft due (or full thesis and final presentation if completed)

Spring Senior Year

Mid January	Meeting on thesis progress, final presentations planned
Mid March	Thesis final draft due (must be approved by the mentor first, Honors Office submit to one reader for review), final presentations if finished
Early April	Review comments due (Honors Office return review back to students and mentors)
Mid to end April	Thesis oral presentation
Early May	All final theses due

*All meetings are individual by appointment. Please sign up in the Honors office.

Thesis Expenses

The Honors Program provides up to \$500 for financial support for thesis research. In order to keep records of thesis expenses and to satisfy Clarkson's budgeting procedures, we ask that thesis students fill out a "request for financial support" form, have it approved and signed by the student's thesis advisor, and return it to the Honors office. This form can also be found online at http://www.clarkson.edu/honors/research/applications_forms/summer_research_finaid.html. Once the thesis advisor has approved the purchase, there are several ways a student may purchase supplies:

- C The student may make the purchase and bring the original receipt to the Honors office for reimbursement.
- C Your mentor can purchase the items. The mentor should keep receipts and contact the Honors office for reimbursement.
- C We can make on-line and telephone purchases from the Honors office. The student will need to give us all the necessary information. The purchase must first be approved by your mentor.

The Honors Program also tries to provide additional support for theses which generate more than \$500 in expenses. Requests for additional support should be made in writing to the program director.

Your title centered here in Times New Roman 16 point font

by

Your name here in 14 point font

Clarkson University

Title

A Thesis by

Your Name

Department of Your Department

Submitted in partial fulfillment of the requirements for a

Bachelor of Science Degree with

University Honors

Month Year

Accepted by the Honors Program

Advisor (Print Name) Date

Honors Reader (Print Name) Date

Honors Director (Jon Goss) Date