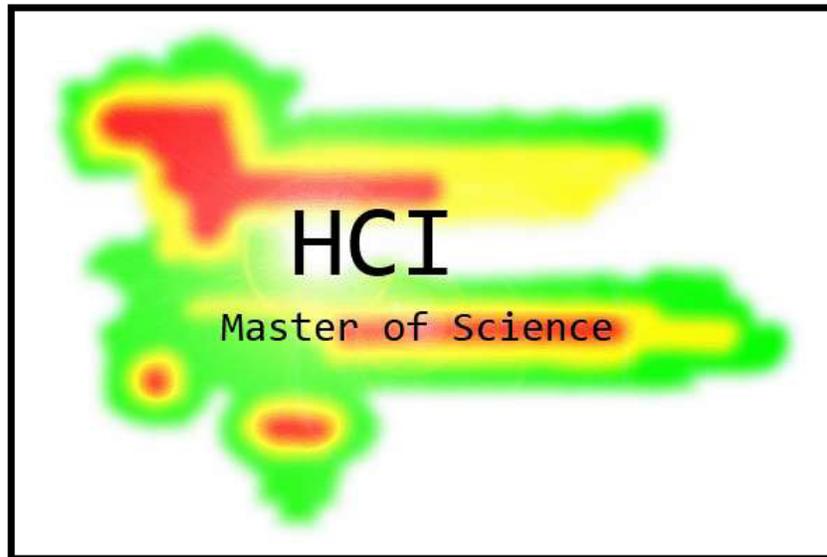


Graduate Advising Handbook

Master of Science in Human-Computer Interaction 2017-2018

This handbook represents our best efforts
to provide accurate information,
but all information contained in this document
is subject to change.

Human-Computer



Interaction

For more information contact:

Rochester Institute of Technology
Information Sciences & Technologies Department

Golisano College of Computing & Information Sciences
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Building 70/GOL - 2100
Rochester, New York 14623-5603
(585) 475-2700 (voice)
(585) 475-6584 (fax)
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Introduction

The Master of Science (MS) degree program in Human-Computer Interaction at RIT consists of a set of required HCI core courses, some courses in an application domain chosen by the student, electives, and an independent project or thesis. The core provides students with the basics in scholarship, and the science and technologies underlying HCI. The choice of an application domain allows the student to select an area that applies principles of HCI imparted in the foundation. This may be broadened or deepened with selection of elective courses, based on student interest and HCI faculty approval.

This program has been designed to support four essential outcomes for our graduates. These outcomes are as follows:

- Explain the conceptual and methodological frameworks of HCI and HCI research, particularly human cognition as it applies to information systems.
- Integrate HCI principles and user-centered methodologies for the design, implementation, and evaluation of products.
- Integrate the subject matter of an application domain with HCI principles and practices.
- Synthesize HCI research and practice to solve a real world problem.

Related MS Programs at RIT:

- ❖ Networking and Systems Administration (College of Computing and Information Sciences)
- ❖ Information Sciences and Technologies (College of Computing and Information Sciences)
- ❖ Computing Security and Information Assurance (College of Computing and Information Sciences)
- ❖ Software Engineering (College of Computing and Information Sciences)
- ❖ Computer Science (College of Computing and Information Sciences)
- ❖ Computer Engineering (College of Engineering)
- ❖ Game Design and Development (College of Computing and Information Sciences)

General Information

Applications for admission are processed throughout the year, and graduate students generally begin their programs of study in the Fall semester. Course offerings are very limited during the summer term. Students should contact the Department of Information Sciences and Technologies if they plan to start their studies during the Spring semester. A Spring start requires departmental approval. There is not a specific deadline for applications, but the number of students accepted each year is limited. Also, you must be aware of the lead time to process your application. See the table below for deadlines for the Fall semester and different types of applications. It is advantageous for students to apply early. Application forms may be obtained online or by writing to:

Graduate Enrollment Services
 Rochester Institute of Technology
 Bausch & Lomb Center
 58 Lomb Memorial Drive
 Rochester, New York
 14623-5604
gradinfo@rit.edu
<http://www.rit.edu>

Semester	Typical Starting Date of Semester	Domestic Application Deadline (Part Time)	Domestic Application Deadline (Full Time)	International Application Deadline (Full Time only)
Fall	~ September 1	August 1	August 1	July 1
Spring	~ January 25	December 15	December 15	November 15

Distance Learning

All core HCI courses and most elective and domain courses are offered in an online environment that facilitate a learning experience for the online learner. Online (or distance) education use a variety of methods, including Web-based presentations, video and audio recordings, audio and computer conferencing, and electronic blackboards. These tested educational delivery methods give you time and place flexibility while maintaining RIT's academic standards and quality of instruction. Information about online learning at RIT is available at <http://online.rit.edu>.

A wide variety of support services are available remotely, including advising, on-line library catalogs and indexes (some with full text), inter-library loans, internet-based audio conferences, computer conferencing and other software. Courses offered in distance learning format follow the same semester schedule and are charged the same tuition rate as other RIT on-campus courses.

International students seeking an I-20 to reside in the United States while studying in this program should note that they are required to be enrolled for at least six (6) credits per semester in on-campus courses. Distance learning or online courses do not qualify for the 6-credit requirement. However, some of the program's courses are offered online in two formats: a pure online format and a "blended" format. The blended format requires students to participate online in exactly the same way as distance students, plus they attend a weekly recitation with a faculty member. This required recitation allows blended-format courses to count toward the 6-credit residency requirement.

To participate in this online program, you will need the following:

- Access to a personal computer or workstation (running an up-to-date Web browser)
- Access to the Internet via a network connection to your own Internet Service Provider.

Entrance Requirements

Undergraduate Degree

The applicant should have a baccalaureate degree and have a cumulative grade-point average of 3.0 (“B”) or above from an accredited institution of higher education using the US system or grading. For students from a university using the British system, students should have at least a first class degree. Knowledge of computing, programming, and a strong foundation in mathematics are a plus.

Bridge Courses

These courses are designed to assist students in meeting the computing and mathematics prerequisites for the MS in Human-Computer Interaction program. There is more information regarding bridge courses later in this handbook.

Transfer Credits

A student may propose to transfer into the in MS in Information Sciences and Technologies program up to six graduate semester credits that were taken at another university with a grade of ‘B’ or better. Courses must have been taken within the past two years. The Director of Graduate Programs will evaluate these proposals. Official transcripts along with the syllabi of the transfer courses must be sent to:

Graduate Enrollment Services
Rochester Institute of Technology
Bausch & Lomb Center
58 Lomb Memorial Drive
Rochester, New York
14623-5604
gradinfo@rit.edu
<http://www.rit.edu>

GRE Scores

GRE scores are required from applicants whose undergraduate degrees are from foreign colleges. Other applicants may wish to include GRE scores to enhance their applications (e.g., when undergraduate GPA is less than 3.0). Official test results must be submitted to:

Graduate Enrollment Services
Rochester Institute of Technology
Bausch & Lomb Center
58 Lomb Memorial Drive
Rochester, New York
14623-5604
gradinfo@rit.edu
<http://www.rit.edu>

TOEFL Scores

The *Test of English as a Foreign Language* (TOEFL) score is required for every applicant for whom English is not his or her native language. A score of at least 570 on the paper-based test or 230 on the computer-based test is required or 88 on the internet-based test. Exceptions can be made for an applicant whose academic record is strong. Upon arrival at RIT, students whose native language is not English may be required to take the *Michigan English Test* and follow the recommendations of RIT’s English Language Center.

Financial Aid and Employment Opportunities

Costs

Information on tuition, registration student services, etc. can be found online at <http://www.rit.edu/grad>. RIT offers various forms of financial aid for graduate students.

The Department of Information Sciences and Technologies awards partial tuition merit-based scholarships each year. Merit-based scholarships are based on the applicant's application, including grades, courses taken, university attended, and letters of recommendation and GRE scores.

The department employs several graduate students as Graduate Assistants. Assistantships offer a scholarship and provide an hourly wage based on 20 hours of work. The amount of the scholarship varies up to full tuition and depends on departmental needs and the applicant's qualifications. We require very specific skills for these assignments as well as in-person interviews. We make Graduate Assistantship assignments throughout the academic year for the following Fall, although openings may unexpectedly occur. If you wish to be considered for an assistantship, please make sure that we have received your full application by March 1st of the preceding school year if you are applying for Fall admission.

- ❖ Qualified graduate students may apply to be lab assistants and graders.
- ❖ A student can earn money each semester by working on campus. For more information visit the Office of Student Employment located in room 1350 in the University Services Center (USC), 585-475-2631 or visit <http://www.rit.edu/emcs/seo>.

Curriculum

The graduate program of study consists of 30 credits. At the end, you will pursue an independent project or thesis.

Prerequisites:

There are prerequisite skills a student must possess prior to beginning the MS in HCI degree program. Students who are admitted, but lack these skills, will be required to make up the deficiency before beginning the degree program.

The prerequisite skills are listed below. To the right of each are one or more RIT courses that will fulfill the deficiency. Students may elect to fulfill these requirements at another institution of higher education. In that case, the student must have his or her course selections pre-approved by the Director of Graduate Programs.

The Bridge Program

- Object-oriented programming (1 year) ISTE 120 & 121 Computation Prob. Solving in the Info. Domain I & II
- Statistics DECS 782 Statistical Analysis for Decision Making
- Application domain prerequisite NOTE 2: below

NOTE 1: Students with significant programming, but not in an object-oriented language may satisfy the first requirement with a single course: ISTE 200 Java for Programmers, with the approval of the Director of Graduate Programs.

NOTE 2: Depending upon a student's background, some program elective options and application domains may require additional prerequisites. Thus, depending upon the area(s) of study selected, additional courses may be required. These courses may or may not be usable towards degree requirements; meet with the Director of Graduate Programs to discuss specifics.

The Foundation Courses:

- HCIN 600 Research Methods -- 3 credits
- HCIN 610 Foundations of Human-Computer Interaction -- 3 credits
- HCIN 620 Information and Interaction Design -- 3 credits
- HCIN 630 Usability Testing -- 3 credits

Application Domain

- Selected courses from a chosen domain listed below.

Program Electives

- Selected courses listed below

Culminating Experience (choose 1)

- Project Option
 - HCIN 794 MS HCI Capstone Proposal -- 3 credits
 - HCIN 795 MS HCI Project -- 3 credits
- Thesis Option
 - HCIN 796 MS HCI Thesis -- 6 credits

Your program of study must follow one of the paths outlined above. Only the Director of Graduate Programs can approve changes of a student's program of study.

Any grade lower than "C" is considered failing. If a student receives a "D" or "F" they should meet with the graduate advisor as soon as possible to discuss the repercussions and create a recovery plan.

Application Domains

Students matriculated in this degree will select one two-course application domain representing six semester hours of work. Application domains and corresponding course choices are listed below.

- *Special Topics*

A two courses (6 semester hours) special topics application domain is available to selected students who wish to pursue an in-depth study of an area not present in the program's offerings. The student will develop a proposal in consultation with the faculty advisor. The Director of Graduate Programs will review the proposal and approve or deny the request.

- *Web Development*

GCCIS-ISTE-645 Foundations of Web Technologies I
GCCIS-ISTE-646 Foundations of Web Technologies II

- *Geographic Information Science and Technology*

GCCIS-ISTE-740 Geographic Information Science and Technology
GCCIS-ISTE-744 Thematic Cartography and Geographic Visualization

- *e-Learning Technologies*

GCCIS-HCIN-660 Fundamentals of Instructional Technology
GCCIS-HCIN-661 Interactive Courseware

- *Smart Device Application Design and Development*

GCCIS-HCIN-720 Prototyping Wearable and Internet of Things Devices
GCCIS-HCIN-722 HCI with Mobile, Wearable, and Ubiquitous Devices

Program Electives

Students matriculated in this degree will select two courses representing six semester hours of work. Program electives may be chosen from the list below. In selected cases, students can petition for approval to include a course complementary to the degree program as a program elective.

GCCIS-ISTE-645 Foundations of Web Technologies I
GCCIS-ISTE-646 Foundations of Web Technologies II
GCCIS-HCIN-660 Fundamentals of Instructional Technology
GCCIS-HCIN-661 Interactive Courseware
GCCIS-HCIN-700 Current Topics in HCI
GCCIS-HCIN-720 Prototyping Wearable and Internet of Things Devices
GCCIS-HCIN-722 HCI with Mobile, Wearable, and Ubiquitous Devices
GCCIS-HCIN-730 User-Centered Design Methods
GCCIS-ISTE-740 Geographic Information Science & Technology
GCCIS-ISTE-744 Thematic Cartography & Geographic Visualization
GCCIS-HCIN-794 MS HCI Capstone Proposal
COLA-PSYC-712 Graduate Cognition
COLA-PSYC-715 Graduate Perception

Independent Study

Students have a limited opportunity to obtain credit for independent study and to use that credit to meet degree requirements. In this degree program, independent study is limited to student with an approved Special Topics track or as an approved Program Elective. Generally, independent study projects represent work that is different from, or an extension of, existing course offerings. In order to take an independent study, students must have a faculty sponsor. The faculty sponsor has to be a member of the IST faculty. Students and that faculty sponsor will fill out the Independent Study form to decide what they will do and how students will be graded. Students and the faculty sponsor must also sign the Independent Study form and the Director of Graduate Programs must approve it before the student is allowed to register for an Independent Study course. After the student's work is complete, they are required to submit a report of their work to the sponsor of their independent study. The expected amount of time spent for a 3 credit hour independent study is equivalent to a 3 credit hour lecture. A detailed report describing the completed work has to be handed in to the faculty sponsor. A typical report is expected to consist of about 30 pages. You can apply at most six (6) semester hours of Independent Study toward your MS degree.

Cooperative Education

Graduate students are eligible for *optional* co-op work consisting of up to two semesters of full-time employment. A co-op position is not assured. The co-op program is available for full-time students in good standing (cumulative GPA of 3.0 or better or a semester GPA of 3.0 or better in the semester immediately preceding the requested co-op term) who have completed the Bridge Program and at least 4 foundation courses (12 credits) of the MS program of study, excluding bridge courses.

Co-op positions must be secured by the beginning of the academic term in which you wish to co-op.

Permission for mid-semester co-ops will not be granted.

To register for co-op, you must participate in "Co-op Orientation". Information may be obtained from the Office of Career Services and Cooperative Education (<https://www.rit.edu/emcs/oce/>).

Probation and Suspension

Any matriculated graduate student whose Program Grade Point Average falls below a 3.0 (B average) after 12 semester credit hours have been completed will be placed on probation and counseled by the departmental advisor concerning continuation in the graduate program. Those students placed on probation must raise their Program Cumulative GPA to the 3.0 level within 9 semester credit hours or risk suspension from the graduate program. Should it be necessary to suspend a graduate student for academic reasons, the student may apply for readmission to the dean of the college or designee (department head, program director, etc.) upon demonstration of adequate reason for readmission. Re-admission is **not** guaranteed.

Student Advising

Faculty Advisor

Students are assigned to a faculty member as an academic advisor. Faculty can provide the best advice about career paths, academic choices, and routes to a successful career after graduation. Students may approach their assigned advisor, or any faculty member with whom they feel comfortable, for advice.

Graduate Academic Advising

The graduate advisor is available to assist and advise graduate students and is able to answer day-to-day questions, such as deciding what to take next term, dealing with a course that you're having trouble in, completing the paperwork that goes along with being a student at RIT, or just to talk with when you're feeling a bit overwhelmed.

MS Project and Thesis

The Master's thesis or project forms the capstone of the MS program. There are two options for how students may fulfill the capstone requirement for their degree, either the Project option or the Thesis option.

Project Option

A capstone project is a large body of work, which you undertake independently under the supervision of a full-time IST faculty member. A Project consists of a nontrivial design project, software or web development project, and/or software or web deployment project and a detailed report discussing it; a capstone project may also consist of a research project that investigates more theoretical questions – along with a report that describes the research and results. For the Project option, original insight into a problem is desirable but not required. The project report is expected to be in the form of a scientific paper:

- describing background and relevant results in the area
- detailing the work carried out
- discussing the significance of the deliverables of the endeavor and providing appropriate reference citations

Thesis Option

The majority of students in the masters program fulfil their capstone requirement through the Project option, described above. A small number of students, especially those with an interest in HCI research or further graduate study, may choose to pursue the Thesis option for their capstone.

As compared to a Project, a Thesis deals with a research question and involves a master's level of original insight. The expectations for background research and justification are much higher for a Thesis, as compared to a Project. It is expected that the quality of research produced in a Thesis would be suitable for submission as a research paper to a conference, a journal, or other form of public dissemination, and in general, students who are pursuing a Thesis option are expected to submit their research to such venues. More specifically, the difference between a project and thesis is the nature of the work involved. A project implements a technology or demonstrates an HCI design process, whereas a thesis explores an area of applied or original research. From the perspective of the novelty of the project and its overall contribution to knowledge in the field, the requirements for a Project are less stringent than for the Thesis. The Thesis requires more depth and the student should develop a substantial understanding of the topic through background library research, their own original research (which may include experimentation), etc. The final written deliverable for students in the Thesis option is a formal master's Thesis document, which is deposited in the RIT library.

Comparing the Project and Thesis Options: How to Decide

The following table summarizes some key differences between the Project and Thesis option, to help students select which option is best for them, and to help them understand the different requirements for each option.

	Project option	Thesis option
<i>How popular is this option?</i>	Historically, the vast majority of students in the HCI program have selected the Project option for their capstone experience.	Historically, a small number of students in the HCI program have selected the Thesis option for their capstone experience – often these are students who had already been engaged in some research with an HCI faculty member or who had an interest in further graduate education beyond their MS degree.
<i>How much effort should the capstone experience be for this option?</i>	As a guideline, a capstone <u>Project</u> will take about as much effort as that devoted to a three-credit course.	As a guideline, a <u>Thesis</u> will take about as much effort as that devoted to two (2) three-credit courses.
<i>How do students begin to pursue this option?</i>	Students enroll in the MS HCI Capstone Proposal course (HCIN-794), in which they learn about how to develop and write a high-quality proposal for their work. Generally, students enroll in the HCIN-795 capstone course during the following semester to do their capstone project work. While not required, some students engage with faculty members in the HCI program prior to enrolling in HCIN 794 to learn more about their research or become involved in their research projects; some of these students develop capstone project proposals (with this faculty member’s guidance) without taking HCIN 794.	Students interested in the Thesis option are encouraged to learn about the research expertise of faculty in the HCI program as early as possible and to engage with a faculty member (who might serve as their Thesis advisor) more than 12 months in advance of their anticipated date of graduation. Students often engage in some ongoing research project of a faculty member or identify an original research topic that intersects with the expertise of faculty member.
<i>Is the HCIN-794 course required for students in this option?</i>	The MS HCI Capstone Proposal course (HCIN-794) is required for students in the Project option. In exceptional cases, e.g. when a student has already been working with a professor in some capacity on a research project, a student may write their capstone project proposal without taking this HCIN 794 course. If the student’s capstone project proposal is written and it is approved by their committee, they may ask the Graduate Director for permission to replace the required MS HCI Capstone Proposal course with some other elective in the program.	Students pursuing the Thesis option are <u>not</u> required to take the MS HCI Capstone Proposal (HCIN 794) course, but they may choose to take this course as one of their elective course options for their degree program, in order to gain useful skills in how to write a high-quality proposal for an independent project.

	Project option	Thesis option
<i>What is the course that students enroll in during the semester(s) when the main effort of this capstone is occurring?</i>	HCIN-795 (3 credits) – Commonly, students enroll in these 3 credits during a single semester. Subject to approval from the student’s capstone project advisor, the student may spread these credits across multiple semesters, e.g. 2 credits in the fall and 1 in the spring.	HCIN-796 (6 credits) – Commonly, students may enroll in these credits spread across multiple semesters, e.g. 3 credits in the fall and 3 in the spring. Subject to approval from the student’s faculty thesis advisor, they may enroll in all 6 credits in a single term.
<i>When must a proposal be written?</i>	The proposal must be written, given to the committee, and approved (signed on the cover page by the members of the committee), before the student is permitted to enroll in HCIN-795. Most students will write their capstone project proposal during the semester in which they are enrolled in HCIN-794, and then they will take HCIN-795 during the subsequent semester.	Ideally, the proposal must be written, given to the committee, and approved (signed on the cover page by the members of the committee), before the student is permitted to enroll in HCIN-796. However, subject to approval of the student’s thesis advisor, the student may be permitted to enroll in HCIN-796, while the student is still completing their thesis proposal document. Generally, this is only permitted in exceptional circumstances, when the advisor is confident that the student is making very strong progress and will produce a high-quality proposal document. The student is expected to provide their committee with a full thesis proposal document, at the latest, by the midpoint of their progress through the six credits of HCIN-796.
<i>How is the final report deposited for this option?</i>	For students pursuing the Project option, their final report must be submitted in electronic and paper copy to the IST department office, and copies of this final report must be provided to the committee members.	The student’s final report (their “Thesis” document) will be bound and reside in RIT’s Library archives. Copies must also be provided to your committee. See the “Final Deliverables” section for details.
<i>How many members are on the committee?</i>	One faculty member as chair, plus one additional reader.	One faculty member as chair, plus two additional readers.
<i>When is the committee formed?</i>	The student must identify a faculty member who is willing to serve as the chair of their committee (the primary advisor for their work) in the early stages of their writing a proposal. Both members of the committee must approve (and sign the cover page) of the student’s proposal before the student is allowed to enroll in HCIN-795. Thus, the entire committee must be formed at this time.	The student must identify a faculty member who is willing to serve as the advisor for the thesis project as early as possible (generally, at least 12 months prior to the students’ desired graduation date). The entire committee must approve the student’s thesis proposal; so, the entire committee must be formed at this time.

Important Information for Both Projects and Theses

The purpose of a Master's thesis or project is to be of educational value to the student and to independently create and present a large, interesting, piece of work. Any acts of plagiarism or other acts of academic dishonesty will result in an automatic 'F' for the project or thesis. If you have any questions regarding plagiarism you should contact your committee chair before you complete your write up or make your presentation.

Additionally, by forming your committee and registering for Project or Thesis you have effectively created a contract between your chair and yourself. Your chair will contribute a substantial amount of time guiding project activities. Failure to complete your project or thesis within the agreed upon schedule may result in receiving a grade of 'F'.

In either case, you will need to write a new Proposal, form a new committee, and register for project or thesis again. In both cases the 'F' will remain on your transcript. Additionally, by signing your proposal the committee members agree to serve on your committee for one year. After one year they can resign from the committee if they feel the student is not making adequate progress.

The Thesis/Project Committee

Students choosing the project or thesis option must form a committee. This committee is composed of three members for a thesis and two members for a project:

- chair
- 2 readers (only one reader is required for a project)

The function of the chair is to direct the technical aspects of your project and to ensure that your project or thesis meets the department's technical and administrative requirements. The chair has to be a member of the IST faculty.

You will meet with your chair periodically. Monthly progress reports must be provided. The reader(s) may also review your monthly reports and provide feedback on your progress or concerns they may have to your chair. Your committee must be provided with a final copy of your report two weeks prior to your defense. The reader(s) do not have to be a member of the IST faculty, but must hold an MS degree and be approved by your chair.

Other faculty members may also review your work and make recommendations to your chair. All advisement will come directly from your chair. The chair, and reader(s) must sign off on your Proposal before you register for project or thesis. It is most important that you establish a committee before you begin serious work on your project. Failure to do this may cause significant delay in the completion of your degree.

The Thesis/Project Proposal

Students must write a thesis or project proposal. The proposal should contain the following sections, unless otherwise arranged with your chair:

- A summary describing what you will do.
- An overview of the area of your project/thesis.
- A hypothesis.
- How the proposed work will be evaluated against existing work.
- A summary of your proposed methodology for your work, e.g. the steps you will follow during your project. In the case of a software or web development/deployment effort, you should provide an

architectural overview of the planned system; i.e., the design specification. In the case of a user-centered design project or research, your methodology should describe the activities that are planned to occur.

- If your research involves the participation of human subjects, then you may need to obtain Institutional Review Board (IRB) approval before you can begin your work. It is strongly recommended that you write and submit an application to the IRB at least two months before you plan on beginning any recruitment, pilot testing, or studies with human participants – otherwise, you may experience a delay in your ability to complete your proposed project.
- A list of the principal deliverables of your project/thesis and the form in which these will be delivered, such as: technical paper or report, input/output examples or demonstration, code (the complete system should be given to your principal advisor archived on a single file, user manual, design documentation and maintenance manual.
- Annotated references. This should include the following: previous master's projects or theses, books, papers, URLs.
- Detailed schedule, including target defense date.
- Status of the work at the present time. Monthly updates must be provided.

Registering for Thesis or Project

You must register for thesis (6 credits) or project (3 credits). Students interested in pursuing the project option must take HCIN-794, 'MS HCI Capstone Proposal' as a pre-requisite. To register you must have an approved proposal, signed by your committee, on file with the Director of Graduate Programs. If you need guidance in developing your proposal, a pre-proposal (much shorter) signed by your committee chair will enable you to register for part of the credits for your thesis or project. When you have a completed proposal, you may then register for the remaining credits.

Please note that the process of developing and writing a proposal is a non-trivial task that will require substantial time and effort. Therefore, it is the responsibility of the student to begin working on this proposal well in advance of the semester when project or thesis credits are desired. The signed and approved proposal is required in advance of registration. If a student waits until a few weeks before the semester to begin work on a proposal or to begin contacting a faculty member, it is extremely unlikely that a proposal will be successfully completed and signed before the beginning of the semester. The student will need to wait until a later semester to enroll in project or thesis credits, after their proposal is signed and approved. Most faculty are not on contract during the summer months, and therefore students who would like to register for project or thesis credits in the fall semester should not wait until the summer to begin their work on a proposal.

Doing a Thesis or Project Related to Your Work

A student may be working in the computing field, and find that their work provides them with an opportunity to do projects that are comparable to the MS Project or Thesis, and they would like that work to qualify. This approach is possible, and there is precedent for doing it. Students can even have a reader from their place of employment, but the chair of their committee must be an Information Sciences and Technologies faculty member and be knowledgeable in the proposed area of work. The work that will be submitted as the Project or Thesis must be monitored by the faculty members on the committee and the student must report their progress monthly.

Because an IST faculty member is monitoring your work, this rules out submitting a proposal for work that has already been completed. In addition, the report, and a significant portion of the other work products such as code, must be made available for other students to read in the future. The committee sets the requirements - not the employer. It is your responsibility to assure that your employer's requirements for confidentiality are respected.

As an additional consideration in regard to confidentiality, your final defense presentation (for both Capstone or Thesis) is announced and open to the public. Your final report (in the case of Projects) will be archived in

the IST department office and made available to IST students and faculty. For the Thesis option, your final report will be deposited in the RIT library and available to anyone who requests it.

Approaching the End of Your Capstone, Preparing to Schedule Your Defense

As the student is nearing the conclusion of their HCIN-795 course (for the Project option) or HCIN-796 course (for the Thesis option), they must write their final report and schedule their defense presentation, following the recommended timeline below. Of course, committee members may be busy near the end of a semester, and a student should not expect a faculty member to review a long document in less than two weeks; so, the timelines shown below reflect a minimal level of professional courtesy; in fact, it would be ideal for the student to provide the documents to their chair and committee even earlier than the dates below.

(At least) One Month Prior to the Desired Defense Date: The student should provide a full draft of their final report to their committee chair, who may give the student advice on improvements that are necessary to the document, prior to sharing it with the entire committee.

(At least) Three Weeks Prior to the Desired Defense Date: The student should provide a full draft of their report to their entire committee. The committee should review the document and inform the student (and the chair) whether they believe the student's work (and their report) is at a sufficient level of completeness and quality that it would be appropriate for the student to schedule a date for their defense presentation. If the student has not already done so, they should ask their committee members for their time availability in order to identify a good date and time for the defense. The committee members may decide that the student's report is not at a sufficient level of completeness or quality, and they may ask for revisions or additions prior to agreeing that the student is ready to hold a defense presentation. (The committee may later ask for additional revisions or additions to the document at the time of the student's defense presentation.)

(At least) Two Weeks Prior to the Desired Defense Date: If the committee agrees that the student's report is at a sufficient level of completeness and quality in order to hold the defense, then the student should communicate to the IST department office that they would like to schedule the defense. Please see the details in the "Checklist for the Defense" section below.

On the Day of the Defense: The committee may determine that the student must make additional revisions or additions to the final report (or some aspect of the work that had been proposed). The entire committee may ask to see and approve a final version of the report that satisfies their concerns (or they may delegate this responsibility to the chair of the committee only), depending on the severity of the revisions required.

After the Defense: If the student passes the defense, and if any revisions or additions to the report had been requested by the committee, the student must prepare a final version of the report to address these concerns. The student must provide this report to the committee for their approval, prior to producing the final electronic or paper copies of the report. Please see the details in the "Final Deliverables" section below. If you are hoping to graduate during a particular semester, you must consult the IST department office to ensure that you provide the appropriate final deliverables in time to graduate. There are additional requirements (e.g. meeting with the library to deposit your final thesis document) for Thesis students.

Checklist for the Defense (Thesis or Project)

The last step in the process is the defense. After the student has completed the write up of his/her work and the chair and the reader(s) have approved it, the student defends his/her work during a 50-minute presentation. The defense is open to the public.

The student is required to follow the procedures outlined below:

- Schedule the defense and register that scheduling with the department office; assure all committee members are able to attend; reserve the room with the department staff.
- Assure that the room has all the facilities you require (board, markers, projectors, ethernet

- connection, etc.).
- Post announcements at least 10 days prior to the event unless otherwise approved by your committee.
- Verify with the department staff that all necessary paperwork has been completed (including current application for graduation).
- Review your presentation with at least one of your committee members (typically the committee chair) before presenting it formally. The defense should take 50 minutes, but you must allow time for questions and discussion. When you rehearse, it should take 40 minutes.
- A rehearsal is highly recommended. Ask a friend or two or a member of your committee to sit through a complete presentation. This is the only way you will know how long it takes and will help in locating the bugs (demos that fail, typos, faulty visuals, etc.) in your presentation.
- Prepare handouts for your presentation consisting of copies of your slides or notes. Discuss with your committee chair how many copies to prepare.

Final Deliverables

After passing your defense presentation and after preparing a final version of your report (that addresses any concerns to your committee's satisfaction), then you should print and prepare the final versions of your deliverables for the IST department office (and for the RIT library – if you are pursuing the Thesis option). The IST department website provides templates for how your cover page should appear for Project or for Thesis final reports, including a place for you to obtain signatures from your committee members: http://ist.rit.edu/index.php#current_students [All the template are under the Forms section].

The final paperwork for a Project requires that you give each of your committee members and the department a copy of the professionally written report, in a pressboard binder (or some flat binding). For a Project, if all of the members of your committee are IST department faculty, then you may submit unsigned paper copies of your final report to the IST department secretary (and the office staff will later ask faculty members to visit the office sometime to sign the cover page of the report).

The report you submit for a Project must also include a CD/DVD, which has the following content:

- Report in PDF: The filename has to be *report.pdf*
- Proposal in PDF: The filename has to be *proposal.pdf*
- Defense announcement in plain text or PDF: The filename has to be *announcement.pdf/announcement.txt*
- Any electronic files, code, or other materials your committee has asked you to provide.

The final paperwork for a Thesis requires that you arrange for a bound copy of the thesis for the RIT Library, the department, and each committee member (that makes six copies, counting your own). Give the department secretary copies of:

- the thesis binding receipt
- the thesis abstract
- the signed cover page
- a CD/DVD, which has the following content:
 - Final Thesis Report in PDF: The filename has to be *report.pdf*
 - Your Thesis Proposal in PDF: The filename has to be *proposal.pdf*
 - Defense announcement in plain text or PDF: The filename has to be *announcement.pdf/announcement.txt*
 - Any electronic files, code, or other materials your committee has asked you to provide.

For the Thesis option, the RIT library requires that the printed version of your document that is given to the library already have **signatures from your committee members**. So, you should make arrangements to obtain these signatures from the committee after you have printed the final version of your report, and prior to your depositing the report at the library. Some students bring copies of their Thesis signature page, printed on Library-approved-quality paper to their defense, and if the committee is satisfied with the report

or has only minimal requested revisions/additions, the committee members might agree to sign several copies of the cover page on this day. Then, the student could use this signed cover page as they prepare and print the final version of their thesis document, prior to binding the pages in a library-approved manner.

You will not be certified for your degree until these steps have been completed.

Full Time Equivalency

Continued, active registration at RIT can be important for students who must maintain full-time student status, such as students with loans to repay or foreign student visas to maintain. Students working on their thesis or project may be registered for fewer than 9 credits.

To be considered a full-time student even though you are registered for fewer than 9 credits, you must complete a “full-time equivalency” form. The IST Department allows you to apply for full-time equivalency for a maximum of one year. You must have a GPA of at least 3.0. Please see the *Graduate Advisor* or the *Director of Graduate Programs* to complete the appropriate paperwork.

Miscellaneous Information

IST Student Services Office

The IST Student Services office is in Golisano Hall (GOL, Room 2100). The phone number is 585-475-2700; office hours are 8:30am to 4:30pm Monday through Friday. The office maintains records for each matriculated graduate student. Bring your policy and procedure questions to the staff in this office (e.g., grade problems, transfer of programs, transfer of credit, forms, registration). This office can assist with change of program, intent to graduate, add or drop a course, and register for project or thesis.

To help us maintain accurate records, make sure we have the correct spelling of your name, your current address, your student number, and your day and evening telephone numbers.

The 7-year Rule for Completing a Degree

You may not use any courses for graduation that were taken more than seven years ago (this rule does not apply to Bridge Program courses).

Guidelines for Petitioning for an Extension Beyond the 7-year Limit

In cases where the fulfillment of degree requirements extends beyond the 7 year limit, the Director of Graduate Programs must petition the Graduate Council for a formal extension.

Please note the following important requirements for these petitions:

Application for an extension should be submitted to the Graduate Program Director at least one full semester prior to the expiration of the seven-year time limit.

When a student’s program is projected to exceed the seven-year limit, he/she should not be encouraged to take courses or work on a thesis or final project until a decision has been made by the Graduate Council.

A student can apply through the Director of Graduate Programs for an extension of the 7-year rule.

The student has the following options to prove that the student’s knowledge of the course(s) beyond the seven year limit are current:

- ❖ A student can retake the course(s) at RIT and pass the course with a passing grade.
- ❖ A student can retake the course(s) at another institution and pass the course with a passing grade. The Director of Graduate Programs must approve the course selection, before the student is allowed to register.
- ❖ The student has to pass an exam of the course(s) in writing at RIT. The exam will be similar to a final of the course(s).

Documents included in the petition submitted to the chair of Graduate Council by the Director of Graduate Programs should include the following:

- ❖ Petition support signed by Dean's office.
- ❖ Detailed plan for completion of degree, addressing each unmet requirement. Generally, no more than one calendar year's extension will be granted.
- ❖ Circumstances that delayed completion of degree.
- ❖ RIT graduate transcript (and, where relevant, undergraduate transcript).
- ❖ Current résumé.
- ❖ A copy of the thesis description or final project proposal (if completed).
- ❖ A list of courses that will be older than seven years (and by how much) at the projected date of graduation. At the time of certification, the Director of Graduate Programs will provide written documentation of the currency of overdue courses.
- ❖ Letter of support from the Director of Graduate Programs or faculty advisor.

Loss of Student Status

You may be withdrawn from the program if:

- ❖ You fail to register for courses for three successive semesters.
- ❖ You have not registered for thesis or project within one year after completing your coursework.
- ❖ You have not completed your thesis or project within one year after registering for project or thesis.

If you are in danger of being withdrawn, please see the Director of Graduate Programs.

Academic Honesty

Academic honesty is an expectation of all students at RIT. Any act of improperly representing another person's work as one's own is an act of academic dishonesty. The RIT code of academic conduct is documented in the university's Policies and Procedures manual:

<http://www.rit.edu/academicaffairs/policiesmanual/sectionD/D8.html>
<http://www.rit.edu/academicaffairs/policiesmanual/sectionC/C0.html>

Appendix A - Forms

Thesis Forms

Following are various forms used in completing a thesis capstone:

- Proposal Approval form
- Defense Announcement
- Final Thesis Approval form
- Thesis Title page

These forms are available on this program's graduate website.

Project Forms

Following are various forms used in completing a project capstone:

- Proposal Approval form
- Defense Announcement
- Final Project Approval form
- Project Title page

These forms are available on the department's graduate website.

Appendix B – Frequently Asked Questions

Frequently Asked Questions

- 1. Is there a scholarship available?** All full-time and some part-time students who do not have significant outside sources of funding and who have strong academic and/or employment backgrounds are eligible to receive a scholarship. Once assigned, this scholarship is for two semesters of support.
- 2. What about my scholarship if my studies exceed two semesters?** While economic contingencies cannot be foreseen, scholarships are generally renewed as long as the student is making steady progress on the degree and remains in good standing (attains a GPA of 3.0 or better). You must request such a renewal/ Requests for renewals must be made, in writing, using the RIT Graduate Scholarship Application form (see the Student Services office) at least one semester before the extension is desired.
- 3. Does scholarship cover courses taken in summer terms?** Normally not. However, upon request, the graduate coordinator or graduate advisor may extend a scholarship to cover summer term courses.
- 4. Are there graduate assistantships available?** The department offers a small number of graduate assistantships (GA) positions yearly. To apply, you must fill out and submit an application to the graduate coordinator no later than **March 1st** for the next academic year. Assistantships are granted for a maximum of two semesters.
- 5. May I work (co-op) as part of my studies?** Graduate co-op is available. It is optional and you may do at most one (1) co-op semester prior to capstone completion. You must meet the requirements for co-op and ensure that your job is appropriate before beginning work. See the graduate coordinator and our representatives from Career Services and Cooperative Education for assistance with this. However, it is important that working does not interfere with your completing your MS capstone and obtaining the degree.
- 6. How do I get ideas for my capstone and help getting started?** You will likely have ideas from your coursework, and you can always seek the help of a faculty member with whom you have a good relationship.
- 7. I am an international student. Are there special study rules I should know about?** Yes. International students must take at least 6 credits per term on campus. This can be a problem in a degree designed for online students. To accommodate this need, we offer most of our courses in two formats. The first is a totally online format which does not count toward the 6 credits of on campus coursework.

The other format is a “blended” format. These courses require the same work as a totally online course, but bear an additional requirement of at least one on-campus meeting per week with an instructor. These courses do count toward the 6 credits of on campus coursework.
- 8. May I take other courses in place of those indicated on the program worksheet?** Possibly – depending upon the reason and your background. Any and all changes to your plan of study must be pre-approved by the graduate coordinator or graduate advisor.