

Capstone/Senior Project Guidelines

The faculty of the Chester F. Carlson Center for Imaging Science agree that a significant capstone research experience at the undergraduate level is a factor that is both important to the education of future imaging scientists and preparatory for the environment they will enter after graduation - whether that environment is graduate school or the work place. It is understood that this capstone research experience can be achieved in different ways, and certain unique situations may arise that allow for deviation from the proposed approach with the approval of the CIS Undergraduate Coordinator.

All students in the Imaging Science undergraduate program will complete a capstone research project. "Senior Project" (IMGS 502, IMGS 503) that will nominally commence in the fall semester of Year 4.

By the completion of Year 4 and prior to certification of degree requirements, all students will have completed a significant research experience. The manner in which this requirement can be satisfied is flexible. The options are as follows:

1. The student completes "Senior Project" (IMGS 502, IMGS 503) by conducting research under the mentorship of a CIS, CIS extended, research or affiliated faculty member. Two additional CIS, CIS extended, research or affiliated faculty members or members of the CIS research staff are to be identified by the student to serve as a research committee. The committee is required to meet twice with the primary mentor and the student; the first time at the end of the semester in which the IMGS 502 course is taken to conduct a midterm research review, and a second time at the student's technical presentation of the final research results (described below). Requirements for satisfactory completion of these courses beyond completion of the proposed research include:
 - writing a technical paper summarizing the research conducted (report, conference proceeding, journal submission) with the student as the primary author,
 - a technical presentation of the research to an audience which includes experts in the field (an internal RIT conference or symposium, a professional conference or symposium, a CIS conference or symposium, or an equivalent venue approved by the CIS Undergraduate Coordinator), and
 - the preparation and production of a poster or video summarizing the research.

The technical paper and complete citation information must be inserted in the [CIS documentlibrary](#) as a condition for degree certification.

NOTE: That since this option requires the student's enrollment in a sequence of classes

in which credit is earned, it is inappropriate to receive pay for that portion of the work that constitutes the body of the student's capstone project research.

2. The student completes a research experience as part of a cooperative educational opportunity, paid or unpaid internship, or during other employment either within or outside the Center. The satisfying requirements for this option are the same as those listed above, namely
 - writing a technical paper summarizing the research conducted (report, conference proceeding, journal submission) with the student as the primary author,
 - a technical presentation of the research to an audience which includes experts in the field (an internal RIT conference or symposium, a professional conference or symposium, a CIS conference or symposium, or an equivalent venue approved by the CIS Undergraduate Coordinator), and
 - the preparation and production of a poster or video summarizing the research.

The technical paper and complete citation information must be inserted in the [CIS documentlibrary](#) as a condition for degree certification.

In addition, the CIS Undergraduate Coordinator in consultation with the faculty constituting the Carlson Center's Undergraduate Curriculum Committee (UGCC) must approve the experience after consultation with the student's mentor to determine appropriateness. This approval must be obtained prior to the end of the student's third year of study. If the experience is determined to be satisfactory, the student will be excused from enrolling in and completing the IMGS 502, 503 sequence and will take professional elective credit, if necessary, to obtain the required credit count for graduation. If the experience is not determined to be satisfactory, the student will be required to complete the Senior Project sequence as described above.