

**All students must complete a Concentration Area, a Topic Paper, and develop a Graduate Portfolio of coursework.** For your Graduate Portfolio collect all graded assignments from your graduate coursework. This should include written assignments, programming assignments, and term projects. Place all your work in a three-ring binder using dividers to label the different courses. The front and spine of the binder should be appropriately labeled as your portfolio.

### **Thesis Option**

The culminating thesis is a research project that builds on existing knowledge and includes some novel elements. The project may include major software implementation or software development as part of a research effort, or it may be primarily theoretical or empirical in nature. The novel element could include a new algorithmic technique, an empirical study of existing techniques, or a unique application of existing techniques. The thesis becomes an SIUE publication and may lead to a conference or journal publication.

Your CS 598 topic paper will serve as the literature survey for your thesis proposal. Choose your topic carefully. If you decide to switch topics after you have completed a paper, you will need to write a literature survey for your new area, and you may be asked to repeat the CS 598 process.

1. With the help of a professor in the Computer Science Department, identify a project that would be an extension of current research. This professor will then serve as your advisory committee chair.
2. With the guidance of the chair you will then develop the proposal. It must include a clear plan and a timeline for completion. You must follow the thesis formatting guidelines of the University.
3. Request approval of your project by your advisory committee. If a committee member does not approve your project or no longer wishes to serve on the committee, your committee chair will help you to identify other faculty members who might consent to be on your committee. Upon approval of the proposal, you will be registered for the CS 599 course. You must also register your thesis title with the Graduate School (refer to the Graduate School website for the appropriate form).
4. Upon completion of your thesis work, you will be required to hold an open defense of your project that will consist of a presentation and a question-and-answer session by your advisory committee. Your thesis write-up must be available to your committee three weeks prior to your scheduled defense date. Passage of the thesis and defense is by unanimous agreement of the committee. The committee chair, in consultation with the committee members, will assign a grade for CS 599.

### **Non-Thesis Option**

In place of the CS 599 Thesis credit hours, non-thesis option students must take six credit hours of approved graduate-level Computer Science electives.