

UNCA

COMPUTER SCIENCE DEPARTMENT

SENIOR PROJECT POLICIES

Two of the requirements for graduating seniors of UNCA are to demonstrate competence in their major field of study and to demonstrate oral competency. Our Computer Science Department requires its majors to fulfill these requirements by the completion and presentation of a Senior Project. The project must reveal that the student has the:

- 1 ability to do independent work (no direct, constant supervision).
- 2 ability to work with any users throughout the project's development.
- 3 ability to select appropriate data structures and file organization.
- 4 ability to select appropriate software, tools and platforms.
- 5 ability to implement efficient algorithms and programming techniques.
- 6 ability to find solutions to unexpected problems.
- 7 ability to write original, clear, maintainable, documented software.
- 8 ability to organize a project's activities.

The presentation of the project before the CSCI faculty and the student's peers must reveal that the student has the ability to:

- 1 ability to communicate in a clear, concise and organized manner.
- 2 ability to use presentational tools to enhance the presentation.
- 3 ability to defend ones work.

The following is the order in which the process for completing the project is to be done.

I. The Project Submission Process

A. Deadlines for the Proposal Submission

1. If you are to graduate in the Spring or the Summer, you must submit your proposal in the preceding Fall semester, by the first day of preregistration for the Spring semester.
2. If you are to graduate in the Fall, you must submit your proposal in the preceding Spring semester, by the first day of preregistration for the Fall semester

B. The format of the Proposal

1. A project title
2. Date submitted (If submitting a rewrite also include the revision date.)
3. Student data: name, computer science program (Computer Systems or Information Systems), mailing address, phone number, and E-mail address
4. Expected month and year of graduation
5. The writing style of the 2-3 page proposal must demonstrate a competence, which would be acceptable in the work place. Those that do not have a professional writing style and contain spelling or grammatical errors will be returned for rewrite.

C. The Content of the Proposal The main body should be divided into five sections with the headings as stated below.

1. **Problem statement:** Describe the problem you are trying to solve.
2. **Purpose:** Describe the project. If there is a user, describe his/her company position. To provide the maximum learning situation and to protect you from undo pressures, any user should not be a family member or employer
3. **Software and hardware to be used:** Specify each, and explain the reasons for your choices.
4. **Method:** List, in numbered or lettered format exactly what steps you will perform to complete this project. Be specific. This is the most important section in your proposal because:
 - a) the senior project committee will use this information to determine if your project is an appropriate one
 - b) and more importantly, the computer science faculty will review this list after your project is presented; to evaluate whether or not your project is complete and should receive department approval
5. **Indication of competency:** Explain how your project will demonstrate competency in computer science by addressing how you will utilize the knowledge and skills obtained in upper-level computer science courses and the abilities listed at the beginning of this document.

D. The Submission of the proposal

1. The proposal should be attached to an e-mail to the Senior Project Mail Account (**SeniorProject@cs.unca.edu**) The documents should be in PDF, Word or Text format
2. If the project involves a user, a scanned copy of a signed letter from the user should also be attached to the same e-mail. This letter should include their address and phone number along with their written support of the project.
3. Deadlines for submission are as specified in Section I, A above

E. The Acceptance or Rejection of the Proposal

1. After e-mailing the documents of the proposal to the **Senior Project Mail Account** by the appropriate date, the following will occur:
2. The Senior Project Committee will review and discuss the submitted proposals.
3. Two weeks following the proposal deadline, each student is responsible for checking the status of his or her proposal. Proposals will either be approved or will require revisions.
4. Proposals requiring revisions and any required user letters must be resubmitted to the **Senior Project Mail Account** within one week of being returned to the student.

F. Changing your project proposal after it has been approved

If you wish to change your project proposal, you must submit a new proposal and a cover letter explaining why you are changing. Just as with your original proposal, these are to be sent to the Senior Project Mail Account (Note: It often takes 2 weeks for this reevaluation process to take place.

II. The Project Advisor Selection Process

- A. It is the student's responsibility to download the **Declaration of Advisor** form on the Academics page of the Computer Science Department <http://www.cs.unca.edu/academics.html> and then seek a CSCI faculty who will agree to be their project advisor. Normally a CSCI faculty member will have a maximum of 3 project advisees per semester. Once the faculty member has signed the Advisor Consent form, the student must register for that faculty member's CSCI 462 Senior Project section during the preregistration for the semester the project will be completed. Although the student is expected to begin meeting with his or her advisor as soon as the proposal is approved, the student should not register for the CSCI 462 course until the semester in which the presentation will be given.
- B. The student will be required to meet with the faculty advisor at least once a month. The student will come to the meeting prepared to explain and/or demonstrate the progress he/she has made on the project. After each meeting, the faculty member will sign the student's monthly progress report form.
- C. The faculty member's responsibility is to view and comment on the progress being made on the project. Since one of the senior project requirements is an "ability to do independent work," the faculty member will not work on the student's project in any way. This means that it is the role of the faculty member to give advice and monitor progress, not to write code.)
- D. **The senior project course, CSCI 462.** The student must register for the section with his or her senior project advisor's name. If for any reason the project is not completed and approved by the advisor during the semester this course is taken, it is the student's responsibility to be certain that an "Incomplete" form is submitted to the advisor before final grades are due. Regular University procedures will be used in changing the grade after the next scheduled Senior Project Presentations. The student will not be allowed to graduate with an Incomplete grade.

III. The Presentation Process

- A. When the presentation will be given.
1. The presentation will normally be given during the student's last semester at UNCA
 2. These dates will normally be during the 2nd-to-last week of class of the Fall and Spring semesters. There will be no summer presentations.
- B. What is to be submitted to the project advisor one week prior to the presentation.
1. A paper of approximately 5 double spaced pages describing the actual process of the project
 - a. The format should use either APA, ACM or similar guidelines.
 - b. No more than one page of the paper should be occupied by figures or charts
 - c. Any snippets of code should be single spaced
 2. An abstract in **HTML format** which the project advisor will review. The student will then email the abstract to the Senior Project Chairman to be posted on the **Past Senior Projects** web

page. (<http://www.cs.unca.edu/~massey/SenCsciAbstracts/abstracts.html>) The contents of the abstract should include:

- a. title of project
 - b. student's name
 - c. date of the project presentation
 - d. name of senior project advisor
 - e. A paragraph or two describing the project
3. A bound folder (Please do **not** use a three-ring binder) which will remain on file with the Computer Science Department. The following should be included in the order listed below.
- a. a titled cover sheet (with student's name, title of project, date of presentation) and a back sheet.
 - b. The original project proposal and any approved revisions
 - c. A printout of the HTML abstract
 - d. **If required**, a final signed letter of acceptance of the completed project from the primary user of the project.
 - e. The report form of the monthly meetings with senior project advisor
 - f. Any code should be submitted on a CD, Zip or floppy disk. The disk must be appropriately labeled and securely fastened into the bound folder.
 - g. Any other written documentation. Because each project is unique, there is no specific policy on what must be contained in the documentation. Items such as a requirements document, analysis document, design documents, user manuals and charts, etc. are ordinarily appropriate. These could also be included in the disk of e. above. However, since the senior project advisor is the faculty member who is most knowledgeable about the project, it is important for the student to solicit his or her advisor's advice regarding what should be placed in the documentation.
4. After all the above have been submitted to the advisor, the student must demonstrate to their project advisor, that the project has been completed and executes correctly. Only then will the advisor notify the Senior Project Chair (by e-mail) of their approval of the project and give their permission for the student to present their project.

C. What is to be submitted at the time of presentation.

1. Your electronic presentation on disk, CD or floppy or Zip.

D. How the presentation should be given.

1. The presentation must be professional, organized, and rehearsed.
2. It must include some form of audio and/or visual material. This can include presentational software, transparencies and/or computer hardware.
3. The presenter is responsible for arranging, setting up and testing all equipment prior to the start of the presentation. This includes checking any off campus network connections that may be required.
4. The total time allotted for each presentation will be 15 minutes, which will include about 10 minutes for the presentation and the remaining 5 minutes for setup at the beginning and questions at the end.
5. The content of the presentation should include :
 - a. An Introduction of yourself and your advisor
 - b. A brief description of the purpose and function of the project

- c. A brief demonstration of the project if it is deemed necessary to the explanation of the project
- d. A brief explanation of problems encountered and how they were solved
- e. A brief explanation of the value of this project to the student and/or the user
- f. A brief time for questions

E. How the project and presentation will be evaluated

1. An evaluation will be made for each student by each CSCI faculty member present, usually all members of the CSCI department.
2. The difficulty level and the amount of work involved in the project as well as the quality of the presentation itself will also be considered in the final grade .
3. The final project grade will be a composite of all the CSCI faculty evaluations.
4. The +/- grading scale will be used.
5. The items listed in section **III B and C** above must be on file with the Senior Project Chair before a satisfactory report will be sent to the Registrar.
6. If before the presentations are given the project is not completed or approved by the advisor during the semester this course is taken, it is the student's responsibility to be certain that an "Incomplete" form is submitted to the advisor before final grades are due. Regular University procedures will be used in changing the grade after the next scheduled Senior Project Presentations. The student will not be allowed to graduate with an Incomplete grade.