

Graduate Course Portfolio (Comprehensive Exam for Non-Thesis Master's Students in the Electrical Engineering Department)

Graduate students in the USF Electrical Engineering Department Non-Thesis Master's Program are required to compile and submit a Graduate Course Portfolio prior to graduation. This requirement also applies to continuing PhD students who want to receive a master's degree¹. Students are encouraged to prepare a high quality Portfolio document that may serve them beyond the completion of their degree program as they pursue employment opportunities. The Portfolio will summarize student accomplishments in the M.S.E.E. program and can be used to supplement information that is typically contained in a resume.

The Portfolio is to be attempted the semester before the student intends to graduate, which is also when the graduation application is due. For the purposes of this document, this semester is referred to as the Portfolio Semester.

The Portfolio will be assigned with one course that the student is taking during the Portfolio Semester. This is the Portfolio Course, which will nominally be the 3 credit hour Electrical Engineering course with the lowest number that the student is taking during the Portfolio Semester. (Course numbers 5935/36 and 6935/36 are normally excluded from being Portfolio Courses.) Alternative Portfolio-course association arrangements will be made as necessary.

It is a requirement that the Portfolio contain only original content. A Portfolio that is found to have non-original content will receive a failing grade and the student will receive an F in the Portfolio Course. A second occurrence will result in dismissal from the program. Students must read the section below on Non-Original Portfolio Content.

Content:

The Portfolio must address the following outcomes of the master's (non-thesis) program:

1. graduates will demonstrate an advanced level of knowledge in a primary defined area of specialization within electrical engineering.
2. graduates will demonstrate an advanced level of knowledge in a second defined area of specialization within electrical engineering.
3. graduates will demonstrate complex problem solving skills acquired by a mastery of subjects in advanced mathematics.

For each outcome, i.e. Sequence 1, 2, and graduate mathematics (2 courses each), the Portfolio should contain a 0.5-1 page essay explaining specifically how the outcome was obtained (e.g. what advanced level of knowledge in a primary defined area of specialization was demonstrated), supported by an example of the student's course or project work that supports the claim of achievement. The example of course or project work should be appended to the page containing the essay. The total length of the Portfolio should therefore be no less than 6 pages and not more than 10 pages, with the maximum length determined by the quantity of example work². Note that a 1-page example of course or project work, e.g. a problem from an exam in a mathematics course, is sufficient given that it is of appropriate quality.

Students are strongly encouraged to take courses necessary to satisfy the sequences and math requirements early in their programs. If a student has not completed the necessary courses by their Portfolio semester, he/she is still required to prepare a Portfolio that meets the length contents described above. In this case, the student should provide more content pertaining to the courses that they have completed, or are completing during the Portfolio semester.

The Portfolio will be reviewed by up to three members of the EE faculty, and evaluated according to the overall quality of the writing, the clarity of the explanation of how the outcomes were achieved, the quality

of the examples that are included, and the student's ability to demonstrate his/her advanced (in-depth) understanding of the topic.

Assessment:

Students have a maximum of two opportunities to submit a passing Portfolio. If a student is required to make a second attempt at the Portfolio requirement, it will be assigned during a semester after the first attempt was made. As the Portfolio represents the MSEE program comprehensive exam, a student who does not receive a passing grade on the second Portfolio attempt will be dismissed from the EE program. Students will not receive a third opportunity to submit a passing Portfolio.

Score of 2.75 or higher: The student passes the Portfolio requirement and his/her final grade in the Portfolio Course is not affected.

Score <2.75 on first attempt: The student's final grade in the Portfolio Course will be lowered by one full letter grade if the low score is based on low Portfolio quality. The student will receive an F in the Portfolio Course if the EE evaluation committee determines that the Portfolio contains content that is not original, i.e. content that is plagiarized from another source.

Score <2.75 on second attempt: The student will be dismissed from the MSEE program. In addition, the student's final grade in the Portfolio Course will be lowered by one full letter grade if the low score is based on low Portfolio quality. The student will receive an F in the Portfolio Course if the EE evaluation committee determines that the Portfolio contains content that is not original.

Non-Original Portfolio Content:

The department has a zero tolerance policy regarding non-original content in Portfolios. The use of non-original content is a violation of the department's academic integrity policy, and two violations of the policy result in program dismissal. Non-original content includes material that is plagiarized from another source, including work previously submitted by the student in another course (or a manuscript submitted for publication etc.). Copying a single sentence, or parts of a sentence, from another source and using the material in the Portfolio is not allowed. Furthermore, if a student has used plagiarized material from another source in a report or other assignment for a different course, that does not make it acceptable to then use the material in the Portfolio and claim it as one's own work. The EE Department may use automated plagiarism checking software, web searches or other means to determine if a Portfolio includes any non-original content.

¹ A continuing PhD student is defined as one who has completed the Doctoral Qualifying Exam in the Electrical Engineering Department. An MSEE program is not considered to be completed until either a) the portfolio requirement has been satisfied, or b) a master's thesis requirement has been met.

² The Portfolio document is expected to have a minimum of 6 full pages of content, with approximately 600 words per page or 400 words and one figure. Portfolios which are found to have an insufficient amount of content will be downgraded appropriately during the assessment.