

Senior Comprehensive Evaluation Requirements for Statistics Majors
Approved on September 6, 2023

In addition to completing all course and university requirements, candidates for an A.B. or B.S. in Statistics must successfully complete the Senior Comprehensive Evaluation which consists of two parts:

- 1) [Part I](#): An approved professional resume and cover letter for a real/hypothetical job that the student might apply for **or** a personal statement for a graduate school application, and
- 2) Part II: Comprehensive assessment using [Option A](#) (approved statistics experiences) or [Option B](#) (portfolio) outlined below.

Upon the start of a statistics major's capstone experience (STS 4999: Research or approved HNR 4998: Research, STS 4985: Internship, or STS 4980: Practicum) the Statistics Program Coordinator should be notified by e-mail. The Statistics Program Coordinator will then create a shared Microsoft Teams folder for submission of final materials as outlined in these instructions. All students should register for STS 0070: Senior Comprehensive Evaluation in their final semester to facilitate recording of successful completion of the Senior Comprehensive Evaluation.

Due Dates

Evidence of an approved resume and cover letter/personal statement should be submitted by the earliest of the following dates:

- 1) The last day of the academic semester in which the capstone experience was completed.
- 2) April 30th* by 5:00 pm for students graduating in Spring or Summer Semesters.
- 3) October 1st* by 5:00 pm for students graduating at the end of the Fall or Winter semesters.

Students pursuing [Option A](#) (approved statistics experiences) should submit experiences as they complete them. To satisfy your requirement with Option A, you will need to have accrued the required points (or have an approved plan to do so) no later than:

- 1) February 15th* by 5:00 pm for students graduating in Spring or Summer Semesters.
- 2) September 1st* by 5:00 pm for students graduating at the end of the Fall or Winter semesters.

Students pursuing [Option B](#) (portfolio) should submit digital portfolios no later than:

- 1) March 15th* (or the Friday before Spring Break, whichever is earlier) by 5:00 pm for students graduating in Spring or Summer Semesters.
- 2) October 1st* by 5:00 pm for students graduating at the end of the Fall or Winter semesters.

*If the due date falls on a weekend, the due date moves to the following Monday.

Part I

Part I: Professional Resume and Cover Letter/Personal Statement Guidelines

To complete the Senior Comprehensive Evaluation, students must provide evidence of an approved resume and cover letter/personal statement. (Note: Cover letters should be written for an actual/hypothetical job and are appropriate for students pursuing employment, and personal statements are appropriate for students pursuing graduate school.) The process for completing Part I is the following:

1. Student will compose a resume and cover letter/personal statement that are appropriate for obtaining a statistics position or for an application to a statistics graduate program.
2. Review of initial resume and cover letter/personal statement by the Student Professional Development Service. Students should maintain a record as evidence that the resume and cover letter have been reviewed by the Student Professional Development Center to share with the capstone mentor.
3. Review of resume and cover letter/personal statement by the capstone mentor after incorporating feedback from the Student Professional Center.
4. Revision of resume and cover letter/personal statement based on feedback from capstone mentor.
5. Completion of the [Resume and Cover Letter Approval Form](#) found at the end of this document by the student and capstone mentor.
6. Submission of the Resume and Cover Letter/Personal Statement Form to the Statistics Program Coordinator (Dr. Mark Weaver - mweaver11@elon.edu)

It is intended that this process will occur during the academic semester in which the capstone experience is completed. Appointments for SPDC review can be scheduled by calling the SPDC at 336-378-6538. For more information on resumes and cover letters, see <https://www.elon.edu/u/spdc/students/resumes-cover-letters/>

Part II

Students may choose to complete either **Option A** (approved statistics experiences) or **Option B** (portfolio).

Part II: Option A (Approved Statistics Experiences) Guidelines

To complete the Senior Comprehensive Evaluation using Option A (approved statistics experiences), students must earn at least 4 points for approved activities related to their statistics major. The table below includes a list of possible activities and their associated point values.

To receive credit for an activity, students must submit a report of their experience through this form: <https://forms.office.com/r/0DBfkUDkvX>. Students can check their progress by visiting the Grades section of the Math & Stat Majors Moodle page or by talking with their statistics advisor. Students are encouraged to discuss options with their advisors and statistics professors throughout their time at Elon.

Category	Description	Points
Research Presentations (Oral presentation or poster)	Internal Departmental Presentation (e.g., math/stats tea, present about capstone experience for another course, etc.)	1
	Local / Campus Presentation (e.g., SURF , Electronic Undergraduate Statistics Research Conference , UNC-G Regional Math/Stats Conference , SNCURCS)	2
	National Presentation (e.g., NCUR, Joint Statistical Meetings)	3
Additional Statistics Experiences (In some cases, additional points may be awarded for exceptional work)	Participate in a Data Competition (e.g., Kaggle , USPROC , DataFest SABR Analytics, etc.)	1
	Create a Public Digital Portfolio of Statistics Work (e.g., GitHub page)	1
	Earn a Professional Certification (e.g., SAS, Excel, Teacher Licensure, Actuarial Exam)	1
	Department Technology Champion	1
	Complete a Statistics Thesis (e.g., Honors or ECF)	2
	Submit a Manuscript for Peer-Review Publication (Note: Must contain significant statistical content)	2
	Additional Approved Capstone Experience (Must be equivalent to at least 2 credits of work)	2
	Apply for the Lumen Prize	2
	Apply for a Goldwater Scholarship in Statistics (Note 1: an extra point can be awarded if the Scholarship is won. Note 2: a maximum of one point can be awarded for applying.)	1

Category	Description	Points
Service (No more than 3 points can come from this category, and no more than 2 points can come from one activity)	TA for a statistics class (1 point per semester)	1
	Help Williams High School research teams (1 point per year)	1
	Hold leadership role for an active statistics club/group (Club must hold at least two events per year to be considered active)	1
	Serve on departmental committee or task force (1 point per semester)	1
	Tutor for statistics (1 point per semester)	1
Creative Outreach (No more than 3 points can come from this category, and no more than 2 points can come from one activity)	Create a multimedia product to share that explains a statistical concept (e.g. video, podcast, comic, etc.)	1
	Submit an artistic project to a competition (e.g., USCOTS song competition, JSM data art)	1
	Write an article on statistics for the Pendulum or another publication	1
<p>Note: Other experiences may be approved by the department on a case-by-case basis. If you have an idea, talk to your statistics advisor or reach out to the Statistics Program Coordinator (Dr. Mark Weaver) to begin this process. Examples of possible experiences may include helping create course materials for an introductory class like STS 1100 or STS 2120, leading a discussion on a book, article, or R package, helping organize a campus event or conference, etc.</p>		

Point values were approved on September 6, 2023, and will be updated yearly.

Part II: Option B (Portfolio) Guidelines

To complete the Senior Comprehensive Evaluation using Option B (portfolio), students should review their course work over their entire career at Elon and prepare a **digital** document (i.e., a single PDF file) that includes the required components outlined below. Of note, students will write three reflections based on the prompts provided.

Portfolios will be reviewed by committees of at least two faculty members and will be evaluated based on the depth of the reflection, quality of response, and clarity of explanations. **All students will be given feedback on their portfolio by March 31st for May graduation and October 15th for January graduation and will submit a revised digital portfolio due no later than April 15th* or November 1st*, respectively.** Students who do not satisfactorily incorporate the feedback of the reviewers will be required to meet with the Statistics Program Coordinator to develop a plan for completion of the Senior Comprehensive Evaluation requirements or risk delaying their graduation.

*In the event that the due date falls on a weekend, the due date moves to the following Monday.

The portfolio should consist of the following:

- I. Cover Page
- II. Signed Honor Code Statement
- III. Table of Contents
- IV. Response to Prompt 1
- V. Response to Prompt 2
- VI. Response to Prompt 3
- VII. Project supporting Prompt 1
- VIII. Project(s) or course work supporting Prompt 2
- IX. Project(s) or course work supporting Prompt 3

Cover Page

- The cover page must be the first page of the portfolio and must include the candidate's name, degree, major, and concentration.

Signed Honor Statement

- The second page of the portfolio must include the following Honor Code Statement with the student's signature and date.

<p style="text-align: center;"><i>Portfolio Honor Code Statement</i></p> <p>“On my honor, I certify that this portfolio upholds the four values of Elon University -- honesty, integrity, responsibility, respect -- as cited in Elon's Honor Code: https://elon.smartcatalogiq.com/2022-2023/Academic-Catalog/Welcome-to-Elon-University/Elon-University-Honor-Code.</p> <p>In assembling this portfolio, I have refrained from lying, cheating, plagiarizing, and facilitating others in these actions. I have not used any artificial intelligence to compose the contents of my responses to the provided prompts.</p> <p>I understand that any violation of the Honor Code may result in receiving a failing grade on my portfolio. Further, I understand that egregious violations of the Honor Code may result in disciplinary suspension or permanent separation from Elon University.”</p> <p>Signature: _____</p> <p>Date: _____</p>
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Table of Contents

- Each of the nine items should be indicated in the table of contents with appropriate page numbers. Any projects or course work included in the portfolio should include the number of the course from which it was drawn. Each product should be included within the table of contents. For example,
Part VII: STS 2130 Project.....p. 7
- Students are encouraged to use the *Link* → *Add/Edit Web or Document Link* option under *Edit PDF* tools in Adobe Acrobat to digital portfolios that are easily navigable.

Responses to prompts

- For each prompt, students may write up to 3 double-spaced pages using 1-inch margins, Times New Roman, size 12-point font. Appropriate projects, presentations, course work, or other academic work from courses in the student's statistics major (this could vary based on concentration) should be used to support the reflections and will be included in Parts VII-IX.

- **Prompt 1:** *What project are you most proud of? Why are you most proud of it, and what did you learn about statistics in this project?*
 - The project referenced should be included in Part VII – Project or Course Work Supporting Prompt 1.

- **Prompt 2:** *Provide an illustration(s)/example(s) of how you have grown in your understanding of statistical concepts (excluding coding) through your work in the statistics program. Provide an explanation of how your illustration(s) demonstrates the growth in your understanding of statistical concepts through your statistics coursework. Use your illustration(s) to support your explanation.*
 - Note: The illustration could be examples from projects in your first-year contrasted with a project from your last-year or it could be two drafts of the same project.
 - You may choose to include some illustrative portions of your projects in your narrative -- these portions do not count as part of your 3-page maximum.
 - You may also pull in additional examples from your statistics coursework to further illustrate your growth.
 - Projects or relevant components of projects referenced should be included in Part VIII – Project or Course Work Supporting Prompt 2.

- **Prompt 3:** *Provide an illustration of your ability to code in SAS or R and explain why you have chosen this code as an illustration of your statistical computing ability. What are your strengths in coding and how have you improved your coding during your time at Elon?*
 - Note: The illustration could be a single example of high-quality coding or you may choose to provide examples from multiple projects to illustrate your growth. These examples could be from projects in your first-year contrasted with a project from your last-year or it could be two drafts of the same project.
 - You may choose to include some illustrative portions of your code in your narrative --- these portions do not count as part of your 3-page maximum.
 - You may also pull in additional coding examples from your statistics coursework to further illustrate your growth.
 - Projects or relevant components of projects referenced should be included in Part IX – Project or Course Work Supporting Prompt 3.

Resume and Cover Letter/Personal Statement Approval Form

Department of Mathematics and Statistics

Statistics Major Senior Comprehensive Evaluation

Students and mentors should complete this form. The completed form should be submitted to the Statistics Program Coordinator (Dr. Mark Weaver - mweaver11@elon.edu) . This form is due by:

- 1) The last day of the academic semester in which the capstone experience was completed.
- 2) April 30th* by 5:00 pm for students graduating in Spring or Summer Semesters.
- 3) October 1st* by 5:00 pm for students graduating at the end of the Fall or Winter semesters.

*In the event that the due date falls on a weekend, the due date moves to the following Monday.

This portion to be completed by the student.

Student Name: _____

Student e-mail: _____

Date resume was reviewed by SPDC: _____

Contact at SPDC who reviewed resume: _____

Date cover letter/personal statement was reviewed by SPDC: _____

Contact at SPDC who reviewed cover letter/personal statement: _____

Student signature: _____ Date: _____

This portion to be completed by the capstone mentor.

_____ My student provided evidence of resume and cover letter/personal statement reviews by the SPDC. I have reviewed their resume and cover letter/personal statement, and the student has made appropriate changes to craft professional materials for a statistics major.

_____ The student has not completed the required steps.

Comments:

Mentor signature: _____ Date: _____