

## **Statistics Portfolio and Exit Interview Guidelines** **Updated: February 2017**

In addition to completing all course and university requirements, candidates for a B.A. or B.S. in Statistics must successfully pass the following two assessments as part of the graduation requirement for candidacy:

1. Student Portfolio
2. Exit Interview

### **Portfolio Guidelines for Statistics Majors**

A portfolio that synthesizes the undergraduate experience and provides evidence of expertise in the areas of the major will comprise the Statistics candidate's culminating product of learning. This document will serve as part of the candidate's senior assessment required for graduation.

Portfolios must be submitted to the Statistics Program Coordinator (or other designee) in a physical ***and*** digital format no later than:

- **February 15th\* at 5:00 pm** for students graduating at the end of the **May or Summer** semesters
- **October 1st\* at 5:00 pm** for students graduating at the end of the **Fall or Winter** semesters

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

The portfolio will include the following in the order shown:

- Cover Page
- Signed Honor Code Statement
- Table of Contents
- Section Divider with the title "Introduction"
  - First entry: cover letter or graduate school personal statement
  - Second entry: resume
- Section Divider with the title "Statistical Foundations"
  - First entry: rationale
  - Additional entries: your products from STS courses, each with a cover page that indicates the course associated with the product.  
*Note:* One product in this section must be the final report for your project from STS 213: Survey Sampling Methods or from STS 325: Design and Analysis of Experiments
- Section Divider with the title "Concentration Area/Application"
  - First entry: rationale
  - Additional entries: your products from your concentration courses, each with a cover page that indicates the course associated with the product.  
*Note:* Your capstone final paper from STS 481: Statistics Internship or from STS 499: Statistics Research must be included in this section.

## Further Details on the Content of the Portfolio

### 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><b><i>Portfolio Honor Code Statement</i></b></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: <a href="http://www.elon.edu/e-web/students/handbook/honor.xhtml">http://www.elon.edu/e-web/students/handbook/honor.xhtml</a>.</p> <p>In assembling this portfolio, I have refrained from lying, cheating, plagiarizing, and facilitating others in these actions.</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 section, rationale, and product should be indicated in the table of contents with appropriate page numbers. Each product should be numbered and include the name of the course in the description within the table of contents. For example,  
Product 1: STS 213 Project.....p. 7

### Introduction

- Include a divider labeled “Introduction.”
- The first entry should be a cover letter (for students who plan to seek employment upon graduation) or a graduate school personal statement (for students who have applied to graduate school).
- The second entry should be a current resume.

- Entries in this section of the portfolio should show evidence that the candidate can produce materials that are consistent with standard professional format, well-articulated goals, and well-developed plans.

### Statistical Foundations

- A three-page rationale (1 inch margins, Times New Roman, size 12-point font, double-spaced) should be written which provides a personal, reflective statement regarding how the products in this section are evidence of the candidate's ability to meet the following goals:
  - o Goal 1: Candidate is able to design sample surveys and/or experiments for standard situations.
  - o Goal 2: Candidate is able to demonstrate sufficient statistical computing ability to manage and implement standard statistical methods using at least one standard statistical package.
  - o Goal 3: Candidate is able to explain statistical ideas, methods and results orally and in writing to non-statistical audiences.
- **The goal of the rationale is for the student to provide a convincing argument that the products demonstrate evidence for the three goals listed above.** In general, candidates should refrain from providing a summary of the actual products in their evidence unless it helps the candidate make a case for one of the goals.
- Candidates must indicate specifically what portion of the product provides evidence and how it illustrates the point the candidate is making. For example, if the candidate writes that Product 1 demonstrates computing ability, the candidate should clearly indicate where and how the ability is demonstrated in Product 1.
- Products for this section must come from courses with an STS prefix.
- Each product should include a cover page that at minimum indicates which course the product is associated with.
- **Required product:** Candidates are expected to include the final paper from either STS 325: Design and Analysis of Experiments or STS 213: Survey Sampling Methods and to address this product in their rationale.

### Concentration Area/Application

- A three-page rationale (1 inch margins, Times New Roman, size 12-point font, double-spaced) should be written which provides a personal, reflective statement regarding how the products in this section are evidence of the candidate's ability to meet the following goals:
  - o Goal 1: Candidate is able to discuss the problems, methodology, and language of at least one discipline beyond Statistics.
  - o Goal 2: Candidate is able to discuss the usefulness of statistics as a service field for other disciplines.
  - o Goal 3: Candidate is able to explain statistical ideas, methods and results orally and in writing to non-statistical audiences.
- **The goal of the rationale is for the student to provide a convincing argument that the products demonstrate evidence for the three goals listed above.** In general, candidates should refrain from providing a summary of the actual products in their evidence unless it helps the candidate make a case for one of the goals.

- Candidates must indicate specifically what portion of the product provides evidence and how it illustrates the point the candidate is making. For example, if the candidate writes that Product 4 demonstrates the ability to discuss a discipline beyond statistics (such as, sustainability in the environmental concentration), the candidate should clearly indicate how Product 4 demonstrate this.
- Products for this section must come from courses that are related to the concentration area and primarily are from non-STS courses. These courses may have the STS prefix if a student takes an STS course as part of the concentration.
- Each product should include a cover page that at minimum indicates which course the product is associated with.
- **Required product:** Candidates are expected to include the final product from their capstone experience, which most likely is STS 481: Statistics Internship or STS 499: Statistics Research, and to address this product in their rationale.

### **Other Information related to content:**

- A product is any document or artifact created by the student coming from coursework, consulting, internship, or research. For example, a product could be a written report, slides, computer code, a homework assignment, an applet, etc.
- A single product can be used as evidence in more than one section. For example, if a candidate includes their STS 499: Statistics Research paper in their “Concentration Area/Application” section, this product can also be referenced in the rationale for the Statistical Foundations if it helps the candidate make the case for one of the three goals.
- There must be a **minimum of five products** in the portfolio beyond the cover letter/personal statement and resume, and **each section must have at least one unique product**. That is, if Product 3 is referenced in the rationale for the Statistical Foundations and the Concentration Area/Application, each section must include an additional product that is only referenced in that rationale. However, the emphasis is not on the number of total products in the portfolio, but on how well the product provides evidence of expertise in the area in which it is cited and support for the goal the writer is providing evidence for.
- Products in the portfolio may be the final graded product or a new copy of the final product with no instructor markings.

### **Submission Information**

Candidates are required to submit **both** a physical copy and a digital copy of their portfolio.

#### *Physical Copy*

Physical copies of the portfolio must be compiled into a black or white binder (maximum 1.5-inch) with a clear front slip cover. Inside the front cover, candidates should insert a paper which indicates their name, degree, major with concentration, and graduation date. The same information should be printed on a slip of paper and inserted into the spine of the binder as well. Candidates **must** use sheet protectors for all documents in the portfolio with no more than 2 sheets placed back to back in each protector sheet. The hard copy can be delivered to the Statistics Program Coordinator (or other designee) by 5:00 pm on the due date.

### *Digital Copy*

A digital copy of the portfolio should also be submitted by 5:00 pm on the due date. A digital copy of the portfolio must contain all of the documents in the physical copy and submitted in one of the following ways:

- On a CD containing a PDF of all the files in the portfolio to be included in the front pocket of the physical copy of the portfolio.
- On a flash drive containing a PDF of all the files in the portfolio to be included in the front pocket of the physical copy of the portfolio.
- As a PDF attachment in an e-mail to the Statistics Program Coordinator (or other designee).

### **Portfolio Evaluation**

Portfolios will be assessed independently by two faculty evaluators from Elon University or another university. In general, candidates will be notified of the results of their portfolio evaluation no later than March 15<sup>th</sup> for May Graduation and November 1<sup>st</sup> for January graduation. Candidates must receive a passing rating from each evaluator on the following sections:

- Cover letter or graduate school personal statement
- Resume
- Statistical Foundations rationale
- Concentration Area/Application rationale
- General content requirements (includes required products and content, format, etc.)

If one or more sections receive a failing rating from any reviewer, candidates will be notified and provided feedback from reviewers. The candidate will be allowed one resubmission, which will be due no later than the second Friday after notification. The resubmitted portfolio will be reviewed by the same faculty evaluators and must receive a passing rating in order for the candidate to be eligible to graduate. The resubmission will be evaluated during the following week.

While resubmissions are built into the process, candidates should understand that an unsatisfactory rating indicates a serious weakness in the portfolio, and their graduation is put on hold until the weakness is remedied.

### **Portfolio Development Resources**

In some fall semesters the Mathematics and Statistics Department may offer “COE 310: Transitions Strategies” which will aid seniors in the Fall semester in developing their portfolios. For help on portfolio development, candidates should contact their statistics advisor. There is also a 1-hour co-operative education course, “COE 310: Developing Portfolios” class that is offered in some spring semesters that some candidates may find useful.

Statistics Portfolio Checksheet

Element	Included	Comments
Black or white 1” or 1.5” clear front binder		
Candidate information on spine		
Candidate information on cover		
Page protectors used with no more than 2 sheets per page protector		
New form included to collect information about post-graduation plans		
Cover page with name, degree, major, and concentration		
Honor code statement <ul style="list-style-type: none"> <li>- Signed</li> <li>- Dated</li> </ul>		
Table of contents		
Section Divider with title “Introduction”		
Cover letter or graduate school personal statement		
Resume		
Section Divider with title “Statistical Foundations”		
Rationale (3 pages, double-spaced, size 12 Times New Roman font)		
Contains only products from STS		
Products indicate course number on cover page		
Includes final paper for STS 213 or STS 325		
Section Divider with title “Concentration Area/Application”		
Rationale (3 pages, double-spaced, size 12 Times New Roman font)		
Products indicate course number on cover page		
Includes final paper for STS 499 or STS 481 or STS 461		
Minimum of five unique products		
At least one unique product per section		
Contains a CD or flash drive containing electronic copy, or alternatively, sends e-mail to Statistics Program Coordinator or other designee)		

## Exit Interview Guidelines for Statistics Majors

After a candidate has successfully completed the statistics portfolio, an oral exit interview will be administered by at least two Elon faculty (typically the faculty who reviewed the portfolio). The purpose of the interview is to judge the candidate's ability to discuss and interpret statistics and to use the language of statistics appropriately. Students will be graded on a Pass/Fail scale and will have one opportunity to re-take the interview in the event of a failure.

### Interview Format

- Exit Interviews will be approximately 30 minutes in length.
- Candidates will be asked to discuss two of the products that were included in their submitted portfolio.
- Candidates will be asked to orally explain statistical ideas, methods or results as if speaking to a **non-statistical audience**.
- Students will not be informed of the product choices before the interview and should familiarize themselves with all of their submitted products.

### Interview Deadlines

After a candidate has successfully completed the statistics portfolio, the Statistics Program Coordinator (or other designee) will send an e-mail to the candidate and the faculty evaluators indicating that an exit interview should be scheduled. Candidates should schedule interviews between:

- **March 16th and March 30th** for students graduating at the end of the **May or Summer** semesters
- **November 2nd and November 16th** for students graduating at the end of the **Fall or Winter** semesters

Candidates will be notified of the results of their interview no later than April 1<sup>st</sup> for May graduation and November 18<sup>th</sup> for January graduation.

After the interview, candidates will be asked to complete a senior student survey in which they rate their confidence in the skills related to the program learning objectives. Student feedback on the major program, teaching effectiveness, advising and course offerings will also be sought.