General Studies Requirements (56-60 sh)

**FIRST-YEAR CORE:**

GST 110 - Global Experience (4 s.h.)

ENG 110 - Writing: Argument & Inquiry (4 s.h.)

(C- or better required for graduation)

MTH 110 or 151 or 220 (4 s.h.)

**Experiential Learning Requirement (ELR – 2 units required):**

Included in experiential learning are study abroad, research, service-learning, leadership, internships, (including co-ops, teaching, and practicum), or other courses or experiences with ELR designation

**Foreign Language Requirement:**

Students must meet one of the following: (a) complete a language course numbered 122 or higher at Elon, or receive transfer or study abroad credit for the same; (b) place into a language course numbered 200 or above upon arriving at Elon, using a department of foreign languages approved placement instrument; (c) score a 4 or 5 on an AP language exam or similar exam. Each student must take the language placement test by October 1 of his or her first full year at Elon. Students are allowed two tries; the higher score is counted. That score stands and may not be repeated by later testing.

**STUDIES IN THE ARTS AND SCIENCES:**

[Transfer students with at least 18 s.h. of transfer credit must complete 32 hours total in Studies in the Arts & Sciences, but may have as few as 7 hours in one or more of the four Studies in the Arts & Sciences areas.]

**Expression** (8 s.h.)

[Eight hours chosen from at least two of the following: literature (in English or foreign languages), philosophy, & fine arts (art, art history, dance, fine arts, music, music theatre, & theatre). At least one course must be literature.]

**Civilization** (8 s.h.)

[Eight hours chosen from at least two of the following: history, foreign languages, and religious studies.]

**Society** (8 s.h.)

[Eight hours chosen from at least two of the following: economics, geography, human service studies, political science, psychology, & sociology/anthropology.]

**Science/Analysis** *(Lab: ____)* (8 s.h.)

[Eight hours chosen from one or more of the following: mathematics/statistics, science, computer science and information science. At least one course must be a physical or biological laboratory science.]

**ADVANCED STUDIES** (Must be outside major.)

(8 s.h.)

[Eight hours of 300-400 level coursework outside the major field and chosen from areas under Studies in the Arts and Sciences.]

GST Interdisciplinary Capstone Seminar (4 s.h.)

(300-400 level GST course; requires junior/senior status.)

*Required in major; may count in General Studies.

**Major Requirements**

A minimum of 52-56 s.h. in the following courses is required.

Statistics foundations: (16 sh)

___*MTH 220/STS 212 (4) – Statistics in Application

___STS 232 (4) – Statistical Modeling

___STS 325 (4) – Design and Analysis of Experiments

___MTH 329/STS 341 (4) – Probability Theory and Statistics

Mathematical foundations: (16 sh)

___*MTH 151 (4) – Calculus I

___MTH 251 (4) – Calculus II

Choose two courses from the following:

STS 213 (4) – Survey Sampling Methods
STS 256 (4) – Applied Nonparametric Statistics
STS 327 (4) – Statistical Computing
STS 342 (4) – Statistical Theory

Choose from the following: A related experiential/capstone experience approved by the department (4 sh). Approved options are:

___STS 460 (2) – Seminar I

___STS 461 (2) – Seminar II

___STS 481 (2-4) Internship in Statistics

___STS 499 (2-4) Independent Research in Statistics

Complete one of the following concentrations:

**MATHEMATICAL STATISTICS** (20 sh)

___MTH 252 (4) – Multivariable Calculus and Analytic Geometry

___MTH 330 (4) – Mathematical Reasoning

___STS 342 (4) – Statistical Theory

MTH 349 (4) – Applied Matrix Theory

-OR-

___MTH 293 (4) – Linear Algebra

Choose one course from the following:

MTH 241 (4) – Discrete Structures
MTH 243 (4) – Mathematical Modeling
MTH 430 (4) – Abstract Algebra
MTH 455 (4) - Analysis

**ACTUARIAL SCIENCE** (20 sh)

___*ECO 111 (4) – Principles of Economics

___ACC 201 (4) – Principles of Accounting

___FIN 343 (4) – Principles of Finance

___FIN 416 (4) – Fundamentals of Insurance

___FIN 433 (4) – Derivatives

(concentration options are continued on page 2...)
(... concentration options continued from page 1.)

**BIO-STATISTICS** (16 sh)

_____*BIO 111/113 (4) – Cell Biology and lab
_____BIO 212/214 (4) – Population Biology and lab

BIO 131 (4) – Biodiversity

-OR-

_____BIO 245/246 (4) – Genetics and lab

Choose **one** course from the following:

- PHS 301 (4) – Introduction to Epidemiology
  (Prerequisite, PHS 201, waived for declared Statistics majors with the permission of PHS coordinator)

- BIO 318 (4) – Comparative Vertebrate Structure & Function
- BIO 325 (4) – Human Histology
- BIO 331 (4) – The Biology of Animal Behavior
- BIO 332 (4) – Zoology
- BIO 335 (4) – Field Biology
- BIO 341 (4) – Botany
- BIO 344 (4) – Evolution
- BIO 348 (4) – Biotechnology
- BIO 350 (4) – General Ecology

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_____ Major Comprehensive Evaluation

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All graduating statistics majors are required to complete a senior portfolio of their work and exit interview based on the portfolio materials. This portfolio will include a compilation of their work across their four years of statistical study at Elon; therefore, students should be mindful of this requirement as they complete work for all their courses and be sure to retain electronic copies of work that they may want to include in their portfolio in their senior year.

_____ Major Total (s.h.)