Elon Core Curriculum (56-60 sh)

FIRST-YEAR FOUNDATIONS:

COR 110 – Global Experience (4 s.h.)
ENG 110 – Writing: Argument & Inquiry (C- or better required for graduation)
MTH 110 or 151 or 220 (4 s.h.) *MTH 151

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

World 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 world 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. Consideration for Phi Beta Kappa membership requires completion of one intermediate world language course, placement beyond that level or equivalent proficiency.

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 world languages), philosophy, & fine arts (art, 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, world languages, art history 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, and public health studies 201 or 202.]

Science/Analysis * (Lab: ___) *CSC 130 (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.]

COR Interdisciplinary Capstone Seminar _______ (4 s.h.) _______

[300-400 level COR course; requires junior/senior status.]

Major Requirements

A minimum of 38-85 s.h. in the following courses is required.

____ *MTH 151 (4) – Calculus I
____ MTH 251 (4) – Calculus II
____ MTH 252 (4) – Multivariable Calculus & Analytic Geometry

Pure Mathematics Concentration Requirements:

____ MTH 239 (4) – Linear Algebra
____ MTH 330 (4) – Mathematical Reasoning

Choose three courses from the following: 12 s.h.
(At least 4 s.h. must be at the 400-level)

MTH 220/STS 212 (4) – Statistics in Application
MTH 329/STS 341 (4) – Probability Theory and Statistics
MTH 335 (4) – Modern Algebra
MTH 359 (4) – Differential Equations
MTH 430 (4) – Abstract Algebra
MTH 455 (4) – Analysis
MTH 471 (4) – Special Topics

One related course from an allied field outside the mathematics and statistics department.

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Select a related course from outside the mathematics department as approved by the department^*

*CSC 130 (4) – Computer Science I
*PHY 201/202 (4 s.h. each) – General Physics I or II
*PHY 221/222 (4 s.h. each) – University Physics I or II

^The electives and the related courses outside of the mathematics department are expected to form a cohesive plan and must be approved by the math department.

Select a related experiential/capstone experience approved by the department:

MTH/STS 460 (2) – Seminar I
MTH 481 (2-4) Internship in Mathematics
MTH 499 (2-4) Independent Research

Teacher Licensure Concentration Requirements:

____ MTH 220/STS 212 (4) – Statistics in Application
____ MTH 239 (4) – Linear Algebra
____ MTH 308 (4) – Mathematics for Middle Grades and Secondary School Teachers
____ MTH 309 (4) – 21st Century Technology in Mathematics
____ MTH 329/STS 341 (4) – Probability Theory and Statistics
____ MTH 330 (4) – Mathematical Reasoning
____ MTH 335 (4) – Modern Geometry
____ MTH 430 (4) – Abstract Algebra

Choose from one of the following:

*CSC 130 (4) – Computer Science I
*PHY 201/202 (4 s.h. each) – General Physics I or II
*PHY 221/222 (4 s.h. each) – University Physics I or II

(Mathematics requirements continued on p. 2)

*Required in major; may count in Elon Core Curriculum.
(Mathematics requirements continued)

Professional Studies
_____ *SOC 243 (4) – Sociology of Education
_____ *PSY 321(4) – Educational Psychology
_____ EDU 402 (1) – Explorations Capstone Seminar I for Middle
   Grades, K-12 and Secondary Majors
_____ EDU 403 (2) – Explorations Seminar III
_____ EDU 315 (4) – Educational Assessment
_____ EDU 355 (4) – Teaching in 21st Century Classrooms
_____ EDU 422 (4) – Methods of Teaching Middle Grades and
   Secondary Math
_____ EDU 450 (4) – Teaching Diverse Learners in Secondary
   Schools
_____ EDU 481 (10) – Student Teaching

A student may be exempt from MTH 110 and/or MTH 151 by
demonstrating proficiency.

Once a student has received credit, including transfer credit for a
course, credit may not be received for any course with material that is
equivalent to it or is a prerequisite for it without permission of the
mathematics department.

All graduating mathematics majors are required to complete a senior
portfolio of their work. This portfolio will include a compilation of
their work across their four years of mathematical 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.)