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 includes second major, minor, and elective hours.

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 *PHY 221 (Lab: ___) *PHY 222 (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 56 s.h. in the following courses is required.

_____ *MTH 151 (4) - Calculus I

_____ MTH 239 (4) - Linear Algebra

_____ MTH 251 (4) - Calculus II

_____ MTH 252 (4) - Multivariable Calculus & Analytic Geometry

_____ MTH 330 (4) - Mathematical Reasoning

_____ MTH 430 (4) - Abstract Algebra

_____ MTH 455 (4) – Analysis

_____ MTH/STS 460 (2) – Seminar I

_____ MTH/STS 461 (2) – Seminar II

Choose one course (4 s.h.) from the following:

MTH 326 (4) – Theory of Computation

MTH 329/STS 341 (4) – Probability and Statistics

MTH 335 (4) – Modern Geometry

MTH 359 (4) - Differential Equations

MTH 445 (4) - Numerical Analysis

Choose one 300/400-level MTH elective (4)

Additional Requirements

_____ CSC 130 (4) – Computer Science I

_____ One CSC course (4) numbered 200 or above

_____ *PHY 221 (4) – University Physics I

_____ *PHY 222 (4) – University Physics II

Mathematics (BS) with Teaching Licensure: 81 sh.

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

_____ MTH 239 (4) - Linear Algebra

_____ MTH 308 (4) – Math for Middle Grades & Secondary Teachers

_____ MTH 309 (1) – 21st Century Technology in Mathematics

_____ MTH 330 (4) - Mathematical Reasoning

_____ MTH 335 (4) – Modern Geometry

_____ MTH 329 (4) – Probability Theory & Statistics

_____ MTH 430 (4) - Abstract Algebra

_____ MTH 455 (4) – Analysis

_____ MTH 460 (2) – Seminar I

_____ MTH 461 (2) – Seminar II

Select one course from the following:

_____ *PHY 201 (4) – General Physics I

_____ *CSC 130 (4) – Computer Science I

(Mathematics BS requirements continued on p. 2)
Professional Studies

_____ *SOC 243 (4) – Sociology of Education
_____ CIS 220 (3) – Technology for Teaching and Learning
_____ *PSY 321 (4) – Educational Psychology
_____ EDU 402 (1) – Explorations Capstone Seminar II for Middle Grades, K-12 and Secondary Majors
_____ 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
_____ EDU 403 (2) – Explorations Seminar III

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.)