OLD DOMINION UNIVERSITY 2011-2012
MATHEMATICS MAJOR (includes education)
with VCCS equivalencies in (parentheses)
(* indicates not automatically waived with transferrable associates degree, C or better required for transfer)

Lower Division General Education

A.  Skills

Written Communication
ENGL 110C  ______3 (ENG 111)
ENGL 211C, 221C, or 231C  ______3 (See transfer guide)

Oral Communication
COMM 101R, 103R, or 112R  ______3 (See transfer guide)

Mathematics
MATH 162M and 163  ______6 (MTH 163, 164)*

Language and Culture
Proficiency through 102F  ______0-6 (See transfer guide)

Information Literacy and Research
CS 121G  ______3__________

B.  Ways of Knowing

Human Creativity  ______3 (See transfer guide)
ARTH 121A, ARTS 122A, MUSC 264A, DANC 185A, THEA 241A, COMM/THEA 270A

Interpreting the Past  ______3 (See transfer guide)
HIST 100H, 101H, 102H, 103H, 104H, or 105H

Literature  ______3 (See transfer guide)
ENGL 112L, 114L, or FLET 100L

Philosophy & Ethics  ______3 (See transfer guide)
PHIL 120P recommended

The Nature of Science

Human Behavior  ______3(See transfer guide)
AAST 100S; ANTR 110S; COMM 200S; CRJS 215S; ECON 200S, 201S, 202S, FIN 210S, GEOG 100S, 101S; POLS 100S, 101S, 102S; PSYC 201S, 203S; SOC 201S; WMST 201S

Impact of Technology  ______3 (See transfer guide)
COMM 372T, CS 300T, DNTN 440T, or ENGL 307T, GEOG 306T, HIST 300T, 304T, 386T, 389T, IT 360T, MUSC 335T, SCI 302T, PHIL 383T, POLS 350T, STEM 110T, 370T, or WMST 390T (satisfied by TLED 430 for teacher education)

Other Required Courses
CS 150 Problem Solving & Programming I  ______4 (CS 201, ER 126)*

Mathematics Course Requirements
MATH 211 Calculus I  ______4 (MTH 173,273)*
MATH 212 Calculus II  ______4 (MTH 174, 274)*
MATH 307 Ordinary Differential Equations  ______3
MATH 311W Modern Algebra I  ______3
MATH 312 Calculus III  ______4
MATH 316 Intro Linear Algebra  ______3
MATH 317 Calculus IV: Intro Analysis  ______3
STAT 310 or 431 Intro Data Analysis or Theory of Stat (Statistics/Biostatistics majors take both)
STAT 330 or 331 Intro Probability  ______3

A grade of C+ or higher is required in the courses listed above. In addition, a grade of C or better is required in mathematics and statistics prerequisite courses to advance to the next course.

All students are required to choose one of the following options:

Applied Mathematics
MATH 401 Partial Differential Equations  ______3
MATH 408 Applied Numerical Methods I  ______3
MATH 422 Applied Complex Variables  ______3
MATH 400-level electives  ______9
(At most 3 credits from MATH 400, 404, 406)

Statistics/Biostatistics
STAT 310 or 431 Intro Data Analysis or Theory of Statistics  ______3
STAT 405 SAS: An Introduction to Data Handling  ______1
STAT 400-level electives  ______12

Math Teaching Licensure
MATH 400 History of Mathematics  ______3
MATH 404 Fundamental Concepts of Geometry  ______3
MATH 406 Number Theory  ______3
MATH 417 or 422 Inter. Real Analysis or Applied Complex Variables  ______3
MATH 400-level electives (2 courses)  ______6

Professional Education core:
TLED 301 Foundations and Assessment of Ed  ______3
TLED 360 Classroom Management and Discipline  ______3
TLED 408 Reading and Writing in Content Area  ______3
TLED 430 PK-12 Instructional Technology  ______3
STEM 453 Developing Instructional Strategies: Math  ______3
TLED 483 Practicum Seminar in Education  ______1
TLED 485 Student Teaching  ______12
SPED 313 Human Growth and Development*  ______3
(SPY 231 and 232 at the VCCS will transfer as SPED 313)*
SPED 406 St w/Diverse Learning Needs  ______3
**Admission.** Students applying for admission to the teacher education programs must have a 2.75 grade point average overall, in the major, and in the professional education core and overall with no grade less than C- in Math/Statistics content area and in the professional education core, and a passing score on PRAXIS I or achieved State Board of Education approved scores on the SAT or ACT scores. Although students may enroll in a limited number of education courses, admission into the teacher education program and passing PRAXIS I scores or approved equivalent test scores must be on file in the Teacher Education Services Office prior to students enrolling in any professional education practicum course.

The Praxis II Mathematics Content Examination and the Virginia Communications Literacy Assessment (VCLA) must be passed before the candidate may begin the teacher internship. Passing Praxis II and VCLA scores must be on file in the Office of Teacher Education Services and Advising prior to student teaching. Please consult the Department of Mathematics and Statistics for information on a Praxis II Math tutorial that runs each semester. There is a charge for this tutorial.

**Continuance.** Student must maintain an overall grade point average of 2.75 and 2.75 in the academic major and the professional education core and complete all degree requirements for the major and in the professional education core with no grade less than a C- for continuance in the College of Education. In order to obtain a Virginia teaching license, all teacher education students must attain passing scores on the appropriate Praxis II specialty area test. A list of the passing scores established by the Virginia Department of Education is available on the Virginia Department of Education website or the Office of Teacher Education Services and Advising, Education 152.

**Graduation.** Requirements for graduation include passage of the Exit Examination of Writing Proficiency; completion of the Senior Assessment; a minimum 2.75 grade point average overall, in the major and in the professional education core, with no grade less than a C- in the major and professional education core; and completion of a minimum of 134 credit hours. Passage of the Praxis II exam is required for teacher education licensure.

**NOTE:** Due to changing University requirements, national accreditation standards, and Commonwealth licensure regulations, the programs in the Darden College of Education are under constant revision. Any changes resulting from these factors supersede the program requirements described here or in the University catalog. Students should obtain current program information from their academic advisor and the Darden College of Education website at http://www.education.odu.edu.

**UPPER DIVISION GENERAL EDUCATION**

Option A. Approved Minor. 12-24 hours; also second degree or second major. (Professional Education core satisfies this requirement.)

Option B. Interdisciplinary Minor (specifically12 hours, 3 of which may be in the major)

Option C. International Business and Regional Courses or an approved Certification Program such as teaching licensure

Option D. Two Upper-Division Courses from outside the College of Sciences and not required by the major (6 hours)

Requirements for graduation (non-teacher education tracks) include a minimum cumulative grade point average of 2.00 overall and in the major, 120 credit hours, passage of the Exit Examination of Writing Proficiency, and completion of Senior Assessment.