OLD DOMINION UNIVERSITY 2012-2013

MATHEMATICS MAJOR (includes education) with VCCS equivalents 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
HIST 100H, 101H, 102H, 103H, 104H, or 105H

Literature
ENGL 112L, 114L, or FLET 100L

Philosophy & Ethics
PHIL 120P recommended

The Nature of Science
The eight credit hours of Nature of Science with labs need not be in the same science. PHYS 231-232 recommended for applied mathematics option. Either BIO 108N-109N or 115N-116 recommended for statistics/biostatistics option.

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, DNTI 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 (CSC 201 or ER 126)*

Mathematics Course Requirements
MATH 211 Calculus I _____4 (MTH 173 or 273)*
MATH 212 Calculus II _____4 (MTH 174 or 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 (Statistics and Biostatistics majors take STAT 331)

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 STAT 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 _____2
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 (PSY 231 & 232)*
SPED 406 St w/Diverse Learning Needs _____3
Math Teaching Licensure
Due to changing University requirements, national accreditation standards, and the Virginia Board of Education licensure regulations, the teacher preparation programs in the College of Sciences are under constant revision. Any changes resulting from these factors supersede the program requirements described in this Catalog. Students are encouraged to obtain current program information from their advisors and the Teacher Education Services website at www.odu.edu/tes.

Admission
Students must first declare the mathematics teacher preparation track as their major with the mathematics departmental advisor. All students must apply for and be admitted into the approved mathematics teacher preparation program. Students must meet the required criteria for admission by passing the Virginia Board of Education prescribed assessments and earn the minimum required grade point averages (GPA).

Virginia Board of Education prescribed assessments
- A passing PRAXIS I composite score of 532 or
- Qualifying SAT or ACT test scores or
- PRAXIS I Math test score of 178 and a composite Virginia Communication and Literacy (VCLA) score of 470 or
- SAT Mathematics test score of 530 and a composite Virginia Communication and Literacy (VCLA) score of 470 or
- ACT Mathematics test score of 22 and a composite Virginia Communication and Literacy (VCLA) score of 470

To review more information on the Virginia Board of Education prescribed assessments, visit the Teacher Education Services website, www.odu.edu/tes.

Required grade point averages (GPA)
- A cumulative GPA of 2.75 is required.
- A major/content GPA of 2.75 is required - A grade of C or better must be earned in MATH 311W; all other mathematics courses must be passed with a grade of C- or higher.
- A professional education GPA of 2.75 is required – all professional education courses must be passed with a grade of C- or higher.

Although students may enroll in a limited number of education courses, students must be admitted into the approved mathematics teacher preparation program prior to enrolling in any instructional strategies practicum education course. Students must also meet with an education advisor in the Office of Teacher Education Services.

Continuance
Students must maintain a cumulative GPA of 2.75, a major/content GPA of 2.75 and a professional education GPA of 2.75. MATH 311W must be passed with a grade of C or higher, and all other Mathematics courses must be passed with a grade of C- or higher. The remaining courses required for the major and in the professional education core must be completed with a grade of C- or higher for continuance. A professional education GPA of 2.75 is required for continuance. Students must take and pass the Virginia Communication and Literacy Assessment (VCLA) and the PRAXIS II Math Content examination prior to or while enrolled in the instructional strategies course. All assessments must be passed prior to the start of the Teacher Candidate Internship Orientation session.

Virginia Board of Education prescribed assessments
- Virginia Communication and Literacy Assessment (VCLA) – a passing composite score of 470 is required on this reading and writing assessment
- PRAXIS II Mathematics: Content Knowledge (test code: 0061) – passing score of 147 is required

To review more information on the Virginia Board of Education prescribed assessments visit the Teacher Education Services website, www.odu.edu/tes.

Graduation
Requirements for graduation include completion of ENGL 110C, ENGL 211C or 221C or 231C, and the writing intensive (W) course in the major with a grade of C or better, completion of the Senior Assessment, a minimum cumulative 2.75 GPA, in the major area, and in the professional education core, with no grade less than a C- in the major and the professional education core; successful completion of the Teacher Candidate Internship and a minimum of 126 credit hours to include a minimum of 32 credit hours overall and 12 credit hours in upper-level courses in the major program from Old Dominion University.

Upper Division General Education
The professional education core satisfies this requirement.
- Option A. Approved Disciplinary Minor (a minimum of 12 hours determined by the department), or second degree or second major.
- Option B: Interdisciplinary Minor (specifically 12 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)