APPLIED AND COMPUTATIONAL MATHEMATICS GRADUATE CERTIFICATE

Admission Requirements
Complete the following admission requirements:

- Hold a baccalaureate degree from an accredited institution
- Complete Calculus I (MATH F251X), Calculus II (MATH F252X), Calculus III (MATH F253X), Differential Equations (MATH F302) and Computer Science I (CS F201)\(^1\) or their equivalent;
- Complete Linear Algebra (MATH F314)\(^1\) or its equivalent.

\(^1\) Students must earn a C or better in each course.

Program Requirements
< Back to Department (http://catalog.uaf.edu/academic-departments/mathematics-statistics/)

Minimum Requirements for Applied and Computational Mathematics Graduate Certificate: 12 credits

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### Applied and Computational Mathematics Program Requirements
Complete two of the following: 6

- MATH F614 Numerical Linear Algebra
- MATH F615 Numerical Analysis of Differential Equations
- MATH F660 Advanced Mathematical Modeling
- MATH F661 Optimization
- MATH F663 Graph Theory

Select two or more from the following electives to total 12 credits for the certificate: 6-8

- Any course listed above not already taken
- Any of MATH F617, MATH F632, MATH F658, MATH F665
- At most one of MATH F631, MATH F641, MATH F645, MATH F651
- At most one of MATH F401, MATH F404, MATH F405, MATH F408, MATH F410, MATH F412, MATH F426, MATH F430, MATH F432, MATH F460
- At most one 3- or 4-credit 600-level statistics course, excluding STAT F698

Total Credits: 12-14