# Statistics Graduate Certificate

## Program Requirements

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## Minimum Requirements for Statistics Graduate Certificate: 12 credits

| Code | Title | Credits |
|---|---|---|
| **General University Requirements** | | |
| Complete the general university requirements. (https://catalog.uaf.edu/graduate-certificates/#gurgraduatecertificatestext) | | |
| **Graduate Certificate Requirements** | | |
| Complete the graduate certificate requirements. (https://catalog.uaf.edu/graduate-certificates/) | | |
| **Statistics Program Requirements** | | |
| Complete the following: | | |
| STAT F651 | Statistical Theory I [1] | 3 |
| or MATH F408 | Mathematical Statistics | |
| Complete two of the following: [1] | | 6 |
| STAT F461 | Applied Multivariate Statistics | |
| STAT F602 | Experimental Design | |
| STAT F605 | Spatial Statistics | |
| STAT F611 | Time Series | |
| STAT F621 | Nonparametric Statistics and Machine Learning | |
| STAT F631 | Categorical Data Analysis | |
| STAT F641 | Bayesian Statistics | |
| STAT F651 | Statistical Theory I [1] | |
| STAT F652 | Statistical Theory II [1] | |
| STAT F653 | Statistical Theory III: Linear Models | |
| STAT F661 | Sampling Theory | |
| Complete one or more from the following electives to total 12 credits for the certificate: | | 3-6 |
| FISH F604 | Modern Applied Statistics for Fisheries | |
| FISH/WLF F625 | Population Dynamics of Vertebrates | |
| FISH F627 | Statistical Computing with R | |
| FISH F631 | Data Analysis in Community Ecology | |
| MATH F614 | Numerical Linear Algebra | |
| or MATH F641 | Real Analysis | |
| or MATH F660 | Advanced Mathematical Modeling | |
| or MATH F661 | Optimization | |
| MIN/GE F635 | Advanced Geostatistical Applications | |
| PETE F687 | Experimental and Data Analytics Methods in Petroleum Engineering | |
| PHYS F628 | Digital Time Series Analysis | |
| Or other elective courses approved by a statistics faculty member. | | |
| **Total Credits** | | **12-15** |

[1] No more than two of the following courses can be used towards the certificate: MATH F408, STAT F651 or STAT F652.

## Admission Requirements

Complete the following admission requirements:

- Hold a baccalaureate degree from an accredited institution
- Complete Calculus I (MATH F251X), Calculus II (MATH F252X) and Calculus III (MATH F253X) [1]
- Complete Regression and Analysis of Variance (STAT F401) or equivalent. [1] Students without this requirement may be admitted into the program with a deficiency but will be required to complete STAT F401 as part of the requirements of the certificate.

[1] Students must earn a C or better in each course.