

Certificate Program in Statistics (Updated)

The certificate program in Statistics enables students to pursue an interdisciplinary course of study in statistics. The required curriculum provides students with necessary statistical foundations of the field and exposes them to practical applications relevant to their chosen area of specialization.

Each course must be completed with a grade of at least "C-." The total number of credits required for this certificate is 23. To obtain the certificate in Statistics, the student must complete the following required/elective courses:

Please submit application to Dr. Lianfen Qian (Science Building- Room SE248)

| Required Courses | | |
|---|-------------|---|
| Calculus-Analytic Geometry 1 | MAC 2311 | 4 |
| Calculus-Analytic Geometry 2 | MAC 2312 | 4 |
| Applied Statistics Lab | STA4202L | 1 |
| Applied Statistics 1 | STA 4234 | 2 |
| Probability and Statistics 1 | STA 4442 | 3 |
| <i>Choose one from this list</i> | | |
| Probability and Statistics 2 | STA 4443 | 3 |
| Probability and Statistics for Engineers | STA 4032 | 3 |
| Stochastic Models for Computer Science | STA 4821 | 3 |
| Stochastic Processes and Random Signals | EEL 4541 | 3 |
| <i>Recommended mathematics courses</i> | | |
| Calculus 3 | MAC2313 | 4 |
| Matrix Theory | MAS 2103 | 3 |
| <i>Choose two elective courses</i> | | |
| Intermediate Econometrics | ECO 4422 | 3 |
| Introduction to Queueing Theory | MAP4260 | 3 |
| Statistical Physics | PHY 4523 | 4 |
| RI: Introduction to Data Science* or SAS for | CAP 3786 or | 3 |

| | | |
|--------------------------------------|----------|-----------|
| Data and Statistical Analyses* | STA 3024 | |
| RI: Computational Statistics* | STA 4102 | 3 |
| Statistical Designs* | STA 4222 | 3 |
| RI: Statistical Learning* | STA 4241 | 3 |
| Applied Statistics 2* | STA 4702 | 3 |
| Applied Time Series and Forecasting* | STA 4853 | 3 |
| Total | | 23 |

* Recommended Elective Courses

* As with all degree programs, the authoritative source for the degree requirements is the University Catalog that was in effect for the academic year in which the student entered the University. The information on this page does not supersede the Catalog.

Minor in Statistics (Updated)

The minor enables students to pursue knowledge in statistics while pursuing a major in other disciplines, including mathematics.

The required curriculum provides necessary statistical foundations of the field and practical applications relevant to their chosen area of specialization.

Each course must be completed with a grade of at least a C. To complete the minor in statistics, one has to complete the following required courses:

| Prerequisites | | |
|------------------------------|-----------|---------|
| Title | Course | Credits |
| Calculus-Analytic Geometry 1 | MAC 2311 | 4 |
| Calculus-Analytic Geometry 2 | MAC 2312 | 4 |
| Matrix Theory | MAS 2103 | 3 |
| Core Required Courses | | |
| Applied Statistics Lab | STA 4202L | 1 |
| Applied Statistics 1 | STA 4234 | 2 |

| | | |
|--|-------------------------|-----------|
| Probability and Statistics 1 | STA 4442 | 3 |
| Probability and Statistics 2 or Probability and Statistics for Engineers | STA 4443 or STA 4032 | 3 |
| Select two electives from the following: | | |
| Intermediate Econometrics | ECO 4422 | 3 |
| Introduction to Queuing Theory | MAP 4260 | 3 |
| Statistical Physics | PHY 4523 | 4 |
| RI: Introduction to Data Science or SAS for Data and Statistical Analysis | CAP 3786 or STA 3024 | 3 |
| RI: Computational Statistics | STA 4102 | 3 |
| RI: Statistical Learning | STA 4241 | 3 |
| Statistical Designs | STA 4222 | 3 |
| Applied Statistics 2 | STA 4702 | 3 |
| Applied Time Series and Forecasting | STA 4853 | 3 |
| Mathematics and Statistics Total | | 26 |

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