

STATISTICS, CERTIFICATE

REQUIREMENTS

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The certificate requires a minimum of 13 credits.

Code	Title	Credits
Introductory Statistics (complete one course):		3-4
B M E 325	Applied Statistics for Biomedical Engineers	
ECON 310	Statistics: Measurement in Economics	
I SY E 210	Introduction to Industrial Statistics	
STAT 240	Data Science Modeling I	
STAT 301	Introduction to Statistical Methods	
STAT 324	Introduction to Statistics for Science and Engineering	
STAT 371	Introductory Applied Statistics for the Life Sciences	
Statistical Language		1
STAT 303	R for Statistics I	
Regression Analysis (complete one course):		3-4
STAT 333	Applied Regression Analysis	
STAT 340	Data Science Modeling II	
Probability (complete one course):		3
E C E 331	Introduction to Random Signal Analysis and Statistics	
STAT/MATH 309	Introduction to Probability and Mathematical Statistics I	
STAT 311	Introduction to Theory and Methods of Mathematical Statistics I	
MATH 331	Introductory Probability	
STAT/MATH 431	Introduction to the Theory of Probability	
MATH 531	Probability Theory	
Elective, complete at least 3 credits below		3
STAT 304	R for Statistics II	
STAT 305	R for Statistics III	
STAT/MATH 310	Introduction to Probability and Mathematical Statistics II	
STAT 312	Introduction to Theory and Methods of Mathematical Statistics II	
STAT 349	Introduction to Time Series	
STAT 351	Introductory Nonparametric Statistics	
STAT 405	Data Science Computing Project	
STAT 411	An Introduction to Sample Survey Theory and Methods	
STAT 421	Applied Categorical Data Analysis	

STAT/M E 424	Statistical Experimental Design
STAT 433	Data Science with R
STAT 436	Statistical Data Visualization
STAT 443	Classification and Regression Trees
STAT 451	Introduction to Machine Learning and Statistical Pattern Classification
STAT 453	Introduction to Deep Learning and Generative Models
STAT 456	Applied Multivariate Analysis
STAT 461	Financial Statistics
STAT/COMP SCI 471	Introduction to Computational Statistics
STAT 479	Special Topics in Statistics
STAT 575	Statistical Methods for Spatial Data
STAT/B M I 620	Statistics in Human Genetics
STAT/B M I 641	Statistical Methods for Clinical Trials
STAT/B M I 642	Statistical Methods for Epidemiology

Total Credits **13**

RESIDENCE AND QUALITY OF WORK

- At least 7 certificate credits must be completed in residence
- Minimum 2.000 GPA on all certificate courses

CERTIFICATE COMPLETION REQUIREMENT

This undergraduate certificate must be completed concurrently with the student's undergraduate degree. Students cannot delay degree completion to complete the certificate.