

# APPLIED STATISTICS - CERTIFICATE

The Department of Statistics at Texas A&M University offers a certificate in Applied Statistics. This certificate meets the requirements of the University and the Texas Higher Education Coordinating Board (Chapter 5, 5.48). This certificate is 12 semester credit hours and is designed to meet the needs of students and the workforce. This online program is an integrated extension of the renowned on-campus program in that on-campus and distance students are enrolled in the exact same classes. The students must:

1. Be admitted to the university,
2. Take 12 semester credit hours from the list of graduate courses below,
3. Have at least a 3.00 GPA for the 12 statistic certificate hours, as well as at least an overall 3.00 GPA for all courses taken at Texas A&M,
4. Must prepare a 5-10 page document describing a statistical analysis of a data set which shows the application of statistics procedures which were learned in one or more of the statistics courses taken as part of the certificate program. It should contain the following:
  - a. Description of the research goal or purposes of the study generating the data set.
  - b. Detailed discussion of the data set and include data set in appendix to the document.
  - c. Describe the statistical methodology used to analyze the data set.
  - d. Detailed analysis of the data set, including tests of hypotheses, confidence intervals, graphs, tables, etc.
  - e. Discussion of the analysis with detailed conclusions concerning the degree to which the data supports the research hypotheses.
5. Document described above must be sent to the Associate Department Head for Statistics at least 60 days prior to the proposed graduation date. Currently, that is Dr. Michael Longnecker, longneck@stat.tamu.edu.
6. Each certificate, no matter the specialty, will be listed as Applied Statistics on the certificate which students will apply for and which will be mailed out from Texas A&M University.

STAT 646	Statistical Bioinformatics
STAT 647	Spatial Statistics
STAT 651	Statistics in Research I
STAT 652	Statistics in Research II
STAT 653	Statistics in Research III
STAT 656	Applied Analytics Using SAS Enterprise Miner
STAT 657	Advanced Programming Using SAS
STAT 659	Applied Categorical Data Analysis

Total Semester Credit Hours	12
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- <sup>1</sup> Students must have a 3.00 GPA over the four courses in order to receive the statistics certificate.

## Program Requirements

Code	Title	Semester Credit Hours
Select four of the following:		12
STAT 601	Statistical Analysis	
STAT 604	Topics in Statistical Computations	
STAT 607	Sampling	
STAT 608	Regression Analysis	
STAT 626	Methods in Time Series Analysis	
STAT 631	Statistical Methods in Finance	
STAT 636	Applied Multivariate Analysis and Statistical Learning	
STAT 638	Introduction to Applied Bayesian Methods	
STAT 642	The Methods of Statistics II	
STAT 645	Applied Biostatistics and Data Analysis	