

## Who We Are:

The faculty of the Air Force Institute of Technology's Test and Evaluation program bring the unique combination of educational and operational backgrounds that lead to innovative and successful solutions to today's complex test and evaluation problems.

- Diverse research interests blending DoD, Air Force and Industry experience and state-of-the-art statistical theory for solutions that enhance our National Defense.
- Air Force Officers and Civilian faculty, with earned degrees from the most respected Industrial Engineering and Operations Research programs in the nation, including Boston University, Georgia Institute of Technology, Kent State University, Ohio State University, Purdue University, University of Illinois, University of Michigan, Virginia Polytechnic Institute and State University, and AFIT.
- Faculty experience from all levels of the test and evaluation community — interacting with customers and colleagues at HQ AFOTEC, HQ AFMC, 49th TES, 46th TES.
- Close relationships with leaders within the test and evaluation community to keep the certificate program current and relevant.

## For More Information



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[www.afit.edu/en/ens](http://www.afit.edu/en/ens)

## Test and Evaluation Graduate Certificate Program





## Graduate Test and Evaluation Certificate Program

[www.afit.edu/en/ens](http://www.afit.edu/en/ens)

The AFIT Test and Evaluation Certificate Program (TECP) is an organizationally funded program that provides students a fundamental understanding in the basic concepts required for supporting analyses in the Test and Evaluation (T&E) Community. Particular emphasis is given to incorporating past, present, and future DoD T&E examples from all aspects of test (developmental, operational, etc) into the curriculum to tailor the applications of the methodology and approaches within each course.

Current T&E focus in design of experiments (DOE) and reliability, maintainability, and availability (RM&A) analysis are addressed in required courses to complete the T&E Certificate Program. TECP targets individuals within the acquisition or analysis career fields working within research, developmental, or operational test stationed at engineering centers, test ranges, test centers, program offices or headquarters.

The TECP also provides an avenue for personnel interested in completing an AFIT Master's Degree in Operations Research. The possibility exists for students completing the TECP to attend AFIT for a shortened period of time to complete the full Operations Research Master's Degree. The TECP provides an entry point into this masters program and could be tailored to support the Applied Statistics track within this program of study.

The TECP courses are transferable to most civilian graduate programs and AFIT has agreements with select educational institutions. The TECP courses are also transferable into the AFIT Distance Learning Systems Engineering masters degree program for the specialty track in test and evaluation.

### Courses

[www.afit.edu/en/ens](http://www.afit.edu/en/ens)

The Graduate Test and Evaluation Certificate Program consists of five graduate-level courses for a total of 16 graduate credits. The program starts each fall quarter.

#### STAT 583: INTRODUCTION TO PROBABILITY AND STATISTICS (4 credit hours)

Basic concepts of probability and statistics are covered. Topics include random variables, probability distributions, estimation and confidence intervals, hypothesis testing.

#### OPER 679: EMPIRICAL MODELING (3 credit hours)

Analysis of experimental and observational data from engineering systems, focus on empirical model building using observation data for characterization, estimation, inference and prediction.

#### OPER 688: OPERATIONAL EXPERIMENTATION (3 credit hours)

As an introduction to designing experiments for operational testing and evaluation, this is an applied course intended for operations analysts who perform experiments or serve as advisors to experimentation.

#### LOGM 634: RELIABILITY, MAINTAINABILITY AND SUPPORTABILITY (3 credit hours)

Fundamentals of reliability maintainability, and supportability with emphasis on test consideration.

#### OPER 791: CAPSTONE RESEARCH PROJECT FOR OPERATIONAL SCIENCES (3 credit hours)

A research topic is selected from problems of interest to USAF and DoD under faculty advisement .

### Admission Requirements

[www.afit.edu/en/admissions/index.cfm](http://www.afit.edu/en/admissions/index.cfm)

- Bachelor's degree in an appropriate engineering or scientific discipline
- Minimum GPA average of 3.00
- Successful completion of undergraduate calculus I and II
- Admissions are limited to current DoD employees; requires both academic acceptance and organizational funding (exceptions case-by-case basis only)

### Program Requirements

[www.afit.edu/en/ens/testevaluation.cfm](http://www.afit.edu/en/ens/testevaluation.cfm)

- Admittance into AFIT TECP
- Organization funding for each enrollee
- Persistent dedication for entire program 15– 18 months
- Maintain a minimum GPA of 3.00