



## GRADUATE STUDIES FACT SHEET

### APPLIED STATISTICS

#### PROGRAM OF STUDY

The current focus on high technology in this country has created new and different job opportunities, as well as shifted the emphasis for certain areas of expertise. One particular demand in the high-tech industry is for applied statisticians. Vital to a wide variety of disciplines, applied statisticians have found jobs in pharmaceutical research and development, government public policy, genomic/bioinformatics research, business planning and analysis, market research, and psychometrics.

West Chester University's master of science in applied statistics is a state-of-the art program that brings together statistical theory, computer programming, and scientific research. This degree provides preparation for immediate employment in a variety of high-paying industry positions, as well as doctoral study in applied statistics or a related field.

Students will benefit from the following:

- a flexible curriculum that allows one to explore various concentrations
- visiting lectures from prominent statisticians on topics of current interest in applied statistics
- pursuing intensive study on a topic of interest with a faculty member through the optional thesis track
- optional supervised, paid internships at local companies

#### THE CURRICULUM

In the first semester students will learn the following:

- statistical programming skills using SAS software
- basic underlying theory of mathematical statistics

- an introduction to a chosen area of concentration

All subsequent courses will combine statistical and computational procedures so students can apply these skills toward the following tasks:

- designing experiments
- performing advanced data analysis
- communicating complex statistical ideas

Students also will have the opportunity to learn about specific topics of current importance:

- clinical trials
- categorical data analysis
- survival analysis
- marketing research
- computational statistics
- financial statistics
- longitudinal data analysis
- bioinformatics

In addition, students may receive hands-on experience working with statisticians and scientists in a paid internship at one of the many international companies located in the area. Students also may work on a project as part of the new West Chester Statistics Institute. If students want to pursue independent statistical research or further graduate study, the thesis track will allow them to conduct supervised research in their area of interest with a faculty member.

#### CERTIFICATE PROGRAM IN APPLIED STATISTICS

Students can pursue studies on a part-time basis or just learn some new skills through a viable and exciting option: the certificate

program in applied statistics. This 19-credit hour program is a hands-on curriculum where students can apply statistical and computational procedures to real-life problems. For example, students can learn how to design and analyze data effectively from a clinical trial. The certificate program offers a broad overview and introduction to the application of statistical concepts to various research settings.

#### BENEFITS OF THE APPLIED STATISTICS PROGRAM

- Small classes
- Evening classes
- Close work with faculty
- Exciting research opportunities
- Lucrative and rewarding career opportunities
- Flexible elective course offerings
- Development of skills for a Ph.D. program
- Affordable tuition
- Assistantships, scholarships, and tuition waivers available
- Paid, supervised internships
- Option for certificate in applied statistics

#### ADMISSION REQUIREMENTS

Applicants should submit the following to the Office of Graduate Studies and Extended Education:

- Completed graduate application including goals statement (apply online at [www.wcupa.edu/grad](http://www.wcupa.edu/grad))
- Two letters of recommendation
- Transcripts from each college or university attended

- Must meet the entry requirements of West Chester University for admission to graduate study and must present evidence of an earned undergraduate degree from an accredited college or university

## FOR MORE INFORMATION

Write: Office of Graduate Studies and  
Extended Education  
McKelvie Hall  
102 West Rosedale Avenue  
West Chester University  
West Chester, PA 19383

Call: 610-436-2943

Fax: 610-436-2763

E-mail: [gradstudy@wcupa.edu](mailto:gradstudy@wcupa.edu)

Web: [www.wcupa.edu/grad](http://www.wcupa.edu/grad)

Visit: [www.facebook.com/wcugrad](http://www.facebook.com/wcugrad)

*Or contact the program director:*

Write: Dr. Randall H. Rieger  
Department of Mathematics  
West Chester University  
West Chester, PA 19383

Call: 610-436-2440

Fax: 610-436-2165

E-mail: [rrieger@wcupa.edu](mailto:rrieger@wcupa.edu)

Web: [www.wcupa.edu/appliedstatistics](http://www.wcupa.edu/appliedstatistics)

The Graduate Catalog is available online at [www.wcupa.edu/\\_information/official.documents/graduate.catalog/](http://www.wcupa.edu/_information/official.documents/graduate.catalog/).

## ABOUT GRADUATE STUDIES

West Chester University offers high-quality graduate degrees in more than 70 disciplines or areas of study, as well as certificate and certification programs. The graduate studies program has grown remarkably since its introduction in 1960. West Chester University's program is the largest within the 14 institutions in the Pennsylvania State System of Higher Education enrolling more than 2,100 graduate students.

Programs can be taken on a part-time basis, and most of the graduate classes are scheduled during late afternoons and evenings for the benefit of in-service teachers and other employed persons.

## ABOUT WEST CHESTER UNIVERSITY

A regional, public institution, West Chester University of Pennsylvania offers high-quality undergraduate and graduate degrees, as well as certification and certificate programs, in more than 100 subject areas. As the second largest member of the State System of Higher Education, West Chester offers a full and rewarding educational experience as well as reasonable tuition.

With a rich heritage dating back to the 19th century, West Chester University was

founded in 1871 as West Chester Normal School for the purpose of training teachers for the Commonwealth's newly established public schools. In 1960, West Chester State Teachers College expanded its programs to include liberal arts and graduate degrees and, as a result, dropped "Teachers" from its name. In 1983, West Chester State College became one of the 14 institutions in the State System of Higher Education. Along with its university status, the school acquired a new system of governance and the opportunity to expand its degree programs.

Today, more than 15,400 graduate and undergraduate students, as well as 1,500 faculty and staff, study and work on the 406-acre campus. Situated in the Borough of West Chester, the campus is a picturesque mix of Gothic, Victorian, and modern architecture with pleasant, tree-shaded walks.

Strategically located at the center of the mid-Atlantic corridor, West Chester University is just 25 miles west of Philadelphia and 17 miles north of Wilmington, Del. The campus is convenient to major cultural institutions, recreational activities, and commercial businesses, many of which provide internship opportunities for WCU's students.

