



◆ **Graduate Certificate Program *Biostatistics and Clinical Research*:** The 18 credit graduate certificate program in *Biostatistics and Clinical Research* focuses on the development of knowledge and skills to participate in the process of translational and drug-related research. The target audience includes medical (MD) students, MD residents and fellows, pharmacy (PharmD) students and residents, applicable PhD graduate students, and those already with a related doctoral degree. Upon completion of the program, learners will be able to:

- apply and interpret biostatistical methods in all phases of drug development, including Phase I, II, and III trials, as well as, post-marketing surveillance
- describe methods used to assess drug safety and efficacy
- review methods used to take late animal data to early clinical trials
- describe the regulatory process involved in all steps of drug development
- design a Phase III randomized clinical trial to address a drug of interest
- write a clear description of the rationale and methods for a recently published RCT, addressing the positive results and potential flaws in study design and interpretation

18-credit <i>Biostatistics & Clinical Research</i>	
Courses	Credits
PUBH600/800 Biostatistics (Summer, Fall <u>or</u> Spring)	3
PUBH606/806 Advanced Biostatistics (Spring)	3
PUBH611/811 Categorical Data Analysis (Spring)	3
Overview of Phase I/II Trial Design	3
Phase III, Randomized Clinical Trials	3
Regulation of Clinical Trials: PhARMA, FDA, IRBs	3
TOTAL CREDITS	18

◆ **Course Delivery:** The certificate program is very accessible to individuals who want additional academic education and training at the graduate-level. All courses are offered via a combination of conventional classroom, laboratory (if applicable), and Web-based modes. Required on-campus sessions at the UT Health Science Campus are offered either weeknights (i.e. 5:15pm-9pm) or on Saturdays (i.e. 8:15am-12pm or 12:45pm-4:30pm). Each course during the term offered, typically requires meeting on-campus 8 sessions per term (on alternating weeks) plus completion of off-campus Web-based modules. Credits may be applied toward the degree programs, depending on degree, major and approval, for those who continue advanced study beyond the certificate.

◆ **For additional information about the program and to apply:**

- **E-mail Address and Phone:** publichealth@utoledo.edu or 419-383-5356
- **Mail Address:** Department of Public Health & Homeland Security, University of Toledo College of Medicine - Health Science Campus 3015 Arlington Avenue, Toledo, OH 43614-5803
- **Application, Tuition and Fees:** Apply on-line <http://www.ohiomentor.org/applications/UniversityofToledoGrad/apply.html> . . . Tuition and Fees <http://bursarsoffice.utoledo.edu/FeesFall08.asp> . . . \$45. application fee. Official transcript of bachelor, professional (e.g., dental; medical), or graduate degree; Minimum Grade Point Average 3.0/4.0 for "Regular" admission or 2.5 to <3.0/4.0 for "Provisional" admission; Two letters of recommendation. (Note: Only one letter of recommendation from advisor for current UT graduate and medical students or department chairperson for faculty members and residents); Apply by or before April 18 for Summer, July 15 for Fall, or November 18 for Spring admission. (Note: Those who are interested in only taking one or two courses may apply for "Special Status" admission instead of "Regular" admission.)