

TRANSLATIONAL SCIENCE GRADUATE CREDIT CERTIFICATE PROGRAM

Person-in-Charge	Gail D. Thomas
Program Code	HYTRSC
Campus(es)	Hershey University Park

The primary goal of this certificate is to provide a formal, structured program that allows medical and health care professionals, those wanting to enter the area of health care research, and graduate students seeking a career in a health care related discipline to develop or enhance a successful career in translational science.

Effective Semester: Summer 2023
Expiration Semester: Summer 2028

Admission Requirements

Applicants apply for admission to the program via the Graduate School application for admission (<https://gradschool.psu.edu/graduate-admissions/how-to-apply/>). Requirements listed here are in addition to Graduate Council policies listed under GCAC-300 Admissions Policies (<https://gradschool.psu.edu/graduate-education-policies/>). International applicants may be required to satisfy an English proficiency requirement; see GCAC-305 Admission Requirements for International Students (<https://gradschool.psu.edu/graduate-education-policies/gcac/gcac-300/gcac-305-admission-requirements-international-students/>) for more information.

Certificate Requirements

Requirements listed here are in addition to requirements listed in Graduate Council policy GCAC-212 Postbaccalaureate Credit Certificate Programs (<https://gradschool.psu.edu/graduate-education-policies/gcac/gcac-200/gcac-212-postbaccalaureate-credit-certificate-programs/>).

The curriculum includes courses in 4 specific translational science clusters. Students are required to complete 15 credits, including a 10 credit core of required 500-level courses and 5 elective credits. Courses must be selected from the detailed curriculum, or by permission in advance from the certificate director. Courses are available at the Hershey and University Park Campuses enabling the student to continue employment activities or graduate school programs. Students must obtain a B or better in each course.

Code	Title	Credits
Required Courses		
Select one of the following:		3
PHS 520	Principles of Biostatistics	
STAT 500	Applied Statistics	
STAT 501	Regression Methods	
Select one of the following:		3
PHS 550	Principles of Epidemiology	
HPA 540	Epidemiological Applications in Health Services Research	

STAT 507	Epidemiologic Research Methods	
Select one of the following:		3
PHS 580	Clinical Trials: Design and Analysis	
STAT 503	Design of Experiments	
STAT 509	Design and Analysis of Clinical Trials	
Select one of the following:		1
PHS 500	Research Ethics for Clinical Investigators	
MCIBS 591	Ethics, Rigor, Reproducibility and Conduct of Research in the Life Sciences	
BMS 591	Biomedical Research Ethics	
Electives		
Select 5 credits from the following:		5
BBH 505	Behavioral Health Research Strategies	
BIOL 555	Statistical Analysis of Genomics Data	
BMMB 852	Applied Bioinformatics	
BMS 801	Writing Grant Proposals for Biomedical Research	
CTS 590	Colloquium	
HPA 528	Health Data Analysis for Research	
HPA 564	Research Methods in Health Services Research	
HDFS 503	Human Development Intervention: Analysis of Theories and Approaches	
HDFS 516	Methods of Research in Human Development	
KINES 588	Scientific Writing in Kinesiology	
MCIBS 555	Statistical Analysis of Genomics Data	
NUTR 540	Research Methods	
PHS 518	Scientific Communication	
PHS 519	Patient Centered Research	
PHS 521	Applied Biostatistics	
PHS 536	Health Survey Research Methods	
PHS 540	Decision Analysis for Public Health	
STAT 555	Statistical Analysis of Genomics Data	
Total Credits		15

Courses

Graduate courses carry numbers from 500 to 699 and 800 to 899. Advanced undergraduate courses numbered between 400 and 499 may be used to meet some graduate degree requirements when taken by graduate students. Courses below the 400 level may not. A graduate student may register for or audit these courses in order to make up deficiencies or to fill in gaps in previous education but not to meet requirements for an advanced degree.

Learning Outcomes

- TS STAT:** Students will be able to apply appropriate statistical principals and analyses to translational science.
- TS EPI:** Students will be able to apply basic epidemiological principals and methods to translational science.
- TS METHODS:** Students will be able to identify, design, implement, and evaluate evidence-based approaches to translational science.
- TS ETHICS:** Students will be able to apply ethical principals and meet high ethical standards in planning, conducting, and reporting of research and protection of human and animal subjects.
- TS COMM:** Students will be able to write scientific reports and journal articles and to give scientific presentations.

Contact

Campus	Hershey Med Ctr
Graduate Program Head	Gail D Thomas
Program Contact	Karen P Shields Penn State College of Medicine P.O. Box 850, MC H147 Hershey PA 17033 kpb2@psu.edu
Program Website	View (http://med.psu.edu/translational-science-certificate/)
Campus	University Park
Graduate Program Head	Gail D Thomas
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Program Website	View (https://med.psu.edu/translational-science-certificate/)