Doctor of Philosophy in Textile Engineering and Science

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Campus Locations: Main Campus only

Degree Program

Ph.D. in
Textile Engineering
and Science

The goal of the Textile Engineering and Science Doctor of Philosophy program is to educate textile engineers who combine theory, practice, scholarly research and application of knowledge in their chosen professions. It is expected that graduates of the doctoral program will pursue careers in basic and applied research in industry, government or university settings. Graduates will contribute original research and scholarly publications in the fiber and textile fields.

The doctoral program in Textile Engineering and Science emphasizes not only depth in fundamental textile engineering and science/mechanical engineering disciplines, but also an interdisciplinary approach to understanding technologies in which textile engineers and scientists can and should take a leading role. It is this combined emphasis on fundamentals, the ability to think and work outside one's area of expertise and the ability to frame complex problems that best defines this doctoral program. Students will propose a textile engineering and science problem of substance and will then develop a solution. Students must demonstrate the ability to apply scientific principles to meet engineering needs with due regard to social and economic factors and within a reasonable time constraint.

Program Structure

Doctoral candidates will have as their primary goal the completion of an original engineering/scientific contribution to the body of knowledge in the field of textiles. This contribution will be in the form of a written doctoral dissertation that will be defended in the presence of the faculty of Philadelphia University.

During the first year of the program, students will complete required coursework, including a nine-credit hour (three courses) engineering minor. In a collaborative agreement with nearby Temple University, these graduate-level courses will be taken at the College of Engineering at Temple. The student's doctoral committee may require additional courses to enhance the student's research.

All courses will be taken in the first year of the doctoral program. Students will then be required to pass a two-part qualifying examination in the field of textile engineering. The first part is a written examination, and the second part is an oral examination. A major and a minor topic will be chosen by the candidate and the doctoral committee and agreed upon at least four months in advance of the examination. Dates for the written and oral exams will be selected by mutual agreement of the candidate and the committee members.

All members of the committee should be present for the oral examination. The written examination may be administered by the committee chair with input from other committee members. The result of the two-part qualifying examination will be a pass or a fail. Both the written and oral examinations should be completed by the end of the second semester of study. Upon the successful completion of the examination, students will be formally admitted to doctoral candidacy. This will usually occur after the first year of full-time enrollment.

Students who fail the qualifying examination on the first attempt will be given one more chance, at the discretion of the committee, to improve their performance. In any case, the qualifying examination must be completed before the end of the second year of the student's doctoral program.

The candidate will then make a formal Ph.D. thesis proposal defense. Once approved by the doctoral committee students will conduct their doctoral research and subsequent dissertation. At the completion of a written dissertation, the candidate will give a formal and public thesis defense. Upon a successful defense the student's candidacy will be completed, and upon the recommendation of the faculty of the Philadelphia University the candidate will be awarded the Ph.D. in the field of Textile Engineering and Science.

Degree Requirements

FIRST YEAR	**18 CREDITS**
Selection of doctoral advisor	
Completion of doctoral committee selection	
Three engineering courses at Temple University	9
TES901 Preliminary Examination Preparation	3
TES902 Thesis I	6
Successful completion of doctoral qualifying examination	

SECOND YEAR	**18 CREDITS**
Doctoral thesis proposal defense	
TES903 Dissertation Research I	9
TES904 Dissertation Research II	3
TES905 Thesis II	6
Defense of Doctoral Dissertation	

Credit for previous master's degree	36 credits (minimum)
TOTAL DEGREE CREDIT HOURS	**72 CREDITS**

While it is the intention to have students study full time, there will be a provision for students to take a leave based on personal reasons. In all cases students will have a maximum period of five years from the date of initial enrollment to complete all doctoral degree requirements. The minimum time requirement to complete the doctoral program is two years. The minimum full-time enrollment in residence is two semesters.

Admission to the Ph.D. Program

The Ph.D. program in Textile Engineering and Science is primarily an advanced research-oriented program that will be offered to selected graduates of M.S. textile engineering programs. Students from other M.S. textile engineering programs that are offered internationally will also be considered for admission. Candidates with advanced engineering degrees in fields other than textiles, e.g., mechanical, chemical, or materials, may be considered for admission if they agree to take master's-level textile engineering courses at Philadelphia University. The credits they receive for these additional courses will not take the place of the required nine credits of minor courses in engineering, and they will serve as foundation-level courses.

Standardized Test Requirements

Applicants to the Ph.D. program who have master's degrees in textile engineering (or other acceptable fields as noted above) from a university in the United States are not required to submit GRE or TOEFL scores for admission. For all other students (international students and those who do not have an acceptable master's qualification) the requirements for the admission to the M.S. in Textile Engineering program will apply.

Graduate Research Assistantships

All students admitted to the Ph.D. program in Textile Engineering and Science will be offered research assistantships funded through external grants and contracts. The selection of students is based on the suitability of students' backgrounds and their interests in fields that match those of the funding professor.

For application and assistantship availability, please contact the Graduate Admissions Office at 215.951.2943 or send email to gradadm@PhilaU.edu.