

# Textile Engineering

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The Master of Science in Textile Engineering (<https://textiles.ncsu.edu/academics/graduate-programs/textile-engineering/>) program trains students to apply engineering principles to the design, production and testing of fiber and polymer-based materials, textiles and related materials. Students focus on enhancing their understanding of structures, production processes and development related to these materials and products. We offer a thesis and non-thesis option of this program. The non-thesis option can be completed entirely online (<https://online-distance.ncsu.edu/program/textile-engineering/>).

## Thesis research has focused on the areas of:

- Biomedical textiles.
- Textile composites.
- Nonwovens.
- E-textiles and smart fibers/fabrics.
- New fibers: sensors, actuators and energy storage.
- Sustainability in materials and processes.
- Flexibility, durability and comfort of textiles for activewear applications.
- Personal Protective Equipment (PPE) for firefighters, military and more.
- Product testing and quality control.
- Supply chain optimization.

Students enrolled in this master's program often pursue a double major in statistics, biomedical engineering, industrial engineering or materials science.

The Master of Science in Textile Engineering overlaps with studies in materials science and chemistry, meaning graduates may research and develop solutions for the integration of chemistry and materials science.

## More Information

Textile Engineering Program Website (<https://textiles.ncsu.edu/academics/graduate-programs/textile-engineering/>)

## Applicant Information

- **Delivery Method:** On-Campus, Online, Hybrid
- **Entrance Exam:** None
- **Interview Required:** None

## Application Deadlines

- **Fall:** March 1 (International); June 25 (U.S.)
- **Spring:** July 15 (International); November 25 (U.S.)

## Degrees

- Textile Engineering (MS) (<http://catalog.ncsu.edu/graduate/textiles/textile-engineering/textile-engineering-ms/>)
- Textile Engineering (Minor) (<http://catalog.ncsu.edu/graduate/textiles/textile-engineering/textile-engineering-minor/>)
- Textile Supply Chain Management (Certificate) (<http://catalog.ncsu.edu/graduate/textiles/textile-engineering/textile-supply-chain-management-certificate/>)

## Faculty

### Full Professor

Roger Barker  
Philip Bradford  
Laura Clarke  
Emiel DenHartog  
Ahmed El-Shafei  
Raoul Farer  
Tushar Ghosh  
David Hinks  
Warren Jasper  
Jeff Joines  
Martin King  
Jerome Lavelle  
Melissa Pasquinelli  
Behnam Pourdeyhimi  
Abdel-Fattah Seyam  
Renzo Shamey  
Richard Spontak  
Nelson Vinueza  
Xiangwu Zhang

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### Associate Professors

Ericka Ford  
Wei Gao  
Wendy Krause  
Bryan Ormond  
Sonja Salmon  
Eunkyoung Shim

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### Assistant Professors

Januka Budhathoki-Uprety  
Xiaomeng Fang  
Jessica Gluck  
Amanda Mills

Md Abdul Quddus

Tom Schroeder

Tova Williams

Rong Yin

Yang Zhang

Mengmeng Zhu

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## Research Faculty

Genevieve Garland

Dieter Grifffis

Benoit Maze

Jialong Shen

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## Adjunct Faculty

Abhay Joijode

Gerardo Montero

Riikka Raeisaenen

Gisela de Arago Umbuzeiro

Julie Willoughby