

Fiber & Polymer Science

This multidisciplinary program brings together the disciplines of mathematics, chemistry, physics, and engineering for the development of the independent scholars versed in the fields of polymer, fiber, and textile science. The program is coordinated by the Wilson College of Textiles and leads to the degree of Doctor of Philosophy.

The polymer, fiber, and textile sciences are concerned with polymeric materials and fibers produced from them; textile assemblies in one, two, and three-dimensional forms; and the chemistry of dyeing, finishing, and other wet processes. This broad field of study permits a wide range of useful concentrations. The candidate is expected to concentrate in one area and to acquire a reasonable perspective in other relevant areas. Generally, a student specializes in the areas of (1) polymer chemistry and synthesis, (2) fiber and polymer physics and physical chemistry, (3) the production, processing and properties of fibrous materials, or (4) chemistry of dyes, finishes, and their processes. The student's research is usually based within one of these areas or another suitable one.

Scholarships and Assistantships

Competitive scholarships and assistantships from the program as well as the University are available to incoming new students. All incoming students will be considered for the funding opportunities. No separate application for assistantships/scholarships is needed.

More Information

Fiber and Polymer Science Program Website (<https://textiles.ncsu.edu/academics/graduate/fiber-and-polymer-science/>)

Admission Requirements

Students with a Master of Science (M.S.) degree in a related field may apply to the Fiber and Polymer Science program. Typically the minimum acceptable overall grade point average (GPA) is a 3.0 out of 4.0, based on most current U.S. universities. Students without a master's degree may also apply if met the following conditions:

- the undergraduate degree from a well-known and robust research active program with a cumulative GPA of 3.5 or above;
- strong recommendation letters from faculty adviser(s) indicating research experience or suggesting research potential; and
- strong publication record/experience or extensive industry experience in related industry/profession.

Applicants should plan to take the GRE or GMAT examination, which is required for all applicants. The GRE/GMAT scores should be sent to NC State University electronically and be available online.

For International students, TOEFL or IELTS is required for the application. Students must rank in a competitive percentile in order to be considered for acceptance into NC State University.

- TOEFL: A total score of 80+ on IBT. Minimum scores of 18 points for each section: or
- IELTS: An overall band score of 6.5+. Minimum scores of 6.5 points for each section

Applicant Information

- **Delivery Method:** On-Campus
- **Entrance Exam:** GRE
- **Interview Required:** None

Application Deadlines

- **Fall:** June 25 (US); March 1 (Intl)
- **Spring:** November 25 (US); July 15 (Intl)

Degrees

- Fiber and Polymer Science (PhD) (<http://catalog.ncsu.edu/graduate/textiles/fiber-polymer-science/fiber-polymer-science-phd/>)
- Fiber and Polymer Sciences (Minor) (<http://catalog.ncsu.edu/graduate/textiles/fiber-polymer-science/fiber-polymer-science-minor/>)

Faculty

Full Professors

Harald Ade
 Charles M. Balik
 Roger L. Barker
 Keith R. Beck
 Carl L. Bumgardner
 Timothy Clapp
 Ahmed Mohamed El-Shafei
 Peter Fedkiw
 Harold S. Freeman
 Jan Genzer
 A. Blanton Godfrey
 Maureen Grasso
 David Hinks
 Cynthia L. Istook
 Saad A. Khan
 Tushar K. Ghosh
 Russell E. Gorga
 Christopher B. Gorman
 Peter J. Hauser
 Samuel Mack Hudson
 Warren J. Jasper
 Jeffrey Allen Joines
 Martin William King

Traci Ann May Lamar

Karen Leonas

Trevor J. Little

Lucian Lucia

Marian G. McCord

Roger Narayan

Melissa Pasquinelli

Behnam Pourdeyhimi

Jon Paul Rust

Abdel-fattah Mohamed Seyam

Renzo Shamey

Richard Spontak

Alan E. Tonelli

Richard A. Venditti

Yingjiao Xu

Xiangwu Zhang

Associate Professors

Katherine Emma Annett-Hitchcock

Pamela Banks-Lee

Kristin Anne Barletta

Philip Bradford

Emiel DenHartog

Wei Gao

Helmut H. Hergeth

George Lawrence Hodge

Jesse Stephen Jur

Richard Kotek

Wendy E. Krause

Jerome Lavelle

Shuang Lim

Kavita Mathur

Lokendra Pal

Lisa Parrillo-Chapman

Sonja Salmon

Minyoung Suh

Nelson Vinueza

Assistant Professors

Xiaomeng Fang

Ericka Ford

Amanda Mills

Robert Ormond

Eunkyong Shim

Januka Budhathoki Uprety

Rong Yin

Mengmeng Zhu

Practice/Research/Teaching Professors

Nagendra Anantharamaiah

Raymond Earl Fornes

Genevieve Garland

Dieter Griffis

Hechmi Hamouda

Benoit Maze

Jialong Shen

Emeritus Faculty

Subhash K. Batra

Robert Alan Donaldson

Aly H El-Shiekh

Raymond Earl Fornes

Perry L. Grady

Bhupender S. Gupta

Harold B. Hopfenberg

Samuel Clyde Winchester Jr

Stephen Michielsen

Gary N. Mock

Mansour H. Mohamed

William Oxenham

Nancy Powell

Suzanne Townsend Purrington

William C. Stuckey Jr

Carl B. Smith

Gary W. Smith

Moon Won Suh

Michael Herbert Theil

Charles Tomasino

Carl F. Zorowski

Adjunct Faculty

Genevieve Garland

Abhay Sham Joijode

Mohamad Samir Midani

Behnam Pourdeyhimi

Orlando Jose Rojas

Gisela de Aragao Umbuzeiro

Antony Williams

Julie Ann Willoughby

Bong-Yeol Yeom