Polymer Chemistry Degree requirements

Bachelor of Science Degree in Polymer Chemistry**

CORE SCIENCE COURSES (36 HOURS)

CHEM-215: General Chemistry I (3 hours)
and CHEM-216: General Chemistry I Lab (2 hours)
CHEM-225: General Chemistry II (3hours)
and CHEM-226: General Chemistry II Lab (2 hours)
CHEM-235: Laboratory Safety & Compliance (1 hour)
CHEM-325: Organic Chemistry I (3 hours)
and CHEM-326: Organic Chemistry Lab (2 hours)
CHEM-335: Organic Chemistry II (3 hours)
and CHEM-336: Organic Chemistry II Lab (2 hours)
MATH-150: Calculus I (5 hours)
PHYS-104: Engineering Physics I (4 hours)
and PHYS-130: Elementary Physics Lab I (1 hour)
PHYS-105: Engineering Physics II (4 hours)
and PHYS-132: Engineering Physics Lab II (1 hour)

POLYMER CHEMISTRY CORE COURSES (22-24 HOURS)

CHEM-360: Intro to Polymer Science & Technology (3 hours)
CHEM-611: Senior Review & Assessment (1 hour)
CHEM-625: Polymer Synthesis & Characterizations (3 hours)
and CHEM-626: Polymer Synthesis & Characterizations Laboratory (2 hours)
CHEM-680: Physical Properties of Polymers (3 hours)
CHEM-681: Polymer Chemistry Colloquium (1 hour)
PET-370: Thermoplastic Resins Lab (1 hour)
and PET-371: Thermoplastic Resins (3 hours)
PET-374: Thermoset Resins Lab (1 hour)
and PET-375: Thermoset Resins (3 hours)

ELECTIVE POLYMER COURSES (SELECT 6 HOURS)

CHEM-270: Sophomore Research in Polymer Chemistry (1 hour)
CHEM-370: Junior Research in Polymer Chemistry (1 hour)
CHEM-640: Polyurethanes & Their Applications (3 hours)
CHEM-650: Conducting Polymers & Their Applications (3 hours)
CHEM-670: Senior Research in Polymer Chemistry (1 hour)
CHEM-683: Biopolymers (3 hours)
CHEM-685: Selected Topics in Polymer Chemistry (1-3 hours)
CHEM-687: Polymers in Nanotechnology (3 hours)
PET-373: Plastic Processing I (3 hours)
and PET-372: Plastic Processing I Lab (1 hour)

** Candidates must also successfully pass 46-54 hours of general education requirements

Master of Science Degree in Polymer Chemistry

CORE POLYMER SCIENCE COURSES (9 HOURS)

CHEM 730 Advanced Polymer Chemistry 3
CHEM 740 Advanced Physical Chemistry of Polymers & Characterization Methods.....3
PET 883 Polymer Rheology & Processing 3

POLYMER CORE RESEARCH & COLLOQUIUM (10 HOURS)

CHEM 890 Research & Thesis.....6
CHEM 790 Advanced research in Polymer Chemistry 3
CHEM 781 Polymer Chemistry Colloquium 1

ELECTIVES (SELECT 4 COURSES FOR A TOTAL OF 12 HOURS)

CHEM 887 Advanced Biopolymers & Nanotechnology 3
CHEM 840 Advanced Polymers for Electrical & Electronic Applications 3
CHEM 850 Inorganic & Architecturally Unusual Polymers.....3
CHEM 891 Research Problems in Polymer Science.....3
PET 673 Advanced Injection Molding 3
PET 885 Advanced Polymer Composites.....3
ETECH 888 Design of Experiments.....3

Total: 31 hours

Faculty

Petar R. Dvornic, Ph.D.,
Chair, Professor of Chemistry

Ram Gupta, Ph.D.,
Assistant Professor of Chemistry

Santimukul Santra, Ph.D.,
Assistant Professor of Chemistry

Jeanne Norton, Ph.D.,
Assistant Professor of
Plastics Engineering Technology

Charles (Jody) Neef, Ph.D.,
Assistant Professor of Chemistry

Paul Herring,
Associate Professor of
Plastics Engineering Technology

Bob Susnik,
Professor of Plastics Engineering Technology

Student assistantship and employment opportunities

Polymer Chemistry students will have opportunities for assistantships and paid research under the direction of department faculty. Our students are also able to present their research findings at regional and national meetings of the American Chemical Society and other prestigious organizations.

Contact information:
Pittsburg State University College of Arts & Sciences
Department of Chemistry
104 Heckert-Wells
1701 S. Broadway • Pittsburg, KS 66762
620-235-4748
www.pittstate.edu/polymerchemistry

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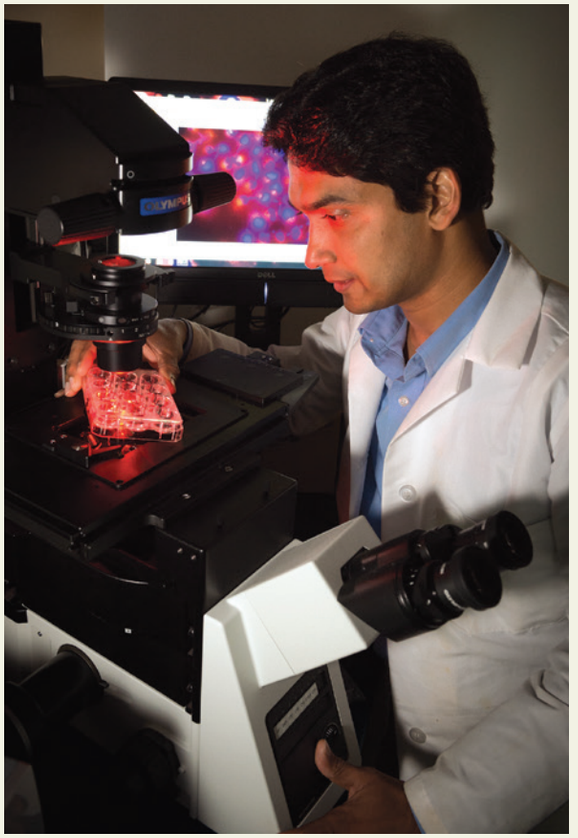
Pittsburg State University

Polymer Chemistry



Creating the future...*today!*

College of Arts and Sciences
College of Technology
Kansas Polymer Research Center

Polymer Chemistry

PITTSBURG STATE'S POLYMER CHEMISTRY degree offers you more than a white lab coat, it opens up an entire world of career possibilities.

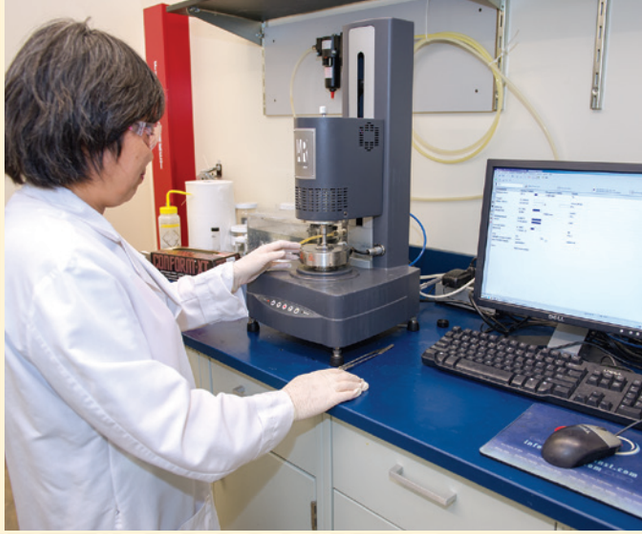
Our unique bachelor's and master's degree programs combine advanced academics with theoretical and practical research. At Pittsburg State University, you will have access to state-of-the-art technology, renowned faculty and a professional research center.

Pittsburg State is the ***only*** university in the Midwest, and one of a few in the U.S., to offer a comprehensive undergraduate degree in Polymer Chemistry. You will not only study polymers in the classroom, you will also discover their traits through hands-on research and processing experiments in our Department of Chemistry, as well as in our renowned Kansas Technology Center and Kansas Polymer Research Center.

Pittsburg State graduates are fully prepared for advanced study in polymer science. Whether you are working towards your Ph.D. or are seeking a career in industry, academics, or government; our Polymer Chemistry degree will help set you apart.

Polymer industries are among the largest employers in chemistry and materials science with high tech, high value jobs for science majors. Our graduates are qualified for a variety of positions including Synthetic Polymer Chemist, Materials Engineer/Scientist, Polymer Technician and more. Chemists and materials scientists earn, on average, more than $73,000 per year. *

*2012 Dept. of Labor Bureau of Labor Statistics



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Creating the future...*today!*