NJIT
New Jersey Institute of Technology

Chemistry Graduate Studies

Master of Science in Pharmaceutical Chemistry

Department of Chemistry and Environmental Science
College of Science and Liberal Arts

ABOUT THE COLLEGE OF SCIENCE AND LIBERAL ARTS

The College of Science and Liberal Arts (CSLA) is dedicated to instruction in the physical, biological, and mathematical sciences as well as traditional liberal arts disciplines. CSLA is home to internationally renowned research centers and award winning researchers, and partners with departments throughout NJIT to explore emerging frontiers and expand interdisciplinary initiatives in a diverse range of areas that include genomics, neuroscience, ecology, biomechanics, solar physics, photonics, environmental science, applied mathematics and statistics, materials science, technical communication and digital media.

WHY STUDY PHARMACEUTICAL CHEMISTRY AT NJIT?

NJIT is uniquely situated among the greatest concentration of biotechnology and pharmaceutical activities in the world, with over 400 private and public biopharmaceutical companies thriving around the NJ Area. Opportunity is right outside our door. Students in the M.S. in Pharmaceutical Chemistry program train in quantitative methods that prepare them for careers in the health sciences and pharmaceutical industry. This program emphasizes the applied science and molecular level basis of drug design and analysis.

WHO SHOULD ENROLL?

If you have a BS degree in the chemical or biological sciences or engineering and seek a career or are employed in the pharmaceutical industry, this program is for you.

ADMISSIONS REQUIREMENTS

GRE for all full-time applicants
Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS) for all international students not holding a degree from a U.S. postsecondary institution. Minimum scores: Internet-based TOEFL – 79, computer-based TOEFL – 213, paper-based TOEFL – 550, IELTS – 6.5 with no sub-score lower than 6.0.

CURRICULUM

The MS in Pharmaceutical Chemistry program consists of five core (required) courses and three elective courses, for a total of 30 credits. For degree requirements consult the graduate catalog. catalog.njit.edu/graduate/.

CORE COURSES (15 CREDIT HOURS)

CHEM 605	Advanced Organic Chemistry I: Structure
CHEM 673	Biochemistry
CHEM 777	Principles of Pharmaceutical Chemistry
CHEM 714	Pharmaceutical Analysis
PHEN 601	Principles of Pharmaceutical Engineering

ELECTIVE COURSES (3 CREDIT HOURS)

CHEM 661	Instrumental Analysis Laboratory
CHEM 716	Drug Development and Discovery
CHEM 719	Drug Delivery Systems
CHEM 737	Applications of Computational Chemistry
CHEM 610	Advanced Inorganic Chemistry
CHEM 658	Advanced Physical Chemistry
CHEM 748	Nanomaterials
EVSC 616	Toxicology for Engineers and Scientists
MATH 663	Introduction to Biostatistics
MATH 664	Methods for Statistical Consulting
PHEN 500	Pharmaceutical Engineering
PHEN 604	Validation and Regulatory Issues
PHEN 618	Principles of Pharmacokinetics
ME 635	Computer-Aided Design
CHEM 590	Co-op opportunity

Rutgers Newark courses

R120 572	Concepts in Pharmaceutical Drug Development
R160 515	Chemical Structure Determination

Rutgers Biomedical and Health Sciences (RBHS) courses

PATH N5209	Business of Science: Drug Dev. from Molecules to Medicine

FOR FURTHER INFORMATION, CONTACT:

Graduate Programs, Department of
Chemistry and Environmental Science
chemistry.njit.edu
gradchem@njit.edu

TO APPLY CONTACT:

Office of Graduate Admissions
973-596-3300, or apply on-line at
http://www.njit.edu/admissions/apply-online.php

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