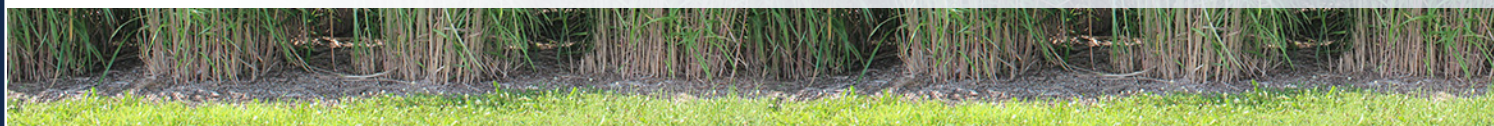




BIOPROCESSING & BIOENERGY



The Illinois Professional Science Master's (PSM) program in bioprocessing & bioenergy is perfect if you want to:

- find yourself on the cutting edge of multidisciplinary technology in the emerging and rapidly changing field of industrial biotechnology;
- learn from world-renowned scientists and researchers working to develop new technologies;
- build upon decades of research and genetic improvements to agricultural crops and microbes to develop comprehensive bioprocesses;
- gain an understanding of the environmental, ecological, political, and societal implications of bioprocessing and bioenergy; and
- harness the potential of bio-based products and energy (biofuels, electricity, biogas, etc.) to create new technologies and effect change.

The science core in bioprocessing and bioenergy is complemented by a business curriculum that includes technology management, marketing, entrepreneurship, process management, regulatory policy, and more. A cross-disciplinary industry seminar series offers opportunities to interact with industry and government leaders.

The program can be completed in 18-months of full-time study on the Urbana-Champaign campus. Summer enrollment is required while completing the internship. A thesis is not required.

CAREER OPPORTUNITIES

- Bioprocessing feedstock development (e.g., grains, biomass, algae, wastewater)
- Research and development
- Product and process analysis
- Technical sales
- Biorefinery management
- Value-added co-product marketing
- Green chemical development
- Business Analysis
- Analysis for policy or law
- Marketing specialist

PROGRAM ADVISOR

Dr. Beth Conerty
Integrated Bioprocessing Research Lab
bconerty@illinois.edu
(217) 300 - 4543

Coordinated by the University of Illinois Integrated Bioprocessing Research Laboratory (IBRL) and Department of Agricultural and Biological Engineering, in cooperation with the Graduate College.

ADMISSION REQUIREMENTS

- Bachelor's degree from a regionally accredited U.S. Institution or a comparable degree from a recognized institution abroad,
- Grade point average of 3.0 or higher (4.0 scale) for the last 60 hours of undergraduate work and for any graduate work,
- Graduate Record Examination (GRE),
- Test of English as a Foreign Language (TOEFL) for non-native speakers of English, and
- Three (3) letters of recommendation.

SAMPLE PROGRAM OF STUDY

Year 1: Fall

Science Curriculum

ABE 488	Bioprocessing Biomass for Fuel
ACES 409/509	Bioenergy Systems
CPSC 415	Bioenergy Crops

Business Curriculum

- Two 2-hour courses in
- Business Fundamentals, and
 - Management and Marketing
- PSM 501 Industry Seminar I

Year 1: Spring

Science Curriculum

ACE 516	Environmental Economics
ACES 501	Advanced Bioenergy Topics
CHBE 594	Bioenergy Technology
TSM 486	Grain Bioprocessing Coproducts

Business Curriculum

- Two 2-hour courses in
- Project Management, and
 - Finance
- PSM 502 Industry Seminar II

Summer Internship

PSM 555	PSM Internship
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Year 2: Fall

Science Curriculum

ABE 498	Sustainable Biosystems Lab
ACE 501	Risk and Info: Theory and Application
TSM 438	Renewable Energy Applications

Business Curriculum

- One 2-hour course in Science and Regulatory Policy
- PSM 503 Industry Seminar III

December Graduation

*This is a **sample curriculum**; your courses will depend upon your individual interests and career plans. For additional course offerings, visit <https://psm.illinois.edu/bioprocessing-bioenergy>*

Students have interned at:

- Abengoa,
- BP Biofuels, LLC,
- Clean Energy Trust,
- Dow AgroSciences,
- Illinois EPA,
- Illinois Green Business Assoc.,
- U.S. Dept. of Agriculture,
- U.S. EPA,
- and others.

Graduates have been hired by:

- Archer Daniels Midland (ADM),
- BCS, Incorporated,
- Cleantech Group,
- DuPont,
- Greenaltech,
- Ingredion,
- Oak Ridge National Laboratory,
- Pacific Gas & Electric,
- and others.