BIOTECHNOLOGY

STEM
Science, Technology, Engineering, and Math
Biotechnology is the application of biology knowledge and techniques to develop products that improve human health, animal health and agriculture. Students will develop a sound base of chemistry, genetics, biochemistry and biochemical engineering together with the experience of manipulative skills essential for future research. The skill set this program develops and related internships are designed collaboratively, with four of Indiana’s top life science employers (Dow AgroSciences LLC, Eli Lilly and Co., Roche Diagnostics Corp, and Baxter Pharmaceutical Solutions) to meet their employment needs in specialized areas such as molecular biology, cell culture and fermentation, and protein purification.

Sample Coursework
- Biochemistry
- Principles of Biotechnology
- Business & Regulatory Practices
- Biotechnology Analytical Practices
- Cell Culture & Fermentation
- Genetics & molecular Biology
- Microbiology

Possible Career Opportunities
- Biologist*
- Ecologist*
- Environmentalist
- Pharmaceutical Sales Representative
- Professor*
- Researcher

* = Career option requires additional training or education

Employment and Graduate School Information

Employment Outlook
Biological technicians will experience the fastest employment growth in professional, scientific, and technical services and in educational services. Also, an aging population and stronger competition among pharmaceutical companies are expected to contribute to the need for innovative and improved drugs, further spurring demand. Employment of biological technicians is expected to grow faster than average as the growing number of agricultural and medicinal products developed with the use of biotechnology techniques boosts demand (Occupational Outlook Handbook, 2008-09).

Salary Expectations
Median annual earnings of biological technicians were $35,714 (OOH, 2008-09). According to the National Association of Colleges and Employers, graduates of bachelor degree programs in the Biological and Life Sciences had average yearly salaried job offers of $35,522 in 2008.

Graduate/Professional School Opportunities
Biotechnology graduates may choose to pursue advanced degrees in one of the following areas, biotechnology or related sciences, biomedical or biochemical engineering, business administration, and law.

Where Can I Get More Information?
- Purdue School of Science
  Office: SL 306 Phone: (317) 274-0589
  biology.iupui.edu
- National Center for Biotechnology Information
  ncbi.nlm.nih.gov
- Biotechnology Industry Organization
  www.bio.org

Interest Code
- Realistic
- Enterprising
- Social