



## DEPARTMENT OF BIOLOGY PRE-MED & PRE-VET TRACKS

### COOPERATIVE PROGRAMS IN MEDICINE

**Jefferson Medical College – IUP Physician Shortage Area Program (PSAP):** A partnership for the purpose of improving the distribution of physicians in non-urban communities in Pennsylvania. Interested students can find more information at [www.tju.edu/psap](http://www.tju.edu/psap).

**Lake Erie College of Osteopathic Medicine:** A cooperative “3 + 4” program. Qualifying students can be accepted by LECOM after completion of 3 years at IUP, and will be granted a B.S. degree in Biology from IUP upon successful completion of their first year at LECOM. To be considered for the program the student must be in the top 25% of their high school graduating class, and have a minimum SAT of 1170 (ACT 26).

**Philadelphia College of Osteopathic Medicine:** A cooperative “3 + 4” program. Qualifying students can be accepted by PCOM after completion of 3 years at IUP, and will be granted a B.S. degree in Biology from IUP upon successful completion of their first year at PCOM. To be considered for the program the student must be in the top 25% of their high school graduating class, and have a minimum SAT of 1150 (ACT 25).

### INTERNSHIP OPPORTUNITIES

Internships are arguably the most valuable experience that we can offer to our majors. Experiential education enhances our students’ knowledge, skills and abilities, and allows them to increase professional competence in a real world setting.

**150-300 hours of internship opportunities available through:**

Veterinary Clinic of Indiana  
Environmental Service Laboratory  
Indiana Regional Medical Center  
Conemaugh Memorial Medical Center  
Citizens Ambulance Service  
Meadowlands Veterinary Hospital  
Tyrone Hospital

### HANDS-ON ACCESS TO INSTRUMENTATION

- Stem Cell Research
  - Confocal Imaging Facility
- Microbial Forensics Laboratory
- Neuroscience Interdisciplinary Cluster
  - Animal Facility
  - Microbial Facility

### ADVANCED RESEARCH PROJECTS:

#### A COLLABORATION OF STUDENTS & FACULTY

Many IUP Biology students engage in independent research projects as early as their sophomore year. Students may co-author publications with faculty, or present their results at national and international meetings. Some recent examples:

**Mary Chey (B.S. '17)** “Optimization of dsRNA Cloning in *Rhizoctonia solani*”

**Robert Connacher (B.S. '16)** “Characterization of *Rhizoctonia solani* Mycoviral Genes and their Products”

**Ian Forte (B.S. '16)** “Native vs. Invasive Preferences of the Annam Walking Stick (*Medauroidea extradentata*)”

**Cassandra Krul (B.S. '17)** “Managing Japanese Stiltgrass (*Microstegium vimineum*) Progression Using native Pennsylvania Plants”

**Noriko Mikeasky (B.S. '15)** “Expression of the *ezh2* gene in stem cells during zebrafish kidney development”

**Kaitlyn Palmer (B.S. '18)** “Effect of Caffeine on Circadian Rhythms in Ethanol Sensitivity”

**Benjamin Wadsworth (B.S. '17)** “Effects of Hydraulic Fracturing on Freshwater Ecosystems in the Marcellus Shale Region”

**Kayla Weinfurther (B.S. '17)** “Integrative Systematics of Mesoamerican Highland Leopard Frogs (*Ranidae: Lithobates*)”

**Emily Welch (B.S. '17)** “A possible Mechanism of Invasion into New Areas by Japanese Honeysuckle”



## THE DEPARTMENT OFFERS FINANCIAL AID TO DESERVING STUDENTS THROUGH SCHOLARSHIP PROGRAMS

The following scholarships are available to Biology students:

- The Walter "Bud" Gasdek Memorial Scholarship
- The Thomas Smyth Memorial Scholarship
- The Cynthia Sushak Undergraduate Biology Fund
- Gilly Young Life Scientist Opportunity Fund

### AWARDS:

- Biology Department Outstanding Student
- CPUB Outstanding Student

## BIOLOGY GRADUATES ARE SUCCESSFUL

Our graduates are going places!

- **35%** PhD programs in Biology, Wildlife Biology and Conservation, Biochemistry or other Biology-related fields.
- **30%** Employed with State Agencies, Pharmaceutical or Environmental Health, or other biology-related industries
- **20%** Professional schools (Medical school, Veterinarian school, Law schools, etc.)
- **5%** Teaching Biology at the high school level
- **10%** Miscellaneous

Recently, graduates have been accepted into Penn State Hershey Medical School, Jefferson Medical School, University of Pittsburgh, University of Pennsylvania (Veterinary), Lake Erie College of Medicine and Philadelphia College of Medicine. Our graduates are pursuing Ph.D. programs at Arizona, Alabama, Drexel, Penn State, SUNY, University of Missouri, University of Wyoming, Pitt, Ohio State, and Harvard. Students have also gone on to Children's hospital's Med-Technologist program, Public Health, Cancer laboratory, Natural Resource Conservation Service, USDA Wildlife Services, as well as the State and Federal Game Commission.

## BIOLOGY SOCIETIES & ASSOCIATIONS

- American Medical Student Association (AMSA)
- Biology Club
- Tri Beta
- Phi Eta Sigma

## RESOURCES

- Biology Student Resource Facility (BSRF):
  - Tutoring
  - Help with writing reports
  - Help with presentations
  - Internships
  - Career seminars
  - Scholarship opportunities
- Biology Undergraduate Research Experience (BURE): Helps students carry out summer research.

## FOR MORE INFORMATION CONTACT:

**Dr. N. Bharathan** ([bharathn@iup.edu](mailto:bharathn@iup.edu))  
**Chair, Department of Biology**  
**Indiana University of PA**  
**975 Oakland Avenue**  
**Indiana, PA 15701**  
**(724)357-2352**

<http://www.iup.edu/Biology>

**Find us on Facebook!**

## IUP College of Natural Sciences and Mathematics

*We change lives through science and math. Our graduates change the world as educators, scientists, and leaders.*

