Welcome to IU Science Fest! Find your inner scientist by exploring and experimenting in ten disciplines including Astronomy, Biology, Chemistry, Computer Science & Informatics, Environmental Science, Geography, Geological Sciences, Mathematics, Physics, and Psychological and Brain Sciences. Building maps for Chemistry, Jordan Hall, Lindley Hall and Swain West serve as the dividers throughout the guide and list every activity within each building.

Start planning your science adventure now! There are 100+ activities that run open-house style. Some demonstrations and tours have specific times and they are listed below for your convenience.

9:30 am & 1:45 pm  Jurassic Swain: Zombie Scientists Stop Dinosaurs from Terrorizing Swain Hall
Swain West, Room 119

9:30 am  Jordan Hall Greenhouse Tours begin at 9:30 and run every hour (10:30, 11:30, etc.) with the last tour starting at 2:30 pm.
Jordan Hall, Room 139

10:00 am  Kirkwood Observatory Tours begin at 10:00 am and run every half hour (10:00, 10:30, 11:00, etc.) with the last tour starting at 1:00 pm.
Meet outside Swain West 103 for a guided walk & tour

10:00 am & 1:00 pm  The Geography of Food Lab
(Must be at least 12 years old and accompanied by an adult)
Sign-up in Jordan Hall Atrium

10:30 am  Geological Sciences Volcanic Eruptions: Eruptions take place every hour beginning at 10:30 (11:30, 12:30, etc.) with the last eruption starting at 1:30 pm.
Outside at Swain West on the east side of the building (refer to Swain West Map)

11:00 am & 2:00 pm  Chemistry Demo Show: Mad Scientists Take Over the World
Chemistry, Room 122

12:45 pm  Science Slam: Scientists Compete, You CHOOSE the WINNER!
Chemistry, Room 001

1:00 pm  Research & Teaching Preserve Interactive Tour
Meet at 3rd St. entrance to Jordan Hall and a guide will show you to the bus
Sign-up in Jordan Hall Atrium

2:45 pm  Pumpkin Drop Contest
Must go to Contest Room, Swain West 246 to enter
Outside Swain West at the east end of the building
Four scientists; four topics; 12 minutes to impress you as to why THEIR research is the coolest. Now is your chance to grade the teacher! In Science Fest’s first Science Slam, four scientists will compete for the audiences’ approval, each explaining a topic in just plain English and in only 12 minutes. The audience will determine the slam champion.

Moderator: Dr. Cate Reck

Meet the Contenders:

The Greatest Show (not) on Earth
Matt Caplan, Physics
If the sun was the size of your head, how far away would the earth be? How often do stars die, and how bright is it when they go out? This talk will cover the size and vastness of space in a space no bigger than a lecture hall, venturing through the lives of stars and their deaths in supernova, to the weird neutron stars they leave behind.

Plants: they whisper, talk and even move!
Roger Hangarter, Biology
As a group, plants are among the slowest forms of life and are often overlooked by humans. However, like most life forms plants need to sense and respond to changes in their environment to survive. In this presentation, time-lapse imaging will reveal how keenly aware plants are of their environment as they interact with other organisms and respond to changes in their surroundings.

Pollution Electrocution: Reduction of legacy pollutants
Caitlyn McGuire, Chemistry
Electricity is a powerful force in our world; every day we observe electrons flowing to provide the energy to power our devices. Our laboratory also harnesses electrons for use as reactants in chemical experiments. Our goal is to break carbon-halogen bonds which are found in many harmful compounds prevalent in the environment, pollutants that are difficult to degrade by traditional methods. This presentation will illustrate how toxic environmental pollutants, such as the infamous pesticide DDT, may be degraded during our electrochemical reductions; we will describe our electrochemical methods, exhibit the effects of adding ultrasonic energy, and display nano-scale images to show in detail the reactions happening at the electrode surface. Finally, we will explain how we identify the chemicals resulting from these reductions, and how they may be recycled back into industry to make useful products.

Neutrons Kill Dark Energy Theory 5
Mike Snow, Physics
"Dark Energy" is the most mysterious substance in the universe. It seems to make up 3/4 of the energy density of the Universe, but no one knows what it is. I will show our attempt to reveal it using a neutron version of Michelson’s interferometer. Michelson looked for the 19th century ether. We are looking for the 21st century ether.
HANDS-ON LAB ROOMS
9:00 am—2:00 pm

Chemistry, Room 127
The Haunted Laboratory
(Alpha Chi Sigma professional chemistry fraternity)
★ Moving Markers (chromatography)
★ Burning Pumpkin
★ Colors on the Moo-ve
★ Death of a Gummy Bear

Chemistry, Room 041
Chemist’s Corner
(Electrochemical Society)
★ Density Rainbows
★ Turning Pennies to Gold
★ Writing in a Liquid

Chemistry, Room 045
Chemistry of Color
(Chemistry Teaching Labs)
★ Chemistry + Art = Butterflies!
★ Color and pH
★ Colors in Colors

THE HAUNTING MAGIC OF CHEMISTRY DEMO SHOW
Chemistry, Room 122
Enjoy a magical chemistry demo show where crazy chemists get into the spirit of the autumn season!

Show Times:
10:00 — 11:00 am
2:00 — 3:00 pm

FACILITY TOURS
11:00 am—2:00 pm
Please gather in the atrium outside Chemistry 046 to meet your tour guides!

TOURS INCLUDE:

Glass Shop
Meet with expert glass blower Don Garvin and see his work in action!

Molecular Structure Center
Meet with Dr. Maren Pink and learn how the IUMSC solves many fun and exciting chemical problems with X-rays and crystals.

Nuclear Magnetic Resonance Facility
Meet Dr. Frank Gao and Dr. Eric Twum to learn about how large magnets can help us see the tiny structure of molecules.

Electron Microscope
Meet with Dr. David Morgan and explore the world of the super small!

Mass Spectrometry Lab
Meet with Dr. Jon Karty to learn about how chemists can weigh atoms and identify substances in the world around us.
Science Fest 2015 at Jordan Hall

Jordan Hall Café — Open 8:00 am to 1:30 pm

This is a grab and go option. Here you will find drinks and snack items. For more dining options see the Campus Food section.
Biology

JORDAN HALL—1001 EAST THIRD STREET

EXPLORATION ACTIVITIES

9:00 am-3:00 pm

1st Floor, greenhouses and atrium

- **A Day at the Movies:** Get off your feet for a while and enjoy films created by members of the I.U. Biology Department.

- **Bat/Parasite Game:** Life as a parasite isn’t as easy as you might think. Pretend to be a bat’s parasite, and see if you can survive!

- **Beekeeping:** Learn about bee keeping and honeybees.

- **Bioluminescent Bacteria:** Did you know that some bacteria can light up? Experiment with bioluminescent bacteria and watch them glow!

- **Bird Beak Buffet:** Try capturing food with beak models to see how beak shape matches diet. Then examine some real bird beaks!

- **Lizard/Natural Selection Game:** Animals change over time. Experiment with lizard models to explore one way evolution happens - and meet some real lizards.

- **Microscopic Organisms:** The world is full of living creatures too small for our eyes to see. Use microscopes to examine this hidden diversity.

- **Seed Dispersal:** Plants can’t walk but their seeds move! Explore how plants move their seeds and build some seed movers of your own.

- **Snakes:** Meet a friendly snake up close, and learn about snake biology.

- **Skulls:** Examine the skulls of over species of 40 mammals, from aardwolf to anteater and horse to hyena.

- **Tortoises:** Meet a group of live tortoises and learn about their biology!

GREENHOUSE TOURS:

See plants from around the world, including spectacular rainforest, desert, and carnivorous species!

Guided tours begin at the door to room 139 Jordan Hall at:

9:30 am, 10:30 am, 11:30 am, 12:30 pm; 1:30 pm & 2:30 pm
Research and Teaching Preserve Interpretive Hiking Tour!

Sign up at the registration table in the Jordan Hall atrium to reserve a seat on the bus for a Preserve Tour! Meet at 3rd street entrance to Jordan Hall to depart.

Tour times:
**1:00pm depart – 3:00pm return**

See and learn about ongoing Preserve research:
★ Results of deer exclusion studies

Tour the Preserve Field Lab!

The Field Lab was IU’s first LEED-certified, sustainable building!

Preserve & Field Lab Activities:
★ Observe microscopic life from University Lake samples
★ Learn tree and leaf identification
★ Water cycle games and activities
★ Watch documentaries featuring research from the Preserve:

“The Ordinary Extraordinary Junco” &
Geography is the science of place and space. Geography integrates the natural, life and social sciences to investigate important world problems. It also has a distinctive methodology: spatial data analysis, sometimes called GIS. Our laboratory is the world around us. At IU the Department of Geography is organized around five themes:

- Food and Agriculture
- Globalization, Development and Justice
- Global Climate, Environmental and Land Use Change
- Water Resources
- Geographic Information Systems and Remote Sensing

We won’t make you memorize the names of countries, capitals or rivers. We will ask that you become engaged in solving world problems like hunger, climate change, desertification and the increasing divide between the world’s richest and poorest nations. For more information on studying Geography at IU go to http://geography.indiana.edu/.

This year for IU Science Fest, the Department of Geography features four activities from our course The Geography of Food. This year, the Department of Geography invites you to visit the Geography of Food Laboratory! Sign up at the Department of Geography table in the Jordan Hall atrium. Tours will leave from the table at 10:00 AM and 1:00 PM. From there we will walk through historic Dunn Woods to the laboratory in Student Building 018.

All participants must be over 12 years of age.

Once at the lab we will prepare a four course Sicilian meal which will allow you to experience:

- How we can “cook” food using common acids like citrus juice
- Examine how starch works to bind things by making Pasta Norma, delicious eggplant-filled pasta
- We’ll pasteurize a very small portion of skirt steak and finish it off (caramelize it) with a torch
- Use sweet pasta and cheese to make an amazing desert called cannoli

And don’t worry, if your cannoli doesn’t come out just right, you can always eat it! The Geography of Food is one of several courses in the department’s Food and Agriculture concentration.
Lindley Hall Map

Lindley Hall — 150 South Woodlawn Ave.

First Floor

- Computer “junk yard” & line followers
- Robots/3D printer
- Write your first computer game

Lower Level

- Make your interactive story
- Trees
- Psychological/Brain Science

101 115 125 135
102 112 120 128 130
104 110 116 123 125
001 004 008 010 016
019 023 026 026A 026B
022A 035 030
Join the Department of Computer Science and Informatics as we explore science and technology.

- Come make your own Flappy Bird game or code with Anna and Elsa
- Come see how Turtlebot (a robot) navigates its path using a "cloud"
- Come meet more robot friends
- Come try a 3D-printer
- Come see and make different kinds of trees (tree of life and binary search trees)
- Come make your own interactive story
- Come explore in our computer "junk yard"
- Come check out toy cars, the line followers
TECHNOLOGY + THE HUMAN BRAIN

How Technology is Helping to Unravel the Most Complex Thing in the Universe

IN YOUR EYES- Using a pair of advanced eye-tracking systems this exhibit will surprise you with what our eyes can tell us about human development, perception, learning, and decision making.

BRAIN GAMES- What can you do with your mind? Use EEG technology to harness the power of your mind. Levitate a ball through an obstacle course, challenge your friends to a race using electric slot cars that you “think” to go, or see what your brain waves look like with our brain visualization exhibit.

ROBOTS + THE MIND- Robots are quickly becoming a part of everyday life. As more advanced robotic systems are introduced, understanding how humans interact with robots is an important area of study that overlaps the fields of psychology and computer science. Come meet and interact with the robots of tomorrow.

NEURONS, BUILDING BLOCKS OF THE BRAIN- Get up close and personal with neurons. You’ll be able to look at real neurons in a microscope, try your hand at using the same 3D imaging software that neuro scientist use to create detailed models of each neuron, and experiment with building electronic neural networks using neuron replicas that communicate with each other.
Pumpkin Drop (2:45 pm)
Go to Contest Room to enter.

Head up the stairs to Chemistry, Lindley and Kirkwood Observatory

Head up the stairs to Contest Room 246 & Math Games 217, 218, 219, 220, 221 & Slocum Puzzle Collection 208 (Swain Hall Library)

Science on the Lawn

THIRD STREET
Activity Room
Swain West, Room 103

✦ Make your own comet!
✦ Experiment with the infrared camera!
✦ Make a pocket solar system!
✦ See 3D astronomy videos!
✦ Win a prize on the prize wheel!

Want to learn more about Astronomy at IU?
Visit our website at:
http://www.astro.indiana.edu

Explore the sky at Kirkwood Observatory!
Come to our weekly open houses and see objects like the Moon, planets, star clusters, galaxies, and nebulae. Every Wednesday between mid-March and Thanksgiving (weather permitting).

Kirkwood Observatory Tours
Meet your tour guides outside Swain West 103 for a guided walk and tour.

See the 100+ year old telescope, built in 1901!
See the Sun in the Solar Lab! (weather permitting)

Tours begin at:
10:00 am
10:30 am
11:00 am
11:30 am
12:00 pm
12:30 pm
1:00 pm

Follow us on Twitter! @iuastro
Highlights

**Volcanic Eruption**
Outside Swain Hall East (Loc.-1)

**Solar System Tour**
Swain Hall West to Jordan Hall (Loc.-2)

**Earthquakes, Mars, and Tornadoes, oh my!**
First Floor Swain West (Loc.-3)

**3. Indoor Geology Shows**

- **Location-1:** Outside of Swain Hall East (Main Geology Shows)
  - Volcanic Eruption!  **10:30am, 11:30am, 12:30pm, 1:30pm**
  - Check out the Gems!  *Rock/Mineral/Fossil Show*
  - Dig for a Fossil!  *... and take home a souvenir!*
  - Geode Bash!  *Grab a hammer and find the hidden beauty in ‘Hoosier diamonds’!*

- **Location-2:** From Swain West to Jordan Hall along 3rd Street
  - Solar System Tour:  *Rediscover your favorite planet!*

- **Location-3:** First Floor Swain West
  - Make Your Own Earthquake!  *Record it with a seismograph!*
  - Explore Mars!  *Drive your own planetary rover!*
  - Discover the Atmosphere!  *See your own body heat! Chase a tornado!*
This year, the Department of Mathematics in collaboration with the Lily Library Slocum curator, Andrew Rhoda, will host six rooms.

**Location SW217:** Explore how to find your way out of a pond without being eaten by crocodiles, how to use mirrors to bend light to hit a target and how to solve wire puzzles of different complexities.

**Location SW218:** The Dimensions Room will illustrate the concept of dimension through crafts and games. See how lines can be folded into fractals that tile the plane, learn about Flatland, and build your own hypercube!

**Location SW219:** Think Chess is hard? Let's play Chomp! This game seems super simple, yet hidden inside are some sophisticated puzzles that have analogues in daily life. Learn how to think recursively and add symmetry to your bag of clever strategies. For those who wish to go deeper, we will play some related games and consider ways to analyze more general positions in many two player games.

**Location SW220:** In the tactile geometry room, you can tie intricate knots, build a shape with only one side, fold beautiful modular origami patterns, construct spaces out of handles, and see how much just one number can tell you about a shape.

**Location SW221:** Play games with mathematical underpinnings! Games the department has taught in past years include Dots and Boxes and Hanabi. Stop by to see what we are teaching this year!

**Swain West Library:** Explore mechanical puzzles from the Slocum Puzzle collection. There will also be take-away items available such as pen-and-paper puzzles.
Come to Swain West 208 and experience a selection of puzzles from the Jerry Slocum Mechanical Puzzle Collection at IU’s Lilly Library. The Collection holds over 32,000 mechanical puzzles, which are defined as three-dimensional objects that must by physically moved to be solved. Especially for Science Fest, a few pieces of the library’s hands-on puzzle collection are displayed here for you to solve, and to get an idea of what mechanical puzzles are. There are classic examples of mechanical puzzles, such as the Chinese Rings and Lucky Horseshoes, along with modern puzzles, such as Boxed L-U-V and Four Fit. See how mathematics is turned into mind-bending brain-teasers by visiting the Puzzle Room at the Serot Commons in Swain West 208.

Some of the puzzles that will be in the Puzzle Room in the Serot Commons are:

**Boxed L-U-V:** This is a three dimensional box packing puzzle by preeminent puzzle designer Stewart Coffin. Four pieces need to fit into a box that is slightly too small. They all will fit in the box and under the cover. Can you figure out how?

**Four Fit:** This is a two dimensional tray packing puzzle by Stewart Coffin. You are asked to put four pentomino pieces into a tray. But what is the best way to place them so that the pieces fit? This puzzle is also known as Martin’s Menace in honor of the late mathematics and science writer Martin Gardner.

**Jacobs Revenge:** This is a dexterity puzzle in which you solve the puzzle by using gravity or other forces from physics to move the puzzles. This puzzle asks you to move a small wooden ball into the neck of the bottle, moving it around a wooden widget.

**Turtle Celt:** This kind of puzzle is called an “Impossible puzzle,” but it only seems impossible. This puzzle appears to defy Newton’s First Law of Motion, because when the turtles are spun backwards the spinner stops and changes direction without any outside help. Can you explain what happens?

**Four T’s:** A two dimensional put together puzzle where you are asked to place all of the capital T’s in the tray. The tray has two sides, with one side a little smaller than the other.

**Arrow through Coke Bottle:** Another puzzle in the “Impossible Puzzle” type, but remember it only seems impossible. All you have to do is explain how a whole wooden arrow was put through a real glass Coke bottle (that once had Coke in it). Simple, right?

**Conway Curious Cube and Conway’s Cursed Cube:** These are two three dimensional packing puzzle designed by John Conway, world renowned mathematician and creator of Conway’s Game of Life. These puzzles ask that you fit a specific number of pieces in to a box with no piece that stands above the edge of the box.

**Ball Octahedron/Ball Room:** A three dimensional put-together puzzle which asks you to place each piece of joined balls into the box, much like the puzzles designed by John Conway above. With this puzzle there is a lid that must fit completely over the box.

**Rubik’s Cube:** The world famous sequential move puzzle, where you twist the puzzle to match the colors on each side of the puzzle.

**Four Piece Jigsaw:** This is an interlocking puzzle that may look simple at a glance. All you have to do is take the pieces apart and put them back together again. But watch out, this little puzzle can be tricky.
Science on the Lawn
Front & East Lawns
★ Bernoulli Blower
★ Coriolis Merry-Go-Round
★ Dry Ice Bowling
★ Tablecloth Antics

Swain West, Room 166
Acoustics Room
★ Acoustic Resonance
★ Crowing Roosters
★ Voice Prints

Swain West, Room 110
Light & Color Room
★ Fiber Optics
★ Holograms
★ Frozen Shadows
★ Chromatography Flowers

Swain West, Room 102
Biophysics
★ DNA Diffraction
★ Visual Voice
★ Illusions

Swain West, Room 152
Modern Physics & Electronics
★ Cosmic Rays in Cloud Chamber
★ Speed of Light
★ ATLAS and LHC Collider
★ Theremin
★ Light Emitting Diodes
★ Extreme Form of Matter

Swain West, Room 158
Electricity & Magnetism
★ Electromagnetic Induction
★ Magnetic Ring Tosses
★ Jacob’s Ladder
★ Van de Graaf Generator

Swain West, Room 150
Mechanics Room
★ Angular Momentum Platform
★ Giant Wave Pendulum
★ Human Gyroscopes

Swain West, Room 246
Contest Room—Great Prizes!
Fun Physics Contests!
★ Aluminum Boats
★ Paper Tower Building
★ Entries for Pumpkin Drop

TEACHER’S LUNCH
Swain West 251
Reserve a space at Registration desk

LOW TEMPERATURE PHYSICS
Swain West 007
See liquid nitrogen turn a banana into a hammer, flowers shatter, and much more!
★ Show Time: 10:30 am

JURASSIC SWAIN:
Physics Demonstration
Swain West 119
IU Physics Club
Famous undead Physicists battle rampaging Dinosaurs!!
A breathtaking, fascinating, and just plain fun, exploration in physics!
Show Times:
★ 9:30—10:30 am
★ 1:45—2:45 pm

PUMPKIN DROP
Front East Lawn Swain West
Go to the Contest Room, Swain West 246 to enter!
Pumpkins fly at 2:45 pm
**Hotel Lobby Level**
Circle Café—Open 6:30 am to 5:30 pm  
A bagel shop with deli and breakfast sandwiches.

**Indiana Memorial Union Food Court**
Located on the main level, the food court at the union has something for almost everyone. We accept CampusAccess, major credit cards and cash.

**Charleston Market—Open 7:00 am to 11:00 am**
Enjoy a hot breakfast!!

**Sakura Sushi and Hot Bowl—Open 7:00 am to 7:00 pm**
Our menu provides a diverse selection of prepared rice and noodle bowl entrees as well as sushi.

**Pizza Hut—Open 7:00 am to 11:00 pm**
A national favorite, Pizza Hut features pan pizzas, wings, bread sticks, and more!

**Starbuck’s—Open 8:00 am to 3:00 pm**
A traditional coffee shop with breakfast and lunch options.

**Burger King—Open 8:00 am to 4:00 pm**
Have it your way for breakfast, lunch or dinner. All your favorites from piping hot fries to fast burgers!

**Cyclone Salads—Open 10:30 am to 5:00 pm**
Cyclone Salads brings a whirlwind of flavor and customized possibilities while providing access to healthy options.
The Woodland Restaurants

The Woodland Restaurants at Forest Residence Hall has many food options including a couple that offer breakfast. Descriptions along with operating hours of each restaurant is below.

The Clubhouse—open 9:00 am to 10:00 pm
This is a sandwich shop where you can build-your-own creation just the way you like it! Breakfast choices like oatmeal and eggs are also available.

The Round—open 9:00 am to midnight
Mostly coffee—they serve Starbucks coffee! You can order flatbreads here and they have a variety of bakery items such as muffins and cheesecake.

The Stone Grill—open 11:00 am to 8:00 pm
The Stone Grill puts an interesting, and way more delicious, spin on the traditional cheeseburger. Several options including vegetarian burgers are available. You pick your toppings. Add French fries or fried green beans to complete your meal.

Romaine—open 11:00 am to 8:00 pm
This restaurant serves salads! Build-your-own salad starting with your choice of three different types of greens and a wide variety of toppings to choose from. They also provide soups and a fresh fruit bar.

Caliente—open 11:00 am to 8:00 pm
Is a Mexican restaurant that serves everything from flatbreads to burrito bowls. It is also a build-your-own type of bar offering many different toppings. You might want to try their Cuban corn on the cob rolled in spicy butter sauce and sprinkled with parmesan cheese.

Fusion—open 11:00 am to 8:00 pm
Offers an array of international foods. They serve stir-fry, sushi, and much more. The best part is, they cook it right in front of you.

Mangia—open 11:00 am to 8:00 pm
This is an Italian restaurant that serves pizza, pasta, calzones cooked in their brick oven!

Bloomingberry—open 11:00 am to 9:00 pm
Frozen yogurt! You choose your flavor and add your favorite toppings. They also make smoothies and specialty items such as banana splits.
Be A Hoosier

Take a Closer Look at IU

IU has a plethora of opportunities available to our undergraduate students. From research mentorships and overseas study to intramural sports/clubs and student organizations, there is no shortage of activities to supplement your academic studies at IU.

For more information about becoming an IU student go to admit.indiana.edu. At the top of the page you will find links to pages about The IU Education, Life at IU, and Costs & Financial Aid. Click on Plan a Visit to select a type of visit that best meets your needs. You can learn more about How to Apply or, if you are ready, click on Apply Now. Join the Mailing List, at the bottom left hand side of the home page to sign up to receive important information about special events, deadlines, and more. The Future Freshman link will give you more information on applying and eligibility for direct admission and scholarships! The deadline for direct admission is November 1, 2015.

We look forward to adding you to our student body!

Opportunities to Teach, Learn, Research and Lead

The Office of Science Outreach in the College of Arts and Sciences at IUB is a resource for College faculty and students developing science educational outreach programs as part of their research pursuits. To that end the OSO:

- Serves as a hub for students of all ages and backgrounds to connect with and participate in science in order to promote diversity, awareness, and accessibility of science for everyone;
- Provides support for College and pre-College students in or interested in the sciences;
- Advances interdisciplinary works that draw upon scientific endeavors, and creative activities and scholarship from diverse academic fields.

The Office of Science Outreach connects with area schools and the community by offering science activities and opportunities on the IUB campus, as well as communicating the cutting-edge research that is conducted here. Activities include pre-college summer courses/workshops, departmental open houses, facility tours, and hands-on activities in elementary classrooms. We also host state and national science competitions and participate in events that promote and celebrate science. Our educational programs offer training and resources to science teachers including interactive lesson plans that meet science standards. We are also the home of two unique and competitive undergraduate science research programs, the Integrated Freshman Learning Experience (IFLE) and the IUSTARS (Science, Technology, and Research Scholars) program.

Visit us at http://college.indiana.edu/science/ to find upcoming events and opportunities.

Contact us at 812-855-5397 if you need assistance.
Research Opportunities

The College of Arts + Sciences at Indiana University Bloomington offers unique opportunities for undergraduates to be involved with research. If you have an interest in majors and/or research in the areas of Anthropology, Astronomy, Biochemistry, Biology, Chemistry, Cognitive Sciences, Environmental Science, Geography, Geological Sciences, Mathematics, Microbiology, Neuroscience, Physics, Psychology, and Speech & Hearing Sciences, opportunities exist for you at IU!

**IU Science, Technology, and Research Scholars (STARS)**
Research program providing four years of faculty-mentored research experience.

- Join a research lab beginning freshman year
- Receive mentoring by a leading faculty scientist
- Acquire lab skills and develop your own project
- Gain exposure to other research areas through faculty research talks
- Eligible for summer research scholarships
- Eligible for travel scholarships for science conferences and meetings
- Earn course credit toward graduation

**Integrated Freshman Learning Experience (IFLE)**
Integrates the study of, and research in, biology, biochemistry and neuroscience in two phases.

**Phase 1: Summer Research**
- Become part of a research lab at IU for six weeks before college begins, choosing a lab that matches your interests
- Work on an independent project with mentoring from faculty and graduate students
- Learn to present your research in written and oral presentation form
- Gain exposure to ongoing research and IU facilities through tours and talks
- Learn your way around campus
- Summer housing in an IU residence hall along with a meal plan are provided at no cost

**Phase 2: Academic Freshman Year Research-based Honors Courses**
- One-time $1000 Scholarship for participation in these honors courses, if eligible
- Eight-credit course includes lectures with corresponding lab components
- Three modules proceed from genes to proteins to cellular systems
- Inquiry-based format engages students through group experiments

**How Do I Apply to STARS and/or IFLE?**
- As a HS senior, apply to IU Bloomington by November 1st.
- Complete the Selective Scholarship Application (SSA) by December 15th. Note that students must meet certain GPA and standardized test scores to be eligible for the SSA. (http://college.indiana.edu/science/undergradscienceresearch/apply.shtml)
- Have an intended major in one of the science departments in the College of Arts & Sciences.
- For more information about either STARS or IFLE, please contact us at scihouse@indiana.edu or visit our website at http://college.indiana.edu/science/undergradscienceresearch.
Emergency Information & First Aid

First Aid Station

Intra-Collegiate Emergency Medical Services (IC-EMS) will set-up a first aid tent to take care of your minor first aid needs. The tent will be located outside Lindley Hall, Simon and Chemistry buildings in the grassy area (see campus map on the back of guide). IC-EMS is a student organization comprised of over 100 certified EMT-Basics and first aid personnel. For more information about IC-EMS visit their website at http://www.iub.edu/~icems/.

Emergencies

To reach Campus Security, Fire, or Ambulance dial 911 from a non-IU phone or 9-911 from a University phone.

Emergency Room Location:
IU Health Bloomington Hospital
601 West Second Street
(812) 353-5252

For IU Police (non-emergency) please dial (812) 855-4111.

University Police officers are on duty 24 hours every day. There are numerous emergency telephone call boxes located on campus that are a direct line to campus security at all times. These call boxes can be used to report criminal actions or other emergencies on campus.