



INDIANAACTSI
Clinical and Translational Sciences Institute



INDIANA UNIVERSITY
MELVIN AND BREN SIMON
CANCER CENTER

Indiana CTSI Project STEM

*Developing the pipeline of future scientists through support for the Project SEED,¹ Project STEM²
And FSP³ High School Summer Research Internship Programs*

Indiana 2017 STEM Education Outreach Programs and Events Directory

www.IndianaProjectSTEM.org/stem.pdf

IMPORTANT NOTE: This is DRAFT document was created on January 30, 2017 from information available in past years and is being updated for 2017. We request your help in helping us add listings and update current listings for 2017. Most website links and emails are current and interested students and families should contact those programs directly. For a quick summary view of programs visit www.IndianaProjectSTEM.org/stem.xlsx
See page 2 for program categories, sections and table of contents.

¹Project SEED is an outreach program of the American Chemical Society started in 1968 to encourage students from economically disadvantaged families to explore careers in science. The Indianapolis Project SEED was established in 1973 at the School of Medicine and continues as one of the largest and longest serving programs in the nation. Info at www.IndyProjectSEED.org

The Purdue University Project SEED program was established in 2013 and is supported by the ACS Purdue Section. Info at www.PurdueProjectSEED.org

²The Project STEM program was established to serve additional students regardless of economic background, providing opportunities for research internships in a full spectrum of STEM related disciplines. Indianapolis (IUPUI) info at www.IndyProjectSTEM.org. Indiana University Bloomington info at www.IUprojectSTEM.org

The Indiana CTSI supports the Indianapolis program through the IUPUI School of Education and the IU program through the Office of the Vice Chancellor for Research. Info at www.IndianaCTSI.org

³The Future Scientist Program (FSP) is an educational outreach program of the IU Simon Cancer Center specific to high school juniors from the Indianapolis Public Schools. Info at www.cancer.iu.edu/future



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science@iupui

STEM Directory Table of Contents

Programs available to Indiana students in STEM related fields of Science, Technology, Engineering and Medicine.

Page Program Type:

- 3 Summer Internship Programs affiliated with the Indiana CTSI Project STEM
- 4 Summer Research Programs for High School Students
- 5 Summer Camps, Workshops and Other Indiana Summer Programs
- 7 National Programs and Summer Internships
- 8 STEM Training and Enrichment Programs Available Year-Round
- 9 STEM Programs for Middle School – High School Students
- 10 STEM Programs for Younger Students and Grades 1-12
- 14 STEM Training and Opportunities for Science Teachers
- 15 Other STEM Programs, Opportunities and Resource Links
- 16 STEM Events

Summer Internship Programs affiliated with the Indiana CTSI Project STEM

Each program is managed separately. Please study each program's details and follow up with contact for additional info.

1. Indianapolis Project SEED, American Chemical Society

Duration: 8 weeks

Location: IU School of Medicine, IUPUI School of Science, Eli Lilly and other institutions

Service Area: Marion County and surrounding towns at reasonable driving distance to IUPUI.

Compensation: \$2500 educational award for first summer, \$3000 for second summer.

Eligibility: All students in grades 10-12, regardless of school.

Restrictions: Participation is limited to students from economically disadvantaged backgrounds. See website for exact income scale. No other restrictions.

Website: www.IndyProjectSEED.org

Contact: Elmer Sanders, Program Coordinator, elmer.sanders@yahoo.com (317) 514-3212

2. Purdue Project SEED, American Chemical Society

Duration: 8 weeks

Location: IU School of Medicine, IUPUI School of Science, Eli Lilly and other institutions

Service Area: Tippecanoe County and surrounding towns at reasonable driving distance to IUPUI

Compensation: \$2500 educational award for first summer, \$3000 for second summer.

Eligibility: All students in grades 10-12, regardless of school.

Restrictions: Participation is limited to students from economically disadvantaged backgrounds. See website for exact income scale. No other restrictions.

Website: www.PurdueProjectSEED.org

Contact: Dr. Bryan Boudouris, Program Coordinator, boudouris@purdue.edu (765) 496-6056

3. Indianapolis Project STEM, Indiana CTSI (Clinical and Translational Sciences Institute)

Duration: 8 weeks

Location: IU School of Medicine, IU School of Dentistry, Eli Lilly and other institutions

Service Area: Marion County and surrounding towns at reasonable driving distance to IUPUI

Compensation: \$1000-\$2500 may be awarded to students based on need and funds available, otherwise unpaid.

Eligibility: All students in grades 10-12 regardless of schools.

Restrictions: No Restrictions. Students of all backgrounds are considered.

Website: www.IndyProjectSTEM.org

Contact: Elmer Sanders, Program Coordinator, elmer.sanders@yahoo.com (317) 514-3212

4. Indiana University Project STEM, Indiana University Dep't of Brain and Psychological Sciences

Duration: 8 weeks

Location: Indiana University, Bloomington

Service Area: Monroe County and surrounding towns at reasonable driving distance to the IU campus.

Compensation: \$1000-\$2500 may be awarded to students based on need and funds available, otherwise unpaid.

Eligibility: All students in grades 10-12 regardless of schools.

Restrictions: No Restrictions. Students of all backgrounds are considered.

Website: www.IUprojectSTEM.org

Contact: Dr. Sharlene Newman, Program Coordinator, sdnewman@indiana.edu (812) 856-1776

5. Future Scientist Program, IU Simon Cancer Center

Duration: 6 weeks

Location: IU Simon Cancer Center, IU School of Medicine, IUPUI

Service Area: Indianapolis Public Schools district students only. (*Ask your guidance counselor if unsure*)

Compensation: \$2000 educational award

Eligibility: Only IPS Juniors

Restrictions: Must be currently enrolled in an IPS district high school in grade 11. No other restrictions.

Website: www.futurescientistprogram.org

Contact: Shari Harrison, retired IPS Teacher and FSP Facilitator, harrison.shari@gmail.com (317) 332-7326

Additional Summer Research Internship Programs

1. The IU Simon Cancer Center Summer Research Program, IUPUI Center for Research and Learning

Duration: 8 weeks

Location: IU Simon Cancer Center, IUPUI Campus

Compensation: \$3200

Eligibility: Grade 11 through college undergraduates. Underrepresented student in cancer research field (not limited to racial and ethnic minorities, but can also include individuals that the institution determines to be underrepresented in cancer research). U.S. citizen, non-citizen national or permanent resident

Restrictions: Grade 11 or higher (see note on Eligibility).

Website: <http://cancer.iu.edu/education/training/summer-research/index.shtml>

Contact: Vicki Bonds, MS, M.Ed. vgayfiel@iupui.edu

2. Wells Center Summer Internship Program

Duration: 10 weeks

Location: Herman B. Wells Center for Pediatric Research, Indiana University School of Medicine, IUPUI Campus

Compensation: Unpaid

Eligibility: 18 years of age and eligible to work in the US.

Website: <http://www.wellscenter.iupui.edu/education/internships>

Contact: Lynn Pressler (lpresse@iu.edu) or Laura Oxford (loxford@iu.edu)

3. IUPUI Department of Physics High School Summer Research Program

Duration: 4-6 weeks, some flexibility is available

Location: IUPUI School of Science buildings (SL, LD and SELB), IUPUI Campus

Compensation: A stipend is available for students who demonstrate financial need.

Eligibility: This program is intended for high school students. There are many research topics available beyond the traditional understanding of 'physics'.

Website: <http://physics.iupui.edu/research/Hs>

Contact: Dr. Horia Petrache (PhD) hpetrach@iupui.edu

4. Health & Science Innovations 2017 Young Innovators Quest

Duration: 4 weeks, June 8-30, 2017

Location: IUPUI Campus, Health & Science Innovations Lab

Compensation: Unpaid

Eligibility: Students 14-17 who have completed 8th grade

Website: <http://healthandscienceinnovations.org/>

Contact: Luis Palacio, Executive Director contact@scienceinnovations.org (317) 703-7836

5. IUPUI Nanotechnology Discovery Academy (INDA) and (NEST) for students

Duration: 2 weeks during summer

Location: IUPUI Campus

Cost: \$500.00 *participants receive college credit

Eligibility: Grades 9-12

Website: <http://indi.iupui.edu/index.php>

and <http://www.engr.iupui.edu/infofor/community/summer-camps/nest-for-students.php>

Contact: Dr. Mangilal Agarwal (agarwal@iupui.edu)

6. IU-HCOP: The Indiana University Health Careers Opportunity Program at the IUPUI School of Health and Rehabilitational Sciences.

There are numerous programs available for both Juniors and Seniors, some in summer, others during school year.

There are funds available to those who participate.

Location: IUPUI Campus, School of Health and Rehabilitational Sciences

Website: <http://shrs.iupui.edu/about/IU-HCOP/index.html>

Contact: Shawnee Hawkins, Program Manager hawkisha@iu.edu 317-278-4707

Indiana Summer Camps, Workshops and Other Summer Programs

1. IU School of Informatics and Computing Summer Workshops

IUPUI BioInformatics Workshops. There are multiple topics available including how to make apps for cell phones using android or iOS platforms.

Website: <https://soic.iupui.edu/about/high-school-programs/summerworkshops/>

Phone: 317 278-4123

Location: IUPUI Campus

Date: TBA

Age: Grades 9-12

Each summer, the School of Informatics and Computing at IUPUI offers high school students a unique selection of week-long workshops – fun, interactive learning experiences designed as an introduction to the exciting field of informatics and computing. High school students will engage in immersive, hands-on practice in interactive media development, as well as obtaining an understanding of informatics in the health and life sciences, from a diverse and experienced group of faculty of the Department of Human-Centered Computing and BioHealth Informatics, while using state-of-the-art computing facilities and media equipment. Participating in these workshops will provide the perfect introductory experience and skill set to hit the ground when starting an Informatics or Media Arts and Science bachelor's degree program in the School.

Registration Information

Costs: \$169-\$189/per workshop

Our courses sell out very fast—sometimes as early as January, so avoid disappointment and enroll at your earliest convenience. Remember, you can register now and make changes later with no penalties—we offer flexibility for the modern parent.

Financial Assistance Available. Call to inquire about the availability of financial assistance

2. IUPUI POWER Camp

Website: <http://www.engr.iupui.edu/infofor/community/summer-camps/power-camp.php>

Phone: 317-274-8703

Location: IUPUI Campus

Date: July 12-18

Age: High School Girls

The POWER Summer Camp gives you the opportunity to explore engineering through hands-on, learn-by-doing experiences. Guided by professors and current engineering students you'll conduct experiments, innovate, make cool stuff, take things apart and then put them back together again. We offer exciting opportunities to meet a diverse selection of professional women engineers and young college women inspiring to be engineers and spend time checking out up-and-coming technology in engineering through innovation modules.

Financial Assistance Available. Call to inquire about the availability of financial assistance

3. Summer of Service at IU Health Network Hospitals like University, Methodist, Riley and Others
<http://iuhealth.org/about-iu-health/volunteering-at-indiana-university-health/volunteer-opportunities/volunteer-opportunities-in-indianapolis/where-volunteers-can-serve/summer-of-service-program/>

4. Marian University EcoLab and Other STEM and Science Camps

<https://www.marian.edu/about-marian/nina-mason-pulliam-ecolab>

<https://www.marian.edu/about-marian/nina-mason-pulliam-ecolab/summer-science-camps>

5. MATH SAT Prep Course

Website: <http://www.isind.org/campus-life/2015-summer-camps/grades-9-11.aspx>

Location: International School, Indianapolis

Date: June 22-26

Age: Grades 9-11

This course aims to help High School students develop a better understanding of SAT exam requirements and become familiar with materials need for success. Students will: develop important skills to allow for effective problem-solving specific to the SAT exam, build logical reasoning skills and discover proper computational steps to problem-solve. Students will practice questions from previous SAT exams.

National Programs and Summer Internships

1. National Institutes of Health internship programs for high school students:

https://www.training.nih.gov/summer_programs_comparison_-_revised

2. National Youth Leadership Forum in Medicine *other fields available also

<http://www.envisionexperience.com/explore-our-programs/national-youth-leadership-forum-medicine>

3. Glaciology Program in Alaska for Girls, University of Alaska at Fairbanks.

<http://news.uaf.edu/application-deadline-approaching-for-free-glaciology-program-for-high-school-girls/>

4. Cold Springs Harbor Laboratory – opportunity for undergraduates – 2017

<http://www.cshl.edu/Education/Undergraduate-Research.html>

5. Search Tool to Search for other programs locally, regionally and nationally:

<http://www.pathwaystoscience.org/programs.aspx>

6.

7.

STEM Training and Enrichment Programs Available Year-Round.

1. IU-HCOP: The Indiana University Health Careers Opportunity Program at the IUPUI School of Health and Rehabilitational Sciences.

There are numerous programs available for both Juniors and Seniors, some in summer, others during school year. There are funds available to those who participate.

Location: IUPUI Campus, School of Health and Rehabilitational Sciences

Website: <http://shrs.iupui.edu/about/IU-HCOP/index.html>

Contact: Shawniece Hawkins, Program Manager hawkisha@iu.edu 317-278-4707

2. Center for Leadership Development.

Known as 'CLD', there are numerous quality programs for students interested in STEM, science and medicine fields and many other fields beyond. They offer both summer and year-round programs. There are phone numbers and contact emails on their website, <https://cldinc.org/>

3. Zoo Teens

<http://www.indianapoliszoo.com/contact/employment-and-volunteers/volunteers/zoo-teens>

4. Information Technology & Computer Training

<https://ittraining.iu.edu/schedules/>

Printable PDF listing: <https://ittraining.iu.edu/print/schedule-iupui.pdf>

STEM Programs for Middle School and High School Students

1. MEPI – Minority Engineering Program of Indianapolis <http://www.mepi.org/>
This program enrolls students in grade 7 and students participate until they graduate high school. It is specifically designed for URM students, Under Represented Minorities (in science and engineering).
2. Indiana University STEM camps - http://www.indiana.edu/~dema/resources/precollege_pgms.shtml
3. Indiana University Adventures in STEM camps
http://www.indiana.edu/~dema/news/archive2013/STEM_summer_sci_camp.shtml

STEM Programs for Younger Students and Grades 1-12

The following are listing from the IU School of Medicine

<http://faculty.medicine.iu.edu/gender-diversity-inclusion/diversity-affairs/programs-for-k-12-2/>

Marian University STEM Summer Camp

Website: <http://marian.edu/about-marian/nina-mason-pulliam-ecolab/summer-science-camps>

Phone: 317-524-7701

Location: Marian University

Date: June 15-19, June 22-26, June 29-July 3 and July 6-10

Age: Grades 1-8

Activities include hands-on, standards-based classroom, lab and outdoor activities and field trips

Marian University STEM Summer Camps are week-long standards-based, and grade specific academic enrichment adventures on the campus of Marian University. Each week is a different theme and each week a camper attends will be a different experience.

Registration Information

\$225 per week (8:30 a.m.-4:30 p.m.)

\$25 per week for before-care (7:30-8:30 a.m.)

\$25 per week for after-care (4:30-5:30 p.m.)

Deposit for STEM Summer Camp: At the time of registration, full registration fee is required or a non-refundable \$50 deposit to hold a place on the camp roster. If a deposit is paid, the balance of the registration fee will be due by the registration deadline.

Full registration payment is required by the deadline date, May 22, 2015

Financial Assistance Available

Special discounts:

15 percent discount – Child or grandchild of a Marian University faculty, staff, student, alumni, or trustee

15 percent discount – Student who attends a Catholic school

50 percent discount – Student who participates in the Free or Reduced Lunch Program

Sibling Discount – Full price for 1st sibling and 15% discount for each additional sibling

Discounts also apply to before care and after-care

Only one discount per camper

iD Tech Camps

Website: <https://www.idtech.com/locations/indiana-summer-camps/indianapolis/id-tech-butler-university/#courses-dates>

Phone: 1-888-709-TECH (8324) or 1-408-871-2227

Location: Butler University, Purdue University

Dates: Weeks of June 8, June 15, June 22, June 29, July 6 and July 13

Age: 7-17 years old

Yes, we're a tech camp, but we do not sit in front of digital devices all day. We provide a well-balanced, fun summer camp experience that is age-appropriate for kids, pre-teens, and teens. Imagine a small group learning environment where the curriculum is tailored to you. A place where you build critical 21st century STEM (Science, Technology, Engineering, and Math) skills in intimate clusters of just 8 students maximum per instructor, and collaborate with new friends

Costs: \$799-\$909

Our courses sell out very fast—sometimes as early as January, so avoid disappointment and enroll at your earliest convenience. Remember, you can register now and make changes later with no penalties—we offer flexibility for the modern parent.

Financial Assistance Available: Yes

Mad Science

Website: <http://indy.madscience.org/campexperience.aspx>

Phone: 317-388-0988

Location: varies

Date: TBA

Age: varies depending on type of camp, see website for details

Mad Science camps offer a daily combination of in-class discovery and exploration, outdoor games and physical activities, and hands-on applications of the scientific principles presented. Your child will be able to touch, see, hear, smell and taste what science is really all about. We use simple, real world science techniques that allow even the youngest of campers to enjoy our learning environment. Campers create, build and assemble a variety of take-home projects while exploring how science affects the world around us.

Mad Science Kids' Lab

Website: <http://www.isind.org/campus-life/2015-summer-camps/kindergarten—grade-2.aspx>

Location: International School, Indianapolis

Phone: 317-388-0988

Date: June 15-19

Age: Kindergarten – Grade 2

Campers will discover in a fun, hands-on way just how science impacts their everyday lives. They will investigate the lives of our flying friends – birds, bugs, and bats; create bubbly, fizzy, and colorful chemical concoctions; build structures as they experiment with which shapes are the strongest; explore our environment on Earth; and learn about the solar system and outer space. This unique combination of topics will capture the fascination of even the most timid science adventurer!

Mad Science Robotics Camp

Website: <http://www.isind.org/campus-life/2015-summer-camps/grades-3—5.aspx>

Phone: 317-388-0988

Location: International School, Indianapolis

Date: June 22-26

Age: Grades 3-6

Campers in the Mad Science Robot camp will build the OWI ATR robot. This fun robot can be assembled in one of three configurations; the Gripper, the Forklift and the Rover. Campers will begin the week with a box of parts and each camper will depart on Friday with a working robot. During the week, campers will learn fundamental properties of simple construction, gears, electric circuits and robotics.

Bricks 4 Kidz

Website: <http://www.bricks4kidz.com/indiana-carmel-fishers-noblesville/program-events/camps/>

Phone: 317-572-7357

Locations: Carmel, Fishers, Noblesville

Date: TBA

Age: 5 and up

Bricks 4 Kidz® offers seasonal half-day camps for children who enjoy even more time to explore and build! Our day camps provide children with the opportunity to go more in depth with some of the concepts and themes that we explore. Day camps continue to focus on concepts that include Science and Technology, but also feature weekly themes, games, and challenges to make learning even more fun.

Camp Invention

Website: www.campinvention.org

Phone: 800-968-4332

Locations: Avon, Fishers, Franklin, Greenwood, Indianapolis, New Palestine, Noblesville, Pittsboro, Plainfield, Whitestown, Zionsville

Date: Varies per location, see website for listings

Age: Grades 1-6

Camp Invention inspires girls and boys to think BIG and imagine how they can change the world for the better one day! This one-of-a-kind weeklong experience connects science, technology, engineering and math through fun hands-on activities. The program allows students to learn about creative problem solving (and so much more!) in teams grouped by age.

Indiana State Museum Summer Camps

Website: <http://indianamuseum.org/events/details/id/2475>

Phone: 317-232-1637

Locations: Downtown

Date: Vary, beginning June 1

Age: 8-14 depending on program

Whether your child's perfect summer means solving crimes, digging up fossils, or designing your own fashion line, the Indiana State Museum has a summer camp that's right for them. Camps begin on June 1 and each week delivers a new adventure based on the museum's outstanding exhibitions and collections. Campers will explore topics including forensic science, paleontology, fashion, nature, architecture, history and the science of the circus for some hands-on, educational fun.

Indianapolis Zoo Summer Camps

Website: <http://www.indianapoliszoo.com/conservation-and-education/education/family-youth-experiences/zoo-camps>
Phone: 317-630-2001
Locations: Downtown
Date: Vary
Age: 5-14

Looking for a way to get a more in-depth experience at the Zoo? Try out one of our summer camps! We offer either 3- or 5-day camps to children between the ages of 5 and 12. Participating campers can look forward to tours of the Zoo and White River Gardens, games, songs, creative craft projects, animal shows, and more.

Indianapolis YMCA Camps

Website: <http://www.indymca.org/classes-programs/camps/>
Phone: 317-484-9622
Locations: Across the city
Date: Vary
Age: Vary depending on program

This year's educational camps include Lego Engineering, Roller Skating STEM club, and Mad Science. Financial assistance is available for families in need.

STEM Training and Opportunities for Science Teachers

It is recommended that Indiana Science teachers become members of **HASTI**, the Hoosier Association for Science Teachers. They have an active Facebook group at

<https://www.facebook.com/groups/102146046520136/>

IUPUI Research Experience for Teachers (RET), Advancement in Nanotechnology (RETAIN) compensates teachers through a personal stipend, travel support, and funds school and lab supplies.

<http://indi.iupui.edu/RET.php>

Other STEM Programs, Opportunities and Resource Links:

1. IUPUI Center for Research and Learning. This site is intended for university students but also includes information for high school programs
www.crl.iupui.edu
2. Indiana CTSI Summer Programs
<https://www.indianactsi.org/programs/summerinternships>
3. Indiana University School of Medicine Research Programs
<http://medicine.iu.edu/research/student-research-opportunities/internships/>
4. Indiana Junior Academy of Sciences (IJAS)
<http://college.indiana.edu/science/academy/>
5. Indiana Academy of Science
<http://www.indianaacademyofscience.org>
6. Celebrate Science Indiana
www.celebratescienceindiana.org
7. I-STEM Network
<https://www.istemnetwork.org/>
8. IUPUI School of Science link for Project SEED
<http://science.iupui.edu/community/project-seed>
9. American Chemical Society (ACS) testimonials for Project SEED
<http://www.acs.org/content/dam/acsorg/education/students/highschool/seed/2015-seed-program-highlights.pdf>
10. American Chemical Society Indiana Section
www.acsindiana.org

2017 STEM Events Listing

1. February 18 Saturday, Indiana Physiological Society (IN Phys) Annual Meeting

Location: Butler University

Time: 10am - 5:30pm **not required to attend entire day*

Sponsor: Indiana Physiological Society

Contact: Indiana Physiological Society, inphysio@iupui.edu

Information and Registration: <http://www.usi.edu/conferences/ips>

* Abstract Registration deadline is January 20, 2016.

The meeting will feature:

- Poster and oral presentations given by postgraduate, graduate, undergraduate and high school students.
- Breakout sessions: career planning, model organisms in physiology research and teaching, and active learning methodologies for educators.

All topics related to physiology are welcome for this meeting and there will be cash awards for student presenters (\$500 top award and several \$100 awards). This is a terrific meeting for students to practice their presentation skills in a “user friendly” environment.

2. October 7, 2017, Saturday, CSI – Celebrate Science Indiana

All day family friendly event at the Indianapolis Fairgrounds. You may come for as little or as long as you want.

Admission is free but car parking is \$5. See website for featured events and other details

<http://www.celebratescienceindiana.org/>

3.

4.

Past events from 2016

5. March 26 Saturday, Indiana Academy of Science Conference and Poster Session

Location: Indianapolis Marriott Hotel

Time: 8am-6pm **not required to attend entire day*

Sponsor: Indiana Academy of Sciences

Website: <http://www.indianaacademyofscience.org/>

Abstract Registration deadline: Feb 10

<http://www.indianaacademyofscience.org/Documents/Annual-Meetings/IAS-2016/Call-for-Papers.aspx>

Attendance Registration deadline: March 23

6. July 21 Thursday, Indianapolis Project SEED Poster Session

Location: IU School of Medicine, Indianapolis

Time: 4pm-8pm ** not required to attend entire day*

Sponsor: American Chemical Society, IUPUI Campus Schools

Contact: Elmer Sanders, elmer.sanders@yahoo.com, (317) 514-3212

Website: www.indyprojectseed.org

7. October 1 Saturday, Celebrate Science Indiana
<http://www.celebratescienceindiana.org/>
8. November 11 Friday, Indiana Junior Academy of Sciences (IJAS)
<http://college.indiana.edu/science/academy/>