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**TECHFIT/TECHFIT-PLUS Program for Students**



TECHFIT is an acronym for Teaching Engineering Concepts to Harness Future Innovators and Technologists. TECHFIT-PLUS builds on TECHFIT and is formally titled, "Curriculum and Assessment Design to Study the Development of Motivation and Computational Thinking for Middle School Students across Three Learning Contexts." Both TECHFIT and TECHFIT-PLUS are funded by the National Science Foundation.

The goal of TECHFIT is to build students' enthusiasm for computing, engineering, technology and physical fitness. The TECHFIT program is a research program where accepted student applicants participate in program activities and contribute to our understanding about how this experience impacts their career interests and understanding about computational thinking. TECHFIT will seek feedback from these accepted students about their experiences in completing various interactive, hands-on activities and their interest in STEM (science, technology, engineering, and math) subjects. Students who choose to voluntarily apply to participate in TECHFIT can opt out of the program at any time without penalty.

**Before students can begin the TECHFIT program at their school, both the student and his/her parents should be provided printed copies of the information sheets:**

- [TECHFIT Information Sheet for Parents/Guardians](#)
- [TECHFIT Information Sheet for Students](#)

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## TECHFIT/TECHFIT-PLUS Program for Students

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The teacher(s) should maintain a roster of TECHFIT students. The roster must identify the start date of their TECHFIT program as well as the date when each student and parent were handed the two information sheets identified above. The rosters may be returned to TECHFIT via:

- Phone call to Alka Harriger OR a TECHFIT student assistant (see BlackBoard for contact details),
- Postal mail (Alka Harriger, TECHFIT project manager, CIT Department, Knoy 251, Purdue University, West Lafayette, IN 47907-2021), or
- Hand delivered to Purdue TECHFIT staff when they make a school visit.

In addition, each student must complete the [online form](#) to register for the TECHFIT program at his/her school. Registration allows a random and unique 10-digit ID to be generated for each student, and this ID is required when completing program surveys for TECHFIT that will enable the TECHFIT team to study the effectiveness of TECHFIT as well as make ongoing improvements to the program. Students having difficulty registering online may download the [registration form](#), print it, complete it, and return to TECHFIT researchers via postal mail or delivered in person.

Once a student has been accepted into the program by receipt of the ten-digit TECHFIT ID and approval by a TECHFIT teacher at his/her school, the pre-program survey must be completed ideally [online](#). However, if you encounter difficulty with the online survey, you may print the [pre-program survey form](#), complete it by hand, and return the completed form to TECHFIT researchers via postal mail or [email](#).

To preserve the confidentiality of each student's survey feedback, only the TECHFIT project manager and her research team will have access to the original TECHFIT research data. Any reporting of the findings will share only aggregate results.

Students will learn computational thinking, engineering, and technology concepts as well as engage in fitness activities to acquire basic skills to innovate and create their own technology-based fitness games (exergames). The hands-on activities will include computer programming, understanding electricity and safety, using electronics, manufacturing and controls. All students will use tools to construct a variety of animations, software, and exergames. Then all students will engage in the TECHFIT challenge of creating the best exergame based on criteria provided by Purdue University.

Once all students have a basic understanding of all concepts, they will select or be assigned to one or more school sub-teams:

- S & L (Science and Lifestyle)
- M & A (Math and Assessment)
- B & T (Build and Technology)
- P & G (Promotion and Graphics)
- C & S (Community and Sustainability)

Each sub-team will support the overall goal of creating the best exergame with broadest appeal and greatest support. Near the end of the spring in early May, each school's team will submit a video to Purdue for a chance to be invited to the TECHFIT Showcase to be held at Purdue University in early May. The Showcase is a public event, so all schools are encouraged to attend the all-day event. Participating teams will show off their exergame innovations at the TECHFIT Showcase to compete for a variety of awards, including the championship trophy.

## Rose-Hulman Operation CATAPULT

This nearly three-week-long summer program lets you experience college life, meet new friends, dive into cool STEM projects and basically have a blast using all the knowledge you've gained in 11 years of school!

### WHAT IS CATAPULT?

It's not an honors seminar. It's far from boring and you won't be cooped up in a classroom for days on end. It's **Operation Catapult**, a unique summer program for high school students who have completed their junior year.

### Our goal - beyond stimulating your brain, of course - is to:

1. Integrate and supplement your previous learning.
2. Explore fundamental scientific and engineering principles and systems.
3. Provide an opportunity for group living in a campus setting.

What will you have to show for your time on the Rose-Hulman campus?

### *How about College Credits?*

By completing Operation Catapult, you'll have a jump on your college credits! Finishing Catapult means you'll receive two hours of free elective credits when you attend Rose-Hulman! Living on a college campus and meeting students from across the country (and world)! A once-in-a-lifetime experience!

### What else can you expect?

- To set up and run advanced experiments
- Interaction with dedicated professors
- A chance to see what engineering and the physical sciences are really all about
- To use every bit of learning and ingenuity you've absorbed in 11 years of school
- To have a blast the whole time you're doing it!

### Cost and Dates for CATAPULT 2018

**SESSION 1:** JUNE 11-28, 2018

**SESSION 2:** JULY 9-26, 2018

Operation Catapult is a \$2,750 investment in your future. That cost includes instruction from outstanding Rose-Hulman professors, life in cool college dorms, excellent food, access to recreation facilities, project equipment, and more fun and excitement than you've ever managed in a single summer.

When you get accepted to Operation Catapult, you'll receive a letter with a request for a \$100 deposit to reserve your piece of this awesome summer experience! Do not send any money until your application has been approved. We'll bill you later for the balance due. Payment is required before you arrive on campus.

### [HOW TO APPLY](#)



**ECO Science Fair**  
**Friday, April 13, 2018**  
**10:00 AM - 2:00 PM**

#### **Visit the Fair**

Challenge your skills at spotting energy foes, conduct water quality experiments, plant your own garbage garden and create your own water filter to take home with you! Meet members of environmental awareness organizations and businesses from around the state who will be available to show you the latest, greatest and simplest ways to reduce, reuse and recycle.

This event is free for K-12 students and teachers/chaperones, and is included with general museum admission for other visitors (members, free; Adults, \$14.95; seniors, \$13.95; children, \$9.95, college students, \$12.95; children under 3, free). [Buy tickets online](#) and save \$1 per ticket.

#### **Submit a Project**

Innovative Hoosier students are invited to get involved in becoming the solution to global climate issues. Students can submit science fair projects on a range of topics including aquaculture, vermiculture, composting, social awareness, urban farming, alternative fuel and recycling initiatives in their schools and communities.

Note, there is no fee for submitting a project, and the event is free for K-12 students and teachers/chaperones to attend.

[Click here for the Project Guide and Application.](#)

The Indiana Writing Project offers professional development opportunities for both teachers and administrators, as well as for teacher consultants. View our opportunities below.

#### **Open Institute** **June 25-29, 2018**

**Indiana**  
WRITING PROJECT

Open Institute is a week-long, collaborative exploration of how writing workshop works in classrooms facilitated by Teacher-Consultants of the Indiana Writing Project. The Open Institute is open to and appropriate for all teachers. Past participants have ranged from kindergarten teachers to high school French instructors. [Learn more about Open Institute +](#)

#### **Summer Invitational Leadership Institute** **June 8-9, 12-15, 18-21, 2018**

The cornerstone of the Indiana Writing Project is the Summer Invitational Institute held in June. The Institute brings together educators who teach at the elementary, intermediate, and secondary level. Participants learn from each other ways to improve how writing is taught. [Learn more about Summer Invitational Leadership Institute +](#)

#### **Inservice Workshops and Training**

Teachers who have completed the project's summer institute and additional preparation are available for presentations, workshops, and inservices for schools or school districts.

[Learn more about IWP's Inservice offerings +](#)

## Summer of eLearning



The 2018 Summer of eLearning marks the seventh year of regional conferences sponsored by the Indiana Department of Education, Office of eLearning. This conference series continues our strong tradition of supporting high-quality professional learning in Indiana. Events this summer are tentatively scheduled from the end of May to the beginning of August. 19 locations will host conferences, most in collaboration with neighboring corporations. In all, a record 51 school districts will combine their efforts to produce the Summer of eLearning!

Dates	Conference	Location
May 31 - June 1	<a href="#">TechEZ</a>	Martinsville High School, Martinsville, IN
June 4 - 5	<a href="#">Connectin the 4C's</a>	Mount Vernon Senior High School, Mount Vernon, IN
June 5 - 6	<a href="#">Making a Splash with Digital Learning</a>	Batesville High School, Batesville, IN
June 6 - 7	<a href="#">South Shore eLearning Conference</a>	Morton Senior High School, Hammond, IN
June 6 - 7	<a href="#">IGNITE: The future looks bright</a>	Sunnyside Intermediate School, Lafayette, IN
June 7 - 8	<a href="#">Innovation Exchange</a>	Fishers High School, Fishers, IN
June 7 - 8	<a href="#">AppleMania</a>	New Palestine High School, New Palestine, IN
June 12 - 13	<a href="#">eLEAD 2018</a>	Anderson High School, Anderson, IN
June 12 - 13	<a href="#">iTeach Tech, Technology Tools Best Practices</a>	Woodburn, IN
June 14 - 15	<a href="#">eVillage</a>	Washington Township Middle High School, Valparaiso, IN
June 14	<a href="#">eLearning NexGen Future Ready</a>	Taylor Community Schools, Kokomo, IN
June 18 - 19	<a href="#">Education to Better Their World</a>	Madison Consolidated High School, Madison, IN
June 19 - 20	<a href="#">We R Richmond eLearning Expo 7</a>	Richmond High School, Richmond, IN
June 21	<a href="#">The Suite Life</a>	Barr Reeve High School, Montgomery, IN
July 10	<a href="#">IMPACT</a>	Jasper Middle School, Jasper, IN
July 11	<a href="#">#C4: Connect, Collect, Collaborate, and Create</a>	Clay Middle School, Carmel, IN
July 23 - 24	<a href="#">e3 Technology Conference Equip - Engage - Excel</a>	Warsaw Community High School, Warsaw, IN
July 31	<a href="#">Technovation</a>	Penn Harris Madison, Mishawaka, IN
August 1	<a href="#">PowerED Up</a>	Perry Central, Leopold, IN

## Jim Holland Summer Enrichment Program in Biology (SEP)

**What:** The Jim Holland Summer Enrichment Program (SEP) is an exciting opportunity for underrepresented high school students to broaden their horizons in genetics, evolution, environmental biology, molecular biology, plant sciences, and more. You'll attend lectures, take part in discussions, and participate in hands-on laboratory experiences. SEP activities are led by a dynamic and skilled team of Indiana University faculty members and Indiana high school teachers. You'll learn about scientific careers and how to prepare for a successful college experience.

**Who:** Underrepresented high school students in the 8th, 9th, and 10th grades (entering 9th, 10th, and 11th grades in the fall) who have a cumulative GPA of at least 3.0 (non-weighted) and are taking/have taken science and math courses.

**When:** July 15-20, 2018

**Where:** Indiana University at Bloomington. Participants will be housed in a dormitory on the beautiful Bloomington campus.

**Application deadline:**

April 9, 2018. Students will be notified the week of April 30 of their acceptance into the program.

**How to apply:**

A complete application includes student application form (with parent/guardian information), verified courses/grades from counselor, recommendation from science teacher, and letter of recommendation from math teacher.

[Application instructions and forms](#)

## What PRISM Can Do For You!

- Easily find the perfect teaching and learning resources from our library of over 5,000.
- Store your classroom materials online so that they are available to you from any computer.
- Select from free learning resources that emphasize visualization, rich context, staged-problem solving, and electronically enabled collaboration / communication.
- Save a list of your favorite resources for quick retrieval.
- Reach your students more effectively by using web media for the digital age.
- Augment your own dynamic presence in the classroom with teaching tools that mirror the skills needed for success in higher education and the 21st Century workplace.
- Create and share lesson plans that teach your subjects utilizing your favorite resources.
- Earn PGP points by completing PRISM led online Moodle course – either Beginning Moodle or Intermediate Moodle courses are available to you at no cost several times throughout the year.

*Through our strong support from the [Lilly Endowment](#) and others, we are constantly growing and improving. Check our site regularly to see what new resources you can use in your classroom.*

[www.rose-prism.org](http://www.rose-prism.org)



PRISM is a free website that provides collections of online resources for Indiana educators in the fields of science, technology, engineering, and mathematics (STEM). The primary collection of digital teaching materials is indexed according to the Indiana Academic Standards for 6th, 7th, and 8th grade and secondary education courses.