

ENRICHMENT PROGRAMS FOR GIFTED, CREATIVE, AND TALENTED YOUTH

2017 Summer Camps

Programs for students who have just completed grades 5-12



www.purdue.edu/geri



PURDUE
COLLEGE OF EDUCATION



What makes **GERI** Summer Camps so great?

GERI has been serving gifted, creative, and talented students since 1974. Every summer students like you come to Purdue University and experience programs designed to stimulate their imaginations and expand their abilities. We also offer a variety of recreational activities and a chance for you to get a taste of college life as you live on campus in Purdue's residence halls.

Here's what you'll experience at GERI Summer Camp:

Intellectual Challenge - GERI classes are small, challenging, fast-paced, and interactive.

Talented and Caring Staff - Our teachers thrive on sharing their knowledge and experience with students.

Outstanding Facilities - Purdue is a world-class research university, and GERI students have the use of state-of-the-art laboratories, computing facilities, and a variety of libraries.

Friendships - GERI attracts a diverse group of gifted, talented, and creative people from all over the world! You will find friends who share your interests and love of learning.

Independence - With supervision, guidance, and support from the GERI staff to help you adapt and thrive, you will live in residence halls, learn in university classrooms and labs, and take advantage of Purdue's cultural and recreational facilities, just like college students.

Fun - GERI camp counselors make time outside of class rewarding through activities including night at the movies, basketball, bowling, scavenger hunts, game tournaments, and field trips.

Looking for a challenge this summer?

Ready to have fun in a supercharged intellectual atmosphere?

Then GERI Summer Camps at Purdue University are for you. Come and discover what the world of knowledge has to offer!

- **Develop critical thinking skills by investigating current, real-life issues.**
- **Discover mysteries in the world of art, science, and technology.**
- **Create videos, paintings, models, computer games, and more!**
- **Venture into new subjects like forensic science, 3D printing, and robotics.**
- **Experience Midwest hospitality and international cultures.**
- **Renew old friendships and build new ones.**

About the Gifted Education Resource Institute

The Gifted Education Resource Institute (GERI) at Purdue University is an innovative center dedicated to the discovery, study, and development of human potential. Founded by John Feldhusen in 1974, GERI's mission is holistic development of giftedness, creativity, and talents among individuals throughout their lifespan. This is accomplished through enrichment programs for gifted, creative, and talented youth; graduate programs for future scholars and leaders; professional development and coursework for educators of gifted, creative, and talented students; and cutting-edge research in psychology and education related to giftedness, creativity, and talent development. GERI's work encompasses:

- **Researching gifted education and the psychology of talent development.**
- **Educating professionals from around the world to promote the development of gifted, creative, and talented individuals.**
- **Providing services and special programs for gifted and talented individuals and their families.**

geri@purdue.edu 

(765) 494-7243 

www.purdue.edu/geri 

Purdue Gifted Education Resource Institute 

CONTACT INFORMATION:

Gifted Education Resource Institute
100 N. University St., BRNG 5178
Purdue University
West Lafayette, IN 47907-2098
Phone: (765) 494-7243
Fax: (765) 496-2706
www.purdue.edu/geri
geri@purdue.edu

GERI STAFF

Professor Marcia Gentry, Executive Director
Professor Kristen Seward, Associate Director
Corinne Green and Ophelie Desmet, Co-Coordinators
Andres Parra, Residential Life Coordinator

"I loved meeting new people, understanding new cultures, learning new things, and definitely being able to attend Purdue University for two weeks."

comet

July 2-8
and July 9-15

For students who have completed grade 5 or 6

COST PER ONE-WEEK SESSION:

Commuter - \$900.00, Residential - \$1200.00

Comet students may commute daily or stay in the residence hall.

Please select on class for the session you would like to attend.

See the financial information section on page 9 for multiple session, sibling, and Purdue employee discounts.

NEW! Register by April 30th and receive a \$100 discount!

course descriptions

COMET I: July 3-9

Building Bridges

How was the Golden Gate Bridge built? What would it take to make it stronger or tear it down? Through hands-on building and experimentation, use principles of mechanical and material engineering to learn more about how to build and test bridges. You will get the chance to build and demolish your constructions in an actual engineering lab!

CSI Investigation- K. Simms

Explore the skills used by criminal investigators to solve crimes through hands-on activities in observation, finger printing, DNA, "blood" splatter, and handwriting analysis. Build a set of skills that will enable you to use critical thinking and problem solving to investigate crimes and determine the appropriate methods needed to crack the case.

Insect: Friend or Foe?

Did you know that there are more insects in the world than all other organisms combined?! Join us as we study amazing insects and their relationships with people. Enjoy collecting, preserving, and identifying insects found in a variety of habitats around campus during the day and at night. NOT RECOMMENDED for students with insect allergies of any kind.

The Liquid Earth Below

Water, water everywhere! Water is essential to our bodies, food, and ecosystems, but how can we keep this natural resource safe? In this intensive course on water, we will do several experiments to measure different aspects of local bodies of water, create our own filtration systems, and learn the current threats to water in our daily lives.

Robotec: Bytes & 'Bots

Design, build, and program your own autonomous robot using the LEGO® Education EV3 system. Program your 'bot to perform specific tasks—to move, sense, and respond to the environment while overcoming challenges. Programming experiments will challenge you, while a series of friendly competitions will keep things fun.

Spinning Stories and Plotting Plays

Do you enjoy the art and craft of creative writing, including personal narrative, short story, essay, memoir, and drama? Join us as we develop observation, interpretation, and expression skills through active classroom experiences. Unearth your unique, personal voice and use your imagination, senses, and the world around you to hone your craft.

Your Future in Bioengineering

Use your creative powers and grow your problem solving skills all while learning biology! You will learn what it is like to be an engineer as you work in teams in order to solve biological challenges such as unblocking a clogged blood vessel.

course descriptions

COMET II: July 9-July 15

Building Bridges

How was the Golden Gate Bridge built? What would it take to make it stronger or tear it down? Through hands-on building and experimentation, use principles of mechanical and material engineering to learn more about how to build and test bridges. You will get the chance to build and demolish your constructions in an actual engineering lab!

Circuitry Art

Integrate art and electronics to create imaginative works of interactive art! Learn how to construct a variety of circuits to design and produce simple and complex illuminated paper formations combined with individual artistic expression.

CSI Investigation

Explore the skills used by criminal investigators to solve crimes through hands-on activities in observation, finger printing, DNA, "blood" splatter, and handwriting analysis. Build a set of skills that will enable you to use critical thinking and problem solving to investigate crimes and determine the appropriate methods needed to crack the case.

Entomologists in Progress

What do you know about insects and the habitats they live in? Do you know about the contributions insects make or do they just "bug" you? In this class we will set a variety of traps and collect insects

from four different habitats on and around Purdue University's campus. You will be fascinated by insect adaptation, insect curation, and identification while you make your own pinned insect collection. NOT RECOMMENDED for students with insect allergies of any kind.

A Horse of a Different Color

Are you a budding veterinarian, biologist, agriculture specialist, or just someone who loves horses? Enrich your equine science knowledge through this interactive learning environment, as you learn about horse anatomy, physiology, and proper horse management. Join us on a field trip to a horse ranch to interact with these amazing creatures and learn the science behind the horse!

The Game of Business

Learn the building blocks of entrepreneurship in an innovative and engaging way—mobile phone games! Through a virtual character's exploration, you will learn what a business is, how to gauge whether it is worthwhile to start a business, and how to sell a product. (Mobile phone provided.)

Spinning stories and Plotting Plays

Do you enjoy the art and craft of creative writing, including personal narrative, short story, essay, memoir, and drama? Join us as we develop observation, interpretation, and expression skills

through active classroom experiences. Unearth your unique, personal voice and use your imagination, senses, and the world around you to hone your craft.

3D Geometric Design in Math

Set sail on a mathematical journey through exciting, interactive activities. You will design mosaics with a compass and straight edge, make math models with paper, solve hands-on puzzles, create Escher-style artwork, and participate in number-sense math games.

geri@purdue.edu

(765) 494-7243

www.purdue.edu/geri

Purdue Gifted Education
Resource Institute



"The things I liked best about attending GERI were the teacher, the class, the opportunity to meet new people and the food."

STAR

July 2-15
and July 16-29

For students who have completed grade 7 or 8

COST PER TWO-WEEK SESSION: \$2,400.00

Please select one morning class and one afternoon class for the two-week session you would like to attend. Star campers who attend both sessions will receive a \$300 discount off the total cost. Also see the Financial Information section on page 9 for sibling and Purdue employee discounts.

NEW! Register by April 30th and receive a \$100 discount!

Please check our website for updated course information.

course descriptions STAR I: July 2-15 MORNING CLASSES

Ferroequinology

Observe and investigate the many different types of trains, including electric trains, battery-operated trains, mechanical wind-up trains, and floor trains. Discover the physics demonstrated in model railroading and better understand Newton's Laws of Motion.

Fluency Fastpass

Acquiring a second language can be entertaining! Learn Spanish by engaging in dramatic plays, short stories, and classroom activities that are fun and interactive. Recommended for those with little to no Spanish-speaking background.

It's All Greek to Me

Ancient Greek is the basis for the vocabulary of medicine and virtually every science. Have fun learning about Ancient Greek roots that will expand your English vocabulary for increasingly difficult subjects in science and math. Explore Greek mythology, history, and the Seven Wonders of the Ancient World. Be amazed when you are able to read short stories in Ancient Greek!

Innovation Conception to Completion

Do you have an idea for scientific inquiry? A new product? A social program? A business? This course will take you from idea to action. You will learn how to communicate your idea through multimedia, mobilize information, conduct focus groups, and draw up viable plans to guide your future.

Medical Mysteries and Maladies

"Tree Man" has tree bark instead of skin. Vampires are sensitive to light and have pointy teeth. Can a person

survive with half a brain? Blue people are very common in some parts of the country. Is this stuff for real or just urban legend? Find out as we explore the most bizarre mysteries and maladies of the medical world.

Rocket Science! A Trip to Mars

How about a vacation on our neighboring planet, Mars? How do we go there? How much would that cost? Wouldn't that be dangerous? We will answer these through studying types of rockets engines, the mathematics of rocket propulsion, stability, structural analysis, propulsions, navigation, guidance and control, GPS, optimization, and space policy. In the end we will design and fly mid-power model rockets.

Serious Gaming in the Classroom

Use teamwork, problem-solving skills, and goal-based activities to problem solve and research the role(s) of various electronic games in the classroom. Explore the benefits of Serious Gaming, and conduct research on its application to the classroom. Be creative as you present your research findings to your classmates.

Wordsmithing

Explore the creation of art with words, whether poetry, fiction, or creative non-fiction. Activities include interacting with a 1950's letterpress and exploring campus for inspiring your own story! Interactive lessons will allow the you to develop insight into the nature of imagination.

Vet med

Are you thinking of becoming a veterinarian or just interested in biology? Explore the complex world of animal anatomy through labs, dissection, lectures, activities, computer projects, guest speakers, ecosystem field work, field trips, and much more. Come and find out what makes animals tick.



course descriptions STAR I: July 2-15 AFTERNOON CLASSES

Blast off: An Exploration into Astronomy!

Come explore science, engineering, and space with us. Learn about planet mapping, aliens(?), the solar system, spacecraft designing, and more. You will develop many skills including experimentation and data collection while partaking in a variety of hands-on activities to take a closer look at concepts including space, space exploration, and the science behind them.

Let's Talk Italiano!

Ever ordered food or talked by phone in the language of Leonardo Da Vinci, of the country of pizza, gelato, and the Ferrari? Practice just that as you explore Italy's culture while learning its language. Gain Italian vocabulary and conversational skills through exercises that include skits, movie clips, music, and more!

Machines and Bridges

Machines and bridges provide us with a means to travel across difficult terrain. A machine is defined as a device in which work ($W=fd$) is completed. This equation is defined by a machine's combination of the six simple machines, demonstrating Newtonian Physics and the Laws of Physics. Examine a selected machine, such as a model train engine. Design and build your own working machine using Gilbert Erector parts and K'Nex parts.

Poetry: Early, Modern, and Beyond!

Explore the almost infinite possibilities of poetry through reading contemporary poets and producing our own original poems. Join us on field trips around campus for inspiration and workshops with constructive criticism. Practice your spoken word and let your inner poet flourish.

Phantastic Physics

Newton, Bernoulli, Archimedes, and Einstein. OH MY! These are just a few of the theorists we will be learning about as we practice their ideas by making hot air balloons, cellulose coasters, elastic racers, hollow tube rockets, red solo robots, geodesic domes, electric light sculptures and a whole bunch of pneumatic stuff. Don't miss this chance to create and learn all things physics!

STEAM LABS™

Students, engineers, artists, and hobbyists around the world now design and build Rube Goldberg-style machines to satisfy society's fascination with the creative contraptions. Apply the engineering design process to construct STEAM Machines (i.e., chain reaction machines that run on STEM and Art concepts) using everyday objects and technology such as motors, sensors and micro-controllers. Gain experience with systems thinking and multi-team collaboration as you learn real-world engineering skills and start exploring pathways to better understand careers in engineering.

Toy Design

Ever wonder how "funology" (fun and play value) and basic physics are combined in toy design? Discover how simple toys work and, with a toy design team of fellow students, engage your imaginations as you create sketches of potential toys. Learn how to use computer-aided design tools to create one of your toys using laser cutting and 3D printing. Showcase your new funology knowledge and design skills as your group demonstrates your toy in our 3rd Annual GERI Toy Fair!

Videography and Photojournalism

Would you like to make your own movie or learn how to take pictures worthy of being featured in a magazine? In this class, you will operate digital cameras and other video equipment, conduct interviews, apply creative photographic techniques, and learn about lighting and sound support. Document your camp experience and explore videography and photojournalism from every angle.

course descriptions STAR II: July 16-29 MORNING CLASSES

Digital Journalism

This course serves as your humble guide to the rapidly changing universe of online news. The 21st century newsroom requires an audience-centered mindset in which journalists must possess a broad set of multi-platform newsgathering skills and fluency in social media, while also upholding the timeless journalistic standards of news judgment, accuracy, fairness and truth.

Let's Talk Italiano!

Ever ordered food or talked by phone in the language of Leonardo Da Vinci, of the country of pizza, gelato, and the Ferrari? Practice just that as you explore Italy's culture while learning its language. Gain Italian vocabulary and conversational skills through exercises that include skits, movie clips, music, and more!

Lights, Curtain, Action!

Attending live theatre productions can be magical. Yet, before a show is audience-ready, much preparation is poured into bringing the script from the page to the stage. This course will allow you to experience theatrical directing while exploring the creativity and organization of putting on a show.

Magnetism: The Invisible Force

Do you think magnets are interesting? You might wonder what uses they have apart from sticking to refrigerators and directing the compass. You might be surprised just how many things around you work by magnets. Join us as we explore the wonderful world of magnetism. "May the Force Be with You."

Phantastic Physics

Newton, Bernoulli, Archimedes, and Einstein. These are just a few of the theorists we will be learning about as we practice their ideas by making hot air balloons, cellulose coasters, elastic racers, hollow tube rockets, red solo robots, geodesic domes, electric light sculptures and a whole lot more. Don't miss this chance to create and learn all things physics!

Serious Gaming in the Classroom

Use teamwork, problem-solving skills, and goal-based activities to problem solve and research the role(s) of various electronic games in the classroom. Explore the benefits of Serious Gaming, and conduct research on its application to the classroom. Be creative as you present your research findings to your classmates.

Wizards Aliens, and Starships

From teleportation to alien contact and interstellar travel, science fiction and fantasy writers have come up with some brilliant and innovative ideas. Yet how plausible are these ideas? For instance, how can we explain Superman's ability to fly? Which physics concepts might actually happen, and which ones wouldn't work at all?

course descriptions STAR II: July 16-29 AFTERNOON CLASSES

Around the World in Writing

Writing takes many forms around our world. We will study and write a variety of traditional creative writing forms including the Japanese haiku, the English sonnet, the Middle Eastern ghazal, the Irish limerick, and the Latin American cuento. After learning about the cultural context and structure of each form, we will write and share our own work.

Building bridges

How was the Golden Gate Bridge built? What would it take to make it stronger or tear it down? Through hands-on building and experimentation, use principles of mechanical and material engineering to learn more about how to build and test bridges. You will get the chance to build and demolish your constructions in an actual engineering lab!

A Horse of a Different Color

Are you a budding veterinarian, biologist, agriculture specialist, or just someone who loves horses? Enrich your equine science knowledge through this interactive learning environment, as you learn about horse anatomy, physiology, and proper horse management. Join us on a field trip to a horse ranch to interact with these amazing creatures and learn the science behind the horse!

Ferroequinology

Observe and investigate the many different types of trains, including electric trains, battery-operated trains, mechanical wind-up trains, and floor trains. Discover the physics demonstrated in model railroading and better understand Newton's Laws of Motion.

Fun with Programming

Do you want your computer to solve math problems for you? Do you want to design interesting games? Do you want to learn how to encrypt and decrypt messages? Join us in Fun with Programming where you will learn how to "program" what your imagination dreams up!

Myth Busting

Explore common myths and try to prove them wrong using the scientific method. Do you think pirates wore eyepatches as a fashion statement? Will quarters land on heads and tails equally? Do you only use your sense of taste while eating? Let's find out!

Medical Mysteries and Maladies

"Tree Man" has tree bark instead of skin. Vampires are sensitive to light and have pointy teeth. Can a person survive with half a brain? Blue people are very common in some parts of the country. Is this stuff for real or just urban legend? Find out as we explore the most bizarre mysteries and maladies of the medical world.

Videography and Photojournalism

Would you like to make your own movie or learn how to take pictures worthy of being featured in a magazine? In this class, you will operate digital cameras and other video equipment, conduct interviews, apply creative photographic techniques, and learn about lighting and sound support. Document your camp experience and explore videography and photojournalism from every angle.



PULSAR

July 2-15
and July 16-29

For students who have completed grade 9, 10, 11, or 12

COST PER TWO-WEEK SESSION: \$2,400.00

Please select one morning class and one afternoon class for two-week session you would like to attend. Pulsar campers who attend both sessions will receive a \$300 discount off the total cost. Also see the Financial Information section on page 9 for sibling and Purdue employee discounts

NEW! Register by April 30th and receive a \$100 discount!

Please check our website for updated course information.

course descriptions PULSAR I: July 2-15 MORNING CLASSES

Biomedical Instrumentation

Have you wondered how a Fitbit works or how a hospital patient's monitor can detect a heart rate and other vital systems? Let's explore the medical terminology and designs that bring these instruments to life and develop them ourselves in this hands-on learning course. Learn instrumentation design from the designer's perspective.

English as a Social Science

Human rights is a hot topic in our world today, including Syrian refugees, education for women and girls, and cross-cultural research. Explore various pieces of literature, videos and lectures on human rights and debate world issues in thoughtful new ways, challenging others' points of view.

Greenwich Village, 1913: Suffrage, Labor, and the New Woman

Be immersed in the radical possibilities newly available to women at the start of the 20th century through an elaborate historical role play. Engage with your classmates as assigned characters in turn-of-the-century New York who grapple with "new" political ideas like women's suffrage, socialism, birth control, and anarchism. Will your character's actions and decisions benefit yourself or society? It's up to you!

Poetry: Early, Modern, and Beyond!

Explore the almost infinite possibilities of poetry through reading contemporary poets and producing our own original poems. This class will include field trips around campus for inspiration and workshops with constructive criticism. Practice your spoken word and let your inner poet flourish.

Programming and Computational Thinking

Are you curious about computer programming? Do you want to design interesting games? Do you want to learn

how to encrypt and decrypt messages? Do you intend to take AP Computer Science courses? Please join us for the unique introductory programming experience with Java!

Reading the Body: Medicine in the Ancient World

The theory that germs cause disease is only 150 years old! What did people think before then? How did they think the body worked? What did they do when it got sick? We will look at how the ancients looked at the body, and practice looking at it through their eyes. Class sessions will combine lecture, discussion, clinical case studies, and diagnostic role-playing.

STEAM LABS

Students, engineers, artists, and hobbyists around the world now design and build Rube Goldberg-style machines to satisfy society's fascination with the creative contraptions. Apply the engineering design process to construct STEAM Machines (i.e., chain reaction machines that run on STEM and Art concepts) using everyday objects and technology such as motors, sensors and micro-controllers. Gain experience with systems thinking and multi-team collaboration as you learn real-world engineering skills and start exploring pathways to better understand careers in engineering.

Social Simulation

Play some social simulation games and explore complex social processes. For example, players in a legislature game will explore vote trading. players in a stratification game see how social positions affect life chances, and players in a social networks game use social structures to their advantage. After each game, we will consider the real-life implications of these simulations.

Why things Break: The Science of Material Failure

Have you ever wondered exactly why things break when you drop them? Explore the answer to this question and many more by running experiments and by analyzing real-world case studies to learn all about the properties of materials that make modern life and technology possible. Let's break some things for science!

course descriptions PULSAR I: July 2-15 AFTERNOON CLASSES

Active Exercise Science

Are you interested in science, biology, and health? Do you enjoy working out? Come stretch your mind and your muscles as we hit the gym daily for a one-hour workout then hit the classroom to explore a wide variety of exercise science topics.

Bloody Bits of Shakespeare

Learn the basics of acting and improve your language skills by performing battle scenes from the works of William Shakespeare. Learn to read a script like an actor, memorize for delivery, move on a stage, and speak with confidence.

Discovering Scientific Laws & Concepts through Experimentation

How do we know atoms really exist? Using hands-on experiments with Brownian motion, rediscover the most profound scientific idea of all time--atoms exist! Through your own experiments, learn how we develop new scientific laws and see how these ideas influence every area of science.

Environmental Justice for All

Does everyone have the same right to a safe environment and respect for their cultural history? What is behind the crisis in Flint Michigan about childhood lead poisoning and the protests at the Standing Rock Indian Reservation against an oil pipeline running through Native lands? Learn how the Civil Rights Movement converged with the Environmental Movement and empowered it to demand "Environmental Justice". Find out what we can do, today, to fight for a healthy sustainable environment for all generations.

Experiments in Fluids

Fluids are an inseparable part of our life. This short course will explore different types of fluids phenomena and the math behind it all, mostly through wind-tunnel experiments and table-top demonstrations. We will talk about the formation of hurricanes in Earth and Mars, ocean flow, blood flow, Jupiter's giant red spot, supersonic fluid dynamics, and commercial aircraft engines-- in short anything that flows!

Global Politics

Are you interested in politics and like the idea of participating in a mock United Nations Security Council meeting? Come and explore the history of the United Nations and determine the organization's relevance for the future. Will diplomacy or conflict win out?

Sustainable Food Production Systems

Did you know that current food production approaches are unsustainable? Projected food demand through 2050 is approximately 70-100% greater than current global food production levels! The supply of water and land are insufficient for increases of this magnitude. Join us as we develop a new vision for food production in a team environment that will require all the STEM skills you can muster. Let's save our food!

The World of Music

With a focus on the construction of chords, progressions, and part writing, this course will focus on the theoretical and mathematical side of music. "Why does this chord sound this way?", "How can it be resolved triumphantly?", and many more questions will be answered during this exploration of music.

Videography and Photojournalism

Would you like to make your own movie or learn how to take pictures worthy of being featured in a magazine? In this class, you will operate digital cameras and other video equipment, conduct interviews, apply creative photographic techniques, and learn about lighting and sound support. Document your camp experience and explore videography and photojournalism from every angle.

Wizards Aliens, and Starships

From teleportation to alien contact and interstellar travel, science fiction and fantasy writers have come up with some brilliant and innovative ideas. Yet how plausible are these ideas? For instance, how can we explain Superman's ability to fly? Which physics concepts might actually happen, and which ones wouldn't work at all?

course descriptions PULSAR II: July 16-29 MORNING CLASSES

Stand Out! The All-Important Application Essay

The essay required by many academic and scholarship applications is an opportunity to show off the person

beyond the test score! We will analyze sample essays, brainstorm, draft, edit, workshop, revise, and have fun while doing so! Come away with a polished draft that captures your intellect, experiences, and personality.

Do Dead Fish Think: The Mathematics of the Mind

Find out how a dead fish's thoughts changed neurobiology! In this course, we will be analyzing how the brain works using advanced mathematical modeling to describe oxygenated blood flow in the brain. The physics and use of functional magnetic resonance imaging (fMRI) will also be explored. **PREREQUISITES:** Physics & Advanced Algebra or Calculus

GERI Music Symphony

Albert Einstein once said, "I often think in music. I live my daydreams in music. I see my life in terms of music." Polish your instrument playing skills with other talented musicians through rehearsal, improvisation, and performances to achieve a deeper understanding of your individual and group capabilities. Prerequisites: One year or more of self-taught or school training in a classical instrument. Instruments will be provided. Due to the high frequency of piano players, only one will be accepted to this class, first come first serve.

Epic Heroes of Literature with Technology

Discover the essence of an Epic Hero by combining your personal technology skills with classic literature. Express yourself in digital music, blogging, online quizzes or games, or a variety of other technology-driven projects that combine ancient past and vibrant future!

Logic, Algorithms, & Proofs

You, too, can discover the mental abilities theorists like Isaac Newton used to discover calculus and other mathematical concepts. Learn to see mathematics as a piece of art and a valuable ally in mankind's quest to uncover nature's secrets.

Programming and Computational Thinking

Are you curious about computer programming? Do you want to design interesting games? Do you want to learn how to encrypt and decrypt messages? Do you intend to take AP Computer Science courses? Please join us for the unique introductory programming experience with Java!

Reading the Body: Medicine in the Ancient World

The theory that germs cause disease is only 150 years old! What did people think before then? How did they think the body worked? What did they do when it got sick? We will look at how the ancients looked at the body, and practice looking at it through their eyes. Class sessions will combine lecture, discussion, clinical case studies, and diagnostic role-playing.

Why things Break: The Science of Material Failure

Have you ever wondered exactly why things break when you drop them? Explore the answer to this question and many more by running experiments and by analyzing real-world case studies to learn all about the properties of materials that make modern life and technology possible. Let's break some things for science!

course descriptions PULSAR II: July 16-29 AFTERNOON CLASSES

Accelerated introductory Italian

Ever ordered food or talked by phone in the language of Leonardo Da Vinci, of the country of pizza, gelato, and the Ferrari? Practice just that as you explore Italy's culture while learning its language. Gain Italian vocabulary and conversational skills through exercises that include skits, movie clips, music, and more!

Discovering Scientific Laws & Concepts through Experimentation

How do we know atoms really exist? Using hands-on experiments with Brownian motion, rediscover the most profound scientific idea of all time--atoms exist! Through your own experiments, learn how we develop new scientific laws and see how these ideas influence every area of science.

Earth Data Hackathon

Cast the Earth environment on a virtual mesh and let the physics and mathematics of the natural world tell a story. If you are a gifted computational scientist, this project-based, two-week immersive experience is intended for you! Discover interesting geoscience themes and learn the tools and thinking skills to decode some of nature's most intricate data in an intensive setting. **PREREQUISITES:** computer coding experience and basic physics.

Exploring Multiculturalism and the Impact of Social Media

Do your social group identities influence the way you learn or the way you are taught? Join us as we explore multiculturalism and its effect on education. We will examine the impact of social outlets on learning, such as media on race, class, gender, sexual orientation, and other aspects of social group identities. Walk away with a deeper understanding of the diverse world we live in.

Global Politics

Are you interested in politics and like the idea of participating in a mock United Nations Security Council meeting? Come and explore the history of the United Nations and determine the organization's relevance for the future. Will diplomacy or conflict win out?

Magnetism: The Invisible Force

Do you think magnets are interesting? You might wonder what uses they have apart from sticking to refrigerators and directing the compass. You might be surprised just how many things around you work by magnets. Join us as we explore the wonderful world of magnetism. "May the Force Be with You."

Videography and Photojournalism

Would you like to make your own movie or learn how to take pictures worthy of being featured in a magazine? In this class, you will operate digital cameras and other video equipment, conduct interviews, apply creative photographic techniques, and learn about lighting and sound support. Document your camp experience and explore videography and photojournalism from every angle.

PROGRAM details



"Our counselors were very nice and helpful."

No-Show Policy – Students who register for the program but who do not attend will be charged the full tuition amount unless we receive a cancellation request in writing two weeks before the start of the camp.

Accommodations

- **Facilities** - Students live in residence halls on the safe, friendly West Lafayette campus of Purdue University. Located just a short walk from students' classes, libraries, computing centers, and recreational facilities, the residence halls are fully air-conditioned and easily accessible to students with physical disabilities. Male and female students are housed on separate wings of the building, and no visits to opposite-gender floors are allowed.
- **Roommates** – Each participant will be paired with a roommate, as available. Roommate requests must be submitted BY BOTH CAMPERS via email to Corinne Green, green252@purdue.edu, by June 1.
- **Check In/Check Out** – Campers will check-in between 11:30 a.m. and 2:30 p.m., Eastern Standard Time, on the Sunday their program begins. Parent and camper orientation sessions will begin at 2:30 p.m. in the residence hall. Parent-teacher conferences will be held from 9:00 - 10:30 a.m. and a dosing ceremony will begin at 10:30 a.m. Comet commuter students must be in attendance at their first class on the evening of the first Sunday from 7:00 p.m. - 9:00 p.m. Check out is no later than 11:30 a.m. on their final Saturday. Students attending over Independence Day, July 4, will have the opportunity to see the local fireworks display and participate in social activities.
- **Social Life** – An enjoyable social experience is just as important as the academic learning, and the residence hall is the social hub of GERI Summer Camp. Lounges and common areas give students places to play music and games, watch movies, share a snack, read a book, collaborate on projects, or even do their laundry. Our friendly, experienced counseling staff works hard to create an environment in which all students feel safe, comfortable, and right at home.
- **'Refer a Friend' Program** – Returning campers who refer a friend as a first-time attendee will receive Purdue-themed items once the referred friend attends camp.
- **GERI Global Gala and Talent Showcase** – GERI campers come from all over the world and from many different cultures. We encourage you to share your culture with others during the Global Gala. Share a talent by performing a dance or singing a song.

Teach a popular game that is played in your country or tell a story. Bring an item from home that represents your culture. Through food, music, dancing, and other cultural activities, promote your culture and heritage and give others a glimpse at what life is like in your community.

- **Dining** – The award-winning Purdue dining courts offer something for everyone. The dining court serves a varied menu of hot meals, a salad bar stocked with fresh fruits and vegetables, juices and drinks, cereals, and sandwiches. Even picky eaters or those with special dietary needs will have an appetizing variety of healthy foods from which to choose. If your child has special dietary needs, please call GERI at (765) 494-7243.

Supervision

- **Safety** – Key card building access and 24-hour residence hall staff help summer students feel comfortable and secure. Students will be escorted to and from classes daily. Staff members supervise activities and field trips away from the residence hall and are always available to students who choose to stay at the residence hall during afternoon activities. Students never leave the residence hall without staff supervision. Unless they are with a staff member, students may not go beyond the academic campus and the small shopping areas near the residence hall
- **Counseling Support** – Staff members supervise activities and field trips away from the residence hall and are always available to students who choose to stay at the residence hall during afternoon activities. Students never leave the residence hall without staff supervision. Unless they are with a staff member, students may not go beyond the academic campus and the small shopping areas near the residence hall.
- **Social and Emotional Development**
A special feature of our program that sets us apart from other camps is our social-emotional curriculum. Our counselors understand the social and emotional needs of the GERI campers and are trained on student development, cultural sensitivity and gifted children characteristics. Counselors facilitate the affective curriculum with a small group format during the program. These sessions are integral component of our camp and to building a sense of community within it.
- **Medical Care** – Medical information and permission for treatment will be collected from participants during registration. Parents will be notified of any medical emergency or illness as soon as possible. Limited program medical insurance covers most basic costs, including emergency hospitalization, but any additional medical

expenses or expenses related to existing conditions are the responsibility of the parents. Campers should bring an adequate supply of prescription medication in the original container to camp.

Financial Information

- **Tuition** – The program fees cover room and board, tuition, textbooks and course materials, field trips, limited medical insurance, and a GERI T-shirt. The fee does not cover incidental expenses, optional afternoon or weekend activities, or transportation to and from Purdue University. A tuition deposit of \$100 per student is due with the application and will be refunded only if the student is not accepted into the program contingent upon eligibility and class availability.

Tuition (per session)			
COMMUTER COMET	RESIDENTIAL COMET	STAR	PULSAR
\$900.00	\$1200.00	\$2,400.00	\$2,400.00

- **Purdue Employee Discount** – GERI campers whose parents or grandparents are employed by Purdue University will receive the following discounts*:
Comet - \$75.00 discount per session
Star and Pulsar - \$150.00 discount per session
- **Siblings Discount** – Siblings who attend the same summer each receive the following discounts*:
Comet - \$75.00 discount per session
Star and Pulsar - \$150.00 discount per session
*Campers who qualify for more than one discount may only receive one discounted offer. They may take the greater of those they qualify for. This includes the multiple-camp discount mentioned under the cost of each camp.
- **New! Early Bird Discount** – Those who register between February 1st, 2017 and April 30th, 2017 will receive an early bird discount of \$100 off.
- **Payment** – Payment in full, is due June 1. Payments can be made via check, money order, VISA, MasterCard, and Discover. No cash will be accepted. *We cannot process your application until the tuition deposit of \$100 is received. Attendance at camp may be denied if payment is not received in full by the first day of camp.*
- **Late Registrants** – Registrations received after June 1 must be paid in full at the time of application.
- **Refunds** – Students who withdraw prior to two weeks before the program begins will receive a refund equal to any paid tuition less the \$100 deposit. No refunds will be made for failure to attend camp without two-week written notice prior to the start of camp.
- **Financial Assistance** – GERI provides a limited number of partial scholarships to students with financial need. To be considered for financial aid, a student must submit a complete application (including the financial aid section with documentation of financial need) and meet academic eligibility criteria. Scholarships are awarded on a first-come, first-served basis. Applications for financial aid will not be considered before a complete application is submitted and program eligibility is established. Because funds are limited and the demand for financial assistance exceeds our resources, we strongly recommend submitting an application as early as possible. Qualifying for financial aid in a previous program does not guarantee aid in subsequent programs.

Travel to Purdue University

- **By Car** – West Lafayette is just off I-65 between Indianapolis and Chicago. See our Web site for detailed directions.
- **By Plane** – Fly into the Indianapolis International Airport. Check with your airline for their policy regarding unaccompanied minors. Shuttle service to Purdue University is offered by Lafayette Limo (www.lafayettelimo.com, 765-497-3828) for \$50, round trip. GERI offers airport transportation for a fee of \$70, round trip, payable when the application and deposit are submitted. **Please indicate if you need picked up at the Indianapolis airport in the "Application Fees" section of this form.** E-mail geri@purdue.edu at least one month prior to your program's start date to confirm arrangements.

If you are flying into an airport other than the Indianapolis International Airport, you will be responsible for making your own transportation arrangements to and from Purdue University. Lafayette Limo (see above) has service from O'Hare Airport in Chicago.

International Students

International student groups or individual students attending this two-week educational seminar may be eligible to do so with a B status visa waiver by showing their invitation letter upon entry into the United States. To learn more about this program, or if you are not sure whether your country is eligible for participation, please visit <http://travel.state.gov/content/visas/en.html>

Daily Schedule

7-8:30 a.m.	Breakfast
8:30-11:30	Morning class
11:30-1 p.m.	Lunch
1-4	Afternoon class
4-5	Recreational activities/free time/study time
5-6	Dinner
6-7	Meet with Small Groups
7-9	Activity sessions
9-11	Free/study time, group activities
11	Lights out/bed check (midnight on weekend)

geri@purdue.edu

(765) 494-7243

www.purdue.edu/geri

Purdue Gifted Education
Resource Institute



ADMISSION requirements



GERI SUMMER CAMPS application

I am applying for the following program (choose one):

- COMET - (for those who have completed grade 5 or 6) SN17782
- STAR - (for those who have completed grade 7 or 8) SN17784
- PULSAR - (for those who have completed grade 9, 10, 11, or 12) SN17786

Registration opens 2/1/2017. NEW! Use our online application for faster registration! Go to www.purdue.edu/geri for the registration link.

In order to be considered for your chosen program, you must complete both sides of this application and return along with:
 (1) Student essay or alternate media; (2) Two of the academic eligibility documents; (3) \$100 deposit; (4) \$70 transportation fee, if applicable (5) Liability Waiver (6) Student Medical Information Form
 GERI reserves the right to cancel programs at any time. Purdue University is not responsible for costs incurred due to cancellation.

Purdue is committed to making its programs accessible to individuals with disabilities. If you require an accommodation or special assistance for this program due to a disability, please contact us at (765) 494-2758.

GERI Summer Camps are designed for talented students who have demonstrated an ability to succeed academically or artistically and are motivated to strive for additional challenges.

www.purdue.edu/geri

Side 1

Applicant Information

Name _____
Last First Middle Initial

Date of Birth _____

Ethnicity (optional/check one)

<input type="checkbox"/> Native American/Alaskan Native	<input type="checkbox"/> Multi-Racial	<input type="checkbox"/> Pacific Islander
<input type="checkbox"/> Caucasian, Non-Hispanic	<input type="checkbox"/> Hispanic	<input type="checkbox"/> Asian
	<input type="checkbox"/> African-American, Non-Hispanic	<input type="checkbox"/> Other

Gender _____ Grade 2016-17 _____ Home Phone (_____) _____

Mailing Address _____

City _____ State _____ ZIP _____

Check all that apply:

- I have participated in a previous session of the summer residential programs at Purdue.
- I am applying for financial aid. (To be considered for aid, you must also return the Financial Aid Application.)
- I do not give permission for my photo or image to be included in the GERI yearbook or be used for publicity purposes.
- I am referring a friend. Name of friend _____

Parent/Legal Guardian Information

Parent/Legal Guardian Name _____

Work Phone (_____) _____ Cell (_____) _____

Parent/Legal Guardian Name _____

Work Phone (_____) _____ Cell (_____) _____

E-mail Address required _____

Not all parents have the means to send their children to GERI summer camp. Your monetary donation will help us offer scholarships to qualified children with financial need. Please consider sponsoring another camper when you register your son or daughter. Sponsorships are not tax-deductible but can be paid at the time of registration. If you would like to make a tax-deductible donation to GERI camps instead, please use the following link: Giving.Purdue.edu/GERI. Thank you!

I would like to sponsor another GERI camper in the amount of:

- | | |
|---|--|
| <input type="checkbox"/> \$50 | <input type="checkbox"/> One half a Star/Pulsar Registration (\$1200.00) |
| <input type="checkbox"/> \$100 | <input type="checkbox"/> One Star/Pulsar Registration (\$2400.00) |
| <input type="checkbox"/> One half a Comet Registration (\$600.00) | <input type="checkbox"/> One Comet Registration (\$1200.00) |
| <input type="checkbox"/> One Comet Registration (\$1200.00) | <input type="checkbox"/> Other (please specify): \$ _____ |

Return to:

GERI Summer Camps
 Purdue University
 Beering Hall, Room 5178
 100 North University Street
 West Lafayette, IN 47907-2098

Phone: (765) 494-7243
 Fax: (765) 496-2706

Please indicate below how you heard (found out) about the GERI program.

- Friend
- School Counselor
- Mailed to your home
- School Teacher
- GERI Web site
- Facebook
- Internet search such as Google
- Other (please specify): _____

An equal access/equal opportunity/affirmative action university

Returning Students

Register online at www.purdue.edu/geri or complete program application form on pages 11 - 12.

Returning students do not need to submit an essay or qualifying documentation. Simply complete the program application form and send it along with payment.

New Students

1. Register online at www.purdue.edu/geri or complete program application form on pages 11 - 12.

2. A one- to two-page essay or alternative media (such as a Web site, PowerPoint presentation, or art portfolio) statement that addresses your desire and motivation to participate in the Summer Residential program. Use the following questions as guidelines:

1. Why did you select the class(es) you have chosen?
2. In what ways do you think you will benefit from the program?
3. Why do you want an academic and/or artistic challenge?
4. If accepted, what will you contribute to the success of the program you attend?

3. Please provide ONLY TWO of the following documents:

- Student grade transcript showing a GPA of 3.5/4.0 (B+) in the talent area related to the applicant's choice of GERI class(es). Grades may be from the most recent year or cumulative.
- Individual or group intelligence test results with a minimum score of 120. Please submit results from the test company or school.
- National or state achievement or aptitude test results at or above the 90th percentile in a specific area of study. These tests must provide comparison scores and percentile rankings, not percentages correct. Examples include ITBS, I-STEP, CAT, MAT8, Midwest Talent Search, SAT, PSAT, ACT, or PLAN tests. Please submit test reports.
- Recommendation letter from a teacher or mentor in the talent area. This letter must address specific examples of the student's performance, experiences, and potential in the talent area of the class(es) he or she has selected.
- Documentation of involvement in the talent area. Such documentation can include awards, certificates, service, or recognition letters documenting involvement.



GERI Summer Camps application

Side 2

Course Preferences

Please follow these instructions carefully:

1. Check the box next to each Summer Camp session you plan to attend.

2. Mark your 1st, 2nd, 3rd choices in the blank next to the class name (1 = first choice, 2 = second choice, etc.). If you plan to attend multiple sessions (e.g., Star I and Star II), list a first, second, and third choice for each session you plan to attend.

*** THIS COURSE CHARGES AN ADDITIONAL SUPPLY FEE NOT INCLUDED IN THE COST OF TUITION. PLEASE REFER TO THE COURSE DESCRIPTION FOR THE EXACT AMOUNT.**

Transportation Fee:

If you are requesting GERI transportation to and from the airport, an additional fee of \$70 is due when the application and \$100 deposit are submitted. Please indicate if you need picked up at the airport in the "Application Fees" section of this form.

Before sending:

Have you included the following required items (see page 10):

1. Completed application
2. Student essay or alternate media
3. Two of the academic eligibility documents
4. \$100 deposit
5. \$70 transportation fee, if applicable.
6. Medical and Liability Waiver Forms

Return to:

GERI Summer Camps
Purdue University
Beering Hall, Room 5178
100 North University Street
West Lafayette, IN 47907-2098

Phone: (765) 494-7243

Fax: (765) 496-2706

Application Fees

Tuition \$ _____
 Supply Fees, if applicable \$ _____
 Transportation (check appropriate box at right) \$ _____
 Contribution \$ _____
Total \$ _____
 Deposit \$ _____
 Balance Due \$ _____

Registration may be cancelled if payment is not received in full by June 1.

Payment Method Payment in full is due June 1.

Enclosed is a check made payable to Purdue University. Please charge full amount or deposit only to my: VISA MasterCard Discover American Express

Credit Card Number _____ Expiration Date _____

Printed Name _____ Signature _____

COMET–SN17782 (completed grade 5 or 6)

Comet I, July 2-July 8 Commuter (\$900.00)

Comet I, July 2-July 8 Resident (\$1,200.00)

- _____ Building Bridges
- _____ CSI Investigation- K. Simms
- _____ Insect: Friend or Foe?
- _____ The Liquid Earth Below
- _____ Robotec: Bytes & 'Bots
- _____ Spinning Stories and Plotting Plays
- _____ Your Future in Bioengineering

Comet II, July 9-July 15 Commuter (\$900.00)

Comet II, July 9-July 15 Resident (\$1,200.00)

- _____ Building Bridges
- _____ Circuitry Art
- _____ CSI Investigation
- _____ Entomologists in Progress
- _____ A Horse of a Different Color
- _____ The Game of Business
- _____ Spinning Stories and Plotting Plays
- _____ 3D Geometric Design in Math

STAR–SN17784 (completed grade 7 or 8)

Star I, July 2-July 15 (\$2,400.00)

Morning

- _____ Ferroequinology
- _____ Innovation Conception to Completion
- _____ It's All Greek to Me
- _____ Fluency Fastpass
- _____ Medical Mysteries and Maladies
- _____ Rocket Science! A Trip to Mars
- _____ Serious Gaming in the Classroom
- _____ Wordsmithing
- _____ Vet med

Afternoon

- _____ Blast off: An Exploration into Astronomy!
- _____ Let's Talk Italiano!
- _____ Machines and Bridges
- _____ Poetry: Early, Modern, and Beyond!
- _____ Phantastic Physics
- _____ STEAM LABS™
- _____ Toy Design
- _____ Videography and Photojournalism

Star II, July 16-July 29 (\$2,400.00)

Morning

- _____ Digital Journalism
- _____ Let's Talk Italiano!
- _____ Lights, Curtain, Action!
- _____ Magnetism: The Invisible Force
- _____ Phantastic Physics
- _____ Serious Gaming in the Classroom
- _____ Wizards Aliens, and Starships

Afternoon

- _____ Around the World in Writing
- _____ Building bridges
- _____ A Horse of a Different Color
- _____ Ferroequinology
- _____ Fun with Programming
- _____ Myth Busting
- _____ Medical Mysteries and Maladies
- _____ Videography and Photojournalism

PULSAR–SN17786 (completed grade 9, 10, 11, or 12)

Pulsar I, July 2-July 15 (\$2,400.00)

Morning

- _____ Biomedical Instrumentation
- _____ English as a Social Science
- _____ Greenwich Village, 1913: Suffrage, Labor, and the New Woman
- _____ Poetry: Early, Modern, and Beyond!
- _____ Programming and Computational Thinking
- _____ Reading the body: Medicine in the Ancient World
- _____ STEAM LABS
- _____ Social Simulation
- _____ Why things Break: The Science of Material Failure

Afternoon

- _____ Active Exercise Science
- _____ Bloody Bits of Shakespeare
- _____ Discovering Scientific Laws & Concepts through Experimentation
- _____ Environmental Justice for All
- _____ Experiments in Fluids
- _____ Global Politics
- _____ Sustainable Food Production Systems
- _____ The World of Music
- _____ Videography and Photojournalism
- _____ Wizards Aliens, and Starships

Pulsar II, July 16-July 29 (\$2,400.00)

Morning

- _____ Stand Out! The All-Important Application Essay
- _____ Do Dead Fish Think: The Mathematics of the Mind
- _____ GERI Music Symphony*
- _____ Epic Heroes of Literature with Technology
- _____ Logic, Algorithms, & Proofs
- _____ Programming and Computation Thinking
- _____ Reading the body: Medicine in the Ancient World
- _____ Why things Break: The Science of Material Failure

Afternoon

- _____ Accelerated Introductory Italian
- _____ Discovering Scientific Laws & Concepts through Experimentation
- _____ Earth Data Hackathon
- _____ Exploring Multiculturalism and the Impact of Social Media
- _____ Global Politics
- _____ Magnetism: The Invisible Force
- _____ Videography and Photojournalism

* registrants for this class must contact green252@purdue.edu for instrument requests and availability

I will need to be picked up at the Indianapolis International Airport and have included the additional fee of \$70 with this the application and \$100 deposit.

I will make my own transportation arrangements.

Please see page 9 for more travel information.

FINANCIAL AID application

GERI provides limited funds for partial scholarships on a first-come, first-served basis based on eligibility. Please submit this form and proof of financial aid eligibility (e.g., a copy of your school's free/reduced lunch certification letter or a copy of your 2016 income tax return). Your financial aid request will not be reviewed without this documentation.

Child's Name _____ Birth Date _____

Parent/Guardian Name _____

Home Phone (____) _____ Work Phone (____) _____

All amounts should be the total for the 2016 calendar year.

1. Adjusted gross income _____
2. Taxable income _____
3. Total Social Security benefits for 2016 _____
4. Total AFDC and/or ADC for 2016 _____
5. Child support received for all children _____
6. Number of household members
 a. Yourself ___ b. Spouse ___ c. Dependents ___
 Total of a, b, and c _____

I certify that the information supplied above is accurate.

Parent/Legal Guardian Signature _____

Apply online upon registration or send your completed application form and eligibility documentation to:

GERI Summer Camps
Purdue University
Beering Hall, Room 5178
100 North University Street
West Lafayette, IN 47907-2098
Phone: (765) 494-7243
Fax: (765) 496-2706



GERI would like to thank all of our friends
and donors for their generosity!



JACK KENT COOKE
FOUNDATION

