

2016 Summer Programs

Join WPI for a fun and inspiring summer that will stretch your mind and body.

Summer at WPI is your chance to explore your interests, challenge yourself, and try something new. Make discoveries in science, engineering, or math. Try your hand at video game design, processing evidence at a crime scene, electronic music, or sharpen your athletic skills.

- Day and overnight programs for kids ages 7–17
- Technology programs in robotics, computing, math, music, and more
- Science and leadership advancement just for girls
- Large selection of sports camps for all ages
- Expert instruction by WPI faculty and coaches
- Partial tuition assistance will be available on a limited basis

Full details and registration at wpi.edu/+summer.
Register online beginning **February 1, 2016, at 9am.**

Online registration powered by active.com



WPI Summer Programs K-12



Want to check out the campus before your program starts?
Join us for TouchTomorrow on Saturday, June 11.

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WPI

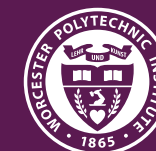
Worcester Polytechnic Institute
100 Institute Road
Worcester, MA 01609

Make the most of your summer!

STRETCH YOUR MIND AND BODY

wpi.edu/+summer

REGISTRATION OPENS FEBRUARY 1, 2016 AT 9AM



WPI
Summer 2016

PROGRAMS FOR KIDS AGES 7–17



SPARK...*your imagination*

SPARK programs enable students entering grades 4 through 8 to explore and engage in a variety of STEM subjects and activities. **The cost for each Spark program is \$595.**

JUNIOR ROBOTICS CHALLENGE

Are you an elementary school student new to robotics? Or a lower middle school student looking to master the fundamentals? Join us as we focus on designing, building, and programming autonomous robots. Using the LEGO Mindstorms platform, you'll work as part of a team to construct and program your own robot that will face off against others in a friendly competition on the final day of the program.

July 11-15

Audience: Entering grade 4

July 18-22

Audience: Entering grades 5-6

ADVANCED ROBOTICS

Are you already experienced with LEGO Mindstorms and ready for the next level? This program is designed to give upper middle school students a chance to explore more complex programming and construction techniques while interacting with our robotics faculty. This program is not intended for beginners. Please choose Session 1 or Session 2.

Session 1: July 11-15

Session 2: July 18-22

Audience: Entering grades 7-8

CRIME SCENE SCIENCE

Whodunit and why? The pressure is on as you join a Crime Scene Investigation (CSI) team. With our guidance, you will be responsible for securing a crime scene, interrogating witnesses, and collecting and processing evidence. Using forensics, you'll be hot on the trail of our suspects.

August 1-5

Audience: Entering grades 6-8

ENGINEERING TECHNOLOGY

Explore WPI's state-of-the-art laboratories and machine shop to learn about advanced automation techniques. You'll work hands-on with equipment, emphasizing safe manufacturing practices, to design and build components that will come together as a functional assembly by the end of the week.

July 11-15

Audience: Entering grades 7-8

MUSIC TECHNOLOGY

Combine your love of music and computers in this program focused on interactive music systems. Under the guidance of a music professor and classical guitarist, you will learn how to use computers to enhance digital recordings. You will write original compositions and learn about the analysis and performance of music in a small group environment. You'll also collaborate with students in our Video Games program. Limited to 10 students.

August 1-5

Audience: Entering grades 6-7

PHYSICSPALOOZA

Develop a new appreciation for the universe as you explore the wonders of physics through dynamic demos and hands-on activities. Participate in tug-of-war and rocket competitions, debunk science fiction films, and experiment with lights, lasers, and sound. Activities will take place indoors and outdoors.

August 1-5

Audience: Entering grades 6-7

VIDEO GAME DESIGN

Explore virtual reality by designing your own video games. In this exciting program, you will learn the foundations of video game level design, programming concepts, and interactive media as you build your own video games. You will participate in game development projects in 2D and 3D environments, allowing your ideas and creativity to run wild.

August 1-5

Audience: Entering grades 6-7

WOMEN IN SCIENCE

Are you interested in learning more about a career path in engineering, medicine, math, or science? Join this survey program to experience hands-on workshops in various STEM disciplines, presented by female role models including WPI faculty, graduate students, and industry professionals.

July 18-22

Audience: Girls entering grades 5-7

Day programs run from 9am to 4pm.
All day programs include lunch.

See wpi.edu/+summer for full details.
Register online beginning
February 1 at 9am.

IGNITE...*your curiosity*

Are you an 8th or 9th grader seeking a more challenging program of study? Ignite is designed as a stepping stone between our Spark programs for younger students and our Launch high school program. This program offers students the chance to explore more complex topics within a subject with an older age group.

Choose from one of the following fields of study:

Engineering Technology

Focus on advanced automation techniques in our state-of-the-art manufacturing labs, where you will design and build your own components and go home with a working assembly.

Music Technology

Through project-oriented instruction in our state-of-the-art music lab, students will learn to compose, perform and record their music using interactive music software instead of traditional instrumentation. In addition to their own original pieces, students will have the opportunity to collaborate with each other.

Physics

Investigate the world of modern physics through a combination of lectures, audio-visual presentations, and hands-on activities with our Physics faculty and graduate students.

Video Game Design

Explore game development in both 2D and advanced 3D environments, exploring more advanced interactive design techniques.

July 25-29

Cost: \$625

Audience: Entering grades 8-9

LAUNCH...*your passion*

Launch is a learning and research opportunity for students entering freshman and sophomore years of high school. **Participants may choose to attend Launch as a commuter or to spend the week on campus in the overnight program.**

You'll spend your days focusing on current problems and challenges in one of the following fields of your choice:

- ▶ Biology
- ▶ Chemistry/Biochemistry
- ▶ Computer Science
- ▶ Engineering Technology
- ▶ Interactive Media and Game Design
- ▶ Robotics (VEX)

You will work with WPI faculty, current WPI students, and classmates using state-of-the-art experimental, analytical, and computer technology to complete projects and assemble findings.

Commuter participants should arrive each day by 9:00 am and must be picked up no later than 5:00 pm. Lunch is included each day. Residential participants stay in secure WPI residence halls and dine in the main dining hall, providing a true college experience. All meals are provided for residential students.

Program assistants (WPI undergraduate students) stay with overnight program participants from the end of the academic day until the start of the program the next morning. Participants will attend staff supervised evening activities for an enjoyable, immersive campus experience.

Visit wpi.edu/+launch for full course descriptions and additional program information.

August 8-12, day

Cost: \$695

August 7-12, overnight

Cost: \$1,095

Audience: Entering grades 9-10

FRONTIERS...*college immersion*

Frontiers challenges soon-to-be high school juniors and seniors to explore the outer limits of knowledge in science, technology, engineering, and mathematics (STEM). You will learn from outstanding professors and graduate students while using state-of-the-art experimental, analytical, and computer technology facilities. Attend one or both sessions to immerse yourself in laboratory techniques and unsolved problems across a variety of engineering and science disciplines. Evening activities and interaction with WPI students and faculty ensure your stay at WPI is more than just an academic experience.

You will focus on one STEM discipline, and as a complement, enroll in a humanities and arts workshop.

Session I: July 10-22

Session II: July 24-August 5

Cost: \$2,795 for Sessions I or II; \$4,695 for both sessions

Application Deadline: April 30**

Audience: Entering grades 11-12

PATHWAYS...*for girls*

CAMP REACH

Recipient of the Presidential Award for Excellence in STEM Mentoring.

Are you a girl entering 7th grade? Spend two weeks on campus immersed in discovery and hands-on engineering to change the way the world works. You will work in a team with a community "customer" to create a plan for solving a real problem—emphasizing the social context of engineering design. Camp Reach stays connected to participants through follow-up programs throughout their school year.

July 24-August 5, overnight

Cost: \$1,295

Audience: Girls entering grade 7

Application Deadline: April 15**

LEADERSHIP ACADEMY FOR YOUNG WOMEN

Follow in the footsteps of inspirational women who've come before you. Develop leadership, presentation, and project management skills through fun activities such as mock political campaigns and performance art. Learn from strong female leaders and engage in hands-on learning as you build confidence and creativity. A variety of evening activities will ensure your experience showcases all that WPI campus has to offer.

July 24-29, overnight

Cost: \$1,095

Audience: Girls entering grades 8-10

Application Deadline: April 15**

***These programs require interested students to submit an application, and in some cases, other documentation. Submission of an application does not represent acceptance. Participants will be notified of their status of acceptance.*

SPORTS...*for active minds*

Sports Camps run 9am-4pm unless noted otherwise. Day camps include lunch and an optional swim.

GIRLS BASKETBALL CAMP

Improve your basketball and teamwork skills in a fun and supportive environment. Participants at all levels are welcome, and daily activities include drills, lectures, team practice, and game play.

July 5-8 or July 18-21

Cost: \$250

Audience: Boys entering grades 2-11

COMPETITIVE SWIM CAMP

Spend the week mastering the fundamentals of competitive swimming. Each day focuses on a new competitive stroke, with the final day's work covering starts, turns, and transitions.

July 5-8

Cost: \$300

Audience: Entering grades 3-11

RECREATION CAMP

This program is designed for campers who want a day filled with fun, structured activities, and a chance to meet new friends. You will participate in a variety of sports, games, arts & crafts activities, and special events.

July 11-15

Cost: \$270

Audience: Entering grades 2-10

SOFTBALL CAMP

Improve your softball game and become a better teammate with expert instruction in a fun environment. Learn the facets and fundamentals of the game and gain a greater understanding of day-to-day plays, including hitting, throwing, fielding, pitching, catching, and base running.

July 11-15

Cost: \$270

Audience: Girls entering grades 2-11

ROWING CAMP

Held on Lake Quinsigamond, our rowing program offers instruction for high school athletes of all levels, from advanced skill development targeted toward competitive rowing to introduction of the basics. You will receive first-class instruction appropriate to your individual development within a positive and enjoyable environment.

July 11-16

Cost: \$475

Audience: Entering grades 8-12

Location: Donahue Rowing Center, Shrewsbury

BOYS BASKETBALL CAMP

Through high-quality instruction on fundamentals and team concepts, you will develop a deeper understanding of the game of basketball and refine your athletic skills. Daily activities include drills, lectures, team practice, and game play.

July 5-8 or July 18-21

Cost: \$250

Audience: Boys entering grades 2-11

FOOTBALL SKILLS CLINIC

Whether you are just starting out or preparing for high school pre-season, Pop Warner, or American Youth Football, WPI's football camp will teach you the game of football the Engineers Way. The nightly schedule includes position-specific training, offensively and defensively, as well as speed, quickness, and agility training.

July 18-21, 5pm -8pm

Cost: \$150

Audience: Boys entering grades 2-11

CO-ED SOCCER CAMP

Learn from leading college and high school coaches across the region as you join with players of all levels to improve your soccer skills in a positive and enjoyable atmosphere. Daily training includes practice of individual skills, small group tactics, group competition, and games.

July 25-29

Cost: \$270

Audience: Entering grades 2-11

BASEBALL CAMP

Learn the fundamentals of baseball or advance your game in a program that provides first-rate instruction for players of all levels. Daily activities incorporate conditioning and hands-on instruction in all areas of hitting, throwing, fielding, and strategy, with scrimmages designed to improve individual skills.

August 1-5

Cost: \$270

Audience: Boys entering grades 2-11

GIRLS VOLLEYBALL CAMP

Designed for players of all abilities, this camp will provide you with a solid foundation in the individual skills and team concepts you need to progress to the next level.

August 8-12

Cost: \$270

Audience: Girls entering grades 6-12



SUMMER UNDERGRADUATE CLASSES

For college and high-achieving high school students looking to improve their academic standing or accelerate their graduation, WPI offers summer undergraduate classes, online and on campus, at a discounted tuition rate. For more information, visit wpi.edu/+summersession or call 508-831-4132.

