Engineering Summer Program
IMAGINE the opportunity to think like an engineer, take college-level courses, impact society—and even play catch at one of college football’s loudest stadiums, all while living on one of the most beautiful campuses in the country.

The University of Wisconsin-Madison Engineering Summer Program (ESP) allows you to do all of that and more. ESP is a residential program for rising high school juniors and seniors and is geared toward underrepresented students interested in engineering fields. You will live in UW-Madison residence halls and participate in college-level classes, industry tours, college preparation activities and social events—and enjoy everything that Madison, Wisconsin, has to offer. ESP will help prepare you for the personal, academic and social aspects of college life.

Have you always wanted to make a difference? Are you wondering what college is like? Do you want to learn about engineering fields? Are you looking for opportunities to pursue high-level math and science? Then come join us at ESP!
ESP participants have a wide array of socioeconomic and cultural backgrounds.  

**3.75**  
ESP participants’ average unweighted GPA.  

**15**  
The number of states and U.S. territories from which the recent ESP participants came.  

 Arkansas  
 Arizona  
 California  
 Colorado  
 Georgia  
 Illinois  
 Maryland  
 New Jersey  
 Ohio  
 Texas  
 West Virginia  
 Wisconsin  
 Puerto Rico  
 Washington, D.C.  

**20-30**  
Number of students who participate in the ESP program each summer.    

**100**  
Percentage of the 2013 ESP participants who attended a four-year college.  
*(Half went to UW-Madison!)*
Not your average summer program

In the Engineering Summer Program you will have the opportunity to take college-level classes and meet world-renowned UW-Madison professors. In fact, our low student-to-instructor ratio means you will get one-on-one time with every professor.

As an ESP participant, you will take:
- Pre-calculus or calculus
- Chemistry
- Physics
- Technical communication
- Introduction to engineering, complete with an innovative hands-on design project

While this might seem like summer school, trust us: the experiences you will have and the memories you will make through ESP extend way beyond just attending class.

“Working with ESP students has been an extremely rewarding experience. Almost every student I’ve had in my three years with the program was highly motivated and enthusiastic, and worked very hard during the program (and after) to succeed. When I catch up with former ESP students around campus, it becomes clear that they are continuing to apply their energy and drive to accomplish great things. Working with such students is the dream of every educator; in an ideal world, these students would populate every classroom that I walk into.”

—Aaron Peterson, ESP instructor
UW-Madison

#4
in patents among all universities

UW-Madison

#28
in worldwide reputation

UW-Madison

#13
among the top public research universities
One summer, ESP students built stand-up paddleboards from start to finish in their Introduction to Engineering course. They combined what they learned in their math, chemistry and physics courses and successfully made stand-up paddleboards—which they then tested on the lake!
NAME: Caleb Caldwell
HOMETOWN: Woodstock, Georgia

Before ESP, Caleb had never been to Wisconsin. In fact, the native of Woodstock, Georgia, had never considered attending UW-Madison and had little knowledge of the wide variety of disciplines within engineering. ESP changed his perspective.

Through the industry tours he attended at businesses such as GE Healthcare, he was able to see others in careers he also could pursue. And the tours confirmed what he had always liked about engineering: the ability to use what he learned in school to solve real-world problems. Caleb’s work building a paddleboard in his ESP introduction to engineering course helped him see that he could use the innovative mindset he developed at ESP on future projects, while classes such as calculus made him excited to return to high school because he knew he would be well ahead.

Most of all, he enjoyed spending time with the diverse group of students who participated in ESP. He enjoyed doing everything from homework to playing basketball at the gym with his peers—and even before the program ended, Caleb already could see himself attending UW-Madison.
DURING ESP, you will have a chance to tour some of the leading companies in technology and engineering. You will be able to apply what you have learned in the classroom and make real-world connections in the field of engineering.

In the past, ESP students have toured companies that include Rockwell Automation, GE Healthcare, Design Concepts and Epic Systems, a healthcare software company founded by a UW-Madison alumnus.

THINK BIG!

Madison, Wisconsin, is ranked:

#5 U.S. city for high tech jobs

#7 Most innovative city nationwide
Students visit the GE Healthcare Magnetic Resonance Center on an industry tour.
Enhance your life

In the Engineering Summer Program, you will participate in special activities throughout the Madison area. Through these activities, you will learn important communication, team-building and leadership skills, which will help you not only in your work, but also in everyday life. Among these diverse activities, ESP participants have toured the UW-Madison nuclear reactor, learned about the cultural richness and significance of the UW-Madison campus, and challenged themselves on a high ropes course.

"ESP was one of the best summers I ever had and I’ll never forget all of the times we shared in the dorms, and on industry tours and field trips. It was the perfect balance of work and play."

—Deja Rush, past ESP participant
NAME: Lorenzo Warrington
HOMETOWN: Keshena, Wisconsin

Lorenzo Washington has been experiencing science for years, from making solar-powered cars to developing a passion for environmental science. He became determined to study engineering while still in the sixth grade.

Lorenzo credits his father with inspiring him to keep pursuing science and engineering programs. Lorenzo joined ESP not long after his father celebrated earning his master’s of business administration (MBA) and wants to help set a strong example for his four younger siblings. His experience with UW-Madison outreach programs taught him a great deal about science and engineering, but also about how to set himself up for a strong college career. Lorenzo also recently participated in the Sustainable Development Institute run by the College of the Menominee Nation. The program, including a trip to a refurbished forest in Illinois, brought him to an intersection of environment, science and culture.

As a Menominee, Lorenzo takes pride in his heritage as a steward of the earth and is concerned about humanity’s impact on the environment. Now, he hopes to honor that background by pursuing a career as an environmental engineer.

“If I became an environmental engineer, I could make a change in the world.”
During ESP, you will experience what life is like on a college campus. In addition to attending university classes taught by UW-Madison professors, staff and graduate students, you will eat in our campus dining halls and live in Dejope Hall (see page 14), one of our most innovative residence halls.

Once a week, you’ll take part in a college preparation night. These nights will help you write college application essays, explore engineering majors, learn about the UW-Madison College of Engineering, and more.

**Mentoring:** Throughout your entire ESP experience, you will be accompanied by counselors who are undergraduate students at UW-Madison. These counselors—some of whom are ESP alumni themselves—are on call every day of the program to ensure your success and safety. They also will provide you with mentoring opportunities and academic tutoring.

“I grew up as a first-generation student with parents who had little to none of any kind of education. My parents knew very little of what opportunities college could offer, let alone the process of getting into college. During my high school career, I was fortunate enough to be a part of pre-college programs that helped prepare me for college. I spent summers away from home for six weeks, like ESP, where I met students and staff who inspired, mentored and influenced my career choices. I wouldn’t be where I am without their help and guidance. Because of this, my motivation to serve is to give back what I had been given. I want to influence and inspire students the way I had been.”

—Deanna Yang, ESP lead counselor
Overlooking beautiful Lake Mendota, Dejope Hall features:

- Spacious carpeted and air-conditioned double rooms
- A convenience store
- Coffee and ice cream shop, with ice cream made right on campus
- Four Lakes Market, a dining hall with eight dining venues and food ranging from sushi to cheeseburgers
- An outdoor fire circle
- A lakeside terrace
- Key-card access required to enter the building at certain hours
- Activated and monitored door alarms
Melissa, an avid soccer player, wants to be part of a generation filled with cutting-edge innovations and life-changing technologies. She wants to be an engineer so she can affect how people use tools and innovations.

The Engineering Summer Program helped Melissa make connections with engineers working in the field and gave her the chance to talk with them about their experiences in engineering. As a result, she learned about several engineering careers—many of which she never even knew existed.

Through ESP, Melissa was able to get a feel for the college experience. And while she appreciated the opportunities ESP gave her to take college-level classes and explore career paths, her favorite part of the program was the people in it. She loved meeting people from many backgrounds and learning about the different ideas they had.
Live in one of the happiest cities in America

Madison, Wisconsin, is located between beautiful Lake Mendota and Lake Monona—and water-sports opportunities abound. State Street, a funky pedestrian mall complete with unique shops and restaurants, connects campus to the Wisconsin State Capitol and, on Saturdays, the Dane County Farmers’ Market. Right on campus, next to Lake Mendota, is one of the most beautiful, entertaining places Madison has to offer: the Memorial Union Terrace. You can sit by the lake in one of the Terrace’s iconic sunburst chairs, watch the sunset over the docks, listen to live music, people-watch, and maybe eat a brat or two.

During ESP, you will participate in watersports on one of the Madison lakes, sample the famous fried cheese at the farmers’ market, have a bonfire at scenic Picnic Point, and visit the home to Badger football: Camp Randall Stadium.

WEATHER: Average high summer temperatures

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<th>JUNE</th>
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<td>79°</td>
<td>83°</td>
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#1 Best city for young adults

#3 Best city for young professionals

#1 Greenest city in America

Best college sports town and best college football tradition

#2 Best city for recreational activities

One of the best U.S. cities for working women

#4 Brainiest city

One of the best farmers’ markets in America

#4 Best biking city

One of the best places for food carts in the summer
Madtown Talk

- **Jump around**—What happens between the third and fourth quarter of Badger home football games, when more than 80,000 people in the stands rock the stadium to the now-famous House of Pain song.

- **Bubbler**—What Wisconsinites call a water fountain

- **Bucky Badger**—The official University of Wisconsin–Madison mascot
NAME: Alan Nguyen  
HOMETOWN: Chicago, Illinois

Alan has been to his fair share of summer programs. He says The Engineering Summer Program is by far the greatest experience he’s ever had. Challenging himself to learn calculus in six weeks, meeting similarly passionate students from all over the country, and finding the courage to get on a stand-up paddleboard were among the experiences that made Alan’s time at ESP so memorable. He also enjoyed the regular lectures from UW-Madison engineering students who spoke about what they do.

His passion to pursue the STEM fields is clear and he has spent much of high school trying to decide what kind of major in engineering would fit him best. ESP helped him narrow his options and focus his ideas for a career path.

While at ESP, Alan felt like he was actually in college and enjoyed spending time with other participants, doing things like playing foosball and studying. Now he is considering majoring in engineering physics.
“In ESP, I was able to listen to the experiences of my residential counselors who were engineering majors and realized that pursuing a career in engineering would not be as difficult at an institution like UW-Madison. ... ESP gave me the opportunity to experience this and much more, enabling me to communicate with people like me who share my dreams.”

—Ivette Cruz, past ESP participant