

7/14-7/18/08 1-4PM

NEW THIS YEAR!

"A Combined Approach for Teaching Elementary Mathematics" Educators \$150

Visualization for the right, pencils for the left, an approach using both textbooks and LEGO Robotics to reach all learning styles of students. Introducing science and engineering into math class to demonstrate the importance of mathematics to the student. Lastly, exercises to develop teamwork concepts will be presented in this workshop.

7/21-7/25/08 9AM-Noon

"Robotics Engineering" Ages 8-12 \$150

Students will learn about the ever growing world of robots through designing, building and programming LEGO Mindstorms RCX robots. This course is designed for everyone who loves robots and building!

7/21-7/25/08 1-4PM

"Robotics Engineering with the NXT" Ages 12-18 \$150

Students will learn about the engaging world of robotics implementing the design process, building, and programming the LEGO Mindstorms NXT robots. This course is designed for robotic enthusiasts of all ages.

Enrollment Form

Name: _____ Age: _____ Gender: _____

School/District: _____

Parent (if minor) _____ Phone: _____

Email: _____

Address: _____

City _____ State _____ Zip Code _____

Please enroll in the following course:

Date of Course _____ Cost _____

One form per person, please. Please write a check for the total amount to "Marquette University College of Engineering" and mail to:

**Marquette University
College of Engineering, Room 210
PO Box 1881, Milwaukee, WI 53210**

"I agree to allow my child participate in the Summer Academy at Marquette University. I will talk to my child about the importance of good & safe behavior, the virtues of being a good team player, and the significance of following the directives of the instructors. I assume responsibility for the actions of my child. At times the media, the instructors, or associates of Marquette University may choose to report on course activities. As part of these reports I will allow my son/daughter to be interviewed and/or photographed during supervised course activities."

Parent signature: _____ Date: _____

Marquette University
College of Engineering, 210
P.O. Box 1881
Milwaukee, WI 53201-1881

Phone: 414-288-6720
Fax: 414-288-2106
E-mail: engineering@marquette.edu

MARQUETTE



ENGINEERING

Engineering Education Outreach Programs

Marquette University

**Winter/Spring 2008
And**

**Summer 2008
Programs and Academies**

Engineering Education Outreach Team

Jon K. Jensen, Ph.D., Associate Dean, College of Engineering

Jack Samuelson, M.S., Science Consultant - S&S Educational Consulting

Erin Richardson, M.S., Faculty, College of Engineering

Lori Stempski, Administrative Assistant

Winter/Spring 2008

2/9/08 10AM-3PM

"NXT– The next generation of Mindstorms" Ages 12-18 \$60
Students will learn about the world of robots through designing, building, and programming LEGO Mindstorms NXT robots. This course is designed for everyone looking for an amazing time with robots!

3/1/08 10AM-3PM

"Robotics Engineering" Ages 8-12 \$60
Students will learn about the world of robots through designing, building, and programming LEGO Mindstorms RCX robots. This course is designed for robotic enthusiasts of all ages!

3/29/08 10AM-3PM

"Engineering is a Family Affair" Ages 6-12 \$90/pair
This program teams a parent and a child, who will work together to experience the fun, challenge, and excitement of engineering. Participants will perform hands-on problem solving activities in many engineering fields, including robotics. Each pair will receive an electric circuits kit to continue experimenting at home.

4/12/08 10AM-3PM

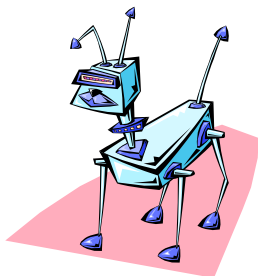
"Engineering for Young Women" Ages 13-18 \$60
Young women will work together to experience the fun, challenge, and excitement of engineering. Engineering will be presented as a positive force in improving the quality of life and as the "new helping profession." The female instructors will encourage participants to pursue the fun, exciting and ever changing career of engineering.

4/26/08 10AM-3PM

"Engineering for Educators" \$90
This course will help K-12 teachers infuse engineering concepts and activities into their lessons. Engineering is presented as a problem-solving process that can be incorporated into many subject areas. Participants will build pasta bridges, construct electric circuits, launch water rockets, build Mindstorms robots and MUCH MORE! Each participant will receive materials valued at over \$30.

5/3, 5/10, & 5/17/08 10AM-3PM

"Robotics Engineering Saturday Series" Ages 8-12 \$150
For three Saturdays in May, students will learn about the wonderful world of robotics through designing, building and programming LEGO Mindstorms RCX robots. This course is designed for all robotics lovers, regardless of experience!



Summer Academies 2008

6/16-6/20/08 9AM-Noon

"Robotics Engineering" Ages 8-12 \$150
Students will learn about the expanding world of robots through the design process, building, and programming of the LEGO Mindstorms RCX robots. This course is designed for everyone looking for an amazing time with robots!

6/16-6/20/08 1-4PM

"Robotics Engineering with the NXT" Ages 12-18 \$150
Students will learn about the ever changing world of robotics implementing the design process, building, and programming LEGO Mindstorms NXT robots. This course is designed for all robotics lovers, regardless of experience!

6/23-6/27/07 1-4PM

"Engineering for Young Women" Ages 13-18 \$150
Young women will work together to experience the fun, challenge, and excitement of engineering. Engineering will be presented as a positive force in improving the quality of life and as the "new helping profession." The female instructors will encourage participants to pursue the fun, exciting and ever changing career of engineering.

7/7-7/10/08 8AM-Noon

"Robotics for Educators" \$160
K-12 teachers will learn about the popular world of robotics using the design process, building, and programming of the LEGO Mindstorms RCX and NXT robots. Educators will also learn how to successfully integrate educational robots into their classroom or clubs at schools.

7/7-7/10/08 1-5PM

"CAD– Computer-Aided Design" **NEW THIS YEAR!** Ages 12-18 \$160
Students will learn the fundamentals of computer aided design utilizing "AutoCAD" software for 2-D drawing and "SolidWorks" software for 3-D modeling. CAD is widely used by architects, engineers, scientists and other professionals to design mechanical parts, autos, buildings, and even molecules. Students will exercise creativity and innovation.

7/8-7/9/08 9AM-5PM

"Shrinking, Stretching, Oozing and Bouncing– the World of Polymers" Ages 6-12 \$170
Students will be actively engaged in physical and inquiry science using plastics. They will also learn physics and chemistry principles using toys and bring home products made in class! This is sure to be a wonderful time for all participants!!

7/14-7/18/08 9AM-Noon

"Engineering for Young Minds" Ages 6-9 \$170
Students will learn basic engineering design principles as they build pasta bridges, K'Nex towers, balloon-powered cars, electrical circuits, robots and MUCH MORE! Each student will receive an electrical circuits kit to continue his or her investigations at home.