



## Junior Engineering Program for High School Students

UMaine, Orono

January 18, 2012-May 15 2012

Barrows Hall Room 130 3:00p.m.-5:00 p.m.

**MMSETS offers a Junior Engineering After School Program for High School Students in grades 9-12 on Wednesday afternoons, 3-5pm in Barrows Hall 130. Students interested in engineering or problem solving are invited to join the program.**

**The purpose of the program is to prepare students for the engineering curriculum. In the two hour weekly afternoon program, participating students are exposed to interesting projects and examples to prepare them to be future engineering students. We accomplish this with activities using fundamentals that build on basic skills and reflect on the flexibility to adapt to change in technology. Engineering is a widely varied field, and most engineering programs try to provide a broad foundation of problem solving skills. Practicing engineers may specialize in one particular area, but must adapt to new technologies and requirements over the course of a career. In the MMSETS Junior Engineering After School High School Program, we challenge students to approach and solve a wide variety of problems. The program is oriented to providing a foundation for entry into college-level engineering programs, although students who complete the program will be better prepared for nearly any science/technology oriented field.**

The MMSETS Junior Engineering High School Program focuses on engineering problem solving, but students fascinated by mathematical challenges may enjoy the program. **Specific areas will include:**

**Electrical Engineering**

**Mechanical Engineering**

**Dynamics**

**Structural Engineering**

**Power, Work and Energy in Engineering**

**Digital Circuits and Logic**

**Fluid Mechanics**

In a typical afternoon, we will pose problems to be discussed in class. There might be several smaller pieces to the problem or it might quickly generate thought or discussion. This does not mean that the full potential of the problem will quickly be exhausted: students may wish to return to the problem several times or analyze the resulting issues in detail.

Other complex problems may lead to detailed research and thinking around the topic. Often, problems will require students to do some research to find information elsewhere.

**For more information contact:** Eva Szillery at [evaszillery-mmsets@me.acadia.net](mailto:evaszillery-mmsets@me.acadia.net) or call 207 356 0207



**JUNIOR ENGINEERING PROGRAM FOR HIGH SCHOOL STUDENTS**

**FOR STUDENTS IN GRADES 9-12  
MIDDLE SCHOOL STUDENTS WITH RECOMMENDATION ARE CONSIDERED**

**AT THE UNIVERSITY OF MAINE (Orono)**

**January 18, 2012-May 15 2012**

**Barrows Hall Room 130 3:00p.m.-5:00 p.m**

<b>Student's name:</b>	
<b>Grade</b>	
<b>Address</b>	
<b>School Name</b>	
<b>Adult Contact</b>	
<b>Home Phone #</b>	
<b>Cell Phone #</b>	
<b>E-mail</b>	

**Registration is on a first-come, first-serve basis**

**Upon receipt of the registration, an Emergency Contact Information form and Code of Conduct are sent by e-mail.**