As you may know, I am a mechanical engineer.  

Bill Nye, “The Science Guy”

Calling all Sophomores and MET Juniors/Seniors!

CMU is phasing out the BS degree in Mechanical Engineering Technology (BSMET.) Effective with the 2014-2015 Program Sheet, CMU will be awarding a new BS degree in Applied Mechanical Engineering (BSAME). If you are currently working towards completion of the BSMET degree, we invite you to consider the BSAME degree. There will be two information sessions held this month to provide information and discuss the benefits and advantages of earning the new degree. Please try to attend one of these sessions. (You do not need to attend both; the same information will be presented at both sessions.) Sessions will be held in the AEC Conference Room on:

THURSDAY, January 22, at 12:15 pm
and
TUESDAY, January 27, at 12:15 pm

Inside This Edition:

◊ Support the CMU Engineering Club’s FSAE participation by ordering your new CMU Engineering shirt today! (order form on p. 2)
◊ FE Exam Review Schedule (p. 3)
◊ Summer Opportunities & Scholarships (pp. 4-5)

January 2015

IMPORTANT DATES:

SPRING 2015 Classes begin on
Tuesday, January 20

Thursday, January 22 OR
Tuesday, January 27: Information sessions for MET (and other interested) students to learn more about the new Applied Mechanical Engineering BS degree option and its benefits (AEC Conference Room)

March 23-27: SPRING BREAK

Friday, April 17: Orientation for incoming CU (Partnership) students

Friday, April 24: Sixth Annual CMU Student Showcase

Friday, May 8, 9:00 a.m.: CU-Boulder Engineering Recognition Ceremony (Coors Events Center, Boulder)

Saturday, May 9: CU-Boulder Commencement

May 11-14: FINALS Week

Saturday, May 16: CMU Commencement Ceremony (Stocker Stadium)
Get your new CMU Engineering T-Shirt or Sweatshirt today!

Name:

email address: ____________________________

Phone Number: __________________________

Note: All shirts have the same logo as the hoodie.

**Short Sleeve T-Shirt: $15**

Adult sizes only, Women’s cut also available (please specify)

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<thead>
<tr>
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**Hoodie Sweatshirt: $35**

Adult sizes only

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<td>Qty:</td>
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All proceeds benefit the CMU Engineering Club and their quest to compete in the 2015 Formula SAE events. Complete this form and turn it in (with payment) to Harriet at the AEC Front Desk (or to a member of the Engineering Club.)
**ARE YOU TAKING THE FE EXAM THIS SEMESTER?**

If you are registered for the FE Exam this spring, please take advantage of the FE Review Sessions offered each Thursday in the AEC Conference Room.

Here is the schedule for the semester:

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Topic(s)</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 29</td>
<td>10:00-11:00</td>
<td>Engr. Economics</td>
<td>Scott Kessler</td>
</tr>
<tr>
<td>Feb 5</td>
<td>11:00-12:00</td>
<td>Computers, Measurement, Controls</td>
<td>Francisco Castro</td>
</tr>
<tr>
<td>Feb 12</td>
<td>9:00-10:00</td>
<td>Math</td>
<td>Rick Ott</td>
</tr>
<tr>
<td>Feb 19</td>
<td>11:00-12:00</td>
<td>Statics</td>
<td>Farzad Taghaddosi</td>
</tr>
<tr>
<td>Feb 26</td>
<td>11:00-12:00</td>
<td>Strengths</td>
<td>Scott Bevill</td>
</tr>
<tr>
<td>Mar 5</td>
<td>11:00-12:00</td>
<td>Dynamics</td>
<td>Scott Bevill</td>
</tr>
<tr>
<td>Mar 12</td>
<td>11:00-12:00</td>
<td>Probability &amp; Statistics</td>
<td>Francisco Castro</td>
</tr>
<tr>
<td>Mar 19</td>
<td>10:00-11:00</td>
<td>Material Properties</td>
<td>Scott Kessler</td>
</tr>
<tr>
<td>Mar 26</td>
<td>Spring Break</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apr 2</td>
<td>10:00-11:00</td>
<td>Thermodynamics</td>
<td>Nathan McNeill</td>
</tr>
<tr>
<td>Apr 9</td>
<td>11:00-12:00</td>
<td>Fluid Mechanics</td>
<td>Tim Brower</td>
</tr>
<tr>
<td>Apr 16</td>
<td>11:00-12:00</td>
<td>Electricity &amp; Magnetism</td>
<td>Andy Affrunti</td>
</tr>
<tr>
<td>Apr 23</td>
<td>11:00-12:00</td>
<td>Heat Transfer</td>
<td>Farzad Taghaddosi</td>
</tr>
</tbody>
</table>

Keep in mind that if you take a tour through a hospital and look at every machine with an “on and off” switch that is brought into the service of diagnosing the human condition, that machine is based on principles of physics discovered by a physicist in a machine designed by an engineer.  
*Neil deGrasse Tyson*

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**Top Mechanical Toys of All Time**

In September 2014, ASME enlisted the aid of Barry Kudrowitz, who co-founded the Massachusetts Institute of Technology Toy Lab, and who is now an assistant professor at the University of Minnesota, to pick the best mechanical toys of all time. Here’s the list:

- Tops
- The Rubik’s Cube
- K’NEX
- Teddy Ruxpin
- RC (Radio-Controlled) Cars
- Transformers
- Frisbee

How many of these did you (or do you still) have?

See the article at: [https://www.asme.org/career-education/articles/k-12-grade/top-6-toys-all-time](https://www.asme.org/career-education/articles/k-12-grade/top-6-toys-all-time)
The **NEON Internship Program** is designed to provide qualified undergraduates with real-world summer work experience in their chosen field. Because NEON is an interdisciplinary organization, we accept students from a variety of disciplines (e.g., Science, Engineering, Computing). NEON interns are involved with a variety of projects, from helping to design sensor assemblies to testing sampling protocols and analyzing data. See our Internship [Opportunities](http://www.neoninc.org/learn-experience/internships) page for more information on this year’s projects, and our [How to Apply](http://www.neoninc.org/learn-experience/internships) page when you’re ready to apply ([Applications due February 16, 2015](http://www.neoninc.org/learn-experience/internships)). - See more at: [http://www.neoninc.org/learn-experience/internships](http://www.neoninc.org/learn-experience/internships)

NEON interns receive a competitive summer salary, housing, and travel to and from Boulder. Our program is designed to promote student success through mentoring, leadership training, communications workshops and various professional networking opportunities. We encourage applications from students who are members of groups underrepresented in the sciences and engineering, first generation to college students, and students who have limited internship opportunities at their home institutions. The 11-week program will run from May 18-July 31, 2015.

The **Olin College Summer Experiences in Education Research (SEER) Program** is an NSF-funded REU/RET program in engineering education research. For undergraduates, it’s a ten-week residential program on campus in suburban Boston, including research, education, and social activities. Stipends are provided to all participants, with housing, as well as travel and food allowances, provided to students.

For more information and to apply, visit: [reu.olin.edu](http://reu.olin.edu)

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**2015-NIST-SURF-01 Summer Undergraduate Research Fellowship (SURF) Program**

National Institute of Standards and Technology

NIST is soliciting applications from eligible colleges and universities in the U.S. and its territories, nominating undergraduate students to participate in the Summer Undergraduate Research Fellowship (SURF) Program. The SURF Program will provide research opportunities for undergraduate students to work with NIST scientists and engineers, to expose them to cutting-edge research, and to promote the pursuit of graduate degrees in science and engineering.


Applications are due **February 13, 2015**.

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**CMU Spring Career Fair is Coming!**

*University Center Ballroom*

**March 5, 2015 10:00 - 2:00**

**What?** A gathering of employers who have full and part time jobs! A great opportunity for students to talk to employers, submit a resume, and interview for a real job.
Check out these scholarship opportunities!

Log into MavZone and go to the Student Finance tab to access an all-in-one scholarship application for general and departmental scholarships. The scholarship application became available on December 1. **APPLICATION DEADLINE IS FEBRUARY 20.**

The **Colorado Environmental Management Society (CEMS)** is pleased to announce the publication of our 2015 scholarship application. Briefly, the eligibility rules for the 2015 CEMS Scholarship are:

- Students must be currently enrolled in and attending an undergraduate, graduate or law program at a Colorado university or college.
- Students must be studying engineering, geology, environmental sciences, law, or another field in which they may address environmental issues.
- Students must intend to work in an environmental field.

CEMS will award three (3) scholarships, each for $1,500. The applications are due on March 1, 2015. Additional information about the scholarship can be found on the CEMS website:


Recognizing the role education plays in the lives of its members, Grand Valley Power has established a strong scholarship program. The cornerstone of the program is a four-year renewable Jack Broughton – CMU Scholarship. Named for the cooperative’s long-time general manager, this four-year award, good for $1,000 per year, targets deserving students who choose to stay close to home and attend Grand Junction’s Colorado Mesa University. Broughton, holder of an engineering degree and a Masters of Business Administration, helped establish the CU/CMU Mechanical Engineering Program. To honor his legacy, the GVP Board of Directors awards this scholarship to the applicant who best exemplifies Jack’s practical, no-nonsense approach to getting things done, with preference given to applicants pursuing a mechanical engineering degree. For more information and to download an application, please visit [http://www.gvp.org/content/scholarships](http://www.gvp.org/content/scholarships)

**Raytheon Patriot Scholarship**

Student Veterans of America and Raytheon Integrated Defense Systems have partnered to provide two (2) $10,000 scholarships to student veterans pursuing an undergraduate or graduate degree at an accredited four-year college or university.

The 2015 Raytheon Patriot Scholarship application will open November 11, 2014 and remain **open until February 1, 2015** at 11:59 PM Eastern Standard Time. Student veterans must complete an online application, answer two (2) essay questions, attach the required documents, and have one letter of reference be submitted prior to the deadline to be considered.

**Eligibility**

All successful candidates must:

- Be entering their sophomore, junior or senior year of undergraduate study, or be enrolled in a graduate program for the 2015-2016 academic year
- Be attending full-time at an accredited four-year university in the United States
- **Be pursuing an engineering degree** or a degree in a closely related field.
- Demonstrate a commitment to and passion for their chosen field of study
- Demonstrate leadership and engagement in their community
- Be a current student veteran, as proven by a DD 214 and transcript
- Have received an honorable discharge, or be in good standing with his/her branch of service.

Faculty Advisors

The purpose of a faculty advisor is to assist in the process of degree completion. Students are required to have a faculty advisor's signature on their Program Sheet and other graduation paperwork.

Find Your Advisor

Advisor assignments can be found in MAVzone under the Student Academics tab. Students can view their Academic Profile in the top-center column by selecting the current term in the drop-down box at the bottom of the profile and clicking Go. This will cause the current program of study and advisor(s) to appear. Your Primary Faculty Advisor will be the first name listed. (Note: Dr. Brower is the secondary advisor for all Engineering students. He is the primary advisor only for students in the CU-Boulder BSME degree program.) You can click on the envelope icon by the advisor's name to email your advisor.

Engineering Faculty Advisors

We strongly urge all students to take advantage of the opportunity to plan their course sequence, review potential elective choices, and discuss issues of concern with their Primary Faculty Advisor. Please make an appointment when you need to see your advisor.

Contact information for Engineering Faculty Advisors is shown below:

<table>
<thead>
<tr>
<th>Name</th>
<th>Office</th>
<th>Office Phone</th>
<th>E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Scott Bevill</td>
<td>AEC 212</td>
<td>970.248.1459</td>
<td><a href="mailto:sbevill@coloradomesa.edu">sbevill@coloradomesa.edu</a></td>
</tr>
<tr>
<td>Dr. Timothy Brower</td>
<td>AEC 213</td>
<td>970.248.1662</td>
<td><a href="mailto:tbrower@coloradomesa.edu">tbrower@coloradomesa.edu</a></td>
</tr>
<tr>
<td>Dr. Francisco Castro</td>
<td>AEC 215</td>
<td>970.248.1564</td>
<td><a href="mailto:frcastro@coloradomesa.edu">frcastro@coloradomesa.edu</a></td>
</tr>
<tr>
<td>Dr. Scott Kessler</td>
<td>AEC 216</td>
<td>970.248.1673</td>
<td><a href="mailto:skessler@coloradomesa.edu">skessler@coloradomesa.edu</a></td>
</tr>
<tr>
<td>Dr. Nathan McNeill</td>
<td>AEC 206</td>
<td>970.248.1623</td>
<td><a href="mailto:nmcnell@coloradomesa.edu">nmcnell@coloradomesa.edu</a></td>
</tr>
<tr>
<td>Dr. Farzad Taghaddosi</td>
<td>AEC 125</td>
<td>970.248.1678</td>
<td><a href="mailto:ftaghaddosi@coloradomesa.edu">ftaghaddosi@coloradomesa.edu</a></td>
</tr>
</tbody>
</table>

You might be an engineering major if ...

- you suddenly wake up in the middle of the night and grab a calculator.
- it is sunny and 70 degrees outside, and you are working on a computer.
- you always do homework on Friday nights.
- you know how to integrate a chicken and can take the derivative of water.
- you think in "math."
- you've calculated that the World Series actually diverges.
- you hesitate to look at something because you don't want to break down its wave function.
- you have a pet named after a scientist.
- you laugh at jokes about mathematicians.
- you avoid doing anything because you don't want to contribute to the eventual heat-death of the universe.
- you consider ANY non-science course "easy."
- you'll assume that a "horse" is a "sphere" in order to make the math easier.
- you understood more than five of these indicators.