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Strategies for Recruiting Women into Technical Programs

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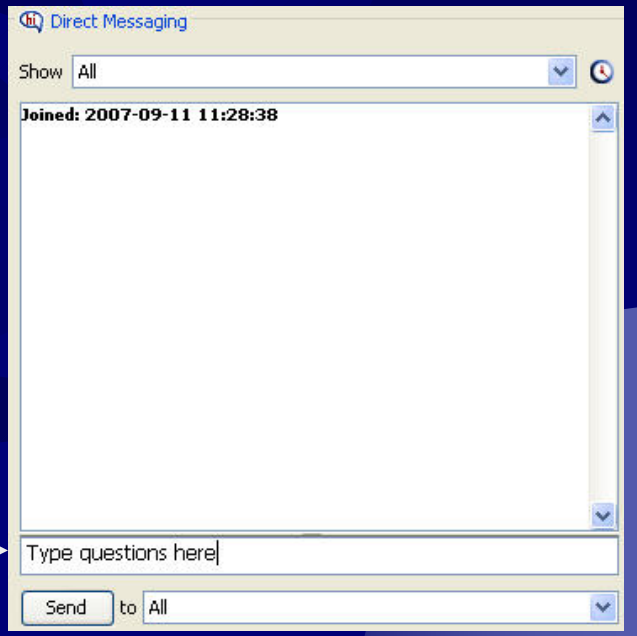
- If you are listening by phone, please mute your phone by pressing #5.
- If you have questions during the presentation, please submit them in the Chat Window.
- At the end of the session we will answer as many questions as we can. Please type your questions in the Chat Window.



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1 Participant

Direct Messaging

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NetWorks Webinar Presenters

Celeste Baine is the author of four books with her first one: Is There an Engineer Inside You? A Comprehensive Guide to Career Decisions in Engineering, and her newest one: Engineers Make a Difference: Motivating Students to Pursue an Engineering Education

She is now working the engineering curriculum writer for Pitsco's Academy of Engineering.

http://www.engineeringedu.com/

Strategies for Recruiting Women into Technology Programs

Celeste Baine

My Story

- Flower Power Mechanics
- Electronic Engineering Technology
- Biomedical Engineering
- Education

Statistics

- Engineering Technology enrollment in the Fall of 2007 was 9.2% Female
- Women were awarded 18.1% of all engineering bachelor's degrees in 2007.

Current Recruitment/Retention Solutions

1. Some colleges are increasing the degrees offered. Many have started programs in biomedical engineering, nanotechnology, sustainable engineering, security and other hot areas that are of interest to students.
2. Some schools have multiple articulation agreements with local colleges and universities.

More Current Strategies

3. Some have international programs.
4. Some offer a large variety of scholarships.
5. Some schools offer 2+2, 3+2, 3-2 etc. programs.

Solutions continued….

6. Some schools are adding more design and hands-on courses.
7. Some are adding summer camps for high school students to build the pipeline.
8. Many have Women in Engineering or Technology as well as Minority programs.
9. Many have work-study, co-op programs and internships. These direct ties to industry are very attractive for many students.

The Problem with Recruiting Women

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- Many women don’t understand what engineering and engineering technology is or what they do.
- Bright women have many choices.

Recruitment Strategies

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5. Broaden the outcome of the degree.

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5. Broaden the outcome of the degree.
6. Replicate programs that work.

#1 Women want to know that their career will help others, improve society and/or make a difference.

A great aspect of a technology or engineering education is that almost all roads can lead to careers that save the planet, feed the world, prevent disease and make life more meaningful, fun, etc.

Save the World Examples

It's all in how you present it:

- Electronics programs can lead to energy independence or careers that alleviate our dependence on foreign oil.

Save the World Examples

It's all in how you present it:

- Chemical technology can lead to careers fixing climate change.

Save the World Examples

It’s all in how you present it:

Mechanical programs can lead to careers in all of the above...

Save the World Examples

Careers in environmental, civil, chemical, electronic and mechanical technology can even save animals from extinction.

Poll

- How many of you agree that careers in environmental, civil, chemical, electronic and mechanical technology can save animals from extinction?

✓ Yes

✗ No

How they do it

- Civil, environmental, electrical and mechanical engineers, technicians and technologists work in zoo’s.
- Biomedical, electrical, mechanical and chemical engineers, technicians and technologists work designing and installing veterinary equipment or pharmaceuticals.

Preventing Disease Examples

Careers in biomedical, chemical, and mechanical technology can lead to careers developing cures for deadly diseases, developing prosthetics for our injured military or assisting our aging population.

One size does not fit all

The point is find out what students are interested in and figure out how to make it interesting by focusing on the outcome.

Girls have to see the value in their career

Questions?

#2 Provide classes that encourage teamwork and collaboration.

- Women enjoy collaboration and working in teams.
- Gender teams are also effective. Women often do better when grouped together.

#3 Provide hands-on problem-solving that applies to the real-world

- Women find education much more interesting if it ties to the real world.
- Hands-on projects are critical to developing spatial analysis skills.

#4 Establish Mentor Networks

- Studies show that girls do better in science and math if they have a mentor.
- Almost all successful women have had a mentor or champion in their corner.
- Be a role model - Use yourself in examples to make connections.

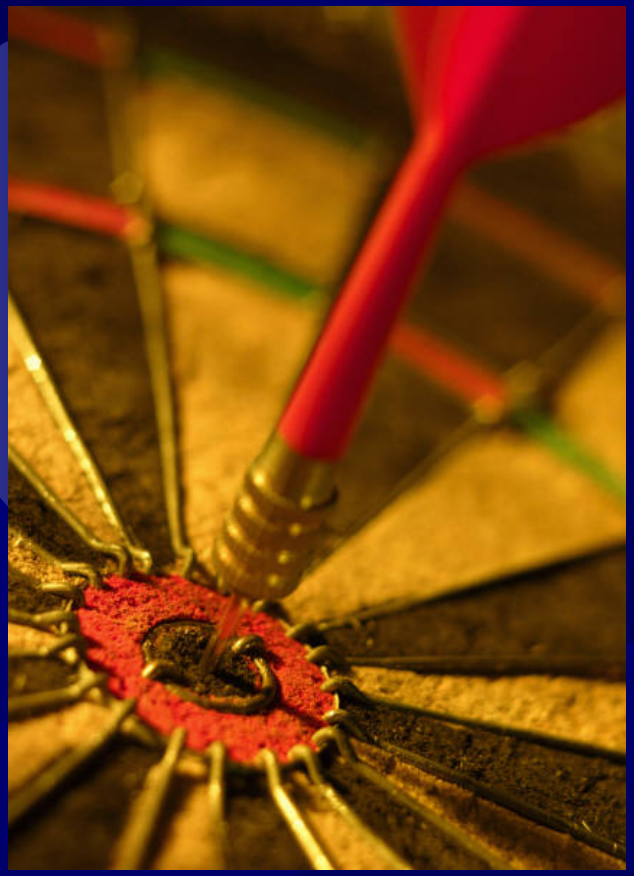
#5 Broaden the outcome of the degree

- Women want to know that they have choices.
- Diverse and plentiful opportunities exist for the educated non-mainstream technologist or engineer with a good understanding of scientific and technical subjects.

#5 Broaden the outcome of the degree

- Highlighting that a degree in technology or engineering means that, in addition to a great career as a technologist or engineer, they can also be a writer, teacher, politician, business person, doctor, or lawyer.
- Well rounded people become technicians, technologists and engineers!

What Makes a Good Engineer or Technologist?



- Technical Skills
- Creativity
- Passion
- Energy
- Communications skills
- Teamwork Skills
- Excitement about what you do

Questions?

#6 Replicate Programs that Work

- Find out what other schools are doing and replicate it.
- What do the students need?
  - Are they non-traditional students that need paychecks while attending school?
  - or are they living at home with Mom, Dad and a high school mentality?
- What programs work for each type of student?
  - 2+2 Program
  - Engineers without borders
  - EPICs - Community Service
  - Online classes

Overall Messages

- Stop reinforcing the images of nerdy and boring.
- Stop focusing on math and science as the needed inputs and instead focus on the outputs, career opportunities, and making a difference in the world.
- Use the word “create” not “build”.
- Use images of people, not things: especially avoid using gears and mechanical looking things.
- Use the following five words in describing engineering: discovery, design, imagination, innovation, contribution.
- Describe engineers as creative problem solvers, essential to health, happiness and safety.
- Emphasize that engineers shape the future.

Get Ready!

- The Wall Street journal reported that expects say the economy won't repair itself for 5 years.
- Less money = increased enrollment in community colleges.
- The leading Presidential candidate says he will stop the exodus of jobs overseas.
- More manufacturing and IT jobs in the US = increased enrollment in community and technical colleges

Conclusion
Motivate and Inspire!

- Exposure, awareness, meaningful interactions, curricula, content, relevance to success, “aha” moments, and sustained engagement are the keys.
- Positive attitudes and support are crucial.
- Technical degrees are a great way to make a huge contribution to society.

Questions?

For more ideas, visit
http://www.engineersmakeadifference.com

To Find More Resources for Recruiting Women

- www.matecnetworks.org
  - Keyword “recruiting”

Thank you for attending

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December 12: Communicating with Today's Generation

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