Welcome to the National Girls Collaborative Project Webinar:

Messaging, Marketing, and Media to Engage Girls in STEM

Thank you for joining us! We will begin at 12:00 PM Pacific/ 3:00 PM Eastern.
Webinar Agenda

• NGCP Overview
• Introduction to Women in Engineering and the Texas Girls Collaborative Project
• Setting the Stage: Women in STEM
• Adjusting the STEM Image
• Question and Answers
• Get Involved & Wrap Up
NGCP Vision

The National Girls Collaborative Project (NGCP) brings together organizations that are committed to informing and encouraging girls to pursue careers in science, technology, engineering, and mathematics (STEM).
Access to Shared Resources
Strengthening Capacity
Equity
Messaging, Marketing and Media to Engage Girls in STEM

Tricia Berry
Texas Girls Collaborative Project
Women in Engineering Program at UT Austin

@TXGCP @UTWEP @TriciaBerry825
triciaberry@txgcp.org  #NGCPWebinar
WEP connects students, educators and professionals to the world of engineering to promote the success and advancement of women in engineering.

- Recruitment Initiatives
- Supportive Structures
- Educational Services
Connections and Collaborations

Mini-Grants and Resources

Best Practices
What is Our Current State?
POLL
Girls do STEM...sort of

56% of AP Test-Takers

46% of AP Calculus Test-Takers

...but only

19% of AP Computer Science Test-Takers

www.ncwit.org
Women Earn...

57% of undergrad degrees

42% of undergrad math & stats degrees

40% of undergrad physical sciences degrees

…but only

19% of undergrad CS and engineering degrees

www.ncwit.org
Bachelors Degrees

% Women

Science & Engineering Indicators 2012
Gender Diversity in STEM

Employed as Engineers

Science & Engineering Indicators 2012

83% Men
13% Women
What does a girl imagine when she thinks of a scientist or engineer?
Before Fieldtrip to a Lab

I think of a scientist as very dedicated to his work. He is kind of crazy, talking always quickly. He constantly is getting new ideas. He is always asking questions and can be annoying. He listens to others' ideas and questions them.

-Amy, 7th grader
I know scientists are just normal people with a not so normal job... Scientists lead a normal life outside of being a scientist. They are interested in dancing, pottery, jogging and even racquetball. Being a scientist is just another job which can be much more exciting.

-Amy, 7th grader
Why So Few Women in STEM?

- Limited knowledge or inaccurate perceptions about STEM careers
- Lower confidence than boys, even when actual achievement levels are similar
- Negative stereotypes about girls' and women's abilities in math and science persist

www.ncwit.org and www.aauw.org
Why do we care?
If technology is designed mostly by the half of our population that's male, we're missing out on the innovations, solutions, and creations that 50% of the population could bring.

www.ncwit.org
The U.S. Department of Labor estimates that by 2020 there will be more than 1.4 million computing-related job openings. At current rates, we can only fill about 30% of those jobs with U.S. computing bachelor's grads.

www.ncwit.org
What can we DO?
STEM EVENT
FOR GIRLS
TODAY
✽ Adjust the STEM Image
✽ Stop Focusing on STEM Inputs
✽ Know the Research
CHANGING THE CONVERSATION:
Messages for Improving Public Understanding of Engineering

National Academy Of Engineering (NAE)
http://www.nap.edu/catalog.php?record_id=12187
WHY SO FEW?

Women in Science, Technology, Engineering and Mathematics

American Association of University Women
http://www.aauw.org/learn/research/whysofew.cfm
Adjust the STEM Image

• ‘Nerdy and boring’
• Use images of people
• Provide STEM role models that look and sound like them
• Use words to describe STEM like create, discovery, design, imagination, innovation, contribution
Stop Focusing on STEM Inputs

• Stop focusing on math and science as the needed inputs for a STEM career and instead focus on:
  – Outputs
  – Career opportunities
  – Making a difference in the world
Know the Research

- Counter and address stereotypes
- Embrace the growth mindset
- Actively **RECRUIT** them...let them know you want them there
"There's no feeling like launching something into space and getting it returned safely." ASE students learning by doing! http://ow.ly/kagka

WIALD: Designing, Building and Launching a BalloonSat
ow.ly

Watch the "WIALD and CRAZY BalloonSat Launch" video. Members of the team run downwind, holding on to
Featuring Role Models

Women in Engineering Program

Women in Engineering Program - The University of Texas at Austin
1,715 likes • 88 talking about this • 54 were here

The Women in Engineering Program (WEP) was established in 1991 to recruit, retain and graduate women in engineering at The University of Texas at Austin.

About

Photos

Likes

Map

Videos
Featuring Role Models

WEP - UT Austin @UTWEP
Check out this fabulous Longhorn role model! Karen Nyberg is a mom, crafter, marathon-runner, engineer and astronaut. ow.ly/IMYB3
Highlighting the Struggle

Embracing the Growth Mindset

WE@UT Camp Mentor Training
WE@UT Camp Mentor Training... mentors testing out one of the activities and having some fun with motors, balls and popsicle sticks! — with Julie A. Fogarty at The University of Texas at Austin.
Highlighting the Struggle

http://staywithit.org/blog-entry/struggle-bus
Counter the Stereotypes

WEP - UT Austin @UTWEP
"Belief that "girls aren't good at math & science" can't be tolerated -- not only is it not true, it's dangerous." ow.ly/IdJOn

Women in Engineering Program - The University of Texas at Austin shared a link.
June 25

Repeat after me: "I like learning about science, technology, math, and engineering. I am good at science/math/technology." http://ow.ly/mihlZ
Showcasing Career Options

And this is what a Longhorn Engineer can do after graduation...make cool educational games based on Disney movies!!

Explorer Game Cartridge:
Disney•Pixar Monsters University
| LeapFrog
shop.leapfrog.com

In Disney•Pixar's Monsters University, winning the Scare Games will take more...
Focusing on STEM Outputs

WEP - UT Austin @UTWEP
Parks in the middle of urban areas to create "cool islands" - Engineering making our world a better place! ow.ly/mijro #STEM

WEP - UT Austin @UTWEP
RT @KUTNews: More than 22 percent of Austin-area jobs require specialized STEM skills: bit.ly/15QW1Yb - #1MSTEMGrads

WEP - UT Austin @UTWEP
Engineering degrees = highest salaries. Still a good time to study engineering! ow.ly/mZMdo

WEP - UT Austin @UTWEP
6 Fireworks Engineering Facts...Happy 4th of July! - You'll look at fireworks a bit differently tonight! ow.ly/mEg0V
Actively Recruit

Women in Engineering Program

WEP invited admitted-to-engineering women to join us for Introduce a Girl to Engineering Day to be a part of our Longhorn Engineering volunteer community. We hope to see them all here in the fall! — with Tara
Do you like computers?
Do you spend your free time online?
Are you interested in learning about AN exciting career in Science, Technology, Engineering, and Math (STEM)?

If you answered yes to one of these questions, you are eligible to participate in

All workshop participants will earn a Certificate of Completion.

Program participants will learn about:
- World-class supercomputers and their benefits to society
- Strong passwords and how to create them
- STEM careers, particularly in the growing field of cybersecurity

Space is limited. To register, please email or call:

Next Workshop
Saturday, 2/9/13
Time: 9:00am-10:30am

will also bring the Cybersecurity Workshop to you.

For more information, visit the
is recruiting participants for the Cybersecurity Program. All encouraged to register...especially those who:

- Like to creatively solve challenges and puzzles
- Enjoy using your imagination
- Are intrigued by mysteries
- Have questioned online crime and whether you can be a victim or one of the innovative people to stop it
- Be curious about careers in the field of cybersecurity
- Be interested in living and creating a happy, healthy, and safe life for yourself and for others

All workshop participants will earn a Certificate of Participation. Middle school and high school students, girls and boys, teachers, parents, and senior citizens are encouraged to register!

Program participants will learn about:

- World-class supercomputers and their benefits to society
- Strong passwords- creating them to avoid identify theft, amongst other crimes
- Growing demand for cybersecurity professionals to ensure the well-being of our country

To schedule a workshop for your group, Please contact

For more information, visit the
Engineer Your Life (www.engineeryourlife.org)

Engineer Your Life
Dream big. Love what you do.

Why Engineering?
Meet Inspiring Women
Find Your Dream Job
Making It Happen

For Counselors & Parents
For Engineers
For Middle School Girls
(see engineergirl.org)

Why Engineering?

1. Love your work, AND live your life too!
2. Be creative.
3. Work with great people.
4. Solve problems, design things that matter.
5. Never be bored.
6. Make a big salary.
7. Enjoy job flexibility.
8. Travel.
9. Make a difference.
10. Change the world.

ASK an Engineer! >

National Girls Collaborative Project

Cockrell School
Women in Engineering Program

Texas Girls Collaborative Project
Chances are you have a good idea of where you want to go in life. [...] we do everything we can to make sure our employees not only have great jobs, but great lives. Into being challenged? Into having fun? Want to change the world? If the answer is yes, then you’ve come to the right place. [...] Googlers thrive in small, focused teams and high-energy environments, believe in the ability of technology to change the world, and are as passionate about their lives as they are about their work.
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Questions?
Get Involved
Get Involved

NGCProject
@ngcproject
FOLLOWING
Advancing K-12 Girls in STEM through Organizational Networks, Collaboration, and Discourse.
United States • ngcproject.org

3,223 TWEETS
563 FOLLOWING
1,916 FOLLOWERS

Followed by TXGCP, Teaching STEM, STEMinist and 37 others.

Tweets

NGCProject @ngcproject
Latest @DesignSquad Mission Solar System guide teaches kids how @NASA is able to land safely on Mars. ow.ly/oZ0Rq
Expand

NGCProject @ngcproject
Bridging Afterschool & Informal Science Communities - webinar from @informalscience 9/10/13 at 1 PM EDT ow.ly/oZ3mz
Get Involved

National Girls Collaborative Project

Building the Capacity of STEM Practitioners to Develop a Diverse Workforce

In This Issue

NGCP Updates ~ Collaborative Network Activities ~ Champions for Collaboration ~ FabFems Spotlight ~ Upcoming STEM Events ~ Resources ~ Global Resources

NGCP Updates

NGCP Webinar: Increasing Equity and Diversity in the STEM Workforce: Issue and Strategies
Thursday, September 26, 2013; 11:00 AM-12:00 PM Pacific/2:00 PM-3:00 PM Eastern

This webinar will present findings from research on why talented individuals leave the biological sciences, as well as examples of successful efforts and problematic attempts towards diversifying the biological sciences. Dr. Kimberly Bryant, Founder of BlackGirlsCode, will present information on the racial and socioeconomic divide and resources for computer science programs.


NGCP Blog

The NGCP Blog features timely posts about topics relevant to encouraging girls to pursue STEM careers. Recent entries highlight STEM summer camps for girls—a useful resource for educators.
Contact Information

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