
PURDUE UNIVERSITY
WOMEN
IN ENGINEERING PROGRAM



design life.*engineer.*



**NATION'S FIRST
WOMEN**
IN ENGINEERING PROGRAM

**MAKE
YOUR MARK**

**DREAM IT. DESIGN IT.
BUILD IT. CREATE IT.
THAT'S WHAT
PURDUE
ENGINEERING
IS ALL ABOUT.**



MISSION AND OBJECTIVES

Since 1969, Purdue's Women in Engineering Program has been committed to increasing the recruitment, retention, and graduation of women engineering students. Each year, we reach out to support and inform more than 4,000 girls and young women - from elementary school through graduate school.

MISSION:

The Women in Engineering Program at Purdue University is dedicated to enriching the profession of engineering through the full participation of women. We develop and direct activities that provide:

- encouragement for girls and young women to study engineering.
- information about careers and companies.
- an environment conducive to the successful completion of students' studies.

We also strive to maintain strong relationships with alumnae, friends and employers who generously support our program.

OBJECTIVES:

- To provide career information and encouragement to pre-college girls and young women to continue achievement in math and science and consider engineering as an appropriate career choice.
- Encourage women to matriculate at Purdue University in the College of Engineering.
- Ensure a climate in the College of Engineering that allows young women to reach their full potential.
- Provide opportunities for women engineering students to develop leadership skills that can be utilized in their future lives.
- Encourage women to consider graduate education and academia among their options upon graduation.
- Maintain open communication with alumnae and their employers to encourage their continued participation in and support of the Women in Engineering Program.



The Women in Engineering Program could not achieve its mission to enrich the profession of engineering through the full participation of women without the generous support of our donors. We are taking part in the ***Ever True: The Campaign for Purdue University*** capital campaign. The campaign is an exciting endeavor with transformative potential and is made possible both by the generosity of our alumni and friends and by the commitment of our faculty, staff, and students. If you would like to make a contribution, please go to giving.purdue.edu or contact Hilary Butler at 765.494.6383 or habutler@prf.org.

CHANGE THE CONVERSATION



>CHANGING THE CULTURE

The Women in Engineering Program does most of its work in supporting our current and future female engineering students; however, many of our efforts also focus on changing the culture of engineering to eliminate the future need for specific efforts to support and retain female engineering students. The inclusion of men in changing the culture is necessary. WIEP is a strong proponent of identifying and encouraging men to be advocates and allies for gender equity. The National Center for Women in Technology has some excellent resources for this effort. We encourage you to take a look — it is only by working together that we can change the culture of engineering to be inclusive of everyone!

1 Consider speaking with men who have daughters and/or wives who have worked in the workplace.	2 Connect with men who have minority experience of their own.
3 Look for male managers who are successful at running productive team environments.	4 Identify men who are already sponsoring or mentoring female employees.

8 Ways to Identify Male Advocates

5 Seek out men who are being held accountable for diversity metrics.	6 Find men who model and/or encourage their employees to use flexible work arrangements.	7 Look for men who value fairness and equity.
8 Identify "safe" environments where you can "test the waters."		<small>NCWIT Tips: 8 Ways to Identify Male Advocates National Center for Women & Information Technology: http://bit.ly/1DMaleAdvocates</small>



AS A MALE HOW CAN I BE AN ADVOCATE FOR TECHNICAL WOMEN?

Model alternative work/life strategies.

Talk to other men.

Increase the number and visibility of female leaders.

Listen to women's stories.

Establish accountability metrics.

Mentor and sponsor women.

Reach out to formal and informal women's groups.

Seek out ways to recruit women.

Notice and correct micro-inequities or instances of unconscious bias.

Make discussions of gender less "risky."

Top 10 Ways To Be a Male Advocate for Technical Women | National Center for Women & Information Technology: <http://bit.ly/1ADVforTechWomen>

ad·vo·ca·cy

to change "what is"
into "what should be"

8 WAYS TO INCREASE MALE ADVOCACY

- Recreate "temporary" minority experiences for men.
- Ensure that male employees have experiences with female mentors, bosses, or other female leaders.
- Invite men to "women in tech" events, workshops on unconscious bias or diversity training.
- Share "your story" of being a minority in a male-dominated environment with male colleagues you trust.
- Give male colleagues a specific role in gender diversity efforts.
- Provide men with information to raise awareness and make change.
- Provide men with tools to use in gender diversity efforts.
- Bring men together who care about the issues.

NCWIT Tips: 8 Ways to Increase Male Advocacy | National Center for Women & Information Technology: <http://bit.ly/1IncreaseADV>

PROGRAM FEATURE - Next Step Coaching



> Next Step Coaching

In sports, a great coach works collaboratively with a player until game time — setting goals, solving problems, and holding the player accountable. At game time, the coach moves to the sidelines to play a supportive role and the player takes the field. There, on the field, is where the ideas and lessons discussed with the coach are put into action by the player. Coaching for personal and professional elevation from good to great is similar — it's an action-based model where students learn to set goals, problem-solve, take initiative, and evaluate outcomes with the assistance of a coach. In the case of a Next Step Coach — Purdue Engineering students partner with someone who has been there and done that: Purdue Engineering Alumni and other College of Engineering partners/supporters.

The Next Step Coaching (NSC) initiative fosters this connection in a fun, informal setting on campus (e.g., sometimes we might do speed rotations of small groups for mentoring and coaching) and/or through online networking (e.g., through our WiE CoNEXTions online mentoring platform - coming out this fall!).



Be a Next Step Coach

Help set engineering students up for success this semester and beyond. Catapult a current engineering professional along her next steps — providing advice and coaching for work-related experiences, transitioning to the next year at Purdue, preparing for life after graduation and MORE!

NSC provides genuine small group and one-on-one interactions with students — build these key relationships early which especially help to recruit and retain women and other underrepresented groups in engineering.



.....
“I love being able to speak with young women about the power they have as engineers and how they truly can do anything they set their mind on, even when life gets in the way. It is very inspirational for me to be a part of this program and see how each year WIEP grows.”
.....

-Corttney Mushrush, B.S. ChE '14, Purdue University
.....

ALUMNA FEATURE



Corttney Mushrush

Education

B.S. ChE Purdue University, 2014

Current Position

Supply Chain Resource for Quaker Oats Snacks Division, PepsiCo

In 2011, during my sophomore year at Purdue, I was at a WIEP networking event making crafts with other women and some of the LT. I found these networking events are great when you have connections with the other women. That event happened to be held with a lot of my classmates and friends, one of these friends being Rachel Winger (pictured above on left). We formed the idea of small groups after noticing how women come to events in pairs and do not truly expand their social circle. We wanted to see the WIEP Group Mentoring Program have a similar aspect like the Pair Mentoring Program does with the smaller groups paired off from the larger group. These groups would allow women from any engineering background to connect and be a part of a group for the entire academic year.

Small Groups were a way to help group members outreach with one another. Having to go into a group meeting as a freshman, not knowing any of your peers can be a little overwhelming. To help alleviate this feeling, and help the retention rate for the overall group program, Small Groups helped women to connect before the program officially kicked off in the fall. It invited anyone in the Group Program to participate, as well as helping form lasting relationships inside the program and was tailored to certain aspects of each member's goals for that school year, whether it was academic or social.

Each year, the Program became more fine-tuned and allowed for more creativity and uniqueness between the groups. The participants started becoming aware of the opportunity and were more willing to set out to accomplish their personal and academic goals. Now with more social media outlets, it really helps the groups stay connected and forms that lasting bond Rachel and I envisioned.



Now as a Next Step Coach, I am able to share my story about “life outside of college” and how important it is to still keep your connections that you had in college alive. ***I love being able to speak with young women about the power they have as engineers and how they truly can do anything they set their mind on, even when life gets in the way. It is very inspirational for me to be a part of this program and see how each year WIEP grows.*** I am excited for the future of WIEP and where the next generations of students are taking WIEP. The core foundation will always uphold the values that we all share, however, the new ways to form the lasting connections and how we continue empowering fellow women engineers are always changing. I am thrilled to still be able to participate in all the opportunities in WIEP after I have graduated from Purdue.



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"I feel so much gratitude to all the people who who have helped me along the way and continue to help me each and every day. Thus when I was asked to participate in the Next Step Coaching program, I did not hesitate to say yes and join someone's team."
.....

-Bic-Van C. Pham, PhD. ChE '09, Purdue University; B.S. ChE Northwestern Univ. '02
.....

ALUMNA FEATURE



Bich-Van C. Pham

Education

PhD ChE Purdue University, 2009

B.S. ChE Northwestern University, 2002

Current Position

Associate Principal Engineer, PepsiCo-Global Snacks R&D

In this big world, achieving personal success in life and in your career is not a journey you have to take on your own. I would not be where I am today without the support of my team. I am very fortunate to have great mentors formally and informally in the role of family, friends, teachers, colleagues, and other professionals. My parents continue to push me to strive to work harder and be better every day. I bonded with the ladies in the Women in Engineering Program at Purdue over our shared experiences of the roller coaster ride that is graduate school. My former managers gave me career guidance as I figured out my next steps at PepsiCo. Through all of these experiences, I am not alone. I had a team of support. *I feel so much gratitude to all of the people who have helped me along the way and continue to help me each and every day. Thus, when I was asked to participate in the Next Step Coaching program, I did not hesitate to say yes and join someone's team.*

Being a part of WIEP as a student, I know that everyone in the program works extraordinarily hard to put together exceptional programs to help their members. I am currently matched with a PhD graduate student in the Food Engineering program. Because I went through a PhD graduate program at Purdue and currently work in the food industry, I hope my insights can be useful and provide support.

During my monthly calls with my mentee, I try to help her constructively come to solutions when she faces problems or I simply listen to her concerns. I hope that I am able to show her support as my mentors have shown to me, and celebrate with her in her successes. The relationship is beneficial for me as well in that it gives me perspective on my own life. It helps me to analyze whether I am truly “walking the walk” I talk about.

As a recruiter, it is important to be able to relate to students as you look for talent; being a part of WIEP as an alumnae also helps me to remain to Purdue and the student body.

I am delighted that I have the opportunity to continue to be a part of the WIEP family. We are all in this together, Boiler Up!



VALUED VOLUNTEERS

ALUMNI AND CORPORATE PARTNERS

PROGRAM

NAME

DEGREES

COMPANIES

NSC
JEEP
AA
JEEP
GMP
JEEP
M&M
JEEP; NSC
IGED; JEEP
AA
NSC
AA
NSC

Ashley Babcock
Sara Batman
Patricia Beauchamp
Brittany Benton
Linda Blevins
Melanie Brickley
Ashlie Britton
Tracy Chariton
Dianna Clute
Candace Corso
Michelle Cox
Brittany Crum
Cheryl Cunningham

BS IE
BS BME

BS ME
PhD ME
BS IE

BS CE
BS MSE
BS CHE
BS ABE
BS EET
BS ET

Vectren Utilities
Cook Medical Inc.
NASA Jet Propulsion Lab (JPL)
General Electric Appliances
US Department of Energy
FM Global
The Aldridge Group
JPS Consulting Engineers
Caterpillar, Inc.
3M
Eli Lilly
Kimberly Clark Corporation
Parsons, Cunningham, & Shartle
Engineers (PCS Engineers)

NSC
AA
IGED
JEEP
GMP
JEEP
M&M; GMP
IGED
ENGR 494
GMP; NSC
JEEP
NSC
JEEP
JEEP
AA
JEEP
JEEP
M&M
AA
JEEP
ENGR 494

Elizabeth DeFreese
Maya Denton
Sri Eamani
Jenell Fairman
Gregory Fiechtner
Erika Fotsch
Janet Goings
Jill Gough
Sara Greer
Emily Gullotti
Thiwassha Harper
Sascha Harrell
Olivia Hawbaker
Katherine Hippensteel
Sara Hoffman
Abigail Horsager
Rachael Janney
Lauren Jellison
Paige Johnson
Amanda Jordan
Wendy Kerr

PhD ABE; MS ABE
BS CHE

BS CE
PhD ME; MS ME
BS ME
BS EE
BS ABE
BS CE
PhD BME
BS ABE
MS ED
BS CE
BS ME
BS CE
BS IE
BS ME

BS ME
BS CHE
BS ME

Novozymes North America Inc.
Air Products
Caterpillar, Inc.
Core Planning Strategies, LLC
US Department of Energy
Allison Transmission
General Motors Company
Caterpillar, Inc.
Marathon Petroleum
Merck
Eli Lilly and Company
Caterpillar
Citizens Energy Group
Keystone Solutions Group
GE Transportation
Procter and Gamble
General Motors
Nucor Steel
Accenture
Cargill
Johnson & Johnson - Ethicon
Endo-Surgery

AA
AA; NSC
JEEP
AA
AA; NSC
JEEP
M&M; AA
NSC
JEEP
JEEP
NSC
ENGR 494
JEEP
NSC
JEEP; AA
NSC
JEEP
NSC
NSC
NSC
AA
NSC
IGED
NSC

Racheal Koontz
Jenny Krapf
Brittany Leigh
Chantel Lenard
Sharon Marchinski
Melissa Marcum
Stephanie Martin
Kathryn Mast
Meghan McKendry
Anne McLaren
Joel Moser
Patrick Mosher
Taylor Mowery
Rebecca Muenich
Sequoia Murray
Corttney Mushrush
Lauren Neder
Matt Noe
Shay Ogebule
Euridice Oware
Jorge Perdiago
Bich-Van Pham
Katie Pierce
Meagan Pollock

BS IE

BS ME
BS IE
BS ME
BS CHE

MS ECE
BS IE
PhD IE; MS/BS IE; BS SCI
BS MET
BS CHE; MA Org Comm
BS CHE
PhD ABE; MSE ABE
BS CHE
BS CHE
BS IE

PhD CHE
PhD ENE; MS CE

PhD CHE
PhD ENE

Boeing
Accenture
Ford Motor Company
Ford Motor Company
Accenture
Eli Lilly and Company
Nucor Steel
Alcoa
E.C. Styberg Engineering
Cummins Inc.
Caterpillar, Inc.
Accenture
Honda Manufacturing of Indiana
University of Michigan
UOP LLC, A Honeywell Company
PepsiCo
Frito-Lay
Caterpillar, Inc.
Intel Corp.
College of DuPage
Accenture
PepsiCo
Caterpillar, Inc.
National Alliance for
Partnerships in Equity

PROGRAM

NAME

NSC
JEEP
ENGR 494
AA
NSC
JEEP
JEEP
NSC
JEEP
NSC
NSC
NSC
GMP
AA
JEEP

Marci Pool
Jennifer Pyrz
Becky Schaefer
Amy Sell
Bridette Smith
Rebekah Steele
Ashley Stroup
Andrea Taylor
Karis Waibel
Erika Wetterlin
Catherine Whittington
Valerie Wiesner
Rachel Winger
Skylar Wolfe
Blair Wong
Marissa Zon

PURDUE FACULTY, STAFF AND STUDENTS

PROGRAM

NAME

I2R
M&M
ENGR 494;
M&M
IGED
JEEP
I2R
ENGR 494
ENGR 494
ENGR 494
GMP
I2R
M&M
I2R
GMP
IGED
ENGR 494
IGED
GMP

Joshua Alexander
Liz Aram
Mona Bapat

Peter Bermel
Anne Dransfield DeLion
Bradley Duerstock
Nathalie Duval-Couetil
Kendra Erk
Allison Godwin
Jingwei Hu
Rebecca Kramer
Feihan Li
Nathan Mentzer
Veronica Rahim
Dan Taylor
Nicole Towner
Carl Wassgren
Xiao Zhu

Abbreviations and Acronyms Dictionary

WIEP Programs

AA- Access Alum
ENGR 494- Women in Engineering Senior Seminar: Gender in the Workplace
GMP - Graduate Mentoring Program
I2R- Innovation to Reality
IGED- Introduce a Girl to Engineering Day
JEEP- Juniors Exploring Engineering at Purdue
M&M- Mentors and Mentees
NSC- Next Step Coaches
Degree
BS- Bachelor of Science
MA- Master of Arts
MS- Master of Science
MSE- Master of Science in Engineering
PhD- Doctorate Degree

DEGREES

BS CE; MS CE
MS CE; BS CE

BS ME
BS CHE
BS CHE
BS ABE
BS CHE
BS IE
PhD BME
PhD MSE
BS CHE

BS ME
BS ME

COMPANIES

University of Illinois
HNTB
Citizens Energy Group
Marathon Petroleum
3M Corporation
Air Liquide
Tate & Lyle
Colorcon, Inc.
Eli Lilly and Company
Oerlikon Fairfield
Eli Lilly and Company
NASA Glenn Research Center
ADM
Bristol-Myers Squibb
Avanade
Spraying Systems Co.

SCHOOL/DEPARTMENT

Department of Speech, Language & Hearing Sciences
Counseling and Psychological Services
Counseling and Psychological Services

School of Electrical and Computer Engineering
School of Engineering Education
School of Biomedical Engineering
Department of Technology, Leadership, and Innovation
School of Materials Engineering
School of Engineering Education
Department of Mathematics
School of Mechanical Engineering
Counseling and Psychological Services
Department of Technology, Leadership, and Innovation
Center for Career Opportunities
School of Agricultural and Biological Engineering
College of Science Administration
School of Mechanical Engineering
Research Computing

Program

ABE- Agricultural and Biological Engineering
BME- Biomedical Engineering
CE- Civil Engineering
CHE- Chemical Engineering
ECE- Electrical and Computer Engineering
ED- Education
EE- Electrical Engineering
EET- Electrical Engineering Technology
ENE- Engineering Education
ET- Engineering Technology
IE- Industrial Engineering
ME- Mechanical Engineering
MET- Mechanical Engineering Technology
MSE- Materials Science Engineering
ORG COMM- Organizational Communication
SCI- Science

OPPORTUNITIES FOR ENGAGEMENT WITH WIEP

There are many ways for you to get involved with WIEP, e-mail us at wiep@purdue.edu if you have an interest in assisting with one of these valuable programs. Fall semester opportunities include:

- **Access Alum** – informal chats with current students while on campus visiting, recruiting, etc.
- **Exploring Engineering at Purdue** – one-day on-campus programs for high school juniors and seniors. Needed: panels of recently established engineering professionals to talk about what they do in the “real world”; faculty and grad students to lead interactive sessions on engineering disciplines; Purdue faculty, students, staff, and alumnae to network, guide, and informally speak with high school seniors and their parents.
- **ENGR 194** – Women in Engineering seminar for first year students. Needed: motivational speakers who share college experiences and relate those to where they are now and what they do in their positions.
- **ENGR 494** – Women in Engineering Senior Seminar: Gender in the Workplace. Needed: motivational speakers to share experiences and solutions for internal and external barriers which can prevent women from reaching their greatest potential in the workforce.
- **WE Link** – connecting with high school seniors as they apply and ultimately decide whether Purdue engineering is the place for them. Needed: guest bloggers sharing experiences that encourage and inspire. Visit [The Engineering Experience Blog](#).
- **Mentors & Mentees (M&M)/Graduate Mentoring Program (GMP)** – Undergraduate and Graduate student mentoring programs. Needed: facilitators of interactive/workshop style topics including but not limited to: life skills, engineering roles, non-traditional paths, life/work balance, finances, entrepreneurship, and global etiquette.
- **Next Step Coaches** – Needed: engineering graduates in industry, academia, government, non-profit, medicine, law, business, etc., to provide more personalized interaction preparing students for their own careers. This one-on-one or small group connection can be in person through Next Step Coaching (NSC) events WIEP hosts on-campus and/or facilitated online through our NEW WIE CoNEXTions (WC) mentoring platform. The WC is currently in a testing phase and will be available broadly this fall. Stay tuned!
- **Innovation to Reality (I2R)** – on-campus after-school program for 6th-8th graders. Needed: faculty and graduate students to be guest speakers, provide lab tours, and hands-on engineering activities.
- **Introduce a Girl to Engineering Day (IGED)** – one-day on-campus event in February designed to increase interest in engineering among high school freshmen and sophomores. Needed: Purdue faculty, students, staff, and alumnae to mentor young high school students, lead hands-on activities, and to network, guide, and informally speak with students and their parents.
- **Engineering Outreach Partner (EOP) Initiative** – sharing our outreach model, best practices, training, and other resources nationally. Needed: alumni partners who can help share WIEP’s vision and passion for advancing youth education.
- **Engineering FYI (For Your Imagination)** – one-day on-campus summer event for rising 7th-9th grade students. Needed: Purdue faculty, students, and alumnae to mentor students, lead hands-on activities, and to network, guide, and informally speak with students and their parents.
- **Mother/Daughter** – one-day event hosted by the YWCA for mothers and daughters to learn more about engineering. Needed: Purdue faculty, staff, and alumnae to mentor students, lead hands-on activities, and to network, guide, and informally speak with students and their parents.



Thank you to all of our valued volunteers. The success of our programming from January - June 2016 wouldn't have been possible without the outstanding support from the following alumni, faculty, staff, students, and friends who graciously volunteered their assistance to WIEP.

PURDUE UNIVERSITY | **WIE**
WOMEN **CONNECT** 20
IN ENGINEERING PROGRAM **SUMMER** **16**

Designed by: HMC 2016
EA/EOU



design life.*engineer.*

Women in Engineering Program

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West Lafayette, IN 47907-2045

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www.purdue.edu/wiep

www.purdue.edu/designlife

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