Expanding Your Horizons & Dream Big Screening

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Expanding Partnerships & Outreach
Expanding Your Horizons & Dream Big Screening
Heidi Kenkel, Cedar Valley Society of Women Engineers; Marcy Seavey, University of Northern Iowa; and Mani Vedanayagam, Cedar Valley Society of Women Engineers

Abstract
Expanding Your Horizons (EYH) is a Society of Women Engineers (SWE) program designed to give middle school aged girls experiences and positive role models in engineering and other STEM careers. The University of Northern Iowa began partnering with Cedar Valley SWE to host an EYH event on the UNI campus in 2014. On Saturday, November 11th, 2017, the University hosted its 5th EYH event for more than 150 area 5th to 8th grade girls. Participants attended three small group activity sessions (no more than 12 per group) in laboratories and classrooms in McCollum Science Hall, Latham Hall, and the Industrial Technology Building. Session leaders included science and other STEM facility from UNI, Wartburg College, Iowa State University and Hawkeye Community College; engineers from John Deere and Viking Pump and other STEM professionals from businesses such as Invasion and Taylor Veterinary Clinic. This year provided a unique opportunity to expand EYH. Participant's families were invited to bring their daughters to a screening of the engineering documentary Dream Big immediately following EYH. UNI President, Mark Nook; STEM Coordinator, Marcy Seavey; and John Deere Engineer, Heidi Kenkel addressed the 120 girls and family members who attended the screening. The EYH event serves the Cedar Valley Community by inspiring our girls to dream big and find their own path.

Dream BIG Screening
In 2017, the EYH event was extended to include optional participation in a free screening of the documentary: Dream BIG. Dream BIG is an IMAX film, narrated by Jeff Bridges, which explores the lives and work of a diverse group of engineers. This includes Avery Bang, a female engineer and Iowa native, who is founder, president, and CEO of Bridges to Prosperity (B2P), a nonprofit which builds foot bridges over impassable rivers in rural communities. The purpose of bringing the Dream BIG screening to EYH was to expand the participants understanding of who does engineering and what engineering is. Although the screening was optional, 120 girls and family members participated.

CV SWE and John Deere sponsored the Dream BIG screening, not only as a part of EYH, but also for the Cedar Valley STEM Festival (sponsored by the Northeast Iowa Regional STEM Hub), at Hawkeye Community College for middle school and community college students) and at UNI (open to the public). The UNI College of Education provided the auditorium in Schnider Education Center for use during the EYH and public screening of Dream BIG.

Dream Big Website: https://www.dreambigfilm.com/

Near peers & Women STEM Leaders

2017 EYH Schedule
Saturday, November 11, 2017
University of Northern Iowa
9:00 am Registration and Checkin
9:30 Opening Speaker
9:45 Session 1: Dream Big
11:00 Session 2
12:00 Lunch
1:00 Session 3
3:00 Closing
3:30 Optional Movie: Dream Big.

2017 EYH Sessions
Topic
Session Title
Project
Don’t Grill a Stoplight with an Architectural Screwdriver

Energy
Wind/Solar Energy Fundamentals

Social Sciences
Monopoly is Bigger Than Understanding People & Society Through the Social Sciences

Engineering
Learning Tower

Architecture
Forget Barbie: Design YOUR Dream House

Veterinary Science
What’s Your Diagnosis?

Interior Design
Exploring Materials for Interior Design

Civil Engineering
Civil Engineering: One Heck of a Job!

Nanotechnology
The Nanotechnology of Self-Assembled Monolayers

SPEECH Language Pathology
Communication, That’s What Speech, Language Pathology’s All About

Communication Sciences & Disorders
Audiology, Ears and Hearing

Earth & Environmental Science
Iowa Faunal Record

Earth & Environmental Science
The Stars in your hands

Honeypower
Honing Around with Honeypower

Engineering Design Process
Expanding Bridge

Engineering
Can your structure withstand an Earthquake

Engineering/Manufacturing
Assembly Operations

Robotics
Programming an IRB Robot

Chemistry
Household Acids and Bases

Community Partners
The following community partners were represented at the 2017 EYH Event: American Association of University Women, Cedar Valley Society of Women Engineers, SWE Hawkeye Community College, John Deere, SWE Next, Taylor Veterinary Clinic, University of Northern Iowa, Viking Pump, Wartburg College

The following UNI departments participated in the 2017 EYH Event: Biology, Chemistry & Biochemistry, Communication Sciences & Disorders, Earth & Environmental Science, Interior Design, Sociology, Anthropology & Criminology, Technology, Textiles & Apparel, UNI STEM Office

Build Skills & Discover Passions In Unique Settings

EYH & Dream Big serve the following university goals:
Supporting goal #3 Community Engagement Create opportunities for students, faculty, and staff to build external relationships that enhance local and global learning experiences and contribute to the cultural and economic vitality of the Cedar Valley and Iowa
Unifying Goal: Student Success: Develop and support engaged learning experiences, dynamic and high-quality academic programs, and outstanding faculty and staff to foster student success and education