STATE OF
PRE-COLLEGE
OUTREACH
@MICHIGAN TECH
2012
MENU

Revisit

Recap

Reflect

Rethink

Revise

Replay

Reveal

Reward

(select section to jump)
REVISIT
External Review, 2010
Expand media partnerships to tell 'Youth Programs' story.
Make 'Youth Programs' the hub for all campus K-12 outreach efforts.
Build collaborative programs with community colleges.
Use virtual technologies to expand outreach.
Focus on making programs more "girl friendly."
Pursue corporate and foundational support with help from development office.
Use Mind Trekkers to recruit students for Summer Youth Programs.
RECAP
2011-2012 Year in Review
Get WISE!
Get Women in Science & Engineering

March 29th
Day of hands-on projects
200 Local 7-8th graders

Partners:
Western U.P. Center for Science, Math and Environmental Education
College of Engineering
College of Sciences & Arts
2012 TiViTz Tournament

April 19th
Math competition
250 Local 4-7th graders

Partner:
Western U.P. Center for Science, Math and Environmental Education
21st Annual Engineering Olympics

April 20th
Engineering competition
100 Local 9-12th graders

Partners:
Western U.P. Center for Science, Math and Environmental Education
Department of Engineering Fundamentals
MI GEAR UP

8 CCISD Schools
Class of 2017
400 students

• STUDENT DEVELOPMENT
• TEACHER DEVELOPMENT
• COMMUNITY DEVELOPMENT
Great Lakes Invitational
December 2011
Detroit, MI
3,000 Participants

Einstein Science Expo
January 2012
Green Bay, WI
4,000 Participants
Southwest Michigan Science Festival
February 2012
Dowagiac, MI
300 Participants

ORAU Science Festival
March 2012
Oak Ridge, TN
1,000 Participants
Sheboygan Science & Engineering Festival
April 2012
Sheboygan, WI
3,000 Participants

USA Science & Engineering Festival
April 2012
Washington, DC
250,000 Participants
LSSU Science & Engineering Festival
May 2012
Sault Ste. Marie, MI
2,000 Participants

Systems Control Science & Engineering Festival
May 2012
Iron Mountain, MI
1,000 Participants
Destination ImagiNation
May 2012
Knoxville, TN
15,000 Participants

Girl Scouts
100th Anniversary
June 2012
Green Bay, WI
3,000 Participants
U.P. State Fair
August 2012
Escanaba, MI
1,000 Participants

Houghton County Fair
August 2012
Houghton, MI
1,000 Participants
SHEBOYGAN FESTIVAL
PRE/POST TEST
SNAPSHOT

Are you interested in attending college?
Before: Yes - 96% / No - 4%
After: Yes - 100%

Level of interest in Science
Before: Extremely - 38% / Moderately - 52% / None - 10%
After: Extremely - 67% / Moderately - 33% / None - 0%

Level of interest in Engineering
Before: Extremely - 35% / Moderately - 41% / None - 24%
After: Extremely - 49% / Moderately - 43% / None - 8%
I don't want to leave. I liked the program SO MUCH and had fun and learned at the same time. I got to meet people from all over the world that are a lot like me.

- ESP Participant
WIE HIGHLIGHTS

87% of participants felt more likely to have a future career in engineering.

90% of participants felt more encouraged to attend college after completing the program.

92% of participants would recommend the program to others.

94% of participants rated hands-on activities experience as good or excellent.
ESP HIGHLIGHTS

88% of participants felt more likely to have a future career in engineering.

93% of participants would recommend the program to others.

94% of participants felt more encouraged to attend college after completing the program.

94% of participants rated hands-on activities experience as good or excellent.
SYP HIGHLIGHTS

28% of participants had previously SYP in a prior year.

69% of participants were from groups traditionally underrepresented in STEM fields.

88% of participants were inspired to learn more about the subject covered.

93% of participants rated hands-on activities experience as good or excellent.
2012 SYP STAFF: 76 employees

"Everyone needs to work a job like SYP at least once in their life. They won't regret it."
-SYP Staff Member
Do you feel the program offered an academic experience not available in your child's school? YES: 100%

How did Youth Programs affect your child's interest in attending Michigan Tech? Increased: 81%  No Change: 14%

Would you encourage your child to attend another Michigan Tech SYP? YES: 75%  Child too old to attend: 19%

Would you recommend the Summer Youth Programs to other parents? YES: 99%
REFLECT
A Closer Look at the Numbers
MIND TREKKERS

MINDTREKKERS.MTU.EDU
SPONSORED BY THE CENTER FOR PRE-COLLEGE OUTREACH

MIND TREKKERS

- EINSTEIN PROJECT SCIENCE EXPO
- SHEBOYGAN SCIENCE AND ENGINEERING FESTIVAL
- GIRL SCOUT JAMBOREE
- SOUTHWESTERN MICHIGAN COLLEGE FESTIVAL
- MIND TREKKERS AT LAKE SUPERIOR STATE UNIVERSITY
- ESCANABA U.P. STATE FAIR
- MIND TREKKERS AT OAK RIDGE ASSOCIATED UNIVERSITIES
- 2012 DESTINATION IMAGINATION

USA SCIENCE AND ENGINEERING FESTIVAL WASHINGTON D.C.

250K PARTICIPANTS

MEMBERS STRONG

500!

EINSTEIN PROJECT SCIENCE EXPO
SHEBOYGAN SCIENCE AND ENGINEERING FESTIVAL
GIRL SCOUT JAMBOREE
SOUTHWESTERN MICHIGAN COLLEGE FESTIVAL
MIND TREKKERS AT LAKE SUPERIOR STATE UNIVERSITY
ESCANABA U.P. STATE FAIR
MIND TREKKERS AT OAK RIDGE ASSOCIATED UNIVERSITIES
2012 DESTINATION IMAGINATION

BODY

Did attending the Mind Trekkers Festival make you interested in attending college?
YES 82.70%
NO 17.30%

BIG THANKS TO OUR DONORS!

ROCHER
15K
MERCURY MARINE
3K
OAK RIDGE ASSOCIATED UNIVERSITIES
5K

INFORMATION AT-A-GLANCE
SUMMER YOUTH PROGRAMS

90 PERCENT INTERESTED IN RETURNING

47 PERCENT OF THE SUMMER YOUTH PROGRAMS PARTICIPANTS WERE FEMALE.

50 PROGRAMS

"The experiences that I've had over the last two weeks are memories that I will cherish for years to come. My favorite part of this program is the ability to work in a group with people from different corners of the world. Overall, this experience will definitely help me choose the perfect college for me." – Andrew, Detroit, Michigan

94 PERCENT OF THE SUMMER YOUTH PROGRAMS PARTICIPANTS WOULD RECOMMEND THEIR PROGRAM TO A FRIEND.

TOTAL PARTICIPANTS 971

INFORMATION AT-A-GLANCE
YP ALUMNI DATA

Highlights:
FIRST YEAR STUDENTS
ALL MATRICULATED
### 2012 YP ALUMNI v GENERAL 1ST YEAR ENROLLMENT

<table>
<thead>
<tr>
<th></th>
<th>YP</th>
<th>MTU</th>
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<tbody>
<tr>
<td><strong>Eligible</strong></td>
<td>710 (graduating seniors)</td>
<td>45,383 (*total inquirers)</td>
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<tr>
<td><strong>Applied</strong></td>
<td>315</td>
<td>5,349</td>
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<tr>
<td></td>
<td>44.37% (of YP eligible)</td>
<td>11.79% (of MTU inquirers)</td>
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<td>45.71% (YP women of YP applicants)</td>
<td>28.94% (women of MTU applicants)</td>
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<tr>
<td><strong>Enrolled</strong></td>
<td>124</td>
<td>1,153</td>
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<td>39.37% (of YP applied)</td>
<td>21.56% (of MTU applied)</td>
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<tr>
<td></td>
<td>17.46% (of YP eligible)</td>
<td>2.54% (of MTU inquirers)</td>
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<td></td>
<td>10.75% (of MTU enrolled)</td>
<td></td>
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<tr>
<td><strong>Women</strong></td>
<td>49</td>
<td>280</td>
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<tr>
<td></td>
<td>39.52% (of YP total enrolled)</td>
<td>24.28% (of MTU enrolled)</td>
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<td></td>
<td>17.50% (of MTU women enrolled)</td>
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<td></td>
<td>34.03% (of YP women applied)</td>
<td>18.09% (of MTU women applied)</td>
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<tr>
<td></td>
<td>3.17% (of MTU women applied)</td>
<td></td>
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<tr>
<td><strong>WIE</strong></td>
<td>32</td>
<td></td>
</tr>
<tr>
<td></td>
<td>25.81% (of YP total enrolled)</td>
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<tr>
<td></td>
<td>65.31% (of YP enrolled women)</td>
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<td></td>
<td>11.43% (of MTU women enrolled)</td>
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<td></td>
<td>22.22% (of YP women applied)</td>
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<tr>
<td></td>
<td>2.07% (of MTU women applied)</td>
<td></td>
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<tr>
<td><strong>ACT</strong></td>
<td>26.9 (26.3, 25, 27.2 - Female Only)</td>
<td>26.3 (26.5 - Female Only)</td>
</tr>
<tr>
<td><strong>GPA</strong></td>
<td>3.75 (3.75, 3.81, 3.91 - Female Only)</td>
<td>3.60 (3.75 - Female Only)</td>
</tr>
</tbody>
</table>
YP ALUMNI: FIRST-YEAR (FY) STUDENT HIGHLIGHTS

124
Total Enrolled = 10.75% of MTU FY Students

95
% Enrolled in STEM Discipline

49
Total Females = 17.5% of MTU FY Females

32
Total WIE Alumni = 65% of YP FY Females

3.91
Average WIE Alumni High School GPA
YP ALUMNI: ALL MATRICULATED STUDENT HIGHLIGHTS

467
Total Enrolled = 7% of MTU Student Body

212
Total Females = 45% of YP Alumni on Campus
12% of all MTU Females on Campus

91
% Enrolled in STEM Discipline

8
YP Alumni Doctoral Students on Campus

3.20
Average Cumulative GPA of All YP Alumni Females
RETHINK
Marketing: Thinking Forward
THE NEW SYP
*Logo*
*Branding*
*Social Media*

WEBSITE OVERHAUL
Simplified and Cleaner
Bright and Vibrant
Camper Driven
User Friendly
Mind Trekkers would like to thank these generous sponsors for supporting the Sheboygan, WI Science & Engineering Festival presented by Kohler Company.
REVISE
The New Three Year Plan
DEPARTMENT GOALS

1. IMPLEMENT rate sheets for SYP: approval will pave way for easier inclusion of scholarship funds in federal grants.

2. INTEGRATE traditional hiring practice of SYP staff into Student Life Common Selection Process.

3. IDENTIFY and solidify 8 Mind Trekkers events, both stand-alone and participation in major festivals.

4. INSTALL an innovative communication plan that captures Mind Trekkers attendees attention and keeps them engaged after events.
MAJOR PROPOSAL
NSF-ITEST
Women in Engineering: Inspiring the Next Generation of Rural Scholars

PI: Bill Worek  Proposal Writers: Pete Larsen/Jodi Lehman
Co-PI: Michelle Miller  Proposal Partner: Penn State Engineering
Co-PI: Adrienne Minerick  Ambassador Program
Co-PI: Jeanne Kampe
Co-PI: Steve Patchin

Program Description: (4) 3-day Women in Engineering programs annually for three years. Programs held at community colleges serving rural populations in Michigan, Wisconsin, Minnesota, and North/South Dakota. Program will be staffed by grad/undergraduate students and practicing female engineers. Program will focus on hands-on discovery-based exploration of aptitudes and interests. Exclusive social media component will support and evaluate students' pursuit of their newly found passions.
PENDING PROPOSALS

NSF  Informal Science Education: Mind Trekkers rural road shows

GOOGLE  RISE: Mind Trekkers student organization seed funding

MSGC: Seed funding for Mind Trekkers demo creation and smaller volume events

MEDC: $5000 for Mind Trekkers events
WHAT'S NEXT?
The Michigan Tech Pre-College Outreach Institute

Internal Advisory Board: Pete Larsen, Ed Laitila, Chris Hohnholt, Leonard Bohmann, Glenn Archer, Kim Geiger, Jean Kampe, Danise Jarvey, Joan Chadde


Mission Statement: The Institute will coordinate all K-12 outreach efforts across campus. The goal will be to take advantage of synergistic activities while working to eliminate duplication of efforts, thereby utilizing resources efficiently with maximum impact on each student. Initiatives spawning from these efforts will focus on creating innovative best practices that can be replicated on a local, regional, national, and international stage.
HELP IS ON THE WAY

Jen Martin
Coordinator

Job Posted
Coordinator
REPLAY
Thoughts from a Few
Mind Trekkers

(click on photo to watch documentary)
REVEAL
Major Announcement
A NEW PARTNERSHIP

A NEW ADVENTURE
USA SCIENCE & ENGINEERING TRAVELING FESTIVAL,

POWERED BY MIND TREKKERS

Mind Trekkers will travel to major festivals across the United States, from coast to coast. Initiative jointly funded, with major backing from Lockheed Martin.

PROJECT LAUNCH: 2013
REWARD
Showing our Appreciation