Corporate Development Council (CDC)  
Fall 2017 Meeting

Hosted by:
Office of the Vice Chancellor of Student Affairs
Welcome and Overview

> Debra Robinson, Vice Chancellor, Student Affairs and CDC Executive Director
> Jeremiah King, Brinkmann Constructors and CDC Chair
> CDC Member Introductions
  – Name
  – Company
  – Association with Missouri S&T (Alumni, Advisory Board(s), etc.)
  – Interesting fact about yourself
Student Affairs Updates

> Staff Changes
  – Dr. Edna Grover-Bisker, Assistant Vice Chancellor of Student Affairs
  – Julie Pittser, Director of Career Opportunities and Employer Relations
  – Marilyn Disser is retiring on Friday, September 15
  – Hilary Beam started on June 21 as the new Executive Assistant

> Department Name Change
  – Professional Leadership and Campus Engagement (PLACE)

> Software Change
  – Hire Miners replaced Miner Jobs
CDC Funded Initiatives
2017-2018 Academic Year

> Ongoing
  – Alternative Weekend Breaks
  – Miner Trek
  – Peer Mentor Leadership Training
  – Student Leadership Conference
  – Suit Closet

> New to CDC
  – Stand Up Stand Out!
  – Peer Involvement Advisors (PIA’s) Expansion
CAMPUS OVERVIEW

Dr. Robert J. Marley
Provost and Executive Vice Chancellor for Academic Affairs
Corporate Development Council, Sept. 13, 2017
NEW LEADERSHIP

Dr. Christopher Maples
Interim Chancellor
May 2017

Dr. Neil Outar
Interim Chief Diversity Officer
August 2017

Cuba Plain
Interim Vice Chancellor, Finance and Operations
September 2017
Dr. Stephen Roberts  
Vice Provost and Dean  
College of Arts, Sciences, and Business

Dr. Richard Wlezien  
Vice Provost and Dean  
College of Engineering and Computing
NEW CHAIRS

Dr. David Borrok
Geosciences, Geological and Petroleum Engineering

Dr. David Duvernell
Biological Sciences

Dr. George Markowsky
Computer Science
STeady Enrollment

* First week enrollment

Fall 2017 Enrollment
- 6,909 Undergraduates
- 1,892 Graduates
- 8,801 Total*
ABOUT OUR STUDENTS

About our first-year students

39% involved in Project Lead The Way

30% involved in VEX or FIRST Robotics

22% are first generation

19% attended an S&T summer camp
ECONOMIC IMPACT

S&T students will likely spend nearly $24 million locally this academic year.

$1,975 average spent by freshmen

$2,720 average spent by upperclassmen

$5,700 average spent by graduate students, many whom reside with their families
RESEARCH & TECHNOLOGY TRANSFER

Total Research Awards
FY16 – $33.5 million
FY17 – $35.2 million

Federal Awards
FY16 – $25.8 million
FY17 – $26.4 million

Number of Research Proposals Awarded
FY16 – 314
FY17 – 330

Record Year for Tech Transfer

7 new invention disclosures

$121,177 in royalty income returned to S&T departments

$187,998 in royalties paid to inventors and authors

$540,396 in royalty income
SAVE THE DATES

Sept. 25
Industry Day

Sept. 26
Fall Career Fair
BUILDING ON SUCCESS

Advanced Construction and Materials Laboratory
BUILDING ON SUCCESS

Chemistry, Biology and Bioengineering Complex

Phase I: James E. Bertelsmeyer Hall
$22.3M—100% S&T + donors
Opened Fall 2014

Schrenk Hall upgrade
(Phases II & III)

- Phase II: $18M
  ($12M State; $6M S&T)
- Phase III: $54M request (~57% total project cost)
THANK YOU.

Missouri S&T Mars Rover Design Team
Winners of the 2017 University Rover Rover Challenge
Diversity Program Changes

Student Diversity, Outreach and Women’s Programs (SDOWP) reports to S&T’s Chief Diversity Officer

- Renamed Student Diversity Initiatives
  > S&T’s Diversity House, located at 605 W. 11th Street

- The department’s mission is to foster diversity and inclusion in the S&T community by providing a welcoming climate for all students. This department aims to support underrepresented, first-generation and low-income students from all walks of life through programming, retention and mentoring initiatives.
Recruitment and Enrollment Trends
Tim Albers, Vice Provost and Dean
For Enrollment Management
Freshman Enrollment Trend

New Freshmen

Year: 2000-2017*

End of Week 2

New Freshmen

- 2000: 696
- 2001: 715
- 2002: 815
- 2003: 897
- 2004: 867
- 2005: 894
- 2006: 977
- 2007: 1051
- 2008: 1056
- 2009: 1132
- 2010: 1171
- 2011: 1101
- 2012: 1125
- 2013: 1263
- 2014: 1291
- 2015: 1489
- 2016: 1482
- 2017*: 1428
Transfer Enrollment Trend

New Transfer Students

End of Week 2

Diversity Enrollment Trend

Female Students

Minority Students

Underrepresented Minority Students

* End of Week 2
Demographic Trends

High School Graduates: Public and Non-Public
Projected change in graduates during the next 5 years (2016-17 to 2021-22)

© December 2012. Knocking at the College Door. Western Interstate Commission for Higher Education
Demographic Trends

High School Graduates: White Non-Hispanic
Projected change in graduates during the next 5 years (2016-17 to 2021-22)
Demographic Trends

High School Graduates: Students of Color
Projected change in graduates during the next 5 years (2016-17 to 2021-22)

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Western Interstate Commission for Higher Education
Demographic Trends

Projected number of high school graduates: Missouri 2012-20

- 2012: 1,633 Admits and 860 Enrolled
- 2013: 1,770 Admits and 1,008 Enrolled
- 2014: 2,006 Admits and 1,060 Enrolled
- 2015: 2,213 Admits and 1,212 Enrolled
- 2016: 2,255 Admits and 1,234 Enrolled

© December 2012. Knocking at the College Door. Western Interstate Commission for Higher Education
## Demographic Trends

### First Year Students by State

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th></th>
<th></th>
<th>2014</th>
<th></th>
<th></th>
<th>2015</th>
<th></th>
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<tr>
<td></td>
<td>Admits</td>
<td>Enrolled</td>
<td>Yield</td>
<td>Admits</td>
<td>Enrolled</td>
<td>Yield</td>
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<td>Missouri</td>
<td>1770</td>
<td>1008</td>
<td>56.9%</td>
<td>2006</td>
<td>1060</td>
<td>52.8%</td>
<td>2213</td>
<td>1212</td>
<td>54.8%</td>
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<td>Illinois</td>
<td>333</td>
<td>110</td>
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<td>358</td>
<td>92</td>
<td>25.7%</td>
<td>416</td>
<td>139</td>
<td>33.4%</td>
<td>387</td>
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<td>88</td>
<td>17</td>
<td>19.3%</td>
<td>103</td>
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<td>82</td>
<td>23</td>
<td>28.0%</td>
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<td>Kansas</td>
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<td>14</td>
<td>19.2%</td>
<td>81</td>
<td>11</td>
<td>13.6%</td>
<td>76</td>
<td>11</td>
<td>14.5%</td>
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<td>6</td>
<td>31.6%</td>
<td>32</td>
<td>2</td>
<td>6.3%</td>
<td>46</td>
<td>4</td>
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<td>45</td>
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<td>38</td>
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<tr>
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<td>27.6%</td>
<td>46</td>
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<td>46</td>
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<td>18.2%</td>
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<td>12</td>
<td>5</td>
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<td>9</td>
<td>3</td>
<td>33.3%</td>
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<tr>
<td>Iowa</td>
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<td>23.5%</td>
<td>19</td>
<td>5</td>
<td>26.3%</td>
<td>18</td>
<td>5</td>
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</table>
Questions?
Missouri S&T Industry Day 2017

John Eash
Executive Director – Corporate Relations
INDUSTRY DAY OVERVIEW

> Showcase Missouri S&T research facilities, faculty and students
> Benefits of a research partnership with Missouri S&T
> Industry and university panel
> Research center and lab tours
> Faculty and student poster sessions
INDUSTRY DAY AGENDA

8:00-8:30  Continental Breakfast
8:30-9:00  Welcome
9:00-10:00 Panel Discussion: Benefits of Research with S&T and Intellectual Property Agreements
10:00-11:00 Centers and Consortia Overviews
11:00-12:00 Showcase and Student Poster Sessions
12:00-12:45 Lunch with Faculty and Students
1:00-3:30  Lab and Center Tours
3:30-4:00  Closing
PARTICIPATING CENTERS AND CONSORTIA

- Center for Biomedical Research
- Center for Infrastructure Engineering Studies
- Intelligent Systems Center
- Center for Research in Energy and Environment
- Solar Village Microgrid
- Center for Electromagnetic Compatibility
- Center for Aerospace Manufacturing Technologies
- Kent D. Peaslee Steel Manufacturing Research Center
- Materials Research Center
- Rock Mechanics and Explosives Research Center
Student Panel Representatives

Bio information can be located in your binder.

> Tyler R. Cozad
  – Senior majoring in Geological Engineering

> Hunter Dougan
  – Junior, majoring in Environmental Engineering

> Taylor Keller
  – Sophomore majoring in Electrical Engineering

> Madison Oostendorp
  – Sophomore majoring in Engineering Management

> Folabomi Opakunle
  – Senior, majoring in Chemical Engineering

> Nate Potrafka
  – Sophomore, majoring in Aerospace Engineering

Missouri S&T
Student Panel Questions

- Employer/Industry Experiences (Internship, Co-op, Miner Trek and Externship)
- What do students want in an employer?
- What are the most important things students look for?
- What are the most effective ways to communicate with students?
- What type of events are students excited to attend?
  - What is the best way to inform you about events?
- What was the biggest takeaway from your Missouri S&T experience that you believe will help you when you graduate?
Lunch Break
Luncheon discussion with Campus Leaders and Students

> CDC Members
  – What do you expect regarding new hires?

> Student Leaders
  – What are your wishes of future employers?
Student Leading Student Presentations

> IEEE Student Branch
  – Li Guan
    > Senior, majoring in Electrical and Computer Engineering
  – Katelyn Brinker
    > Masters student majoring in Electrical Engineering

> Mars Rover
  – Cameron Shilko
    > Senior, majoring in Mechanical Engineering
  – Téa Thomas
    > Sophomore, majoring in Business and Management Systems
Purpose

- Empower students to be the best engineers and leaders they can be
- Create technical and professional development opportunities
- Serve over 200 students inside and outside the ECE department
Professional Development

General Meetings:
> Learn about companies hiring in the EE and CpE field
> Network with company representatives in a relaxed environment
> Meet students in same field of study
Professional Development

Career Fair Bootcamp:
  > Resume Design, Power Introductions, Portfolio Development, Interview tips

SPAX Project Fair:
  > Students showcase technical work to employers and professors
  > Develop networking and presentation skills
Skills Development

- Electronics Workshop
- Robotics Competition
- Circuit Design Competition
- Black Box Competitions
- Emphasis Area Workshops
- Study Sessions
- Open Lab
- Determine the circuit concealed inside by analyzing 4 unlabeled test points
- Develop analysis and problem solving skills
- Apply knowledge from EE/CpE classes
- Prizes for local and sectional competitions
Missouri S&T Students won the IEEE St. Louis section’s 2016 analog and digital Blackbox competitions.

The 2017 IEEE St. Louis section Blackbox competition will be hosted at Missouri S&T this November.
Region 5 Conference

Categories:

> Robotics
> Circuit Design
> Ethics Debate
> Student Paper

Competition

> Standards Development

> 2018 Conference to be held in Austin, TX in April
Region 5: Circuit Design

- Design a circuit solution for a practical problem
- Work under time and component constraints
- Compete in teams of 2
> 1st place in 2015 in New Orleans, LA

> 1st place in 2016 in Kansas City, KC

> 3rd place in 2017 in Denver, CO
Goal: design and build an autonomous robot for a new course every year

Team of 10+ undergraduate students

Competes against ~30 teams from universities all over Region 5

Modifying and improving last year’s robot for the 2018 competition
MAKING A WORLD CHAMPION

Mars Rover Design Team
WE ARE MRDT
University Rover Challenge
AKERS

Our first rover, named in honor of Col. Thomas Akers, an S&T graduate and veteran of four space shuttle missions.
GRYPHON
Round Table Discussions

Please check the information sheet at your place setting for your specific group and location.

> Engaging Alumni: Mark Mullin and Nancy Hatch
  – Meramec Room

> Engaging Students: Julie Pittser and Jerri Arnold-Cook
  – Missouri Room

> Enrollment Management: Tim Albers and John Gallagher
  – Gasconade Room

> Gen Z’s/COER: Eddie Grover-Bisker
  – Ozark Room
Upcoming Engagement Opportunities

> Fall Career Fair: September 26
  – For more information contact Julie Pittser, pittserj@mst.edu

> Stand Up Stand Out, women’s empowerment and leadership program, September 30 from 1:00 PM-5:00 PM
  – For more information contact Alison Ayers, ayersar@mst.edu

> The Professional in You: October 3, from 5:30-8:30 PM
  – Members can provide the keynote, present, and/or serve on an closing panel
  – For more information contact Sara Lindeman, stryffelers@mst.edu
Ongoing Engagement Opportunities

> Leadership Development Programs on Tuesday’s, Wednesday’s, and Thursday’s during the fall semester, through Professional Leadership and Campus Engagement (PLACE)
  – For more information contact Dr. Jerri Arnold-Cook, arnoldcookj@mst.edu

> Employer Seminar Series – (lunch and learn with students)- dates are available for the spring semester
  – For more information contact Sammatha Wilcox, sammatha@mst.edu
Student Engagement Opportunities TODAY!

> CDC Bingo– Interested in more interaction with students? Sign up for networking bingo to connect with students and coach them on professional development in the process. Please provide three short facts below about your professional self that we can add to the Bingo card.
  – Sponsored by COER in the Havener Center, Missouri-Ozark, 4:00-4:45 PM

> CLA Panel Discussion - 'What I wish someone had told me when I was looking for my first internship, co-op, or full-time position.'
  – Sponsored by PLACE in the Havener Center, Carver-Turner Room, 4:00-4:45 PM
Lightning Rod Wrap-Up
Thank you for attending!