Faculty and staff meeting
inaugurating
AY 2013/14

August 23, 2013

CEC Home Page: MY CEC tab
Agenda

1. Introductions

2. SEAS Highlights of AY 2012-13

3. CEC priorities in AY 2013-14
Peter Natale

- BS degrees in geophysics and cartography and MBA from University of Connecticut

- Former CIO and Senior Vice President for Information Technology at Becton Dickson Company, $8 billion global medical technology company

Vice President for Information Technology
New Faculty and Staff
Andrew S. Paluch

- BS in Chemical Engineering, BA in Mathematics from the University at Buffalo, State University of New York
- MS and PhD in Chemical Engineering from the University of Notre Dame

Assistant Professor in CPB
Daniela Inclezan

- BS in Computer Science from the Technical University of Cluj-Napoca, Romania

- MS and PhD in Computer Science and MA in Applied Linguistics and Second Language Studies from Texas Tech University

Visiting Assistant Professor in CSE
Dannie Stanley

• MS in Computer Science from Ball State University

• PhD candidate in Computer Science at Purdue University (expected to graduate 12/2013)

Visiting Instructor in CSE
Spencer Birchfield

- BS in Mechanical Engineering, Miami University
- MS in Computational Science and Engineering, Miami University

Visiting Instructor in MME
Micki White

- BS in Business majoring in Accounting from Miami University
- Returned to Miami in 2006, joined the Controller’s Office as an accountant and later General Accounting Supervisor
- Joined FSB in 2012 as the Coordinator of Finance/Administration
- Since August 1, 2013:
  - FSB (75%) / CEC (25%)

CEC Budget Analyst
Our faculty in new administrative roles
Qihou Zhou

- Effective August 19, 2013
- Two years appointment

Interim Chair of ECE
Doug Troy

- Retired in June
- Re-hired as Director of Agile Academy and Graduate Programs
- Effective September 1
- 70% appointment
College of Engineering and Computing Highlights
Academic Year 2012-13

Undergraduate education
Curriculum

- First Year Experience – common divisional elements, topics and learning outcomes of departmental versions of EAS 102 developed

- Engineering Management - discussions on the viability of current and proposed EGM tracks finalized; decision to continue offering all existing tracks but not to implement a new energy track made
Curriculum

• New energy co-major developed in collaboration with IES

• Bioengineering program in full swing (first four graduates in May)

• 15 new courses created and seven significantly modified (incl. graduate courses)
Accreditation and Assessment

• Preparations for ABET Fall 2013 visit finalized; programs seeking accreditation: Bioengineering and all four Engineering Technology programs

• ECE programs accredited through 2016 with the rest of the division
Accreditation and Assessment

• Preparations for High Learning Commission visit in Fall 2014
  – assessment plans for all department-based programs developed, submitted and approved by CELTUA
  – assessment plans for interdepartmental programs in General Engineering and Engineering Management developed, submitted and approved by CELTUA
College of Engineering and Computing Highlights
Academic Year 2012-13

Graduate programs and faculty scholarship
Graduate curriculum

- Non-thesis tracks and 4+1 programs fully implemented
- Core requirements for MS in Computational Science & Engineering developed and implemented
- CEC professional graduate programs – market study undertaken by SEAS / Miami University Community & Corporate Institute finalized
- Articulation agreement between College of Mount St. Joseph and Miami University signed (BS in Math from the college and MS in Computer Science from Miami)
Assistantships

53 graduate students on assistantships

- CSE = 23, CPE = 10, ECE = 13, MME = 7

- University GAs = 25, funded by SEAS faculty = 23, other (library, etc.) = 5

Aspirational goal to have more graduates students supported by CEC faculty and other entities than those supported by the Graduate School accomplished
# Assistantships

<table>
<thead>
<tr>
<th></th>
<th>Spring 2007</th>
<th>Spring 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assistantships</td>
<td>33</td>
<td>53</td>
</tr>
<tr>
<td>Students funded by CEC faculty</td>
<td>5</td>
<td>23</td>
</tr>
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</table>
## Publications
### Calendar year 2012

<table>
<thead>
<tr>
<th></th>
<th>Peer-reviewed journals</th>
<th>Peer-reviewed conference proceedings</th>
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<tbody>
<tr>
<td>CSE</td>
<td>9</td>
<td>19</td>
</tr>
<tr>
<td>CPE</td>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td>ECE</td>
<td>17</td>
<td>22</td>
</tr>
<tr>
<td>MME</td>
<td>19</td>
<td>27</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>56</strong></td>
<td><strong>70</strong></td>
</tr>
<tr>
<td><strong>Total in 2011</strong></td>
<td><strong>43</strong></td>
<td><strong>72</strong></td>
</tr>
</tbody>
</table>
College of Engineering and Computing Highlights
Academic Year 2012-13

Implementation of 2009-2013 strategic plan
CEC 2009-13 strategic priorities

Focus on:

• Recruitment
• Experiential learning
• Undergraduate research
• Global presence
## Recruitment
### Data as of May 1 deadline

<table>
<thead>
<tr>
<th>Category</th>
<th>2012</th>
<th>2013</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applications</td>
<td>2483</td>
<td>2979</td>
<td>20%</td>
</tr>
<tr>
<td>Admissions</td>
<td>1815</td>
<td>2016</td>
<td>11%</td>
</tr>
<tr>
<td>Admission rate</td>
<td>73%</td>
<td>68%</td>
<td>n/a</td>
</tr>
<tr>
<td>Confirmations</td>
<td>422</td>
<td>441</td>
<td>5%</td>
</tr>
<tr>
<td>Yield rate</td>
<td>23.2%</td>
<td>21.9%</td>
<td>n/a</td>
</tr>
</tbody>
</table>
Undergraduate Enrollment

<table>
<thead>
<tr>
<th>Term</th>
<th>Number of confirmations as of May 1 deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2007</td>
<td>214</td>
</tr>
<tr>
<td>Fall 2009</td>
<td>236</td>
</tr>
<tr>
<td>Fall 2010</td>
<td>395</td>
</tr>
<tr>
<td>Fall 2011</td>
<td>362</td>
</tr>
<tr>
<td>Fall 2012</td>
<td>422</td>
</tr>
<tr>
<td>Fall 2013</td>
<td>441</td>
</tr>
</tbody>
</table>
Recruitment
Data as of May 1 deadline

• ACT average of confirmed students increased from 27.35 in 2012 to 28.85 (the highest among all academic divisions at Miami, the university average is 27.5)

• 34 students admitted to the University Academic Scholars program (over 20% of Miami’s total of 166)
# Hot off the press (as of August 21)

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of undergraduate students</th>
<th>Fall 2012</th>
<th>Number of undergraduate students</th>
<th>Fall 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic</td>
<td></td>
<td>385</td>
<td></td>
<td>416</td>
</tr>
<tr>
<td>International</td>
<td></td>
<td>17</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>Transfer</td>
<td></td>
<td>16</td>
<td></td>
<td>23</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>418</td>
<td></td>
<td>459</td>
</tr>
</tbody>
</table>
# Experiential learning

Based on exit interviews of 76 students in April 2013

<table>
<thead>
<tr>
<th>Category</th>
<th>% of students reporting experience</th>
<th>% of students reporting experience in April 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internships/co-ops</td>
<td>71</td>
<td>59</td>
</tr>
<tr>
<td>Undergraduate research</td>
<td>44</td>
<td>39</td>
</tr>
<tr>
<td>Service learning</td>
<td>26</td>
<td>28</td>
</tr>
<tr>
<td>Professional organizations</td>
<td>39</td>
<td>42</td>
</tr>
<tr>
<td>Professional training</td>
<td>29</td>
<td>35</td>
</tr>
</tbody>
</table>
## Global experience

<table>
<thead>
<tr>
<th>Study abroad</th>
<th>2005/06</th>
<th>2007/08</th>
<th>2009/10</th>
<th>2011/12</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEC</td>
<td>7%</td>
<td>24%</td>
<td>27%</td>
<td>28%</td>
</tr>
<tr>
<td>MU</td>
<td>32%</td>
<td>37%</td>
<td>42%</td>
<td>41%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Study abroad</th>
<th>MU</th>
<th>CAS</th>
<th>CEC</th>
<th>SEHS</th>
<th>FSB</th>
<th>SCA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011/12</td>
<td>41%</td>
<td>42%</td>
<td>28%</td>
<td>28%</td>
<td>55%</td>
<td>46%</td>
</tr>
</tbody>
</table>
College of Engineering and Computing Highlights
Academic Year 2012-13

Advancement
Notable new gifts / pledges

• $300,000 outright gift and $1,200,000 pledge from Karen Wright to establish the Karen Buchwald Wright Assistant Dean for Student Success

• $150,000 anonymous pledge for paper science scholarships

• $50,000 in endowed scholarships from Larry English and KBC corporation

• $49,000 in faculty and staff endowments from William Scott, Clark Kelly and Bo Brinkman

• $37,000 from Linda Cornfield supporting students’ overseas studies and an Engineers without Borders project in Ecuador
Others

- CEC corporate development team met with 58 companies and foundations
- CEC Corporate Advancement Committee developed a Strategic Plan for Corporate and Foundation Relations
- CEC Development Director made 225 personal contacts with alumni
Lockheed Martin Leadership Institute
Lockheed Martin Leadership Institute Curriculum

- Cohort Certificate Program – intensely personal three-year leadership development program (2 credit hour class per semester) fully developed

- Offered so far:
  - two semesters of Personal Leadership
  - two semesters of People Leadership
  - “Leadership in the Real World” class available to all CEC students
Lockheed Martin Leadership Institute
Exposure

A dozen or so seasoned leaders shared their wisdom with students as speakers and mentors, including:

• Jim Free, Director, NASA Glenn Research Center
• C. Michael Gooden
• David Hodge
• Ray Johnson, Senior VP and CTO, Lockheed Martin
• Jeff Smith, CEO, Suncorp Business Services
• Pete Strange, former CEO, Messer Construction
Students established strong social media presence, organized series of events throughout Engineers week, revamped web pages, created a number of videos, and staffed booth at career fairs.

The Idea Kitchen—a space designed to foster student creativity and collaboration - created between Benton and Garland Halls.
Lockheed Martin Leadership Institute
Cohort Activities

• Cohort #1 visited Lockheed Martin Innovation Center in Virginia

• Cohorts #1 and 2 visited Lockheed Martin Akron and the NASA Glenn Research Center

• Cohort #3 recruited
College of Engineering and Computing Highlights
Academic Year 2012-13

Suncorp Agile Academy
Re: Suncorp Agile Academy
Who is Suncorp?

Suncorp Group

• Leading financial services brands in Australia and New Zealand
  o $96 billion in assets
  o 16,000 employees
  o 9 million customers

Suncorp Corporate Services

• Group’s shared services, including technology, real estate, procurement, financial shared services and human resources services portfolios
Suncorp Agile Academy

• Letter of Intent to establish the Suncorp Agile Academy at Miami University signed on May 11, 2013

• Mr. Jeff Smith, MU Class ‘84, CEO of Suncorp Corporate Services delivered a keynote address at SEAS Recognition ceremony on May 12, 2013

• Suncorp hired five Miami students and offered Summer ’13 internships to eleven students

• Agreement between Suncorp Corporate Services and Miami signed on August 19, 2013 (3-year, $200k per year commitment)
The key objectives of the Agile Academy

- to develop courseware and curriculum in Agile for MU students
- to offer scholarship to MU students who will undertake the study of Agile
- students to participate in projects / initiatives provided by Suncorp
- to generate internships and career opportunities at Suncorp
College of Engineering and Computing Highlights
Academic Year 2012-13

Other important developments
Budgetary matters

- SEAS fee proposal approved by MU Board of Trustees
- Year-round involvement in preparations for the implementation of the RCM model
- New revenue enhancement planning process finalized
Miscellaneous

- SEAS regional campus departments transitioned to the newly established College of Professional Studies and Applied Sciences

- New departmental name: Department of Chemical, Paper and Biomedical Engineering

- Augmented Reality Center – proposal developed and approved by SEAS

- Former Miami President, Dr. James Garland, honored by naming one of the three buildings in the engineering and computing complex Garland Hall
CSE-ECE Alumni Conference

- First collaboration of this type between CSE and ECE
- There were 11 technical topics presented, 33 alumni and 64 students attended
- Keynote by CSE Alumnus Juan Gilbert, Professor and Chair of the Human Centered Computing, Clemson University
- Speedgeeking: 20 capstone projects
Facebook Launched January 2013

People are paying attention to our FB page

• We reach people in 20+ countries
• Within two days of launching a story, it has 30-100 reads,
  “Girls on the Go” story – over 3k reads
• This week, our FB had 225 Post Clicks

Let’s keep the momentum going – provide Linda with information about projects, research, etc., that can be used for FB and the CEC Experience (our eMagazine).
Faculty awards and recognitions
Andrew Sommers

Granted tenure and promoted to Associate Professor of Mechanical and Manufacturing Engineering
Arthur Olson Generational Teaching Excellence Award

Bo Brinkman
Associate Professor, Computer Science and Software Engineering
CEC Outstanding Researcher

John Karro

Associate Professor, Computer Science and Software Engineering
2013 Miami University
Distinguished Scholar Award

Jade Morton
Professor, Electrical and Computer Engineering
Ohio Magazine’s Excellence in Education Honorees

- Jerry Gannod
  Professor of Computer Science and Software Engineering

- Andrew Sommers
  Associate Professor of Mechanical and Manufacturing Engineering
Additional Faculty Accomplishments

- **Fulbright Scholar**
  - Steve Keller, Associate Professor
  - Chemical, Paper, and Bioengineering

- **Jennie Elder Suel Woman of Color Award**
  - Jade Morton, Professor
  - Electrical and Computer Engineering

- **Associate Editor for IEEE Trans. on Education**
  - Ann Sobel, Associate Professor
  - Computer Science and Software Engineering
Women’s Leadership and Male Ally Awards

These awards, sponsored by the MU Women’s Center, honor individuals who have distinguished themselves as advocates for equality and models of leadership.

Jade Morton, Professor
Electrical and Computer Engineering

Jerry Gannod, Professor
Computer Science and Software Engineering
Brian Kirkmeyer, Karen Buchwald Wright Assistant Dean for Student Success

• Brian was featured in Purdue University’s alumnus magazine
• In the article, Brian talks about his class *Metal on Metal: Engineering and Globalization in Heavy Metal Music*

Photo from the article: “Turning up the volume on engineering education”
Osama Ettouney publishes book

• Recently published fictionalized autobiographical novel about the hearts and souls of the people of Cairo
Our students in the spotlight
Goldwater Scholar

• James Tong Morton, is a quadruple major in computer science, electrical engineering, engineering physics and mathematics
• Jamie is one of three students at an Ohio public university to receive this award
• John Karro, CSE, and Chun Liang, BOT are his mentors

Jamie Morton, CSE, ECE
Benjamin A. Gilman International Scholar

• Zach is one of three MU students to receive the nationally competitive Gilman Scholarship Program, sponsored by the U.S. Department of State, that offers awards for undergraduate students to travel abroad

Zachary Liston, CSE
Provost’s Student Academic Achievement Award

In 2012/13 - 13 students awarded
In the last six years, 16 awards for CEC students (out of 70 at Miami University)
Recognition Ceremony Student Speakers

Sean Fisher, MME and Choolwe Mondona, CPB
Graduate Research Fellowship Awarded

• Awarded fellowship from the NSF Graduate Research Fellowship Program
• She was one of two Miami students to receive the award

Jillian Epstein, CPB
New Engineering Honor Society Established

**Eta Kappa Nu (HKN) – Lambda Omicron chapter**

- HKN is the electrical and computer engineering honor society of IEEE
- Eleven students were inducted as Charter Members on April 22, 2013

Dr. Kenneth Jenkins, Penn State University, presided over the ceremony
• MU App Redesigned
• MyMetro App deployed
• Smartphone Academy grant for AFRL Virtual Discovery Lab
• AFRL Year-at-the-Edge program awarded scholarships to 14 students
• Girls on the Go computer summer camp for high school girls – very popular on our FB with 3278 reaches to date
• Brookville Elementary mobile app development

Jerry with 4th grade mobile app developers from Brookville, Ohio

This Facebook story went viral!
Engineers without Borders
Return to Ecuador

They also improved the water catchment system to prevent sediment obstruction and enhance water collection.

In January, the team implemented an improved chlorine delivery and mixing system to improve water disinfectant.
CEC priorities in AY 2013 - 14
Miami 2020 – Fall 2013

- Chairs submit preliminary responses to the Miami 2020 metrics survey to CEC Dean (September 27)
- Chairs submit revised responses to the Miami 2020 metrics survey to CEC Dean (October 14)
- Dean synthesizes departmental responses and submits preliminary responses to the president and Provost (November 1)
- Final divisional plan due on November 15
Undergraduate curriculum

• CEC First Year Experience - finalize transition to departmental versions of EAS 102

• Engineering Management - develop a long-term plan to retain, enhance, coordinate and, possibly, accredit viable EGM tracks

• Approval of CSE 243 as meeting CAS QL requirement

• Contribute to the development of a model for liberal education at MU
Graduate programs

• Increase the number of students supported by CEC faculty grants from 23 to 26

• Increase the number of students supported by CEC (under new RCM rules) from 24 to 27

• Keep the number of students supported by other entities the same (five)
Graduate programs

- Prepare for the university-wide assessment of the graduate programs in Fall 2014
- Develop and implement a pilot certificate program
- Develop a Professional Master’s degree
Accreditation and Assessment

• Organize and support a successful ABET visit for the Bioengineering program
• Support ABET visit in ENT
• Finalize the set of common CEC course evaluation questions
• Finalize divisional preparations for High Learning Commission visit in Fall 2014
• Phase I of preparations for the next general ABET visit in fall 2016
# Recruitment in 2013/14 (data as of May 1 recruitment deadlines)

<table>
<thead>
<tr>
<th>Goal</th>
<th>2012/13</th>
<th>2013/14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase the number of applications</td>
<td>2,979</td>
<td>3,200</td>
</tr>
<tr>
<td>Increase the academic profile of student body by lowering the admission rate</td>
<td>2,016 (68%)</td>
<td>1,950 (61%)</td>
</tr>
<tr>
<td>Stabilize the number of first year students (yield rate in parentheses)</td>
<td>441 (22%)</td>
<td>441 (23%)</td>
</tr>
</tbody>
</table>
Student success

- Develop opportunities for Engineering and Computing Scholars
- Engage newly established Miami Engineering and Computing Student Council and its subset, Dean’s Student Council, in developing CEC 2020 Plan and other important CEC initiatives
- Increase retention and six-year graduation rates (Miami 2020)
External Relations

• Operationalize Agile Academy

• Finalize and implement CEC Strategic Plan for Corporate and Foundation Relations

• Develop an Experiential Learning Program, an umbrella for leadership, experiential learning and global programs that are sponsored by key corporate partners
Lockheed Martin Leadership Institute

• Finalize and approve certificate program

• Help to develop opportunities for Engineering and Computing Scholars

• Theme for 2013/14: Women in Engineering and Computing
Budgetary matters

• Implement the RCM financial model and manage finances under the model

• Make operational the newly approved engineering and computing fee

• New revenue opportunities – capitalize on the establishment of the new winter term
Other priorities

• Conduct comprehensive assessment of CEC IT

• Seek approval for and operationalize Augmented Reality Center

• Develop a new governance document for our college radically changed as a result of transitioning regional campus departments

• Develop a number of online courses
Public Relations and Communications

• Web revamping:
  Phase I – comprehensive content review (Summer 2013)
  Phase II - move to the new content management system (Fall 2013)
• New ViewBook from the photo shoots and interviews last fall
• New professional CEC video due soon
• University Communications and Marketing is ramping up for more in depth PR coverage for CEC
CEC priorities in 2013-14

to be further discussed
in divisional and departmental meetings

Have a fruitful and rewarding academic year!