Theme: **Graduate Education Pathways**

**Abstract topics:**

- workforce needs
- changing U.S. demographics
- academic and non-academic career pathways
- online and blended education
- student preparation for multiple career pathways
- transferable skills
- financial support offered by governmental agencies for graduate education
- innovative international linkages
- program assessment
- time-to-degree
- financial debt
- and more...

**Who should attend**

Faculty and staff from colleges and universities significantly engaged in graduate education, to include, but not limited to:

- Graduate Deans and their staff
- Graduate Program Directors and their staff
- Associate Deans and their staff
- Assistant Deans and their staff

**Venue**

**Embassy Suites Lakefront Hotel**
511 North Columbus Dr.
Chicago, Illinois 60611 USA
312.836.5900
<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Location</th>
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<tbody>
<tr>
<td>8 a.m.-5 p.m.</td>
<td>Registration</td>
<td>Pre-Function Foyer</td>
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<tr>
<td>8-11:30 a.m.</td>
<td>Coffee/Tea</td>
<td>Ballroom Foyer</td>
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<tr>
<td>9-11:30 a.m.</td>
<td><strong>New Graduate Administrators Workshop</strong>&lt;br&gt;Robert M. Augustine, (Senior Vice President, CGS); Maria DiStefano, (Associate Provost for International Education and Dean of Graduate Studies, Truman State University)&lt;br&gt;This session gives new deans and graduate school staff members the opportunity to discuss topics of interest. This highly interactive session is led by experienced deans and is followed by a luncheon with the members of the Executive Committee of the Midwestern Association of Graduate Schools (MAGS).</td>
<td>Ohio 1 &amp; 2</td>
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<tr>
<td>10 a.m.-5 p.m.</td>
<td>Exhibitors</td>
<td>Pre-Function Foyer</td>
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<tr>
<td>10-11:30 a.m.</td>
<td>Executive Committee Meeting</td>
<td>Des Plaines River</td>
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<tr>
<td>11:30 a.m.-1 p.m.</td>
<td><strong>New Graduate Administrators &amp; Executive Committee Luncheon</strong></td>
<td>Rock River 1 &amp; 2</td>
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<tr>
<td>1:15-1:30 p.m.</td>
<td>Welcome &amp; Overview&lt;br&gt;Jessica Horowitz, MAGS Chair, Loyola University- Chicago&lt;br&gt;Venkata Allada, MAGS Chair-elect, Missouri University of Science &amp; Technology</td>
<td>Salon A, B, C, &amp; D</td>
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<td>1:30-2 p.m.</td>
<td><strong>News from the Council of Graduate Schools</strong>&lt;br&gt;Suzanne Ortega, President, Council of Graduate Schools</td>
<td>Salon A, B, C, &amp; D</td>
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<td>2-3:30 p.m.</td>
<td>Plenary Session&lt;br&gt;Julia Kent, Assistant Vice-President, Communications Advancement and Best Practices, Council of Graduate Schools&lt;br&gt;Jeff Allum, Assistant Vice-President, Research and Policy Analysis, Council of Graduate Schools</td>
<td>Salon A, B, C, &amp; D</td>
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<td>3:30-3:45 p.m.</td>
<td>Exhibitor Highlights</td>
<td>Pre-Function Foyer</td>
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<td>3:45-4:15 p.m.</td>
<td>Break</td>
<td>Pre-Function Foyer</td>
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<td>4:15-5:15 p.m.</td>
<td><strong>CONCURRENT SESSIONS</strong></td>
<td>Ohio 1 &amp; 2</td>
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<td><strong>Innovative International Linkages</strong>&lt;br&gt;Tim Gilson, Associate Professor, Department of Educational Leadership, University of Northern Iowa; Leigh Martin, Department of Teaching, University of Northern Iowa&lt;br&gt;This presentation reviews one University’s attempt to create a program which serves as a catalyst for infusing global awareness and cultural competencies while increasing enrollment in both graduate and international students, all</td>
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while reaching an international market of educators through the development of a Master’s degree program designed for K-12 international educators.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Presenter</th>
<th>Location</th>
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<tbody>
<tr>
<td>Designing a Compass for Graduate Students to Navigate the Silent Curriculum</td>
<td>NaShara Mitchell, Assistant Dean, Indiana University; Nick Pearce, Doctoral Student, Indiana University; Ian Ermatinger-Salas, Masters Student, Indiana University</td>
<td>Rock River 1 &amp; 2</td>
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<td>This presentation will focus on the silent curriculum of graduate school and what it requires of graduate students, establishing a method of assessment for the graduate school curriculum.</td>
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<td>Pathway to a Doctorate: How to Keep Quality Instruction in an Online Program</td>
<td>Kristi Preisman, Director, Doctor of Education Program, College of Saint Mary</td>
<td>Mississippi 1 &amp; 2</td>
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<tr>
<td>This presentation will focus on the process of revising a traditional face-to-face Doctor of Education program to a three-year, online cohort program with a residency component. College of Saint Mary in Omaha, NE launched its first online cohort program in June 2015.</td>
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<td>A Promising Framework for Connecting Transferrable Skills to Leadership Development: The Leadership Competencies Scorecard</td>
<td>Robin G. Walker, Coordinator, Leadership and Professional Development Programs, University of Missouri</td>
<td>Illinois River</td>
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<tr>
<td>This presentation will describe the framework, content and evaluation results from a leadership capacity-building course offered at the University of Missouri. Students assess their strengths and skills, analyze job announcements, then set professional development goals to acquire new transferable skills that are in high demand by employers across job sectors.</td>
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<td>6-7 p.m.</td>
<td>Reception</td>
<td>Pre-Function Foyer</td>
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<td>7-9 p.m.</td>
<td>MAGS/ProQuest Distinguished Master’s Thesis Award Banquet</td>
<td>Salon A, B, C, &amp; D</td>
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Thursday, April 7, 2016

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<thead>
<tr>
<th>Time</th>
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<td>7 a.m.-5 p.m.</td>
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<td>Pre-Function Foyer</td>
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<td>7-8 a.m.</td>
<td>Continental Breakfast-Non Hotel Guests Ballroom Foyer</td>
<td>Hotel Guest-Hotel Lobby</td>
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<tr>
<td>8-8:30 a.m.</td>
<td>Networking</td>
<td>Pre-Function Foyer</td>
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<td>8:45-10:00 a.m.</td>
<td>Plenary Session</td>
<td>Salon A, B, C, &amp; D</td>
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<td>Break</td>
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<td>10:45-11:45 a.m.</td>
<td><strong>CONCURRENT SESSIONS</strong></td>
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<td></td>
<td>Doctoral Student Success: Strategies to Keep</td>
<td>Ohio 1 &amp; 2</td>
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<td>Students Engaged</td>
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<td>Lois Linden, Associate Professor of Nursing</td>
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<td></td>
<td>College of Saint Mary; Kristi Preisman,</td>
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<td>College of Saint Mary; Vicky Morgan,</td>
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<td>Director, Teaching and Learning Center,</td>
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<td>Associate Dean for Academic Affairs,</td>
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<td>College of Saint Mary; Shari Prior,</td>
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<td>Director, Philosophy Program,</td>
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<td>College of Saint Mary; and Eric Kyle,</td>
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<td>College of Saint Mary</td>
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<td>The joint report by the Council of</td>
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<td>Graduate Schools and Educational Testing</td>
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<td>Service titled *The Path Forward: The</td>
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<td>Future of Graduate Education in the United</td>
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<td>States* highlights several concerns about</td>
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<td>and recommendations for graduate school</td>
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<td>programs. Two of the concerns raised in</td>
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<td>the report were related to meeting the needs</td>
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<td>of the contemporary graduate student and</td>
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<td>improving completion rates. In this session,</td>
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<td>faculty from a recently revised Ed.D.</td>
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<td>Program in a small private institution will</td>
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<td>present and discuss strategies employed</td>
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<td>to address these concerns.</td>
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<td>Creating a Graduate Education Pathway for</td>
<td>Rock River 1 &amp; 2</td>
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<td>Undocumented Students</td>
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<td>Shelly Conner, Assistant Dean for Academic</td>
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<td>Planning and Policy, Director of</td>
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<td>Institutional Research, University of</td>
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<td>Michigan</td>
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<td>At the University of Michigan, there are</td>
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<td>barriers for our undocumented graduate</td>
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<td>students to gain access to a graduate</td>
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<td>education. Recent efforts have been made</td>
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<td>to eliminate these barriers. This</td>
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<td>presentation will review the current status</td>
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<td>of immigration laws as they relate to</td>
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<td>undocumented students as well as reviewing</td>
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<td>key points for other institutions to</td>
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<td>consider in order to create a clear path</td>
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<td>for undocumented students.</td>
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<td>Preparing Graduate Students for a Broad</td>
<td>Mississippi 1 &amp; 2</td>
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<td>Range of Career Pathways</td>
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<td>Henning Schroeder, Vice Provost and Dean of</td>
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<td>Graduate Education, University of Minnesota</td>
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<td>This session will focus on sharing and</td>
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<td>discussing the various initiatives, ideas,</td>
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<td>and specific programs that have been</td>
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<td>developed at the University of Minnesota to</td>
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<td>encourage graduate students to explore and</td>
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<td>prepare for both academic and non-academic</td>
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<td>career options.</td>
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<td>12-2:15 p.m.</td>
<td><strong>Business Meeting &amp; Award Luncheon</strong>&lt;br&gt;MAGS/ETS Award for Excellence &amp; Innovation in Graduate Education, MAGS Excellence in Teaching Award</td>
<td>Salon A, B, C, &amp; D</td>
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<td>2:30-3:30 p.m.</td>
<td><strong>CONCURRENT SESSIONS</strong></td>
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<td><strong>Infusion of Transferrable Skills into a Leadership Development Program:</strong>&lt;br&gt;A partnership with the 4 campuses of the University of Missouri system</td>
<td>Ohio 1 &amp; 2</td>
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<td>Denis Medeiros, Vice Provost, Graduate Studies, University of Missouri-Kansas City; Robin G. Walker, Coordinator, Leadership and Professional Development Programs, University of Missouri; Venkat Allada, Vice Provost for Graduate Studies, Missouri University of Science &amp; Technology; Gregory Holliday, Director of Leadership Development, VP of Human Resources, University of Missouri system; Wesley Harris, Associate Dean of the Graduate School, University of Missouri-St Louis; Leona Rubin, Dean of the Graduate School, University of Missouri</td>
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<td>This session will discuss a collaborative Graduate Leadership Development Program, as created by the University of Missouri System. This program provides graduate students with leadership development in areas of communication, creativity, entrepreneurship, management, organization, problem solving, and more.</td>
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<td><strong>MSU BEST: Integrated Biomedical Training for Multiple Career Options</strong></td>
<td>Rock River 1 &amp; 2</td>
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<td>Stephanie Watts, Assistant Dean, Graduate School, Michigan State University; Karen Klomparens, Dean, Graduate School, Michigan State University; Julia McAnallen, Director of PhD Career Services, Michigan State University; Julie Rojewski, BEST Program Manager, Michigan State University</td>
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<td>The Broadening Experiences in Scientific Training (BEST) is an NIH-funded effort dedicated to designing and testing particular interventions to help biomedical trainees (graduate students and postdoctoral fellows) increase their knowledge, skill and confidence in exploring and pursuing expanded career options. MSU BEST integrates the MSU PREP model, Career Success website, and wellness programming to enhance student’s career development and self-efficacy.</td>
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<td><strong>Undergraduate to Graduate: The Transition in a Five-Year Physician Assistant Program</strong></td>
<td>Mississippi 1 &amp; 2</td>
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<td>Jeff Keyte, Division of Arts and Sciences, College of Saint Mary; Shaun Grammer, Program Director, Physician Assistant, College of Saint Mary</td>
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<td>Traditionally, students complete a bachelor's degree before moving to a graduate degree. This session describes a new five-year combined bachelor’s/master’s program to prepare students to be Physician Assistants. Session facilitators will discuss the impetus for this program (growing healthcare</td>
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needs), the accelerated program model and the curriculum and clinical experience components of the program.

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<tr>
<th>Problems &amp; Proposals in Graduate Pathways: A Problem-Based Learning Approach to Doctoral Education in Biomedical Research</th>
<th>Illinois River</th>
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<tr>
<td>Julie Davis Turner, Associate Dean, Graduate School, Van Andel Institute; Steven Triezenberg, Dean, Graduate School, Van Andel Institute</td>
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This session will present a case-study of one graduate program that has endeavored to redefine the educational pathway to a doctorate in cellular and molecular genetics, addressing the realistic assessment practices initiated to complement such a unique graduate pathway.

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<th>3:30-3:45 p.m.</th>
<th>Break</th>
<th>Pre-Function Foyer</th>
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<th>3:45-4:45 p.m.</th>
<th>CONCURRENT SESSIONS</th>
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<th>Collaborative Efforts to Enhance the Academic, Professional, and Personal Experiences of Graduate Students</th>
<th>Ohio 1 &amp; 2</th>
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<tr>
<td>Geraldine Craig, Associate Dean of the Graduate School, Kansas State University; Megan Miller, Project Coordinator, Student Services and Professional Development, Graduate School, Kansas State University</td>
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This session will describe the unique collaborative efforts between the Graduate School, Graduate Student Council (GSC), and student support units at Kansas State University to enhance the academic, professional, and personal experiences of graduate students. The goal of these partnerships is to provide support in multiple domains of the graduate student experience and help prepare graduate students for multiple career pathways.

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<tr>
<th>Filling the Gap: The Role of Graduate Degree Granting Institutions in Supporting a National Adaptive “Career-Long Education” Infrastructure for STEM Professionals Employed at Small to Medium Enterprises</th>
<th>Rock River</th>
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<td>Ave M. Alvarado, Director, Educational Equity Programs, Graduate College, University of Illinois at Urbana-Champaign</td>
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In 2009, a workshop was held at the University of Illinois in partnership with the National Academy of Engineers to explore issues related to lifelong learning for engineering professionals. This presentation outlines the findings from the study and emphasizes the training and educational issues of STEM professionals employed at small enterprises in the U.S. The role that graduate-degree granting institutions could play in supporting career-long education of STEM professionals will be discussed.

| Using Lean to Improve Communicating the Degree Completion Process | Illinois River |
Debra Charlesworth, Assistant Dean, Michigan Technological University; Marco La Manna, PhD Candidate, Michigan Technological University

Michigan Technological University received feedback from students, faculty, and staff which indicated that the process to earn a graduate degree was unclear, and students were not sure how to see their degree progress. To address this concern, they held a Kaizen using Lean principles to evaluate the degree completion process and determine ways to better communicate this process to our students, faculty, and staff. This session presents an overview of the Kaizen, the web pages developed, and future directions for improved communication.

Tracy Chapman, Associate Dean and Executive Director, Center for Academic Innovation, Creighton University; Mary Chase, Vice Provost, Enrollment Management, Creighton University; Jessica Graner, Associate Provost, Academic Finance, Creighton University; Gail Jensen, Vice Provost for Learning and Assessment, Dean, Graduate School and College of Professional Studies, Creighton University; LuAnn Schwery, Assistant Dean, Graduate School, Creighton University; David Sus, Associate Director for Market Research, Center for Academic Innovation; Creighton University

Higher education is experiencing unprecedented challenges related to increased accountability, financial pressures, a shrinking population of traditional students, and a myriad of new educational models. Institutions are challenged to reconsider their academic portfolio, examine their current processes to identify opportunities for efficiencies, and adopt new educational models including online and blended programs. Presenters will discuss how Creighton University took on these challenges and will be provided with concrete examples of processes and structures that can be adapted to their specific institutional context.

4:45-5:45 p.m. SPECIAL SESSIONS

Updates from the National Science Foundation
NSF Staff Members: Brian Mitchell, Dean-in-Residence, NSF/CGS; Joerg Schlatterer and Jan Middendorf, Program Officers in the Division of Graduate Education, NSF

Developing your 3 Minute Thesis for Enhanced Student Career Opportunities
Ken Clinkenbeard, Associate Dean, Oklahoma State University; Sheryl Tucker, Dean of the Graduate College, Oklahoma State University

The Three Minute Thesis (3MT®) is a professional development activity developed by the University of Queensland Australia
that trains research graduate students to present what they do and its societal relevance in a concise, understandable and engaging manner to educated but non-specialist audiences. This session will provide resources and tips for planning and executing successful 3MT competitions. In addition to using the 3MT as a professional development activity at Oklahoma State University (OSU), we have explored options for how this communication format can be used to enhance student’s career opportunities and donor relations.

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<td>6-7 p.m.</td>
<td>Networking Reception</td>
<td>Ballroom Foyer</td>
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<td>7-9 p.m.</td>
<td>MAGS Board Dinner</td>
<td>off-site</td>
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### Friday, April 8, 2016

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<td>Pre-Function Foyer</td>
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<td>7-8 a.m.</td>
<td>Continental Breakfast <strong>Non Hotel Guests Ballroom Foyer</strong> Hosted by Educational Testing Service (ETS)</td>
<td>Hotel Guests-Hotel Lobby</td>
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<td>7-8 a.m.</td>
<td><strong>Illinois State Meeting</strong></td>
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<td>8-8:30 a.m.</td>
<td><strong>The TOEFL and GRE Tests: An Update from ETS</strong> Matt Kadlubowski, Associate Director, Global Client Relations, ETS</td>
<td>Salon A, B, C, &amp; D</td>
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<td>8-11 a.m.</td>
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<td>8:45-9:45 a.m.</td>
<td><strong>CONCURRENT SESSIONS</strong></td>
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<td><strong>Communication and Collaboration Towards International Student Success</strong> Jeffrey P. Bakken, Associate Provost for Research and Dean of the Graduate School, Bradley University; Shabeer Amirali, Director of Marketing, Recruitment, Student Success, and Partnerships, Bradley University</td>
<td>Ohio 1 &amp; 2</td>
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<td>International student enrollment is becoming more important and challenging, because of globalization, and universities are forced to duplicate what is occurring throughout the world. Key challenges are to connect with the international students and share appropriate communications with them to fulfill their wants and needs. Bradley University believes that achieving internationalization will help in increasing the economy and bring global talent to the U.S. This session will discuss programmatic efforts to increase international student enrollment.</td>
<td>Ohio 1 &amp; 2</td>
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<th><strong>Graduate Program Assessment: One Institution’s (absolutely required yet surprisingly smooth) Journey</strong></th>
<th>Rock River 1 &amp; 2</th>
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Scott Herness, Associate Dean, Graduate School, The Ohio State University

Five years after release of the Council of Graduate Schools’ report, The Path Forward, the significance of its proposed partnership between graduate schools, industry, and government has only increased. For its part, graduate programs must deliver the high quality graduates. This session outlines the work of the graduate school at The Ohio State University to ensure that all graduate programs are full participants in the campus-wide use of best assessment practices, accomplishing this goal with a single central effort implemented across two hundred graduate programs diverse in size, purpose, and knowledge of assessment tools without additional staff or resources.

**Addressing Challenging Graduate Student Situations: Approaches and Techniques**
Sheryl Tucker, Associate Provost for Graduate Education, Dean of the Graduate College, Oklahoma State University; Jean Van Delinder, Senior Associate Dean, Graduate College, Oklahoma State University

This session is designed to help graduate deans and staffs recognize and deal with difficult graduate student situations. Topics and case studies will include the broad scope of student problems (mental health concerns and stress); how issues manifest themselves; and, best practices for handling and avoiding difficult situations.

**Multiple Career Pathways for Doctoral Students: Best Practices from Wayne State University’s NIH Funded Program**
Ambika Mathur, Associate Provost & Dean of the Graduate School, Wayne State University, Christine Chow, Professor, Department of Chemistry, Wayne State University.

National data from the National Institutes of Health (NIH) and the National Science Foundation (NSF) have shown that only 25% doctoral graduates enter tenure-track faculty positions. However, the majority of doctoral programs across the country are primarily designed towards training students exclusively for those careers with relatively no exposure to the multiple career pathways of the majority 75% doctoral graduates. Recognizing this gap, in 2013 the NIH issued a grant announcement called Broadening Experiences in Scientific training (BEST) which called for institutions to create programs to provide doctoral students with exposure to multiple career pathways. This session outlines the best practices from a program implemented at Wayne State University to assist in these efforts.

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:45-10 a.m.</td>
<td>Break</td>
<td>Ballroom Foyer</td>
</tr>
<tr>
<td>10-11:45 a.m.</td>
<td>3 Minute Thesis Competition</td>
<td>Salon A, B, C, &amp; D</td>
</tr>
<tr>
<td>Time</td>
<td>Event</td>
<td>Location</td>
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</tr>
<tr>
<td>11:45-12 p.m.</td>
<td>Closing</td>
<td>Salon A, B, C, &amp; D</td>
</tr>
<tr>
<td>12-1 p.m.</td>
<td>Board Meeting</td>
<td>Wabash River</td>
</tr>
</tbody>
</table>
Plenary speakers

**Julia Kent** is Assistant Vice President, Communications, Advancement and Best Practices at the Council of Graduate Schools (CGS). Julia’s work in communications and advancement is informed by seven years of research experience in the Best Practice division at CGS. She has conducted research on a broad range of topics in graduate education, including Ph.D. career pathways; diversity issues; graduate admissions processes; international collaborations; quality and accountability; research ethics and integrity; and the preparation of future faculty. Currently she serves as Co-Principal Investigator for a multi-phase project, *Understanding Ph.D. Career Pathways for Program Improvement*, and directs a Hobsons-supported initiative on holistic review in graduate admissions processes. Since 2009, Julia has also overseen CGS’s Global Summit, an international meeting of graduate deans that has convened graduate education leaders from 30 countries in its 10-year history. Julia holds a PhD in British literature from Johns Hopkins University and a maîtrise de lettres modernes from the Université de Paris VII. Before coming to CGS, she was Assistant Professor of English at the American University of Beirut.

**Jeff Allum** is Assistant Vice President, Research and Policy Analysis at the Council of Graduate Schools (CGS). Allum oversees the annual
CGS/GRE Survey of Graduate Enrollment and Degrees as well as the CGS International Graduate Admissions survey. He is co-PI of CGS’ project on Understanding Ph.D. Career Pathways for Program Improvement, the Doctoral Initiative on Minority Attrition and Completion, and the project on Labor Market Outcomes of Master’s Degrees. Allum provides support to various other CGS Best Practices projects, including the project on Enhancing Student Financial Education and the Study of Holistic Admissions Processes among others. Allum was also the project director of CGS’ project on Completion and Attrition in STEM Master’s Programs. Prior to coming to CGS, Allum spent seven years with the American Chemical Society where he led an array of education, employment, and member research studies. He has also conducted research on topics including intergenerational learning, youth development, and alternative education. In fact, he served as the director of implementation at the National Skill Standards Board, a board of business, education, labor, and public policy executives charged by the U.S. Congress with implementing a competency-based education reform. He has worked and studied both domestically and internationally, and he has been an instructor of education policy at the graduate level. He holds an Ed.D. in education policy from George Washington University.

Anne Krook began her career as an assistant professor at the University of Michigan, Ann Arbor, where she taught for seven years before moving to Seattle. After a stint in restaurant bartending, she joined Amazon.com. During
thirteen years at the company, she held various roles in US and international website development, program management, internal audit, and infrastructure. After that, I worked as VP of Operations at a startup, Mindbloom, and then as VP of Operations at Synapse, a product design engineering company in Seattle. She now consults at universities and companies, advising graduate students and faculty about the non-academic job market and helping younger women thrive in their workplaces. She also serves on the board of director of Lambda Legal Defense and Education Fund, whose mission is to achieve full recognition of the civil rights of lesbians, gay men, bisexuals, transgender people and those with HIV. Her work appears at her website at www.annekrook.com.
Speaker handouts

Web-based binder of handouts
Access code: MAGS72
At its annual meeting in April 2015, the Midwestern Association of Graduate Schools voted to adopt a dues structure on a sliding scale reflecting three levels of graduate headcount enrollment, as shown below. Headcount enrollment includes all graduate students except those in programs leading to the MD, PharmD, DVM and JD.

<table>
<thead>
<tr>
<th>Graduate headcount enrollment</th>
<th>1 year dues</th>
<th>2 year dues</th>
<th>3 year dues</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-1000</td>
<td>$175</td>
<td>$325</td>
<td>$475</td>
</tr>
<tr>
<td>1001-4000</td>
<td>$225</td>
<td>$425</td>
<td>$600</td>
</tr>
<tr>
<td>4001 +</td>
<td>$275</td>
<td>$525</td>
<td>$775</td>
</tr>
</tbody>
</table>

Dues notices are e-mailed to member institutions each November/December. Membership renewal and new membership fees run January-December (calendar year) and can be made online using a credit card.
Meeting registration

Meeting registration (includes sponsorship):

- Registration fee includes receptions, banquet, breakfasts and lunch:
  - $250 MAGS member, early bird fee
  - $275 MAGS member (after March 14)
  - $350 Non-members, early bird fee
  - $375 Non-members (after March 14)

- Additional workshops:
  - $30 New Graduate Administrators workshop, includes lunch (Wed. April 6)

- Additional meals for guests:
  - $35 Wednesday, New Graduate Administrators workshop lunch
  - $60 Wednesday, reception & banquet
  - $35 Thursday, breakfast
  - $35 Thursday, lunch
  - $35 Friday, breakfast

- Institutional sponsorship: MAGS member institutions are invited to sponsor the MAGS meeting with a donation of $150 to help defray the costs of the morning and afternoon refreshment breaks. Contributors will be recognized at the meeting and in the written materials.

MAGS membership

Cancellation policy:

Full reimbursement for requests submitted at least 30 days prior to the start of the meeting, 50% reimbursement for requests submitted within 30 days of the meeting, and no reimbursement after the start of the meeting.
Refund and substitution requests must be submitted in writing to: conted@uw lax.edu. Substitutions allowed.
Sponsorship opportunities

**Institutional sponsorship:**

Colleges and universities are invited to sponsor the MAGS meeting with a suggested donation of $150 (to help defray the costs of the morning and afternoon refreshment breaks). College and university sponsors will be recognized at the meeting and in the written materials.

The institutional sponsorship can be paid via the conference [registration](#).

**Corporate sponsorship:**

MAGS invites corporate sponsors to join us in Chicago. Opportunities for sponsorship include all named awards, group breakfasts, and group receptions.

Corporate sponsorships are associated with a fee of $3,000. Corporate sponsors receive one complimentary registration that includes access to all conference meals and receptions.

Sponsors will be acknowledged on the first day of the meeting by the conference organizers. Sponsors will also be acknowledged on the home page for the meeting and on the meeting program. Sponsors of awards will have their corporation acknowledged (along with MAGS) in the name of the award. Sponsors of breakfasts will have the opportunity to make a presentation in association with that breakfast. Sponsors of receptions will have the opportunity to display corporate materials at the
Corporate partners are encouraged to contact David Daleke for more information on sponsorship opportunities.
Exhibitor information

MAGS invites returning and new exhibitors to join us in Chicago. Exhibitor tables are located in an area central to the meeting rooms and breaks.

Registration:
The fee for exhibitor registration is $500. Exhibitor registration includes meeting registration for one representative, skirted display table, opportunity to make a brief presentation to all conference attendees on the first day of the meeting, and invitation to conference meals and receptions. The presence of vendors will be acknowledged on the home page for the meeting and on the meeting program. Registration must be received by March 14, 2016.

Program inclusions and deadlines:
For inclusion in the registration packet, we ask all registered exhibitors to provide a digital copy of their organization logo (jpeg preferred) and a brief text of 150 words or less by March 14.

Exhibitor table information:
Location: Exhibitor tables will be located near the registration table and morning and afternoon breaks. This is not a secured area.

Electricity: There are outlets with sufficient electricity for laptops/small displays. If you require additional electrical capabilities, please contact Continuing Education and we can make arrangements with the hotel. Any additional costs must be paid by the exhibitor.

Meeting attendees list: Exhibitors can request via
email a preliminary list of attendees which will include the attendees' names and institutions. MAGS does not provide email addresses. The list will be available on **March 28.**

**Set-up/take down:** Tables will be available to exhibitors, Wednesday, April 6 through, Friday, April 8.

**Shipping information:** Packages may be delivered to the hotel no more than four working days prior to the date of the meeting and the hotel must have prior notification of any packages being delivered. There will be additional storage fees assessed for any packages that arrive to the hotel prior to the four day allowance. The following information should be included on all packages:

MAGS Annual Meeting  
Attn: Continuing Education  
Exhibitors Name and Company Name  
April 6-8, 2016

Exhibitors are responsible for returning shipping costs and methods for all packages.

**Questions:** Please contact [Angie Coenen](mailto:angie.coenen@uwlax.edu), 608.785.6510
Venue and travel

Hotel reservations

DoubleTree by Hilton
Chicago-Magnificent Mile
300 East Ohio St., Chicago, IL 60611
800.222.8733

- $169, room rate, per night 2 queen beds

Room block code "MAG". Block expires March 25, 2016

Guest room charges are subject to the current 16.4% Chicago hotel room tax.

Embassy Suites Lakefront Hotel - FULL
511 North Columbus Dr.
Chicago, Illinois 60611 USA
312.836.5900

Book your room online or call 1.312.836.5900 to make reservations, reference the MIDWESTERN ASSOCIATION OF GRADUATE SCHOOLS room block.

- $169, room rate, per night 1 king bed
- cut off: March 16
- Internet will be complimentary in your guest room accommodations

Transportation information

- Transportation

City information

Things to do in 'The Windy City'
FRIDAY, APRIL 8, 2016
7 a.m.-12 p.m. Registration .................................................................. Pre-Function Foyer
7 a.m. Continental Breakfast ................................................................. Hotel Lobby
Hosted by Educational Testing Service (ETS)
7 a.m. Illinois State Meeting ................................................................. Atrium
7 a.m. Missouri State Meeting ............................................................. Atrium
8:30 a.m. The TOEFL and GRE Tests: An Update from ETS .............. Salon A, B, C, & D
Matt Kao, Director, Global Client Relations, ETS
8:11 a.m. Exhibitors .............................................................................. Pre-Function Foyer
8:45-9:45 a.m. CONCURRENT SESSIONS
Communication and Collaboration Towards International Student Success ......................................................... Ohio 1 & 2
Jeffrey P. Bakken, Associate Provost for Research and Dean of the Graduate School; Sheryl Tucker, Associate Provost for Graduate Education; Dean of the Graduate College; Jean Van De Flier, Senior Associate Dean, Graduate College - All presenters from The Ohio State University
International student enrollment is becoming more important and challenging, because of globalization, and universities are forced to duplicate what is occurring throughout the world. Key challenges are to connect with the international students and share appropriate communications with them to fulfill their wants and needs. Bradley University believes that achieving internationalization will help in increasing the economy and bring global talent to the U.S. This session will discuss programmatic efforts to increase international student enrollment.
Graduate Program Assessment: One Institution’s (absolutely required yet surprisingly smooth) Journey .............................................................. Rock River 1 & 2
Scott Nemesis, Associate Dean, Graduate School, The Ohio State University
Five years after release of the Council of Graduate Schools’ report, The Path Forward, the significance of its proposed partnership between graduate schools, industry, and government has only increased. For its part, graduate programs must deliver the high quality graduates. This session outlines the work of the graduate school at The Ohio State University to ensure that all graduate programs are able to participate in the campus-wide use of best assessment practices, accomplishing this goal with a single central effort implemented across two hundred graduate programs diverse in size, purpose, and knowledge of assessment tools without additional staff or resources.
Addressing Challenging Graduate Student Situations: Approaches and Techniques ................................................. Mississippi 1 & 2
Sheryl Tucker, Associate Provost for Graduate Education; Dean of the Graduate College; Jean Van De Flier, Senior Associate Dean, Graduate College - All presenters from The Ohio State University
National data from the National Institutes of Health (NIH) and the National Science Foundation (NSF) have shown that only 25% doctoral graduates enter tenure-track faculty positions. However, the majority of doctoral programs across the country are primarily designed towards training students exclusively for those careers with relatively no exposure to the multiple career pathways of the majority 75% doctoral graduates. Recognizing this gap, in 2013 the NIH issued a grant announcement called Broadening Experiences in Scientific training (BEST) which called for institutions to create programs to provide doctoral students with exposure to multiple career pathways. This session outlines the best practices from a program implemented at Wayne State University to assist in these efforts.

CONCURRENT SESSIONS
WEDNESDAY, APRIL 6, 2016

8 a.m.-5 p.m. Registration ................................................................. Pre-Function Foyer
8:10 a.m. Coffee/Tea ............................................................................. Coffee/Tea
9:10 a.m. New Graduate Administrators Workshop ......................... Ohio 1 & 2
11:30 a.m.-1 p.m. New Graduate Administrators Executive Committee Lunch .................................................. Rock River 1 & 2
1:15-1:30 p.m. Welcome & Overview ............................................... Salon A, B, C, & D
1:30-2 p.m. News from the Council of Graduate Schools ................. Salon A, B, C, & D
2:30-3:30 p.m. Plenary Session ........................................................... Salon A, B, C, & D
3:30-4:30 p.m. Exhibitor Highlights .................................................... Pre-Function Foyer
10 a.m.-9 p.m. Executive Committee Meeting ..................................... Des Plaines River
10:10-11:0 a.m. Executive Committee Meeting ..................................... Des Plaines River
4:15-5:15 p.m. CONCURRENT SESSIONS
Innovative International Linkages ............................................. Ohio 1 & 2
Tim Gibson, Associate Professor, Department of Educational Leadership, Leigh Major for Enhancement, Tracy Chapman, Associate Dean for Academic Innovation; Mary Chase, Vice Provost, Enrollment Management; Jessica Guarino, Associate Professor, Academic Finance; Gail Jensen, Vice Provost for Learning and Assessment; Jeff Keyte, Dean, Graduate School, and College of Professional Studies; Laura Schwary, Assistant Dean, Graduate School; David Sut, Associate Director for Market Research, Center for Academic Innovation - All presenters from Creighton University
Review one university’s attempt to create a program which serves as a catalyst for igniting global awareness and cultural competencies while increasing enrollment in both graduate and international students, all while reaching an international market of educators through the development of a master’s degree program designed for K-12 international educators.
A Promising Framework for Connecting Transferable Competencies Scorecard ............................................. Illinois River
Robert G. Walker, Coordinator, Leadership and Professional Development Programs, University of Missouri
This presentation will describe the framework, content and evaluation results from a leadershipcapacity-building course offered at the University of Missouri. Students assess their strengths and skills, analyze job announcements, then set professional development goals to improve their transferable skills that are in high demand by employers across job sectors.

THURSDAY, APRIL 7, 2016

7 a.m.-9 a.m. Registration ................................................................. Pre-Function Foyer
7:45 a.m. Continental Breakfast ........................................................ Hotel Lobby
8:30 a.m. Networking ........................................................................ Pre-Function Foyer
8:45 a.m.-10 a.m. Plenary Session ....................................................... Salon A, B, C, & D
10 a.m.-11 a.m. Exhibitor Highlights .................................................... Pre-Function Foyer
10:10 a.m.-11:10 a.m. Break ................................................................. Pre-Function Foyer
10:45-11:45 a.m. CONCURRENT SESSIONS
Doctoral Student Success: Strategies to Keep Students Engaged ........ Ohio 1 & 2
Lea Lindén, Associate Professor of Nursing; Kristi Preisman, Director, Doctor of Education Program; Vicky Morgan, Director, Teaching and Learning Center, Associate Dean for Academic Affairs; Shari Prior, Director, Philosophy Program; and Eric Kyle, Instructional Design and Technology - All presenters from College of Saint Mary
The joint report by the Council of Graduate Schools and Educational Testing Service titled The Path Forward: The Future of Graduate Education in the United States highlights several concerns about and recommendations for graduate school programs. Two of the concerns raised in the report were related to meeting the needs of the contemporary graduate student and improving completion rates. Faculty from a recently revised Ed.D. program in a small private institution will present and discuss strategies employed to address these concerns.
Creating a Graduate Education Pathway for Undocumented Students .................................................. Rock River 1 & 2
Shelby Crum, Assistant Dean for Academic Planning and Policy, Director of Institutional Research, University of Michigan
At the University of Michigan, there are barriers for our undocumented graduate students to gain access to a graduate education. Recent efforts have been made to eliminate these barriers. This presentation will review the current state of immigration laws as they relate to undocumented students as well as reviewing key points for other institutions to consider in order to create a clear path for undocumented students.
Preparing Graduate Students for a Broad Range of Career Pathways ................................................. Mississippi 1 & 2
Herb Schneider, Vice Provost and Dean of Graduate Education, University of Minnesota
This session will focus on sharing and discussing the various initiatives, ideas, and specific programs that have been developed at the University of Minnesota to encourage graduate students to explore and prepare for both academic and non-academic career options.
Business Meeting & Award Luncheon ......................................................................................... Salon A, B, C, & D
Awards for Excellence in Graduate Education, MAGS Excellence in Teaching Award
11:15 a.m.-12:15 p.m. CONCURRENT SESSIONS
Intuition of Transferable Skills into a Leadership Development Program: A Partnership with the Four Campuses of the University of Missouri System ................................................. Ohio 1 & 2
Dennis Medeiros, Vice Provost, Graduate Studies, University of Missouri-Kansas City; Robert G. Walker, Coordinator, Leadership and Professional Development Programs, University of Missouri; Venkat Alada, Vice Provost for Graduate Studies, Missouri University of Science & Technology; Gregory Holliday, Director of Leadership Development, VP of Human Resources, University of Missouri system; Wesley Harms, Associate Dean of the Graduate School, University of Missouri-St Louis; Leina Ruble, Dean of the Graduate School, University of Missouri
This session will discuss a collaborative Graduate Leadership Development Program, as created by the University of Missouri System. This program provides graduate students with leadership development in areas of communication, creativity, entrepreneurship, management, organization, problem solving and more.
MSU BEST: Integrated Biomedical Training for Multiple Career Options ................................................. Rock River 1 & 2
Stephanie Watts, Assistant Dean, Graduate School; Karen Kampa, Dean; Graduate School; Jim Malachowska, Director of Ph.D. Career Services; Jule Rajewski, BEST Program Manager - All presenters from Michigan State University
The Broadening Experiences in Scientific Training (BEST) is an NIH-funded effort dedicated to designing and implementing training programs that are challenged to recruit graduate students. In this workshop, students will examine their current processes for identifying opportunities, and adopt new educational models including online and blended programs.

Thursday sessions continued on back page.
A Promising Framework for Connecting Transferable Skills to Leadership Development

The Leadership Competency Scorecard 2.0

With special thanks to Brent D. Ruben, Rutgers University

Robin G. Walker
University of Missouri | Office of Graduate Studies
My Transferable Skills Journey

landed job ➔ acquired more skills ➔ landed job ➔ acquired more skills ➔ landed job

Professional Development
- Transferable skills
- Leadership programs
Defining “Transferable Skills”

✓ also known as “soft skills”
✓ not discipline-specific
✓ role related, technical or general
✓ developed at home, work, school & community
✓ applicable across job sectors
Is it *really* a transferable skill?

<table>
<thead>
<tr>
<th>Transferable Skills</th>
<th>Attributes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teamwork</td>
<td>Ethical</td>
</tr>
<tr>
<td>Communication</td>
<td>Initiative</td>
</tr>
<tr>
<td>Problem solving</td>
<td>Flexibility</td>
</tr>
<tr>
<td>Data analysis</td>
<td>Detail-oriented</td>
</tr>
<tr>
<td>Computer skills</td>
<td>Relates well to others (EQ)</td>
</tr>
</tbody>
</table>

Source: Job Outlook: The Candidate Skills/Qualities Employers Want, the Influence of Attributes - See more at: http://www.naceweb.org/ s11122014/job-outlook-skills-qualities-employers-want.aspx#sthash.EQtRegod.dpuf
Presentation Segments

1. LCS 2.0 Framework
2. Convincing students
3. Faculty buy-in
4. GRAD 9050
   - Connecting Leadership to Transferable Skills
   - Results Class Surveys
Part 1: Framework

A Promising Framework for Connecting Transferable Skills to Leadership Development:
The Leadership Competency Scorecard 2.0
Why Ruben’s LCS?

- Grounded in the literatures
  - academic, professional, popular
- Emphasis on leadership skills & abilities
- Recognition of disciplinary expertise
- Works for STEM, Soc Sci, Arts & Humanities
- Applicable to careers within/beyond academia
- 8+ yrs Rutgers pre-doc leadership program
# Ruben’s LCS 5 Competency Areas

<table>
<thead>
<tr>
<th>Competency Area</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Analytic</strong></td>
<td>Reflection of own &amp; others’ behaviors; weighs consequences of leadership options and strategies.</td>
</tr>
<tr>
<td><strong>Personal</strong></td>
<td>One’s standards, character; expression of values.</td>
</tr>
<tr>
<td><strong>Communication</strong></td>
<td>Effective interaction in interpersonal, group, organizational &amp; public settings.</td>
</tr>
<tr>
<td><strong>Organizational</strong></td>
<td>Administrative capabilities important for leading in organizations of varying purpose, function, and size.</td>
</tr>
<tr>
<td><strong>Positional</strong></td>
<td>Knowledge &amp; skills related to the particular context, setting, field, or sector in which a leader is serving.</td>
</tr>
</tbody>
</table>
35 Leadership Themes (2012)

Leadership Competencies Scorecard

- Self-Assessment
- Problem Definition
- Stakeholder Analysis
- Systems Analysis
- Organizational Analysis
- Analysis of Technology to Support Leadership
- Problem Solving
- Review/Analysis of Results

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35 Leadership “Themes”

Leadership Competencies Scorecard

Credibility & Trust
Influence & Persuasion
Interpersonal Relations & Team Building
Listen, Attention, Question-Asking & Learning
Writing & Public Speaking
Diversity & Intercultural Relations
Facilitation, Negotiation & Conflict Resolution


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35 Leadership “Themes”

Leadership Competencies Scorecard

- Analytic Competencies
- Personal Competencies
- Communication Competencies
- Positional Competencies

- Education
- Experience
- Expertise
- Knowledge of Field
- Knowledge of Organization
- Familiarity with Work
- Professional Involvement

35 Leadership “Themes”

Leadership Competencies Scorecard

- Vision setting; Strategy Development & Goal Attainment
- Management & Supervision
- Information/Knowledge Management & Boundary Spanning
- Technological Capability
- Collaborative Decision Making & Empowerment
- Teaching & Coaching
- Change, Risk & Crisis Management
35 Leadership “Themes”

Leadership Competencies Scorecard

- Character, Personal Values & Ethics
- Cognitive Ability & Creativity
- Enthusiasm
- High Standards
- Personal Conviction & Persistence
- Self-Confidence & Self-Discipline
- Role Modeling

Added Appeal of LCS 2.0

- Aligns with transferable skills employers seek
- Masters & doctoral students relate to model
- Descriptive language for cover letters & interviews
- Provides coherence for
  - Professional development planning
  - Syllabi for leadership programs
  - Organization of website content
A Promising Framework for Connecting Transferable Skills to Leadership Development

Any questions?
Part 2: Convincing Students

A Promising Framework for Connecting Transferable Skills to Leadership Development:
The Leadership Competency Scorecard 2.0
Why Transferable Skills?

1. These skills are in high demand by employers across job sectors.

2. Employers report new hires fail because they lack these skills.

Did you know…

Between the ages of 18-46, people in the US change jobs about 11 times.

26% of the US population held 15 or more jobs.

Why?

Personal Story as Example:
The importance of transferable skills

Leadership
Public Speaking
Training
Fund Raising
Event Planning

Interviewing
News Writing
Time Management
Networking

Disciplinary Knowledge
Advanced Writing

Public Relations
Prioritizing Tasks
Time Management
Crisis Management
Communication

Dream Job!!
Taking stock of transferable skills... and using them to find jobs!

- Leadership
- Public Speaking
- Training
- Development
- Event Planning
- Interviewing
- News Writing
- Time Management
- Networking
- Advanced writing
- Data Analysis
- Reports
- Networking
- Public Relations
- Prioritizing Tasks
- Crisis Management
When “life happens,” transferable skills can help you consider other career paths!

Government

Higher Education

Non-Profit Sector

Entrepreneur

Business

Industry
Part 3: Faculty Buy-In

A Promising Framework for Connecting Transferable Skills to Leadership Development: The Leadership Competency Scorecard 2.0
1. New hires lack the transferable skills that employers need.

2. We need to also prepare those who seek careers beyond the academy.

3. IPDP’s are best practice in graduate & postdoc education.

4. A robust PD program supports recruitment, retention & training grants.
Stakeholder “Assurances”

- Support (not supplant) the mentor-mentee relationship
- Framework grounded in the literature
- Master’s & doctoral students & postdocs
- Serve on campus & online students
- Collaboration across campus, not duplication
Ruben’s 5 skill competency areas:

**Analytical** ✓ Self assessment, problem solving, situational analysis

**Communication** ✓ Public speaking, team building, diversity, conflict resolution

**Organizational** ✓ Visioning, teaching, goal attainment, management

**Personal** ✓ Ethics, high standards, persistence, self-confidence

**Positional** Expertise, understands field, professional involvement

Students build these skills through:

Mentoring      Advanced Courses
Research      Scholarship
Networks      Conferences

---

Skill-Building Resources
Address
Ruben’s LSC 2.0*

Analytical
Communication
Organizational
Personal
Positional


*Existing site; new site under construction.
http://gradstudies.missouri.edu/professional-development/build-your-skills/
A Promising Framework for Connecting Transferable Skills to Leadership Development

Any questions?
Part 4: GRAD 9050

A Promising Framework for Connecting Transferable Skills to Leadership Development: The Leadership Competency Scorecard 2.0
Building Leadership Potential with Transferable Skills

- Piloted 2014 as non-credit
- Approved 1 credit hour
- 3rd semester teaching
- Masters & doctoral
- 50/50 international & US
- Meet 2-3 times/month
- Alt weeks are self-study
My aim is to convince grad students…

• that transferable skills *do* matter to employers
• to maintain an ongoing inventory of their skills
  • including examples that demonstrate outcomes
• to pursue free skill-building resources NOW
• think creatively about their job search process
• they can re-package their skills down the road
9050 Course Content

**First 3 Weeks**
- Strength assessment
- Transferable skill inventory
- Connect leadership theories to transferable skills
- Connect LCS 2.0 Areas to the transferable skills employers seek

**Balance of Semester**
- Analyze job ads to update resume & LinkedIn profiles
- Complete IPDP & review
- Guest speakers
- Case studies
- Informational interview
- Team building exercises
Textbook Aligns with LSC 2.0

- Self Awareness Checklists
- Engaging People’s Strengths
- Developing Leadership Skills
  - Task vs Relationship
  - Visioning
  - Listening to Opt-Out Members
  - Handling Conflict
  - Ethics

# Connecting Leadership to Transferable Skills

## Leadership Theories

<table>
<thead>
<tr>
<th>Theory</th>
<th>Traits &amp; Skills of Leaders</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Great Man&quot;</td>
<td></td>
</tr>
<tr>
<td>&quot;Natural Born Leader&quot; (Personal/ Trait theories)</td>
<td></td>
</tr>
<tr>
<td>Organizational Leader² (Management or Behavioral or Power &amp; Influence theories)</td>
<td>sets goals, initiative, budgeting, goal-oriented</td>
</tr>
<tr>
<td>Transformed Leader³ (Personal/ Trait or Relationship theories)</td>
<td>vision, emotional intelligence, teamwork</td>
</tr>
<tr>
<td>Servant Leader⁴ (Personal/ Trait or Relationship theories)</td>
<td>emotional intelligence, embraces diversity, ethical</td>
</tr>
<tr>
<td>Situational Leadership⁵ (Contingency or Management theories)</td>
<td>frames complex problems, data analysis, social responsibility</td>
</tr>
<tr>
<td>The Entrepreneur as Leader⁶ (Personal/ Trait or Relationship theories)</td>
<td>visionary, budget planning, profit-seeking</td>
</tr>
</tbody>
</table>

## Traits & Skills of Leaders

- integrity, achieves goals, creative, ethical, technical skills, intelligent, communication, hard-working, dependable, self-directed, ambitious, decision-maker, resourceful, persistent, creative
- initiative, plans strategically, accountable, project planning, communicator results, works independently, manages projects, career objective, initiative, accountable, solves problems, team leadership, goal-oriented
- leadership, creative, expresses well, public speaking, persuasive, mentor, team leadership, mentoring, expressive, supportive others, creative, role model, supports others
- solves conflict, teamwork, trustworthy, diverse teams, role model, supports others, resolves conflict, ethical, works on diverse teams, role model, supports others
- flexible, adaptable, detail-oriented, identifies problems, data analysis, critical thinking, listens well, built networks, listens accurately, attention to detail, creative, builds networks, self-efficiency, may not be a risk taker

## Grad Students’ Traits & Skills

- ethical, technical skills, intelligent, communication, hard-working, dependable, self-directed, ambitious, decision-maker, resourceful, persistent, creative
- project planning, communicator results, works independently, manages projects, career objective, initiative, accountable, solves problems, team leadership, goal-oriented
- leadership, creative, expresses well, public speaking, persuasive, mentor, team leadership, mentoring, expressive, supportive others, creative, role model, supports others
- solves conflict, teamwork, trustworthy, diverse teams, role model, supports others, resolves conflict, ethical, works on diverse teams, role model, supports others
- flexible, adaptable, detail-oriented, identifies problems, data analysis, critical thinking, listens well, built networks, listens accurately, attention to detail, creative, builds networks, self-efficiency, may not be a risk taker

---

*Illustrative theories: behavioral, role, contingency, personal/ trait, power & influence, management, path-goal, relationship.

Possible leadership "styles": autocratic/itarian (autocratic), democratic/itarian (democratic), participatory (participatory), relationship-oriented, transactional (transactional), laissez-faire (laissez-faire), task-oriented, etc.


Copyright 2016, revised 2019, Robin B. Walker, Ph.D.
I completed a self assessment of my skills & analyzed the results.
(LSC 2.0 Personal; Theme: Self Awareness)

I listen carefully to others and invite them to “tell me more.”
(LSC 2.0 Communication; Theme: Listening & Question-Asking)

I analyze strengths, weaknesses, threats & opportunities before setting goals
(LSC 2.0 Organizational; Theme: Strategy & Goal Attainment)

---

**Leadership Competencies & Transferable Skills Checklist**

Leadership Competencies & Transferable Skills: A Quick Checklist

Many students overlook the skills that they acquire in college. Do not underestimate the value of your skills to prospective employers. This chart, loosely based on the Leadership Competency Scorecard 2.0*, gives you some idea of the skills that you should include in your resume and cover letters. The competencies and skills also make great “talking points” during job interviews.

1. **Analytic Competencies** are associated with thoughtful reflection on one’s own and others’ behaviors, and careful consideration of the consequences of alternative leadership options and strategies.

2. **Personal Competencies** refer to one’s standards, character, and expression of values.
   - I have a reputation of being fair and ethical and others tell me that I am a good person. (traits & ethics)

3. **Team Competencies** refer to the team’s performance and its ability to work effectively.
   - I can reduce team tensions and encourage team members to listen to others and compromise. (team building)
   - I listen carefully to other people and invite them to “please tell me more” when I do not understand. (listening & question asking)
   - I work effectively with people from diverse racial, ethnic, religious, political, cultural and lifestyle backgrounds. (diversity & inclusion)

4. **Organizational Competencies** include administrative capabilities that are viewed as important for leading in organizations of varying purpose, size, and structure.

5. **Positional Competencies** include knowledge and skills related to the particular context, setting, field, or sector in which a leader is serving.
   - Beyond course work, I read widely and take advantage of other resources to build disciplinary knowledge. (education)
   - I am a keen observer of my company/business/organization and understand its challenges and opportunities. (knowledge of organization)
   - I provide leadership in a graduate student organization (professional involvement)

---


*Example of my work in progress, based on Ruben’s LSC 2.0
Ruben's 5 Competency Areas

Ruben's 35 Themes (Skills & Attributes)

The Skills Employers Demand

### Ruben’s 5 Competency Areas

<table>
<thead>
<tr>
<th>Ruben’s LSC2.0 Definitions</th>
<th>Transferable Skills You Now Possess</th>
<th>Transferable Skills You Need to Acquire</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Analytic Competencies are associated with thoughtful reflection on one’s own and others’ behaviors, and careful consideration of the consequences of alternative leadership options and strategies.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Personal Competencies refer to one’s standards, character, and expression of values.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Communication Competencies relate to the knowledge and skills necessary for effective interaction in interpersonal, group, organizational, and public settings.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Organizational Competencies include administrative capabilities that are viewed as important for leaders in organizations of varying purpose, function, and size.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Positional Competencies include knowledge and skills related to the particular context, setting, field, or sector in which a leader is serving.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Discuss with mentor to prioritize IPDP goals
# Individual Professional Development Plan Based on Ruben’s LCS 2.0

(Version for GRAD 9050 Students)

## Career Aspirations

<table>
<thead>
<tr>
<th>Type of position you will be seeking:</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Possible Job Sectors: Business</td>
</tr>
<tr>
<td>Education/Higher Ed</td>
</tr>
<tr>
<td>Government</td>
</tr>
<tr>
<td>Nonprofit or NGO</td>
</tr>
<tr>
<td>Self-Employed</td>
</tr>
<tr>
<td>Other Job Sector or Industry (list):</td>
</tr>
</tbody>
</table>

## After analyzing job ads, list transferable skills that employers seek.

## After analyzing job ads, list disciplinary skills that employers seek.

## List your strengths and attributes (themes) that employers seek.

1. 
2. 
3. 

## For each leadership competency area, list 3 transferable skills you possess that are in high demand by employers.

<table>
<thead>
<tr>
<th>Ruben’s 5 Leadership Competency Areas</th>
<th>Transferrable Skills I Now Possess That Employers Are Seeking</th>
<th>Transferrable Skills I Need to Develop for the Type of Position I Will be Seeking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analytical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positional</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Set Two Professional Development Goals for this Year

### Prioritize two transferable skills that you want to acquire this year:

<table>
<thead>
<tr>
<th>What resources will you use to develop this new skill?</th>
<th>By which semester will you acquire this new skill?</th>
<th>How will you assess your competency with this skill?</th>
<th>Check when accomplished ✓</th>
</tr>
</thead>
</table>

---


IPDP Copyright 2015 by Robin G. Walker, PhD. *This section adapted from University of Wisconsin-Madison Graduate School IPD materials for social sciences and the humanities. Updated 04/2016*
IPDP 5-Step Process

**Step 1:** Analyze employment ads to identify the transferable skills you will need for the type of position you will seek.

**Step 2:** Assess the scope of your transferable skills and leadership strengths.

**Step 3:** Talk with your mentor(s) about professional development.

**Step 4:** Set professional development goals in an Individual Professional Development Plan

**Step 5:** Evaluate your progress toward professional development goals and update your IPDP.
A Promising Framework for Connecting Transferable Skills to Leadership Development

Any questions?
But is 9050’s content working? (Formative Evaluation Now, Research Later)

OGS in early stage of PD programming
- related activities, not yet a program
- evaluation yields “quick read” to see if we are headed in the right direction
- no funding/staff to design & conduct rigorous educational research
Evaluation Challenges

- Survey design – probably valid, not reliable
- Subjective – perceptions, not measures
- Small, uneven sample – 24/30 students
- Course content varies by speaker availability
- Impact undetermined - lack longitudinal data
Original Aims of Pre & Post Course Surveys

• Compare *perceived* change in levels of knowledge of (a) leadership theory & (b) transferable skills

• Compare *perceived* change in transferable skill ability

• Gather % completion of optional learning activities & elicit rationale from non-completers (IPDP & informational interview)

• Compare perception of self-as-leader before/after

• Ascertain if the course convinced them that they will be able to market their transferable skills in across job sectors.
For discussion: Select Post-Course Results

• Do students see themselves as leaders now?

• How confident are students in their leadership abilities?
Post Course Survey Spring & Fall 2015

**Perception of Self as Leader**
Likert items, 1= Strongly Disagree to 5=Strongly Agree; N=30

<table>
<thead>
<tr>
<th></th>
<th>See myself as a leader</th>
<th>I need more confidence</th>
<th>Others view me as a leader</th>
<th>I have leadership potential</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Group A</strong></td>
<td>Strongly</td>
<td>No</td>
<td>Strongly</td>
<td>Strongly</td>
</tr>
<tr>
<td><strong>Group B</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Group C</strong></td>
<td>Neutral</td>
<td>Yes</td>
<td>Neutral</td>
<td>Neutral</td>
</tr>
</tbody>
</table>
I would like to take more initiative to understand other cultures and how that affects the way employees from those cultures act and the best way to interact with them.

Before GRAD 9050, I was not confident...I was afraid to be a leader. From this class....I made a plan to... improve myself....I want to have a try as a leader in a project.
For discussion:
Select Post-Course Results

After ONE class on a given topic, do grad students believe that their level of knowledge has increased?
### Pre & Post Course Surveys Spring & Fall 2015

**Perceived Knowledge of Transferable Skills**

**Select Speaker Topics (Pre n=26; Post n=30)**

<table>
<thead>
<tr>
<th>PRE</th>
<th>None</th>
<th>Limited</th>
<th>Good</th>
<th>Very Good</th>
<th>Exceptional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strengths/Teams</td>
<td>1</td>
<td>6</td>
<td>11</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Persuasive PS</td>
<td>2</td>
<td>4</td>
<td>11</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>Vision &amp; SP</td>
<td>3</td>
<td>6</td>
<td>12</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Data-driven DM</td>
<td>2</td>
<td>6</td>
<td>7</td>
<td>9</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>POST</th>
<th>None</th>
<th>Limited</th>
<th>Good</th>
<th>Very Good</th>
<th>Exceptional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strengths/Teams</td>
<td>0</td>
<td>1</td>
<td>8</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>Persuasive PS</td>
<td>1</td>
<td>0</td>
<td>8</td>
<td>14</td>
<td>7</td>
</tr>
<tr>
<td>Vision &amp; SP</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>14</td>
<td>11</td>
</tr>
<tr>
<td>Data-driven DM</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>17</td>
<td>7</td>
</tr>
</tbody>
</table>
Open-ended Responses

Making an inventory of my transferable skills was like getting a gift that I already had…

Acknowledging what my strengths are as a leader will help me to take on situations that are amenable to the skills I have and to seek some extra information or assistance in situations where skills are needed outside the ones I have.
For discussion:
Select Post-Course Results

Can a one-hour course convince grad students that their skills are marketable beyond the academy?
Q: As a result of this course, in which job sectors do you NOW believe that you could market your transferable skills?
Open-ended Responses

I will be more mindful about looking for a job that allows me to use my strengths…

…I can find a job some how easier than I assumed before taking this class.

I want to be an entrepreneur and start my own business.
For discussion:
Select Post-Course Results

By the end of the semester, do grad intend to follow up on their activities?
### Individual Professional Development Plan

**Q:** How far along did you get with your Professional Development Plan?

<table>
<thead>
<tr>
<th>Action/Intent Description</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>I did not look at it after we learned about it in class.</td>
<td>2</td>
<td>7%</td>
</tr>
<tr>
<td>I set PD goals, but did not take action.</td>
<td>4</td>
<td>13%</td>
</tr>
<tr>
<td>I set PD goals and took steps to build transferable skills.</td>
<td>6</td>
<td>20%</td>
</tr>
<tr>
<td>After GRAD 9050, I will continue to set PD goals and build my leadership skills.</td>
<td>18</td>
<td>60%</td>
</tr>
</tbody>
</table>

*N=30 across two semesters*
### Informational Interview

N=30 across two semesters

<table>
<thead>
<tr>
<th>Description</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>I interviewed a leader &amp; was able to ID her/his transf. skills</td>
<td>13</td>
</tr>
<tr>
<td>I interviewed a leader and I can see myself in that career path</td>
<td>15</td>
</tr>
<tr>
<td>I interviewed a leader and am not interested in that career path</td>
<td>1</td>
</tr>
<tr>
<td>I intend to conduct 1+ informational interviews in the future</td>
<td>8</td>
</tr>
</tbody>
</table>
Open-ended Responses

…it allowed me to discuss leadership and communications…with a leader in a position similar to one that I hope to attain. Having the ability to approach it as a formal interview rather than a conversation in passing helped me ask follow up questions that I would not normally have been able to ask…. 

I am still deciding whether the career path of the leader I interviewed is right for me.
Spring 2016 Changes

- Spent more time scaffolding
- Required analysis of 2+ job ads earlier
- Required the informational interview
- Provided feedback on first draft IPDP
- Will require a re-submit on the IPDP
Impressions

• Appears students gain awareness & commit to honing the skills employers seek

• Ruben’s LCS 2.0 shows promise as a framework for connecting transferable skills to career aspirations
Next Steps

• Assemble an employer advisory committee focused on curriculum design
• Encourage faculty to explicitly identify transferable skills in their course content
• Based on evaluation findings, continue to shape a cross-campus collaborative PD program
A Promising Framework for Connecting Transferable Skills to Leadership Development

The Leadership Competency Scorecard 2.0

With special thanks to Brent D. Ruben, Rutgers University

Robin G. Walker
University of Missouri | Office of Graduate Studies

Any last questions?

Thank you.
DOCTORAL STUDENT SUCCESS: STRATEGIES TO KEEP STUDENTS ENGAGED

LOIS LINDEN, EDD, KRISTI PREISMAN, PHD, VICKY MORGAN, PHD, SHARI PRIOR, PHD, AND ERIC KYLE, PHD

COLLEGE OF SAINT MARY, OMAHA, NE
OVERVIEW

- College of Saint Mary
- Transition from a face-to-face hybrid program to an online program with summer residency
- Meeting the needs and engaging our adult learners- logistics and personalized aspects of program
- Improving completion rates
##ANDRAGOGY- ADULT LEARNING THEORY

<table>
<thead>
<tr>
<th>Principles</th>
<th>Andragogy</th>
</tr>
</thead>
<tbody>
<tr>
<td>The learner’s need to know</td>
<td>Students want to know why they need to learn something</td>
</tr>
<tr>
<td>Self-Concept of the learner</td>
<td>Move from dependent to independent learner</td>
</tr>
<tr>
<td>Prior experiences</td>
<td>Integral to learning- make them who they are and should be used in instruction</td>
</tr>
<tr>
<td>Readiness to learn</td>
<td>Learn when they are ready</td>
</tr>
<tr>
<td>Orientation to learning</td>
<td>Life-centered</td>
</tr>
<tr>
<td>Motivation to learn</td>
<td>Internal motivators are powerful, but external still remain</td>
</tr>
</tbody>
</table>
MEETING STUDENT NEEDS: SUPPORT WITHOUT HANDHOLDING

- There is a tension between:
  - Providing structure and support
  - Allowing for independence & freedom of choice

- We therefore sought a well-developed, yet flexible approach:
  - Short-term (1-week) residency in the summer
  - Online courses that allowed for integration with student’s profession
  - Clear guidelines for courses with freedom of choice within them
  - High professional expectations with ability to adapt these to their contexts, styles, etc.

http://www.niutoday.info/2012/08/31/university-support-expo-planned-sept-11/
PERSONAL CONNECTIONS

- Making connections and building communities
  - Three components:
    - Residency
    - Cohorts
    - Synchronous platform

- Guiding Philosophy
  - Focus on instructional quality
    - Guided planning and collaboration
    - Course overview rubric
    - Course modules rubric
CONCEPTUAL INSTRUCTION

- Relevancy to real world
- Courses and sequencing
- Scaffolding
RELEVANCY TO THE REAL WORLD

- Emphasis on either Health Professions or Ed Leadership
  - Choice within Ed Leadership
- Requirements within courses
- Leadership practicum
Courses, Sequencing, and Scaffolding

- Core courses ending with Dissertation Readings
- Dissertation Readings as prep for Literature Review
- Comprehensive Exam
- Research Proposal I as prep for Dissertation Chapters 1 & 2
- Research Proposal II as prep for Dissertation Chapter 3
- Proposal approval
- Dissertation course
LESSONS LEARNED

- Building an engaged community
  - For students
  - For faculty
  - For students and faculty together
- Structured support with flexibility
- ABD: CSM versus Literature
- Balancing both student needs and completion rates


Establishing an Academic Planning Structure and Process

The Juxtaposition of Workforce Needs, Institutional Strengths, and Optimization of Resources
Presenters

- Tracy Chapman, Ph.D.; Associate Dean and Executive Director, Center for Academic Innovation
- David Sus, MBA; Associate Director for Market Research, Center for Academic Innovation
- Mary Chase, Ed.D.; Vice Provost, Enrollment Management
- Jessica Graner; Associate Provost, Academic Finance
- Gail Jensen, Ph.D.; Vice Provost for Learning and Assessment, Dean, Graduate School and College of Professional Studies
- LuAnn Schwery, MS; Assistant Dean, Graduate School
Topics

• Organizational structures and processes
• New program development and selection processes and accompanying documentation
• Pro-forma budget models leading to effective forecasting and appropriate program resourcing
• Regular workforce demand analysis
• Alignment of workforce demand with institutional academic portfolio strength
“We must make college practical but not excessively so, lower its price without lowering its standards, and increase the number of diplomas attained without diminishing not only their currency in the job market, but also the fitness of the country’s work force.”

Frank Bruni

“There is a disconnect between what graduate schools tend to produce - the next generation of academics - and what employers seek.”

Anthony Carnevale
Director of Georgetown University's Center on Education and the Workforce
The long and winding road…
Then...
• Focused on individual interest
• Lacking relevant and valid data
• Siloed in individual schools
• Competition for resources
• Unrealistic budgets
• Individual effort
• Little accountability for outcomes
• Unclear approval process

And Now...
• Academic strengths
• Workforce demand
• Interdisciplinary
• Collaboration
• Standard pro-forma
• Coordinated support team
• Accountability for outcomes
• Clear and streamlined approval process
Strategic Plan

University Initiative - President, Provost, Operations

Enrollment Pipeline Team

Provost Office, Enrollment Mgmt., Assessment, Academic Innovation, Finance, Deans, Faculty, Interdisciplinary, Market Research/Workforce Demand

Draft Academic Planning Process

Enrollment Pipeline Team

Stakeholder Input

President’s Council, Dean’s Council, Select committees including faculty

Finalize and Disseminate

Enrollment Pipeline Team, Provost’s Office, Dean’s Council
Academic Planning Process

January
- Academic Planning Team
- Initiatives
- Track Progress
- Enviro. Scan
- Meeting Prep.

April
- Academic Planning Team
- Initiatives
- Track Progress
- Enviro. Scan
- Meeting Prep.

July
- Academic Planning Team
- Initiatives
- Track Progress
- Enviro. Scan
- Meeting Prep.

October
- Academic Planning Team
- Initiatives
- Track Progress
- Enviro. Scan
- Meeting Prep.

Enrollment Pipeline Team
Enrollment Pipeline Team

Academic Planning Team (4x/Year)

- Provost
- Deans
- Finance
- Enrollment Mgmt.
- Academic Innovation

- Identify Key Initiatives
  - New Programs
  - Existing Programs
  - Educational Models
  - Student Completion
  - Optimize Resources
  - Evidence
- Status Update on Projects
- Barriers and Challenges
- Approvals
Academic Planning: A Focus on Students

Org. Structure

Optimizing Resources

New Programs

Existing Programs

Educational Models

Student Completion

Evidence

Students
Organizational Structure

• Adoption of the Provost model
  • Creation of Dean’s Council

• Marketing resources dedicated to graduate & adult
  • Director for Graduate & Adult Marketing

• Enrollment Management resources dedicated to graduate & adult
  • Director for Graduate & Adult Enrollment Management

• Incorporation of market research function
  • Associate Director for Market Research

• Creighton Business Institute
New Program Proposal and Approval
https://www.creighton.edu/center-for-academic-innovation/new-program-proposals

• Process
  • Kickoff meeting
  • Proposal
  • Workforce demand study & competitor analysis
  • Pro-forma
• Proposal Template
• Approval Process
• New Program Start-up
Proposal Development Process

1. Champion contacts the Center for Academic Innovation
2. Stakeholder Meeting
3. Market Analysis & Competitive Assessment
4. Budget Creation
5. Proposal Development

New Programs
New Program Proposal Template

1. Program Overview and Description
2. Justification/Rationale for Program, Link to CU Mission & Jesuit education, Program’s educational philosophy
3. Market Demand Analysis
4. External Comparisons
5. Admission Requirements
6. Learning Outcomes and Assessment Plan
7. Plan for Program Evaluation
8. Curriculum/Program Delivery Schedule
9. Accreditation
10. Resources
11. Program Development Timeline
12. Outside Consultation
13. Affirmative Action Considerations – if applicable
14. Appendices
Proposal Approval Process

1. Champion seeks approval of involved academic units
2. Champion notifies CAI
3. CAI coordinates presentation of proposal by champion to Academic Planning Review Committee
4. CAI notifies Provost’s Office, coordinates presentation of proposal by champion to Dean’s Council
5. Provost’s Office communicates approval to champion, CAI and to Creighton offices and units
6. Marketing and Enrollment Management contact champion to develop and implement program marketing and EM strategies

New Programs
New Program Notification and Planning

- Budget
- Marketing Plan
- Registrar Information & Activities
- Enrollment Management
- New Student Onboarding
- Thesis/Dissertation Procedures
- Student Retention
- Quality Assurance
- Faculty Contracting & Onboarding
- Program Elements/Course Development
- IT Support
- Program Completion
Workforce Demand & Institutional Strengths

• Student degree completion trends
  • Do fast-growing fields align with our mission and strengths?

• Workforce/employer demand
  • What is the job outlook for these majors?

• Competitive landscape
  • What do local, peer and aspirant institutions offer?

• Resources
  • U.S. Census Bureau/BLS and state labor departments
  • IPEDS
  • Burning Glass/EMSI – online job postings/workforce data
  • Higher ed information services (EAB, Hanover Research)
  • Environmental scan/literature review
  • Economic variables

New Programs
Budget Modeling

• Units involved
  • Program Champion, Finance, Enrollment Mgmt., Market Research, Marketing

• Pro-forma components
  • Revenue
    • Expected enrollment counts by year for first 5 years of program
    • Average credit hours per student
    • Tuition per credit hour
    • Tuition discount rate
  • Expenses
    • Expected FTE hires (faculty/staff) by year for first 5 years of program
    • Student employment
    • Course development expenses/stipends
    • Facilities, equipment
    • Other initial or ongoing investments/expenses
Existing Programs

**Key Topics**
- Capacity
- Interdisciplinary opportunities
- Environmental scans > updates
- Course sharing
- Long-term sustainability

**Projects**
- Program Directors & EM - additional capacity analysis
- Identify courses that span multiple programs
- Dual degree opportunities
Existing Program Capacity Analysis

• Program directors and EM meeting
  • Identify capacity vs. budgetary constraints
  • Alternative delivery options to better meet student needs
  • Evaluate pricing models and benchmark against competition

• Workforce demand data

• Prioritize marketing & EM efforts
  • Untapped potential student markets for marketing and recruiting efforts
  • Identify new potential marketing and recruitment strategies
Course Sharing Opportunities

• Analysis of existing online, graduate courses
• Writing, ethics, research methods, statistics
• Development of writing course
  • Program directors - identify needs and interest
  • English department - provide course and instructor
  • Center for Academic Innovation - facilitator, course production
  • Graduate School - manage course enrollment
• Two options
  • Embed into program curricula
  • Students take as need is identified
• Next Step - Research Methods, Ethics
Dual Degree/Accelerated Masters Opportunities

- Establish clear guidelines and policies
- Create abbreviated proposal and review process
- Enrollment Management - suggestions based on prospective student interest
- Program Directors - collaborate to identify opportunities
Educational Models

- Accelerated Bachelors to Masters
- Competency-based education
- Dual Degree programs
- Corporate Partnerships
Student Completion

Key Topics
• Student Retention
• A+B
• Accelerated Masters degrees
• Summer courses
• Degree planning
• Prior Learning Assessment

Projects
• Establish Academic Coach role
• Articulation agreements
• Student retention solution
• System integration
• Virtual tutoring and writing center
• Degree Works
Resource Optimization

**Key Topics**
- Capacity Planning
- Organizational Structures
- Enterprise Solutions
- Enrollment Management
- University Communication & Marketing

**Projects**
- Common calendar
- Prioritize marketing spend
- Build vs. buy marketing & EM
- Suite of Marketing and Enrollment Management tools
- New CRM
Evidence
https://www.creighton.edu/aea/academicprogramreviewprocessesandcalendars/

Key Topics
• Creighton University Quality Indicators
• Evaluation
• Program Review

Projects
• Practices, Performance, Perceptions Indicators
• Parity analysis, accelerated and traditional term courses
• Program review structure and process
Evidence: Quality Indicators

• Practices
  • High Impact Teaching Practices
  • Digital Learning Environment
  • Involvement

• Performance
  • Retention
  • Placement Rate
  • Time to Degree
  • Debt
  • Assessment

• Perceptions
  • Alumni Outcomes
  • Student Experiences
Filling the Gap:

The Role of Graduate Degree Granting Institutions in Supporting a National Adaptive “Career-Long Education” Infrastructure for STEM Professionals Employed at Small to Medium Enterprises (SMEs)

Ave M. Alvarado, Director
Educational Equity Programs
Graduate College
University of Illinois
IMPORTANT QUESTIONS

• What are engineering professionals in the United States currently doing to remain skilled?

• What are other countries doing to support their STEM workforce?

• Why life-long learning?

• Should the primary focus be on all STEM professionals employed at small to medium enterprises?

• What would be the role of graduate degree-granting institutions in the delivery of career-long training for STEM professionals?
THE LIFELONG LEARNING IMPERATIVE (LLI) PROJECT HISTORY

• 2009 Project Framing Workshop Held
• 2009 Survey-based Study Conducted
• 2011 Presentation of the 2009 Study
• 2012 Publication
The University of Illinois Research Team

• DEBASISH (DEBA) DUTTA, Project Director, Scholar in Residence, National Academy of Engineering; Dean of the Graduate College and Edward William and Jane Marr Gutgsell Professor, Department of Mechanical Science and Engineering

• LALIT PATIL, Principal Researcher, Mechanical Science and Engineering

• MD. SHAKIL BIN KASHEM, Applied Technologies for Learning in the Arts and Sciences (ATLAS)

• DAWN OWENS-NICHOLSON, ATLAS

• MARY ALICE WU, ATLAS
THE LIFE-LONG LEARNING IMPERATIVE PROJECT PURPOSE

• Assess current practices in lifelong learning for engineering professionals

• Reexamine the underlying assumptions behind those practices

• Outline strategies for addressing unmet needs

THE NEED FOR CAREER-LONG EDUCATION

• Global Competitiveness
• National Economic Growth
• “Increased Scientific Discovery and Technological Innovation”
• Workforce Development
• Improved Standards of Living
Workforce Training for STEM Professionals in the United States

What are engineering professionals in the United States currently doing to remain skilled?
The Global Training and Development Competition

What are other countries doing to support their STEM workforce?
A Practical Approach to Workforce Training in the United States

Lifelong Learning vs Career-Long Learning
The Demand for Career-Long Education Opportunities for STEM Professionals Employed at Small to Medium Enterprises in the United States

Addressing the most critical national need
The Role of Graduate Degree-Granting Institutions In Filling the Gap

Can We Meet the Challenge?
The National Academy of Engineering
Advisory Committee on Lifelong Learning in Engineering

• JAMES B. PORTER, JR., Chair, Vice President (retired), E. I. du Pont de Nemours and Company

• NICHOLAS DONOFRIO (NAE), IBM Executive Vice President (retired), and Senior Fellow, Kauffman Foundation

• JAMES DUDERSTADT (NAE), President Emeritus and University Professor, University of Michigan

• C. DANIEL MOTE (NAE), President Emeritus and Glenn R. Martin Institute Professor of Engineering, University of Maryland

• PATRICK NATALE, Executive Director, American Society of Civil Engineers

• RICHARD RIFF, Henry Ford Technical Fellow (retired), Ford Motor Company

• BETTY SHANAHAN, Executive Director and CEO, Society of Women Engineers

• TANA UTLEY, CTO and Vice President, Caterpillar Inc.

• PHILIP WOODROW, Executive Director, Merck & Co.
SPECIAL THANKS

• Dr. Debasish Dutta, Former Dean of the Graduate College
  University of Illinois
  Current Provost, Purdue University

• Dr. Klaus Witz, Retired Professor
  Curriculum & Instruction
  University of Illinois

• Dawn C. Owens-Nicholson, Applied Technologies for Learning in the Arts and
  Sciences (ATLAS)

• William T. Trent, Professor
  Education Policy, Organization, and Leadership
Ave Maria Alvarado

Graduate College
Director of Educational Equity Programs
University of Illinois at Urbana-Champaign
204 Coble Hall
801 S. Wright Street
Champaign, IL 61820
amalvara@Illinois.edu
COLLECTIVE IMPACT FRAMEWORK

- Keeps All Parties Moving Toward The Same Goal
- Measures That Get To The True Outcomes
- Mutually Reinforcing Activities
- This Allows A Culture Of Collaboration
- Takes on the Role of Managing Collaborations
GRADUATE PROGRAM ASSESSMENT: one institution’s (absolutely required yet surprisingly smooth) journey

Scott Herness
Interim Vice Provost for Graduate Studies
Interim Dean of the Graduate School
10,000 graduate students
3000 graduate faculty
112 doctoral programs
133 master’s programs
7 professional programs
Collect Assessment Plans from all Graduate Programs
• Undergraduate assessment for a decade

• Graduate programs at varying degrees of familiarity with assessment process

• Some graduate faculty involved if accredited

• Many graduate faculty uninvolved at undergraduate, \therefore many unfamiliar with the tools of formal assessment.

• Everyone doing assessment, just not recording it
Phase 1
Voluntary Learning Goals (50%)

Phase 2
Finish Learning Goals (75%)

Form Assessment Committee

2011 2012 2013

Semester Conversion

First Assessment Conference
Graduate Assessment at OSU: An Overview

Calendar Conversion 2011 - 2012

Voluntary Submission of Learning Goals

Assessment Committee 2013

9 faculty

The Idea Factory
# Graduate School Assessment Committee

## Co-CHAIRS

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scott Herness</td>
<td>Associate Dean</td>
<td>Graduate School</td>
</tr>
<tr>
<td>Alexis Collier</td>
<td>Assistant Provost</td>
<td>Office of Academic Affairs</td>
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## COMMITTEE MEMBERS

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Department</th>
</tr>
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<tbody>
<tr>
<td>Denise Bronson</td>
<td>Associate Dean</td>
<td>College of Social Work</td>
</tr>
<tr>
<td>Amy Ferketich</td>
<td>Associate Professor</td>
<td>College of Public Health</td>
</tr>
<tr>
<td>Jeff Hattey</td>
<td>Assistant Dean</td>
<td>College of Food, Agr, Environ Sci</td>
</tr>
<tr>
<td>Kathy Kelley</td>
<td>Assistant Dean</td>
<td>College of Pharmacy</td>
</tr>
<tr>
<td>Karen Hutzel</td>
<td>Grad Studies Chair</td>
<td>College of Arts &amp; Sciences</td>
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<tr>
<td>Claudia Turro</td>
<td>Grad Studies Chair</td>
<td>College of Arts &amp; Sciences</td>
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## EX OFFICIO

<table>
<thead>
<tr>
<th>Name</th>
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<th>Department</th>
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<tbody>
<tr>
<td>Alan Kalish</td>
<td>Director</td>
<td>Univ Center for the Adv of Teaching</td>
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</table>
Graduate Assessment at OSU: An Overview

Calendar Conversion 2011 - 2012

Voluntary Submission of Learning Goals

Assessment Committee 2013

9 faculty  The Idea Factory

Pilot Programs 2013 - 2014

11 programs  Multiple disciplines
## Assessment Pilot Programs

<table>
<thead>
<tr>
<th>College</th>
<th>Program</th>
<th>Degrees</th>
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<tbody>
<tr>
<td>Arts &amp; Sciences</td>
<td>History</td>
<td>MS &amp; PhD</td>
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<tr>
<td></td>
<td>English</td>
<td>PhD &amp; MFA</td>
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<tr>
<td></td>
<td>Math</td>
<td>MMS, MS, PhD</td>
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<td></td>
<td>Chemistry</td>
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<tr>
<td>Engineering</td>
<td>Biomedical Engineering</td>
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<td>Food, Agriculture &amp; EnvironSciences</td>
<td>Plant Pathology</td>
<td>MS, PhD</td>
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<td>Public Health</td>
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<td>MPH</td>
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<tr>
<td>Social Work</td>
<td>Social Work</td>
<td>MSW, PhD</td>
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<tr>
<td>Business</td>
<td>Master of Accounting</td>
<td>MAcc</td>
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<td>Glenn School</td>
<td>Public Policy</td>
<td>MA, MPA</td>
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<tr>
<td>Interdisciplinary</td>
<td>Environmental Sciences Grad Prog</td>
<td>PhD</td>
</tr>
</tbody>
</table>
Four Workshops
Feb – April 2014

- Program Goals/Outcomes
- Review current program
- Identifying appropriate data
- Using data to improve program

Univ. Center for the Adv. of Teaching

Assessment Committee Feedback
January 28, 2015

Graduate Study Chairs

Colleagues,

You recently received a letter from Vice Provost Patrick Oman and Randy Smith announcing new assessment actions for our graduate programs. I am writing to remind you of a number of next steps in this process.

During Spring semester, the Graduate School looks forward to working with you as you begin the development of your formal assessment plans. At our first step, we’d like programs to develop a plan for the collection and use of data on your learning goal, submit that plan by Summer semester, and begin data collection in Autumn semester. This semester we hope you will:

1. Identify a lead faculty member for assessment efforts for your graduate program.
2. Reaffirm your previously submitted Learning Goals.
3. Identify ONE key question around student learning which you identify as central your student’s success.
4. Use that question as the basis of your preliminary assessment plan. Your plan will describe what data will you collect and how you will use that information for the improvement of student learning.

Ohio State will hold its third Assessment Conference on February 13th. The conference will include a workshop session on thesis/dissertation metrics and, at its conclusion, an open forum for graduate program to share their preliminary assessment plans.

Additionally, the university has acquired software to support your planning and assessment efforts. The product, True2Me by Navegate, is being configured and will be released for your use later this year to help you manage, document, and report your work.

As always, I am happy to work flexibly with graduate programs on your assessment efforts and your timeline. I welcome your feedback during this process.

In a separate message, you will soon be receiving your previously submitted learning goals along with additional information. My thanks for your consideration.

Sincerely,

Scott Hansen, PhD
Associate Dean, Graduate School
Preliminary Assessment Plans

1) Identify a lead faculty member for assessment efforts for your graduate program.

2) Reaffirm your previously submitted Learning Goals.

3) Identify ONE key question around student learning which you identify as central your student’s success.

4) Use that question as the basis of your preliminary assessment plan. Your plan will describe what data will you collect and how you will you use that information for the improvement of student learning.

Ohio State will hold its third Assessment Conference on February 13th.
Feedback on Preliminary Assessment Plans

Two Faculty Fellows

• Web Resources
• Divide and Conquer
Collect Full Assessment Plans
Use TracDat for data collection
Annual Assessment Reports
What Worked?
Links to Institutional Events

• Quarter to Semester Conversion
• Assessment Conferences (4)
  Big-name speakers
  Tailored workshops
• HLC Reaffirmation
• TracDat software
Faculty Push Back
Change is hard. easy.

Overworked
Not enough time
Unimportant
Being told what to do

Already doing this
Could take < 1 minute
Essential to quality improvement
You should want to do this
Ownership:

“Make It Meaningful”
Ownership:

“Use Your Professional Judgement”
It will be punitive.

What if we don’t make our expected assessment results?
External

Internal

REVIEW

Periodic

Outside evaluators

Program quality indicators

ASSESSMENT

Ongoing

Program Faculty

Student learning
Compliance Fallacies
• Value campus culture
• Commitment by campus leaders
• Respect and empower people, esp. faculty
• Value assessment efforts

Creating a culture of assessment
Discussion
Collaborative Efforts to Enhance the Academic, Professional, and Personal Experiences of Graduate Students

Geraldine Craig  
Associate Dean

Megan Miller  
Project Coordinator
About the KSU Graduate School

• 1869 – first graduate degree awarded
• 114 graduate degree programs
  – 71 master’s
  – 43 doctoral
• 42 certificate programs
• Over 3,800 grad students
• 1,299 graduate degrees conferred in FY 2015
  – 1,109 master’s
  – 190 doctoral
About the KSU Graduate Student Council (GSC)

• Started in early 1990s
• 4 elected officers
  – President
  – President Elect
  – Treasurer
  – Secretary
About the KSU Graduate Student Council (GSC)

• 7 standing committees
  – Professional Development
  – Student Affairs
  – Research Forums
  – Awards and Recognition
  – International Student Affairs
  – Fundraising
  – Health Insurance

• Representation on 6 other university committees
About the KSU Graduate Student Council (GSC)

- 32 self-identified graduate student organizations
- Annual budget of $121,000
  - $21,000 from student fees
  - $100,000 from President and Provost
  - Majority allocated to graduate student travel
  - Other expenses:
    - Professional development
    - Research forums
    - Networking/socials
Partnerships Help the Whole Student Thrive

<table>
<thead>
<tr>
<th>Academically</th>
<th>Professionally</th>
<th>Personally</th>
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<tbody>
<tr>
<td>• Research Skills</td>
<td>• Teaching</td>
<td>• Financial planning</td>
</tr>
<tr>
<td>• Writing</td>
<td>• Networking</td>
<td>• Mental health</td>
</tr>
<tr>
<td>• Fulfilling degree requirements</td>
<td>• Job search</td>
<td>• Social networks and support</td>
</tr>
<tr>
<td></td>
<td>• Leadership</td>
<td>• Local resources</td>
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<tr>
<td></td>
<td>• Recognition</td>
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</table>
Partnering to Support Academic Success

• K-State Libraries
• Writing Center
Providing Graduate Student Workspace

• Library study spaces for graduate students
• Restricted with student ID access
• Filling a need
  – Many programs have limited space reserved for graduate students
    • Limited to GTAs
“The Library and Your Research” Workshops

- 6-8 workshops each semester, 1 hour each
- Topics
  - Writing Effective Literature Reviews
  - Know Your Author Rights
  - Maintaining Academic Integrity
  - Getting to Know Your Primary Sources
  - Using Citation Managers
- Graduate School advises scheduling and promotes workshops through peer weekly communique
Writing Retreats and Workshops

• Inaugural Dissertation Writing Retreat (DWR) – May 2015
  – Goals: provide space and time for students to write, improve writing hygiene, decrease time to graduation
  – 15 participants selected
  – Five full days
  – Majority of time spent writing; optional lunch time workshops; peer discussion sessions; and meetings with Writing Center staff
Writing Retreats and Workshops

• January 2016 – opened to master’s and doctoral at proposal stage
• Offering DWR again in May 2016
• Graduate School facilitates promotion, application, and selection process
Writing Retreats and Workshops

• “Acclimating to U.S. Graduate-Level Writing”
  – 3-hr workshop for international graduate students
  – Offered during Fall and Spring Orientation Week
  – 25-40 students in attendance
  – Partnership with Writing Center and International Student and Scholar Services
Professional Career Development

• Graduate Student Council Professional Development seminar series
• Teaching and Learning Center GTA professional development
• Graduate Student Leadership Development Program
• Communication Skills – 3MT, Science Communication Fellows
GSC Professional Development Seminar Series

• 4-6 seminars each semester
• Focus on career development
  – Building your professional network
  – Dining etiquette
GSC Professional Development Seminar Series

- Finding and applying for your first job
- Mastering the interview and job talk
- Negotiating salary and benefits
GSC Professional Development Seminar Series

- Communicating your research to the public
- Publishing your research and scholarly work
- Grant writing
  - 2-day workshop
  - Collaborators
    - K-State Post Doc Association (KPA)
    - Office of the Vice President for Research
GSC Professional Development Seminar Series

- Professional Development Certificate
  - Must attend at least five seminars in academic year
  - Recorded in OrgSync with feedback survey

- Over 20 earned in 2014-2015, 25 earned this year
GTA Professional Development Seminar Series

• Coordinated by Teaching and Learning Center
  – GSC and Graduate School help promote events

• Topics
  – Teaching students to write well
  – Finding joy in teaching students of diverse backgrounds
  – Working with students in distress
  – Creating personal connections in the classroom
GTA Professional Development Seminar Series

• Professional Development Certificate
  – Must attend at least 10 events and complete teaching observation and feedback activities
  – 43 earned certificate in 2014-15
Leadership Development Program

• Piloted by College of Engineering in Spring 2015
• Opened to all graduate students in Spring 2016
  – Over 100 applications received
  – 30 positions
• Program structure and components
  – Three workshops with Leadership Studies faculty
  – Three peer group meetings
  – Three telephone coaching calls with Kansas Leadership Center
Improving Communication Skills:
Three Minute Thesis (3MT) Competition

• Hosted first competition this February
• Co-sponsored by Office of Vice President for Research
• 30 participants
• 1 day of four heats
  – Non-faculty judges
Improving Communication Skills:
Three Minute Thesis (3MT) Competition
Improving Communication Skills

• Science Communication Fellowship program
  – Coordinated by Sunset Zoo, Graduate School provides funding and helps promote
  – Enhance science communication skills
  – Connect with community
  – Expectations of fellows
    • Complete 10 hours of prof. development workshops
    • One-on-one activity development and communication meeting
    • Participate in at least three public programs facilitated by Sunset Zoo’s Education Department
Supporting the Person: Health and Wellness

• Counseling Services – group counseling for graduate students

• Graduate Student Life Webpages
  – Work-Life Balance
    • Health and wellness
    • Resources to support busy graduate students
Supporting the Person: Health and Wellness

Graduate Student Life: Challenging and Rewarding!

Graduate students participating in yoga during the annual Doctoral Dissertations Writing Retreat week.

Life as a graduate student is an intellectually thrilling experience, but it can also be stressful due to the limited time, money, and often a lack of family or work-life balance. However, students may arrive with different levels of preparedness from their undergraduate institutions, which can make facing the culture shock as an international student or the culture shock of living in a small Midwestern college town for the first time.

The whole student needs to thrive—academically and personally—to get the most from a graduate school experience.
Supporting the Person: Health and Wellness

Health and Wellness

K-State has several units available to support graduate student health and wellness. Graduate students have access to many services that are free, covered by student fees or available at a minimal cost.

Center for Advocacy, Response and Education (CARE)
The Center for Advocacy, Response and Education (CARE) provides confidential services and advocacy for survivors of sexual violence, dating violence, stalking and harassment. The CARE coordinators are available to assist survivors in understanding and navigating university policies and procedures and helps promote the academic success and personal wellness of survivors. The CARE coordinators are also available to the greater K-State community to provide education, training and facilitated conversations around the aforementioned and related topics.

Counseling Services
K-State's Counseling Services provides brief intervention in a student's life that may assist in decision making, skill building, or mental health support. The overriding goal for all students is to maintain successful academic progress and personal well-being. Counseling Services provides short-term, focused counseling to currently registered K-State students in areas of decision making, crisis intervention, adjustment, and matters of personal concern.

Lafene Health Center
Lafene Health Center, located adjacent to the west side of campus at 1105 Sunset Avenue, offers K-State students comprehensive, high quality, easily accessible, affordable outpatient health care. The Center also serves as a resource and an advocate for health education, promotion and wellness, such as individualized nutrition counseling or confidential counseling at the Women's Clinic in areas of medical and psychosocial aspects of human sexuality.
Supporting the Person: Health and Wellness

KANSAS STATE UNIVERSITY

Graduate School

Graduate Student Life

Graduate Student Life: Challenging and Rewarding!

Graduate Student Life Events

Today

GSC Awards and Recognition Reception
5 p.m. - 8:30 p.m., K-State Alumni Center

Apr 6
Texas Road House Graduate Student Council Fundraiser
4 p.m. - 10 p.m., Texas Road House

Apr 17
President’s Picnic for Graduate Students
4 p.m. - 6:30 p.m., Ballroom, K-State Alumni Center

Apr 26
Open Access Lecture Series: Open Textbook Network Workshops
11 a.m. - 5 p.m., Hale Library

May 1
GSC Travel Award Application Deadline for July Travel

May 2
GSC Meeting
noon - 1 p.m., Lecture Room, K-State Alumni Center

College of Human Ecology, Graduate Student Council meeting
4 p.m. - 5:30 p.m., Ju 146, Justin Hall

See all events

- Graduate students participating in yoga during the annual Doctoral Dissertation Writing Retreat week.

Life as a graduate student is an intellectually thrilling experience, but can also be stressful due to the limited time, money and often a delay of family or other life goals. Also, students may arrive with different levels of preparedness from their undergraduate institutions, may be facing culture shock as an international student or the culture shock of living in a small Midwestern college town for the first time.

The whole student needs to thrive — academically and personally — to get the most from a graduate school experience.

Campus resources to support busy graduate students and their families

Powercat Financial Counseling (PFC)

Powercat Financial Counseling (PFC) provides FREE information and education to currently enrolled K-State students who are seeking help with issues such as budgeting, credit use, saving, identity theft, managing debt, student loan management, and transitioning to work after college.

Non-Traditional and Veteran Student Services

Non-Traditional & Veteran Student Services (NTVSS) provides assistance and advocacy for students who are 25 years of age or older, are married, have children, are veterans, or are returning to school after three or more years.

Hoefflin Stone House Early Childhood Education Center

The School of Family Studies and Human Services operates six early childhood classrooms for children aged 6 weeks through five years at The Stone House Ruth Hoefflin Early Childhood Education Center and C.Q. and Georgia Chandler III Institute for Child and Family Studies on N. Manhattan Avenue. The site serves as a teacher training facility for students enrolled in the pre-service early childhood education program. Enrollment in the programs is open to members of the K-State and Manhattan communities.

K-State Center for Child Development

The K-State Center for Child Development is a Student Life department serving the child care and early childhood education needs of K-State students, faculty, staff, and the community. The Center also partners with Army Childcare in Your Neighborhood to offer subsidies to military families. The Center provides a variety of subsidies to make childcare affordable to all families. The Center offers full-day

KANSAS STATE UNIVERSITY Graduate School
Supporting the Person: Financial Counseling
Supporting the Person: Social Connections

• Theatre performance and mixer
• Ice cream socials
• PhD Movie showings
• Graduate student couples night
Supporting the Person: Social Connections

Social Connections

As a graduate student, there are always articles to read, papers to write, exams to grade, and projects to work on, but it's important to take a break from graduate school life on occasion, and connect with your peers and the community and life outside of the lab.

GSC Social Events

Get involved with the GSC!
The Graduate Student Council (GSC) hosts meetings the first Monday of each month at noon. All K-State graduate students are welcome to attend monthly meetings to engage in discussion about important issues that impact graduate students, learn about events for graduate students, and find opportunities to get involved. Involvement in the GSC is a great way to get to know other graduate students across campus.

Friend Finder

Looking to connect with other students who share your interests beyond the focus of your graduate program? Visit the Office of Student Activities and Services (OSAS) to explore the hundreds of student organizations at K-State.

International Buddies

The International Buddies Program pairs local K-State students, staff, and community members with international students, scholars and family members. Once paired, Buddies meet regularly to learn about each other's cultures, customs, and explore Manhattan & K-State.

Connect with the Little Apple Community

Manhattan offers many great opportunities to connect with the community, relax and have fun. Check out Manhattan KS for a schedule of current events.
Supporting the Person: Social Connections

List of Registered Organizations

K-State students and staff can login to OrgSync and browse more in-depth information about each student organization including groups they already belong to.

Kansas State University Organizations

Category: All Categories
Search: Enter search term

All Organizations: ABCDEFGHIJKLMNOPQRSTUVWXYZ

- African Students Union
- Alpha Kappa Alpha Sorority Inc
- Alpha Phi Alpha Fraternity, Incorporated
- Kappa Tau Chapter
- American Association of University Women
- Student Organization
Identifying and Addressing Graduate Student Needs

• Monthly GSC meetings (with Graduate School reps)
  – Identified several needs and issues
    • E.g., Quiet study space
• GSC Exec meetings with University President
• Graduate Student participation on university committees
Identifying and Addressing Graduate Student Needs

- Feedback surveys for existing programs
- Task force for Graduate Students in Arts, Humanities, and Social Sciences – student survey
- Networking with national peers
- Plans to enhance graduate student exit survey
Keeping Graduate Students Informed

• Weekly GSC emails to all graduate students
• Weekly Graduate School emails to graduate programs
• K-State Today – daily university email
• Social media
• Monthly GSC meetings
• Graduate Student Life section of Graduate School website
Initiatives

• Graduate student space
• Increase travel funding
• Grad Ambassadors Program
• Helping international and diverse students feel more at home in Kansas
Thank you!

Questions?
Contact Information

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  785-532-6191

• Dr. Megan Miller
  Graduate School
  Project Coordinator of
  Student Services
  mmmiller@ksu.edu
  www.ksu.edu/grad
  @KSUGradSchool
  KSU Graduate School

www.ksu.edu/grad
Infusion of Transferrable Skills into a Leadership Development Program

Denis M. Medeiros Robin G. Walker Venkata Allada
Gregory A. Holliday Leona Rubin Judith Walker de Felix

University of Missouri System & Campuses
Columbia • Kansas City • Rolla • St. Louis
UM GSLDP Background

- Concept: Grad Deans of 4 campuses
- Pitched to UM System
  - Akin to faculty leadership program
- 2014 budget of $20,000 for 20 students
- 2016 budget $40,000; now 32 students
Program Philosophy:

It’s About Transferrable Skills

Because transferable skills are in high demand by employers, we should equip grad students with key transferable skills so that they will (in theory) become more marketable upon graduation.

Further, because these skill sets readily transfer across job sectors, students may have greater flexibility in times of economic downturn and may be better able to pursue new career paths as opportunities arise.
Intended GSLDP Outcomes

Knowledge

- Increased self awareness (values, strengths, perspectives, biases & blindspots)
- Explore alternative career paths

Skills

- Develop inclusive team skills
- Assume leadership role & give back to University
What Are Transferrable Skills?

- Also referred to as “soft skills”
- **Not** specific to one field or discipline
- Includes skills and abilities acquired through graduate student experiences (e.g., teamwork, communication)
- Can include broad technical skills (e.g., software; interpretation of data)
GSLDP Targeted Transferrable Skills

✓ Communication
✓ Creativity, Initiative & Entrepreneurship
✓ Management and Organization Skills
✓ Problem Solving Skills
NACE: Employers Seek Transferable Skills
February 24, 2016

Skills covered by the GSLDP

<table>
<thead>
<tr>
<th>Skill/Quality</th>
<th>Weighted Average Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to verbally communicate with persons inside and outside the organization</td>
<td>4.63</td>
</tr>
<tr>
<td>Ability to work in a team structure</td>
<td>4.62</td>
</tr>
<tr>
<td>Ability to make decisions and solve problems</td>
<td>4.49</td>
</tr>
<tr>
<td>Ability to plan, organize and prioritize work</td>
<td>4.41</td>
</tr>
<tr>
<td>Ability to obtain and process information</td>
<td>4.34</td>
</tr>
<tr>
<td>Ability to analyze quantitative data</td>
<td>3.99</td>
</tr>
<tr>
<td>Technical knowledge related to the job</td>
<td>3.86</td>
</tr>
<tr>
<td>Proficiency with computer software programs</td>
<td></td>
</tr>
<tr>
<td>Ability to create and/or edit written reports</td>
<td>3.60</td>
</tr>
<tr>
<td>Ability to sell or influence others</td>
<td>3.55</td>
</tr>
</tbody>
</table>

Source: National Association of Colleges and Employers (NACE)
http://www.naceweb.org/s02242016/verbal-communication-important-job-candidate-skill.aspx
We Prompt Students to Create an Inventory of their Transferable Skills

Key Question

“Think of a time when you… (performed this task.)”

Intent: Move them away from making assertions to documenting that they can perform the transferable skill.
Example:
Communication Skills

Competency:

Convey complex information to non-expert audiences

- When I described my research to a reporter for an article to a general audience
- When I conveyed my research to an undergraduate or high school student or members of my family
- When I used diagrams or pictures to get complex ideas conveyed to others either in teaching or explaining my research
Selection Process

- Each campus selects own participants
- Admission is competitive
- Master’s and doctoral, all disciplines
- Students submit an application
- Selection decisions by December
- Create master list (medical, diet, etc.)
Initial GSLDP Activities

- Get acquainted in respective campus cohorts
- Orientation, whole group via telepresence
- UM System distributes 360 assessments; to be completed before first meeting
- Facebook page & LinkedIn group

Then, trips are made to all 4 system campuses
  - emphasizes strengths of each campus
    (e.g. UMKC-Innovation and Entrepreneurship)
Illustrative Curriculum Content

- Diversity, inclusion & sensitivity
- Leadership ethics
- Imposter Phenomenon
- Global project management
- Community engagement
- PhD’s beyond the academy
Individual Campus Activities

Each campus meets with respective group to debrief & discuss focus issues and skills

Examples:
- Leadership project to benefit other grad students
- Interviewing strategies and resume building
- Multi-year cohort gathering
- Informal socializing
2014-2015 GSLDP Evaluation Processes

- Exit survey immediately after each event
- Informal debriefing – respective campus
- Informal debriefing - speakers
- Year-end reflective survey
2016 GSLDP Demographics

20 PhD's
(1 post DVM, 1 post JD)

10 Master’s

1 Ed Specialist

50/50 split

International & Domestic
2016 GSLDP Demographics

- Education
- Engineering
- Social Science
- Life Sciences
- Computer Science
- Other
Year End GSLDP Survey

✓ Conducted in December (after 4 campus visits)
✓ Primary purpose was to identify outcomes
✓ Survey Monkey or Qualtrics
✓ Short & simple to maximize returns
✓ Combination of multiple choice, Likert items and reflective, open-ended responses
## Participants’ Overall Impressions of the GSLDP

Likert Scale, 1-5 with 5 being the highest (Strongly Agree)  
2014 n = 17/20  
2015 n=14/20

<table>
<thead>
<tr>
<th>Statement</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>The GSLDP helps students build leadership knowledge and transferable skills and abilities</td>
<td>4.27</td>
<td>4.70</td>
</tr>
<tr>
<td>The GSLDP provided a forum for students from various campuses to share experiences and build collaborative relationships.</td>
<td>4.33</td>
<td>–</td>
</tr>
<tr>
<td>As a direct result of the GSLDP, I now believe that I could be successful in a variety of careers within and beyond the academy.</td>
<td>–</td>
<td>4.42</td>
</tr>
<tr>
<td>As a direct result of my participation the GSLDP, I have assumed a leadership position on my campus or became engaged in a student professional group.</td>
<td>3.47</td>
<td>3.57</td>
</tr>
<tr>
<td>As a direct result of the GSLDP, I now aspire to a leadership position in my future profession.</td>
<td>4.20</td>
<td>4.14</td>
</tr>
</tbody>
</table>
Participants’ Overall Impressions of the GSLDP

Prompt:

Comparing my leadership knowledge, skills and abilities before and after the GSLDP, I would say that I experienced…

<table>
<thead>
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<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>No personal or professional growth</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Moderate personal &amp; professional growth</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Exceptional personal &amp; professional growth</td>
<td>7</td>
<td>7</td>
</tr>
</tbody>
</table>
Prompt: In what ways did the GSLDP change your thinking?

…I will need to be a little more assertive and forward when collaborating with people from other fields… (2014)

[I became] aware of different perspectives… I make more of an effort now to look for the perspectives that I didn't see before. (2015)

Previously I was more comfortable operating when situations were black and white, [now] I'm better at operating with ambiguity. (2014)
GSLDP Year-end Survey Results
Open-ended Responses 2015

Prompt:
Specifically, how will you apply your newly acquired leadership knowledge and skills - on or off campus?

When I complete the PhD program, I plan to participate on...boards and serve more in the community.

I am committed to making my presence and voice known on campus, [by] participating in town hall meetings and mentoring undergraduate and master's students.

1) Getting students organized to discuss current issues in the UM System and surrounding campus community. 2) Inspiring female students.
Prompt:
If your team also lead a separate project or program on your campus, what did you gain from the experience?

[I am] more comfortable in talking with administration and learning to communicate with them.

Excellent interpersonal, task management and coordination skills. Leadership contributes to student learning apart from degree and certificates…
Some of our Lessons Learned

#1 Students expressed *lots* of anxiety
- Taking the 360 assessments
- Receiving the 360 results
- What to expect first meeting
- Social hour with campus dignitaries

# 2 Students surprisingly candid from the onset
Some of our Lessons Learned

# 3 Majority satisfied with program content, but modifications realized *greater* satisfaction

#4 Addition of master’s level students did *not* impact quality of interaction & engagement

#5 A collaborative, system-wide model works; should be considered for other UM initiatives.
Some of our Lessons Learned

#6  Despite 4 campuses & vast disciplinary backgrounds, cohort bonding was evident.

“I look forward . . . to maintaining the professional bonds with my peers from the program.”
2016 Programmatic Changes

- Added orientation to ↑ clarity and ↓ anxiety
- Extra emails with instructions & full agenda
- Advance elevator pitch & networking handouts
- Distributed 360 results early on first day
- Explanation of transferable skills
- Re-administer 360 as a “post-test” – additional data for them & for us
Considerations for the Future

- Robust evaluation design
- Create UM – External Stakeholder partnerships (funding, speakers, leadership externships)
- Scale – other colleges & universities in MO
- Statewide leadership conference during Graduate Education Week in MO
- Greater visibility in state capitol
Any Questions?
For Discussion

1. What is best practice for evaluating participants’ change in knowledge & skills in co-curricular programs?

2. How can we convince faculty that transferable skills should be explicitly discussed in class or infused into curriculum?
Thank you for joining us!

Infusion of Transferrable Skills into a Leadership Development Program

Denis M. Medeiros  Robin G. Walker  Venkata Allada
Gregory A. Holliday  Leona Rubin  Judith Walker de Felix

University of Missouri System & Campuses
Columbia • Kansas City • Rolla • St. Louis
Preparing Graduate Students for a Broad Range of Career Pathways

University of Minnesota
Driven to Discover℠

Henning Schroeder
Vice Provost & Dean of Graduate Education
About one-half of new doctorate recipients find initial employment in business, government, or nonprofit jobs.

Source: National Science Foundation, Doctorate Recipients from U.S. Universities, 2014
Less than 20% of Ph.D.s in science, engineering and health will be in faculty teaching or research positions within five years of degree completion.

Source: National Science Foundation, Doctorate Recipients from U.S. Universities, 2014
Increasing demand for employees with advanced degrees

Projected job growth, 2014-2024, by level of education required

- Master's, doctorate or professional degree: 13.7%
- Bachelor's degree: 8.4%
- Associate's degree, non-degree postsecondary award, or some college: 8.5%
- High school degree or equivalent: 4.0%
- No formal credential: 7.0%

Source: Bureau of Labor Statistics
How can we prepare graduate students for broad career options?
Graduate Summer Research Internship

OVERVIEW

A student-driven process

• Students – not programs – identify a host organization and complete the application

Funded by the Graduate School

• Internship awards provide a stipend of about $4,000

• Includes health insurance coverage for eligible students not already covered by the University for the summer
Expand the network of partners in industry, government, and the non-profit sectors offering internships to students pursuing advanced degrees

Encourage students who otherwise might not consider an internship to explore this possibility
Graduate Summer Research Internship

SELECTION CRITERIA

• How will the proposed project complement and support the student’s research?

• How will the internship experience advance the student’s research skills, and/or career readiness and options?

• How will the research conducted by the student benefit the organization?
Priority consideration given to proposals from students in fields currently without well-established pathways to internships

Priority consideration given to proposals for experiences that would not typically be supported by the student’s program

Student was required to provide a letter of support from his/her advisor

23 awards offered; 22 accepted
Students from five colleges

- College of Education & Human Development: 6
- College of Science & Engineering: 1
- College of Design: 1
- College of Pharmacy: 3
- College of Liberal Arts: 11
representing 17 programs
and 21 host organizations
Post-internship student survey

Based on response rate of 91%

- **50%** learned a new research method or theory
- **80%** applied a research method or theory in a new way or in a new context
- **75%** had access to resources (e.g., equipment, expertise, data) important to their research and not currently available in their program
- **95%** expanded their scholarly and professional networks
- **90%** gained or improved on a skill (e.g., grant and research proposal writing, communication, project management, collaborative teamwork) that they believe is important to their future success
100% of students have maintained contact with their host site mentor or with other colleagues they met through their internship

55% of students said that the internship experience has affected their career choices
“By working in this internship, I came up with an innovative idea for my dissertation proposal.”

“Most valuable for me was being right at the reporters’ table and seeing the minute-by-minute interactions; the work and publishing of the news.”

“This strengthened my knowledge-base and skill set for community-engaged research and partnership work immensely.”
87% of host mentors said that the intern at their site was well prepared to do the proposed research.

100% agreed that the intern contributed something of value to the company/organization with his/her research.

83% expressed interest in participating in networking events with graduate students in the future.

86% reported that the intern engaged in some sort of professional development activities or training as part of the internship.

Post-internship host organization survey

Based on response rate of 33%
“Thank you for sending us someone so gifted and talented.”

“Our intern was an important voice advocating for better stewardship, high professional standards, and better access.”

“We could not have honored our deadlines for the first phases of this installation without [the intern’s] assistance.”

“You sponsor a robust program that fosters creative learning among younger scholars.”
Graduate Summer Research Internship

CHALLENGES

- Review committee requested clarification & ranking of selection criteria
- Current limitation to summer months may not work well for all students, host organizations or projects
- Due to the focus on research, intellectual property right issues need to be carefully addressed before the start of the internship
QUESTIONS & DISCUSSION
The Journey to a Program for International Teacher Leaders: Vision, Dilemmas & Success!

Teacher Leadership for International Educators

Midwest Association of Graduate Schools
2016 Annual Meeting
Innovative International Linkages
Chicago, IL
April, 2016
Overview

- Program development
- Background & goals
- International schools
- Delivery and course design
- Lessons learned
- Program assessment
- Where we are now
Program Development

- International programs at UNI
  - Student teaching center
  - Overseas Recruiting Fair - since 1976; attracting over 120 international schools annually
  - Camp Adventure
- Cross-department venture
  - Dept of Educational Leadership
  - Dept of Teaching
Program Development

- Network of overseas administrators and their desires for “leadership focused graduate degree”
- Teacher Leadership, not administration certificate
- Ideas generated from network and overseas administrator workshops

"We listened to International School Leaders and we created a program around what they told us."
- Leigh Martin
Background & Goals

- Explosion of teacher leader roles abroad (as in the U.S.)
- UNI desire to increase graduate student enrollment and international students
International Schools

- Private schools offering U.S. or internationally-based curriculum to host country and expatriate students.
- Diverse population of host country national students, diplomatic dependents, and children of international business personnel.
International Schools

- Typically accredited by U.S. agencies
  - Middle States Association
  - Western Assoc of Schools & Colleges
- Highly competitive
  - High student achievement scores
  - Low student to teacher ratios
  - Advanced integrated technologies
  - Graduate admission at finest universities
International Schools

- Language of instruction is English
- Teachers are trained in U.S. or other English speaking countries
- Limited reputable online-offerings for faculty; especially in teacher leadership
- Higher than average teacher turnover could be reduced by graduate offerings and positions in teacher leadership
Delivery & Design

- Framed around Teacher Leader Model Standards (Teacher Leadership Exploratory Consortium, 2011).
- Seven domains/standards embedded throughout program
- Relevant coursework for unique settings.....this isn't Iowa anymore!

We’ve learned to expect the unexpected.....Only in an international program do your students surprise you with a Bollywood-style Flash Mob at the end of the graduation ceremony!
Delivery and Design

- Challenges
  - Cross-departmental “tightrope” facilitated by two non-tenured professors
  - 13 courses - 32 credit hour MA
    - 4 newly developed
    - 9 tailored from existing principal prep coursework
Delivery and Design

- Synchronous & asynchronous delivery
- Surprises?
  - Synchronous often preferred; even if delivered 6000 miles away!
  - Ability to “connect” cohort members from countries all over the world
  - Expanding student’s professional network
Lessons Learned

● Time Zones
  ○ Challenging for “international cohorts”
  ○ Much easier for site-based cohorts
  ○ Schools with work weeks comprised of Sunday-Thursday
Lessons Learned

● Travel
  ○ Sacred for international educators
  ○ Teachers often living in environment that is trying and chaotic

● Professor “adjustments”
  ○ Account for travel in syllabus
  ○ Often non-negotiable

● Quality of work outstanding

Many international teachers are living daily in an environment that is trying, chaotic, and while exhilarating on many levels, it is also unmistakably not their homeland and can leave them exhausted and anxious for a “get-away”. - Leigh Martin
Lessons Learned

● Excuses
  ○ "The dog ate my homework" takes on whole new meaning
    ■ Border run for new visa
    ■ Massive demonstration in streets
    ■ Extended power outages
    ■ Govt imposed curfews

● Success = flexibility

We never know what kind of email we will wake up to. We watch the news more carefully knowing we have students around the globe. They are dedicated students and we trust what they tell us.

-Leigh Martin
Program Assessment

- Formally
  - Mid-program survey
  - End of program portfolio presentation & summative feedback

- Informally
  - Professor visits to site-based cohort locations
  - Context, context, context
Program Assessment

- Adjustments made to courses and delivery
  - Some complete deletions
  - Addition of Internship component
  - Numerous edits to content
  - Timing of synchronous vs asynchronous
  - Consistency of professors as they gain context

“We continue to learn as much as we can about the international school systems, the educators that they employ and the students they serve in effort to help shape the next generation of leaders for these unique environments.” - Leigh Martin
Program Assessment

- Professor growth
  - Bringing the world to the UNI campus in a time of shrinking budgets for travel
  - Appreciation for network that exists abroad as it does in the States
  - Commonalities gained and impact on teaching within state

“I never would have expected that many of the international schools have turnover similar to small, rural schools. Teachers bouncing to another job after a couple of years present some real challenges for leaders intent on developing and maintaining a positive, productive culture. Knowing that common thread from Egypt to rural Iowa has been eye opening for me and for my students” - Nick Pace
Program Assessment

- Professor growth
  - Building connections and bridging gaps between local pre-service leaders and those abroad
  - Professional challenges caused by need to develop new content and methodologies

“The program has challenged me to not only think about my leadership philosophy, but it has also revitalized my current teaching practice in international education.”

-Natasha Riedel
2014 MAE cohort student
Where Are We Now

- Current state of program
  - Originally MAE mirroring Iowa-based principalship program with course substitutions
  - Newly accepted MA stand-alone program
Where Are We Now

- Current state of program
  - Since inception in January, 2013
    - Six cohorts have enrolled
    - Three cohorts graduated
    - Three currently involved
  - Served over 100 students
    - in 13+ countries
  - New site-based cohort (August)
Where Are We Now

- Current state of program
  - Co-coordinator from Dept of Teaching lives and works abroad
    - Korea International School
    - Singapore American School
  - Many students returning upon graduation to pick up remaining coursework to gain principal license

Living and working in the same environment as participants increases rapport with potential candidate and significantly improves recruitment efforts.

- Leigh Martin
Program Coordinators

Dr. Timothy W. Gilson, Associate Professor
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Department of Educational Leadership & Postsecondary Education
2049 Bartlett Hall
Cedar Falls, IA 50614-0604
tim.gilson@uni.edu

Dr. Leigh C. Martin, Assistant Professor
University of Northern Iowa, Department of Teaching
461 Library
Cedar Falls, IA 50613-0617
via Singapore, Singapore
Leigh.Martin@uni.edu
Resources


Singapore American School: [https://www.youtube.com/watch?v=_Enh1Zg_bLA](https://www.youtube.com/watch?v=_Enh1Zg_bLA)

American School of Dubai: [https://www.youtube.com/watch?v=8tS_ocyAP2Q&feature=em-subscription-digest](https://www.youtube.com/watch?v=8tS_ocyAP2Q&feature=em-subscription-digest)

Who We Are: UNI MAETL [https://www.youtube.com/watch?v=UxgK9x8GNLM](https://www.youtube.com/watch?v=UxgK9x8GNLM)
Questions??
Understanding the Career Pathways of Graduate Degree Holders

Jeff Allum
Assistant Vice President
Research and Policy Analysis

Julia Kent
Assistant Vice President
Communications, Advancement and Best Practices
Our Goals for Today

I. Consider the **stakes** of alumni tracking
II. Revisit **what we know and don’t know** about alumni careers (master’s and PhD)
III. Learn from **university-led approaches** to track their own graduates
IV. Update on **what CGS is doing** to support a coordinated approach to alumni tracking
Why is tracking important?

I HAVE FINISHED MY PROJECTS. WHAT'S NEXT?
MAKE A SPREADSHEET AND TRACK SOMETHING.
TRACK WHAT?
I THINK YOU'LL FIND THAT IT DOESN'T MATTER.

www.dilbert.com
The National Perspective
The Graduate School’s Perspective

• Provide a metric for **assessing and improving graduate programs**
• Help with **recruitment** by allowing deans and programs to communicate likely career outcomes to prospective students
• Help with **retention** by showing current students the variety of career possibilities that alumni have pursued
• Support **advocacy** about the return-on-investment in graduate programs
• **Begin important conversations** on campus— with programs, alumni offices, career services
Graduate Deans’ Perspective

- **Research doctorate**: 60% Very knowledgeable, 40% Somewhat knowledgeable, 22% Not at all knowledgeable

- **Professional doctorate**: 89% Very knowledgeable, 11% Somewhat knowledgeable

- **Research master's**: 44% Very knowledgeable, 54% Somewhat knowledgeable, 11% Not at all knowledgeable

- **Professional master's**: 78% Very knowledgeable, 22% Somewhat knowledgeable

The Student Perspective
What Master’s Students Say

Accuracy of career information provided on potential careers

- 16% Extremely accurate
- 19% Somewhat accurate
- 65% Not at all accurate

What Doctoral Students Say

Accuracy of career information provided on potential careers

- Extremely accurate: 16%
- Somewhat accurate: 65%
- Not at all accurate: 19%

What do we already know about alumni career pathways?

- Population of graduate degree holders continues to grow
- We know a fair amount about first-employment
- Private benefits are generally good for graduate students
More master’s degrees are being conferred ...

<table>
<thead>
<tr>
<th>Broad Field</th>
<th>Average Annual % Change, '03/04 - '13/14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>2.9%</td>
</tr>
<tr>
<td>Arts &amp; Humanities</td>
<td>1.4%</td>
</tr>
<tr>
<td>Bio. &amp; Agric. Sci.</td>
<td>6.1%</td>
</tr>
<tr>
<td>Business</td>
<td>3.4%</td>
</tr>
<tr>
<td>Education</td>
<td>-0.1%</td>
</tr>
<tr>
<td>Engineering</td>
<td>3.0%</td>
</tr>
<tr>
<td>Health Sciences</td>
<td>10.6%</td>
</tr>
<tr>
<td>Math &amp; Comp. Sci.</td>
<td>2.8%</td>
</tr>
<tr>
<td>Physical &amp; Earth Sci.</td>
<td>1.4%</td>
</tr>
<tr>
<td>Public Admin. &amp; Svcs.</td>
<td>3.5%</td>
</tr>
<tr>
<td>Social &amp; Behav. Sci.</td>
<td>3.3%</td>
</tr>
<tr>
<td>Other Fields</td>
<td>1.5%</td>
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</table>

Source: CGS/GRE Survey of Graduate Enrollment & Degrees
### Broad Field

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<tr>
<td>Engineering</td>
<td>6.4%</td>
</tr>
<tr>
<td>Health Sciences</td>
<td>22.2%</td>
</tr>
<tr>
<td>Math &amp; Comp. Sci.</td>
<td>9.2%</td>
</tr>
<tr>
<td>Physical &amp; Earth Sci.</td>
<td>4.7%</td>
</tr>
<tr>
<td>Public Admin. &amp; Svcs.</td>
<td>7.3%</td>
</tr>
<tr>
<td>Social &amp; Behav. Sci.</td>
<td>2.6%</td>
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<tr>
<td>Other Fields</td>
<td>4.4%</td>
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... and more PhD degrees are being conferred as well.
About 50% of doctorates get their first jobs in academia

- Education and social sciences doctorates increasingly going into academia
- Physical sciences and engineering doctorates increasingly going to business and industry
- Little change in life sciences and humanities
Graduate degree holders do well

Earnings and unemployment rates by educational attainment, 2015

<table>
<thead>
<tr>
<th>Educational Attainment</th>
<th>Median usual weekly earnings</th>
<th>Unemployment rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctoral degree</td>
<td>$1,625</td>
<td>1.7%</td>
</tr>
<tr>
<td>Professional degree</td>
<td>$1,178</td>
<td>1.3%</td>
</tr>
<tr>
<td>Master’s degree</td>
<td>$1,341</td>
<td>2.4%</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>$1,137</td>
<td>2.8%</td>
</tr>
<tr>
<td>Associate’s degree</td>
<td>$798</td>
<td>3.8%</td>
</tr>
<tr>
<td>Some college, no degree</td>
<td>$739</td>
<td>5.0%</td>
</tr>
<tr>
<td>High school diploma</td>
<td>$678</td>
<td>5.4%</td>
</tr>
<tr>
<td>Less than a high school diploma</td>
<td>$493</td>
<td>8.0%</td>
</tr>
</tbody>
</table>

All workers: $860
All workers: 4.3%

Note: Data are for persons age 25 and over. Earnings are for full-time wage and salary workers.
What don’t we know?

We lack a systematic understanding of the long-term career pathways of PhD holders.

• Number of jobs taken post-graduation
• Decision junctures along the career path
• Levels of responsibility and authority
• Relationship between PhD experience and career
• Information on humanities is particularly sparse
What else?

- Collecting long-term data is difficult to do \textit{well}
What else?

- Collecting long-term data is difficult to do well

- This is a seemingly crowded field
  - Survey of Earned Doctorates
  - Survey of Doctoral Recipients
  - Early Career Doctoral Survey
  - AAU Core Exit Survey
  - University and departmental Surveys
What are universities doing to fill the gaps?

- Using existing databases of student and alumni information
- Exit Surveys
- Alumni Surveys
- Social media tracking (LinkedIn)
- Accessing their own data from Survey of Earned Doctorates (SED)
Did you know you could get SED data for your own alumni?

http://www.sedsurvey.org
INSTITUTION ORDER FORMS

Institution Profiles
All Graduate Deans who participate in the Survey of Earned Doctorates (SED) receive a profile of their institution’s research doctorates, along with comparative data on doctorate recipients from all U.S. institutions and from peer institutions in the same Carnegie category. The comparative data describe the demographic characteristics, educational history, doctoral degree characteristics, and postgraduation plans of doctorate recipients. Please email SED@norc.org or call 1-800-248-8649 for additional information about the institution profiles.

Institution Datasets
Graduate Deans may order, free of charge, an electronic file (on CD-ROM) containing SED data on their institution’s entire research doctorate population dating back to 1920. A codebook and other documentation are provided to facilitate analysis of the dataset. Graduate Deans must sign an agreement affirming that the data will be used only for internal statistical and research purposes.

Inst Dataset Form
Doctrate Records Data, 1920-2014
From the Survey of Earned Doctorates

To order Doctrate Records Data for your institution, please complete and return the form below. The order, distributed on a CD, includes the dataset of all Doctorate Records. File variables for your institution’s research doctorate recipients, provided in Excel and in an ASCII, fixed-columns format. Full documentation of the dataset, and an electronic layout file to read the ASCII dataset. The layout is provided for use in SAS and SPSS software packages and can be adapted for others. Doctorate Records Data will be shipped by Federal Express, so please provide a street address (no P.O. box) for delivery.

THESE DATA ARE CONFIDENTIAL. These data are Federal government data protected from disclosure by the National Science Foundation Act of 1950, as amended, section 14(a), 42 USC 1871. Your institution is granted access to data from your own graduates, provided that you use these data internally for statistical and institutional research purposes only, as authorized by the National Science Foundation Act, as amended. Your institution shall not release, distribute, or share any of these micro-data records, in any format with individuals or agencies outside of your institution. The NSF Act includes various penalties for breach of confidentiality and for unauthorized use. We are requiring the signature of your institution’s graduate dean (or other appropriate official empowered to enter into that legal agreement) on this form to affirm your institution’s commitment to safeguard the confidentiality of these data. If you wish to use statistical research results in presentations or reports outside your institution, you must forward the results to NSF for assurance that they do not disclose individually identifiable data. You may also need to consult with your institution’s IRB. The data you receive may also be protected by the FERPA and should be handled with appropriate security measures. The following statement shall appear in all reports or presentations that use these data: “The use of NSF data does not imply NSF endorsement of the research methods or conclusions.”

Product: Dataset of your institution’s research doctoral graduates, 1920-2014
Medium: CD

By signing your name you are affirming that your institution will use the data for statistical and institutional (research purpose) only and will not share the data with outside of your institution.

AUTHORIZED BY:  DELIVER TO:

AUTHORIZED NAME (family)
Title
Institution

DELIVERY NAME (family)
Institution
Street Address (REQUIRED for FedEx – NO P.O. Box)

SIGNATURE (GRADUATION YEAR or EQUIVALENT)  City, State, Zip Code
Date

Email  Telephone

Please return order form to B. J. Greenhout by email at Greenhout-BJanae@norc.org or by mail:
Survey of Earned Doctorates
NORC at the University of Chicago
58 E. Memorial Drive, Suite 3600
Chicago, IL 60605
Ann. B. Greenhout (312) 759-8275

NORC at the University of Chicago
Findings from CGS Feasibility Study on PhD Tracking

- 53% Informal collection
- 27% Formally through the graduate school
- 7% Formally through some other central unit
- 13% Not collected
Iowa State University

- Survey of Earned Doctorates data
- AAU Exit Survey for PhD Alumni
- Iowa State Survey of both master’s and PhD alumni (6 months post-graduation): 80-90% response rate overall
Michigan State University

- Some data are pulled from the student information system; other information can be submitted directly by students and faculty.
- Social media tracking fills in gaps (30-40% of alumni).
- Program-level placement data published on graduate school website every two years.
Wayne State University

- Brief census survey of PhD alumni 15 years post-graduation
- Social media searches to find missing alumni (30-40%)
- Second census survey with a response rate of 88%
Lessons Learned at Wayne State

• Many records of student employment maintained by faculty were inaccurate, especially after the student had been out 5-7 years.

• _Pro_: Graduate program directors were “ecstatic” to have the new data, and that the work didn’t require their own time.

• _Pro_: Students appreciate the information

• _Con_: Significant labor involved.
What is CGS doing?

• Professional Science Master’s Outcomes Surveys (Funded by Alfred P. Sloan Foundation, 2010-2013)

• Labor Market Outcomes of STEM Master’s Education, NSF #1538769 (Current)

• Understanding PhD Career Pathways for Program Improvement (Co-funded by Sloan/Mellon/NSF #1534620 (Current))
Labor Market Outcomes Project

- Funded by NSF
- Use National Survey of College Graduates
- Estimate labor market outcomes of holding a master’s degree
- Determine interstate mobility (if time)
- Workshop to discuss data and findings
Understanding PhD Career Pathways: 2015-2016 Project

- One-year planning project funded by NSF’s EHR (#1534620) and Alfred P. Sloan and Andrew W. Mellon Foundations

- Builds upon 2014 CGS feasibility study, call for common protocols
Findings from CGS Feasibility Study on PhD Career Pathways

• Gaps remain in tracking efforts
• Common standards are needed
• National leadership is needed
• Disciplinary diversity can be accommodated
The Goal: Design Surveys and Framework for Data Collection

• Complement (not replace) SED, SDR, ECDS and other existing survey efforts.
• Capture data from matriculation through 15-years post-graduation
• Include STEM, humanities and social science fields
• Make it possible for universities to embed surveys into existing university processes
Planning Project Activities

- Advisory Committee meetings (May-September 2015)
- Workshop with higher education associations, agencies, and disciplinary societies (May 29, 2015)
- Workshop with graduate deans, provosts, and other senior academic leaders (June 23, 2015)
- Cognitive testing with graduate students and alumni.
- Mini-case studies to explore implementation issues.
- Begin developing follow-on proposals for a project to support member institutions’ efforts to implement the surveys (Current).
Questions?

• Jeff Allum, jallum@cgs.nche.edu
• Julia Kent jkent@cgs.nche.edu
MSU BEST: Integrated Biomedical Training for Multiple Career Options

Stephanie W. Watts
Julia McAnallen
Julie Rojewski
Karen Klomparens
Overview

• Challenges facing biomedical training and career outcomes
• NIH Answers the Call: BEST Program
• MSU BEST
• The MSU BEST Model and Your Campus
Challenges in Biomedical Training and Career Outcomes

• Only ~20% of biomedical Ph.D.s work as tenure-system PIs in academic labs.
  – Most of our graduate training prepares students for this role, which most Ph.D.s will not pursue
  – When these Ph.D.s do get academic scientist positions, RO1s are awarded later and later in one’s career (ave. age is 42)
Snapshot of the PhD Biomedical Research Workforce

http://acd.od.nih.gov/Biomedical_research_wgreport.pdf

NOTE: The color of the numbers reflects the confidence in the accuracy of the data.

College Graduates

16,000 in 2009

Graduate Education & Training

2009 Total: 83,000
Time to Degree: 5.5-7 yrs
2009 Graduates: 9,000

Postdoctoral Training

2009 Total: 37,000 to 68,000
Median Length: 4 years
5,800 in 2009

Post-Training Workforce

(128,000 Biomedical US-trained PhDs)

Science Related Non-Research
18% Biomedical US-trained PhD 2008
~24,000

Government Research
6% Biomedical US-trained PhD 2008
~7,000

Academic Research or Teaching
43% (23% tenured) Biomedical US-trained PhD 2008
~55,000

Industrial Research
18% Biomedical US-trained PhD 2008
~22,500

Non-Science Related
13% Biomedical US-trained PhD 2008
~17,000

Unemployed
2% Biomedical US-trained PhD 2008
~2,500

Of graduates who stay in the US
30% skip a postdoc
70% do a postdoc

8% of graduates leave the US
Naming the Problem

• Assumptions: We want to keep attracting the best and brightest scientific minds to Ph.D. programs

• We want this highly trained biomedical workforce to stay engaged in science (in some capacity)

• We want to make sure post-docs “make sense” and are not a default pursuit
Supporting the Biomedical Research Workforce

Ensuring the future of U.S. competitiveness and innovation in biomedical research is of utmost importance to NIH. One avenue for achieving this goal is to support a sustainable and diverse biomedical workforce. To this end, in 2011-2012 a working group of the NIH Advisory Committee to the Director (ACD) developed a workforce model to inform decisions about training the right number of people for the relevant positions that will advance science and promote health.

The working group’s analysis led to two major conclusions:

- The large upsurge in U.S.-trained Ph.D.s, increasing influx of foreign-trained Ph.D.s, and aging of the academic biomedical research workforce make launching a traditional independent academic research career increasingly difficult.
- The long training time, combined with the relatively low salaries for early career scientists when compared to other scientific disciplines and professional careers, may make a biomedical research career seem less attractive to the best and brightest of our young people.

NIH has undertaken the following initiatives to make progress towards achieving these goals between now and 2015:

1. Establish a grant program to encourage innovative training approaches
2. Improve graduate student and postdoctoral researcher training
3. Develop a simple and comprehensive tracking systems for trainees
4. Encourage fair consideration of staff scientists on grant applications
5. Initiate discussion with the community to assess NIH support of faculty
6. Create an office in the NIH Office of the Director to assess the biomedical research workforce
7. Conduct ACD Working Group study on optimal research training of individuals in clinical disciplines
17 U.S. Institutions awarded NIH BEST Grants

**BEST:** Broadening Experiences in Scientific Training.

10 awards in 2013 (orange circles)
7 in 2014 (green circles)

www.nihbest.org
MSU BEST

Aim:
Build on existing strengths to develop new opportunities for biomedical trainees to explore diverse career options

Goal:
Institute parallel mentoring between faculty and trainees of MSU

Goal:
Help trainees understand biomedical career options and develop essential communications and teamwork skill

Goal:
Improve the culture of MSU in support of training for non-academic careers in the biomedical sciences
MSU BEST Timeline

Goal: PhD Defense, Job Placement, Faculty Growth

Faculty

Graduate Fellows...
Engineering and Biomedical

Postdoc

Career Success

SoS Workshops

BEST IDP

Externship
Research

First month

First year

End of First year

Year 2 and on
TWO externships within two years of finishing IDP

Entry
MSU BEST: Program Description

**Year 1: Professional Development**
- **Training Workshops**: Communication, Wellness, Teamwork
- **Guest Lectures and Career Panels**: Academe, Regulatory, Innovation, Legal, Government and Public Relations

**Years 2-3: Externships**
- Meaningful Career Experiences
- Flexible Design
- 2 different externships
BEST is an experiment

• Is this working?
• How do we know?
  – NIH Surveys for predoctoral and postdoctoral fellows
  – Surveys are given to both BEST participants and others (control)
  – Longitudinal surveys out until 2038
• BEST Action Inventory (www.bai.msu.edu) (quick demo)
MSU BEST → Your campus

• Adapt, not adopt!
• Borrow resources
  – Career Success (www.careersuccess.msu.edu)
  – BEST Action Inventory (BAI) www.bai.msu.edu
Building Your BEST Community

• Recruiting Students
• Identifying supportive faculty members
• Engage alumni and local leaders
Resources

BEST Consortium: nihbest.org

MSU BEST: best.msu.edu

MSU Graduate School: grad.msu.edu
Discussion

• What value do you see in building a similar program?
• What hurdles can you foresee, bringing something like this to campus?
• What might you be able to adopt/adapt from other campuses?
Contact Us!

• www.best.msu.edu
• msubest@msu.edu
• @BESTatMSU

Thank you!
Multiple Career Pathways for Doctoral Students: Best practices from Wayne State University’s NIH-funded program
Broadening Experiences in Scientific Training (BEST)

Ambika Mathur, Ph.D.
Associate Provost & Dean
Graduate School
Wayne State University

Christine Chow, Ph.D.
Professor of Chemistry
Wayne State University
2009 Snapshot of the Doctoral Biomedical Research Workforce

30% of doctoral students skip postdoctoral training

College Graduates

Graduate Education & Training
2009 total: 83,000
Time to Degree: 5.5-7 yrs

Postdoctoral Training
2009: 37,000-68,000
Median length: 4 yrs

International Students

Post-Training Workforce
128,000 biomedical-trained U.S. PhDs

Academic Research or Teaching
23% tenure-track
20% non-T.T.

Industrial Research
18%

Science Related; Non-research
18%

Government Research
6%

Non-Science Related
13%

Unemployed
2%
The NIH Broadening Experiences in Scientific Training (BEST) Program

• Supports innovative approaches to broaden graduate training to reflect a range of career options

• Establishes collaboration with nonacademic partners to ensure that career exploration opportunities come from a broad spectrum of research-based careers

• Encourages the view that various career outcomes (including research) are successful
The Nationwide BEST Consortium
17 Research Sites
Career Outcomes: Current and Future

A. Career Outcomes for Traditional Model of Graduate Education

B. Career Outcomes for BEST-Enhanced Model of Graduate Education
Overview of Institutional Change

Encourage greater focus on career planning
- Individual Development Plans (IDPs)
- Office of Graduate Career Services

Emphasize consistent progress towards degree

Collect better data on students and program
- Use data analytics to improve program outcomes
- Enhance recruitment to graduate programs

Track alumni through their career progression (15 yrs)
- Use alumni network for career development activities
Phase I

Exploratory Seminars
(panel discussions)
1-2 hours
WSU BEST Program – Training Model
Structured Approach to Career Development

Phase I
- Interactive Workshops (didactic training)
  - 7 hours

Phase II
- Exploratory Seminars (panel discussions)
  - 1-2 hours
WSU BEST Program – Training Model
Structured Approach to Career Development

**Phase I**
- **Exploratory Seminars**
  (panel discussions)
  1-2 hours

**Phase II**
- **Interactive Workshops**
  (didactic training)
  7 hours

**Phase III**
- **Career Explorations**
  (experiential learning)
  6-12 weeks
1-2 hour panel discussions
Introduction to and overview of specific career areas:

- BUSINESS
- LAW
- GOVERNMENT
- COMMUNICATION
- TEACHING
PhD Alumni 15-year Career Outcomes

Graduate School Data Dashboard

http://wayne.edu/gradschool/dashboard/

- Census of 1999-2014 PhD alumni (88% of 3,000 alum)
  - Showed that we are providing exposures to the career trajectories currently practiced by our alumni

- PhD alumni career outcomes
  - Transparency of outcomes
  - Useful for recruitment, academic program reviews, continuous assessment and improvement
Seminar panelists include

- BEST faculty facilitators (moderators)
- Alumni who have integrated biomedical training with a nonacademic career
- Faculty whose research is connected with a specific career area
Career area
Government

Jaron Lockett
Program Analyst
Office of Program Planning, Analysis and Evaluation / National Institutes of Health

WSU PhD Alumnus
# reporting high ratings before/after ($N = 93$)

## Before

- Know about CAREER OPTIONS in seminar's area: 16
- Know the SKILLS important for a nonacademic biomedical career in seminar's area: 19
- Know of OPPORTUNITIES at WSU to foster a nonacademic biomedical career in seminar's area: 6
- INTEREST in a nonacademic biomedical career in seminar's area: 47

## After

- Know about CAREER OPTIONS in seminar's area: 71
- Know the SKILLS important for a nonacademic biomedical career in seminar's area: 77
- Know of OPPORTUNITIES at WSU to foster a nonacademic biomedical career in seminar's area: 47
- INTEREST in a nonacademic biomedical career in seminar's area: 65
<table>
<thead>
<tr>
<th>Time / Facilitators</th>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:30 – 10:00 am</td>
<td>Welcome / Introductions</td>
</tr>
<tr>
<td>Judith &amp; Andrew</td>
<td></td>
</tr>
<tr>
<td>10:00 am – 12:30 pm</td>
<td>Patent 101</td>
</tr>
<tr>
<td>Stephanie, Mark, &amp;</td>
<td>Part 1: Prior Art searching</td>
</tr>
<tr>
<td>Damian</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Parts 2 &amp; 3: Exercise – writing a claim draft; Report out results</td>
</tr>
<tr>
<td></td>
<td>Part 4: Enforcing a patent</td>
</tr>
<tr>
<td>12:30 – 1:30 pm</td>
<td>Lunch &amp; panel discussion</td>
</tr>
<tr>
<td>Stephanie, Damian,</td>
<td></td>
</tr>
<tr>
<td>Lance, &amp; Mark</td>
<td></td>
</tr>
<tr>
<td>1:30 – 3:45 pm</td>
<td>Public Policy</td>
</tr>
<tr>
<td>Lance</td>
<td>Part 1: intersections between science and the legislative, judicial, and regulatory processes</td>
</tr>
<tr>
<td></td>
<td>Parts 2 &amp; 3: Exercise – develop regulations for science policies; Report out results</td>
</tr>
<tr>
<td>3:45 – 4:00 pm</td>
<td>Recap / Closure / Wrap up</td>
</tr>
<tr>
<td>Andrew &amp; Judith</td>
<td></td>
</tr>
</tbody>
</table>
In-depth knowledge over Phase I exposures

- Know about CAREER OPTIONS in workshop's area: Before 19, After 53
- Know the SKILLS important for a nonacademic biomedical career in workshop's area: Before 13, After 53
- Know of OPPORTUNITIES at WSU to foster a nonacademic biomedical career in workshop's area: Before 12, After 46
- INTEREST in a nonacademic biomedical career in workshop's area: Before 42, After 53
<table>
<thead>
<tr>
<th>Advaita</th>
<th>Millendo Therapeutics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arbor Assays</td>
<td>Merck Research Labs</td>
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<tr>
<td>Cayman Chemicals</td>
<td>Metastable Materials</td>
</tr>
<tr>
<td>Cincinnati Children’s Hospital</td>
<td>MMS Holdings</td>
</tr>
<tr>
<td>Coca-Cola</td>
<td>SOM Core Labs</td>
</tr>
<tr>
<td>Detroit Dept. of Health</td>
<td>The Searchlite</td>
</tr>
<tr>
<td><em>Journal of Clinical Investigation</em></td>
<td>University Pharmacy</td>
</tr>
<tr>
<td>Lawrence Technological University</td>
<td>USDA</td>
</tr>
<tr>
<td>Marvel Labs</td>
<td>USPTO</td>
</tr>
</tbody>
</table>
GPD sessions

• IDP for Graduate Students
• Abstract Writing
• CV, Resumes, and Pitch Prep
• Job Search Using LinkedIn
• MBTI: Research Yourself First
• Cover Letter and Interviewing Skills
• Visual Communication in Science
• 3-Minute Thesis
• Networking for Graduate Students
• Multiple Role Management I-II
2015 Graduate Faculty Survey – Percentage reporting “strongly encourage” for each activity

(N = 292)

- Attend 1-hr PAD seminar about nonacademic career options: 67%
- Attend a one-day symposium about nonacademic career options: 54%
- Attend a weeklong mini-course about field outside their discipline: 19%
- Pursue 1-day per week internship in field not related to their discipline: 41%
- Pursue month-long internship in field not related to discipline: 36%
Publications


- **Science Translational Medicine**, “Transforming training to reflect the workforce” (2015)

- **BioMatters**, “The best of the BEST” (2014)

- **Science, Issues and Perspectives**: “Yes, you can attend that career event” (2014)

- **NIH Common Fund, Research Grantee Success Stories**: “Learning the BEST way: Wayne State University’s graduate training for a new global economy” (2014)
BEST at Wayne State University

BEST@wayne.edu
http: wayne.edu/gradschool/best/

Steering Committee

• Christine Chow (co-PI)
• Andrew Feig
• Carmen Gamlin
• Janice Green
• Heidi Kenaga
• Judith Moldenhauer
• Mathew Ouellett
• Tim Stemmler
Pathway to a Doctorate: How to Keep Quality Instruction in an Online Program

Kristi A. Preisman, Ph.D
College of Saint Mary
Omaha, NE
kpreisman@cs.m.edu
Goals of Presentation

- Highlight
  - College of Saint Mary’s online Doctor of Education degree
  - Development and implementation of the program
  - Logistics and support involved
  - Lessons ‘learning…’ by faculty and staff
As Michael Jackson says in his song *Man in the Mirror*—*Gotta make that change!*
Online Doctor of Education Degree

‘Traditional’ program
- Face-to-face, hybrid courses
- Technology enhanced
- Time varies

Online program
- Meeting adult learners’ needs
- Online with summer residency
- Technology
- 3-years

Presentation for MAGS Conference 2016
Development and Implementation of the Program

- Time and resources dedicated to transition
- Pedagogy/Andragogy at the center
Development and Implementation

Setting your end goal and working backwards

PLANNING!!
Consultant/Training
Institutional Support
Resources: WebEx and Program Director

Pedagogy/Andragogy
Adult Learners
Sound pedagogical practices
Curriculum drives technology

Presentation for MAGS Conference 2016
Logistics and Support Involved

- Community-based
- Resources and Rubrics
- Adjunct training
Logistics and Support Involved

Community Based Process
Weekly Meetings
Consultant/TLC Review
Peer Review

Resources and Rubrics
Eric and Ollie were amazing!!
Faculty training sites
Assessment tools

Adjunct Training
Lessons Learning...

- Process is not complete
- Resilience
- Feedback/revision
- Teaching Enhanced Certification

Presentation for MAGS Conference 2016
Our Ultimate Goal
Resources

- Butterfly images
  - Opening Slide: https://pbs.twimg.com/media/Ccp_nSdUMAEwONk.jpg
  - Pupa: https://upload.wikimedia.org/wikipedia/commons/4/43/Monarch_Butterfly_Chrysalis.JPG
  - Emerging: https://c1.staticflickr.com/5/4099/4813665260_1d47d43883_b.jpg
  - Butterfly: https://upload.wikimedia.org/wikipedia/commons/6/63/Monarch_In_May.jpg

Presentation for MAGS Conference 2016
Creating a Graduate Education Pathway for Undocumented Students

Shelly Conner, Ph.D.

Midwestern Association of Graduate Schools
April 7, 2016
Who are Undocumented Immigrants

National Picture

• Entered the country lawfully
• Entered the country unlawfully
  – With family
  – Victims of Human Trafficking (T-Visa)
    • Children in Foster Care
    • Homeless
• Legal limbo waiting for application to be decided

State of Michigan

U-M: Undergrad Students

U-M: Graduate Students

Next Steps
National Picture: Undocumented

- 11.3 million unauthorized immigrants in 2014
- 1.1 million undocumented children under 18 years old
- 65,000 undocumented students graduate from high school each year (+15,000 don’t graduate)
- Between 7,000 and 13,000 undocumented students enroll in college

State of Michigan

U-M: Undergrad Students

U-M: Graduate Students

Next Steps
National Picture: Federal Policy

National Picture

• Title IV of Higher Education Act (1965)
• Texas revised Education laws (1975)
• Plyler vs. Doe (1982)
• Illegal Immigration Reform and Immigrant Responsibility Act, IIRIRA (1996)
• Development, Relief, and Education for Alien Minors, DREAM Act (2001)
• Deferred Action for Childhood Arrivals, DACA (2012)

State of Michigan

U-M: Undergrad Students

U-M: Graduate Students

Next Steps
National Picture: DACA

- Came before 16 years old
- Continuously resided in US
- As of June 15, 2012
  - Physically present in US
  - Under the age of 31
  - No lawful status
- School or military record
- No felonies

State of Michigan

U-M: Undergrad Students

U-M: Graduate Students

Next Steps
National Picture: DACA

- Deferred Action for Childhood Arrival (DACA)
  - Protects from deportation
  - Provides work authorization for a renewal period of 2 years (June 2012)
  - ≈ 1.2 million immigrants are eligible for DACA
  - 581,000 approved = DACAmented
  - 24,000 denied

- Deferred Action for Parental Accountability, DAPA (2014)
State of Michigan: Policies on Undocumented

National Picture

- No driver's licenses to undocumented (2007)
- No driver's licenses to DACAmented (2012)
- Homeland Security clarified that DACAmented are eligible for driver's licenses (January 2013)
- DACAmented can get a driver’s license (February 2013)

State of Michigan

U-M: Undergrad Students

U-M: Graduate Students

Next Steps

Source: www.uleadnet.org
State of Michigan: Tuition Policies

- Undocumented students cannot receive in-state tuition
  - Vetoed by Governor (2006)
- Undocumented students eligible for in-state tuition
  - Introduced, but not passed (2013)
- Michigan's State Board of Education supported in-state tuition for undocumented students (2013)

Source: www.uleadnet.org
13 Public University: In-state tuition for DACA

National Picture

State of Michigan

U-M: Undergrad Students

U-M: Graduate Students

Next Steps

• Central Michigan University
• Eastern Michigan University
• Ferris State University
• Grand Valley State University
• Lake Superior State University
• Michigan State University

• Michigan Technical University
• Northern Michigan University (No)
• Oakland University (No)
• Saginaw Valley State University
• University of Michigan
• Wayne State University
• Western Michigan University (2004)
University of Michigan: Tuition 101

- Tuition is never waived
- Strictest policy for in-state tuition
  - Residency status doesn’t change

- If University of Michigan can do it, so can you!!
University of Michigan: Undergraduate Students

Coalition for Tuition Equity (Fall 2011)
- Undergraduate Student organizations
- Faculty and students met with Provost
- Student testimonials at Regent’s Meetings
- Peaceful demonstrations at Regent’s Meetings
- Goal-oriented conversations with administration

Provost Task Force (Fall 2012)
Student comments on Task Force’s draft report:

- Without clear policy, U-M is branded as unwelcoming to undocumented students
- Current policy is directly discriminatory because these families pay taxes
- The university is complicit in perpetuating poverty cycles
- Unproven assertions that had been repeated to the Task Force without data for months
University of Michigan: Undergraduate Students

In-State Tuition Policy Revised (July 2013)
- 5-year continuous residency
- Start at U-M 28-months after HS graduation

Financial Aid for undergrads (July 2014)
University of Michigan: Graduate Students

Coalition for Tuition Equity (Fall 2014)
- Met with Provost
- Message for change:
  - In-state tuition for graduate and non-traditional
  - Resources (space, climate)
  - Financial Aid
- Graduate student organizations
- Student testimonials at Regent’s Meetings
- Deans to talk to the Provost
Rackham Graduate School

- Rackham programs in 18 out of 19 schools/colleges
- 108 Ph.D., 100 Master’s, 38 Certificate Programs
- Graduate Enrollment* at the University of Michigan

<table>
<thead>
<tr>
<th>U-M: Graduate Students</th>
<th>Master’s</th>
<th>Doctoral</th>
<th>Grad-Professional</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rackham</td>
<td>3,100</td>
<td>5,200</td>
<td>0</td>
<td>8,300</td>
</tr>
<tr>
<td>Non-Rackham</td>
<td>4,300</td>
<td>0</td>
<td>2,700</td>
<td>7,000</td>
</tr>
<tr>
<td>TOTAL</td>
<td>7,400</td>
<td>5,200</td>
<td>2,700</td>
<td>15,300</td>
</tr>
</tbody>
</table>

U-M: Undergrad Students

State of Michigan

National Picture
University of Michigan: Graduate Students

My Past Efforts

• Increase transparency
• Clarifying resources
• Educating the graduate community
• Make funding available

Next Steps
Rackham Graduate School (2015)

GOAL: Eliminate Barriers for Graduate Students

1. Rackham Application [Web Instructions]
   - Citizenship? Non-US Citizen
   - Planned Visa? Other
   - DACA mentioned in their personal statement

2. Clarified Funding Resources
   - Without DACA: fee waivers, grants, stipends
   - With DACA: graduate student assistantships

National Picture
State of Michigan
U-M: Undergrad Students
U-M: Graduate Students
Next Steps
3. Expand the Rackham Merit Fellowship eligibility criteria

4. Web Resources and Frequently Asked Questions
   - Tuition Costs and Funding
   - Employment
   - Health Insurance
   - Academic and Graduate Community

Next Steps
5. Educate the other 12 Graduate Admitting Offices
   - Public Health: website, application fee assistance, eligible for Dean’s Award
   - Social Work: PLEDGE, fellowship
   - Public Policy: PLEDGE, fellowship
   - Law: Identified a contact person
Rackham Graduate School (2016)

My Current Conversations
- Coalition for Tuition Equity
- General Counsel
- Residency Office
- Financial Aid
- Rackham Application
- Graduate Programs
What can you do?

- Understand your state’s policies
- Students should organize for purpose
- Persistently build momentum
- Eliminate barriers (admission, financial, climate)
- Educate others
- Take the PLEDGE (April 7 is national Institutions Coming Out Day in support of undocumented)

Next Steps
Using Lean to Improve Communicating the Degree Completion Process

Debra Charlesworth  
Assistant Dean

Marco La Manna  
PhD Candidate

MAGS 72nd Annual Meeting  
“Graduate Education Pathways”  
April 7, 2016

About Michigan Tech

• Located in Michigan’s beautiful Upper Peninsula
• Fall 2015 enrollment:
  ▪ Total: 7,238
  ▪ Graduate: 1,521; 555 PhD
• 94% of students in STEM fields
• 27 PhD programs
• 40 Master’s programs
Outline

• Problem Statement
• Continuous Improvement at Michigan Tech
  ▪ Lean and Kaizen
• Graduate Degree Completion Problem (GDCP)
  ▪ Visualization
  ▪ Improvement Opportunities
  ▪ Proposed Solutions
  ▪ Effectiveness
  ▪ Challenges
• Future work

Problem Statement

“Confusion among students, faculty and staff about degree completion”

• Example of issues
  ▪ What to submit to the Graduate School?
  ▪ When to submit items to the Graduate School?
  ▪ Where are the forms?
  ▪ Last day to defend thesis/report/dissertation?
What is Lean? [1/3]

- **Definition**
  - Systematic, intentional model for creating and sustaining an environment where continuous improvement is the norm

- **Other ways to look at Lean**
  - Holistic and sustainable approach
  - Requires problem-solving skills
What is Lean? [2/3]

Method

Process

People

What is Lean? [3/3]

• Creating better use of existing resources
  ▪ Improve quality and efficiency
• Critical thinking and teamwork aimed to continuous improvement
• Use of proven tools and thinking enabling teams to solve their problems
What is not Lean?

- “Black box”
  - No involvement of those who perform the work
  - Magic “answer” to problems
- A one size fits all tool that fixes problems
- Job eliminator
- A one-time fix
  - Goal is to promote efficiency

What is a Kaizen?

- Part of Lean
- Kaizen is a Japanese term that means “improvement” or “change for the better”
- Kaizen Event
  - A problem solving activity that engages a team in finding the root causes of a problem and/or identifying waste in a process, followed by developing experiments to improve the system to the mutual benefit of customers and employees
Michigan Tech’s Lean Journey

• 2008
  ▪ President Mroz initiated bringing Lean practices to Michigan Tech
  ▪ A Lean consultant was brought in to help establish the process
• 2010
  ▪ Group of Lean Implementation Staff ready
• 2011
  ▪ Received a grant from the Federal Mediation and Conciliation Service to train more Lean facilitators
• 2016
  ▪ Completed more than 200 kaizen events involving 700+ people, and have over 40 embedded facilitators

Graduate Degree Completion Problem
Who was involved in Kaizen?

- Lean facilitators
- Graduate School staff
- Outside stakeholders
  - Graduate program directors
  - Administrative computing
  - Graduate students

What did we do?

- Mapped the current state of the process
  - Process visualization
- Determined opportunities for improvement
  - Remove possible bottlenecks
- Proposed solutions
  - Effective for students, faculty and staff
Process visualization [1/3]

- Described the current process to obtain a degree from arrival on campus to degree completion
  - Doctor of Philosophy
  - Master’s Degree
    - Coursework
    - Thesis
    - Report
  - MBA
- Example shown in next slides

Process visualization [2/3]
MS Degree Coursework
Process visualization [3/3]
MS Degree Coursework

Improvement Opportunities [1/2]

• Reviewed entire degree completion process
• Located opportunities for improvement
  ▪ Post-it re-arrangements - can we do things in a different order to have better flow?
  ▪ Post-it removal - can we eliminate any steps in the degree?
  ▪ Discussed benefits and disadvantages
Improvement Opportunities [2/2]

- Parking Lot
  - Items not directly related to GDCP
  - To be reviewed later
  - Avoided discussions on items that weren’t directly relevant

- Examples
  - Use of MyMichiganTech
  - Calendar events
  - Electronic forms/workflow

Newspaper – end result of Kaizen

- Action Items
- Assigned to individuals
- Given due dates
Student View of Process

• Differences MS/PhD students
  ▪ Visualization helped a lot
• Students focus more on coursework, research
• Got question(s)?
  ▪ Brief search on Graduate School website
  ▪ Ask a friend
  ▪ Email directly Graduate School staff

Staff View of Process

• Saw the problem from multiple perspectives
• Learned about procedural issues that we did not know existed
• Worked together on a solution that incorporated multiple perspectives
  ▪ Staff, students, faculty
Proposed Solutions
Degree Completion Timeline Web Site

<table>
<thead>
<tr>
<th>When</th>
<th>What</th>
<th>Click for details</th>
<th>Click for an explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before you arrive on campus</td>
<td>Arrange for housing (not applicable for online students)</td>
<td><strong>Details</strong></td>
<td><strong>Why?</strong></td>
</tr>
<tr>
<td></td>
<td>Consult with graduate program director and/or advisor for proper course selection</td>
<td><strong>Details</strong></td>
<td><strong>Why?</strong></td>
</tr>
<tr>
<td></td>
<td>Submit your arrival information on MyMichiganTech to notify International Programs and Services (IPS) of your travel plans (International students only)</td>
<td><strong>Details</strong></td>
<td><strong>Why?</strong></td>
</tr>
<tr>
<td></td>
<td>Upload your photo for your HuskyCard (optional)</td>
<td><strong>Details</strong></td>
<td><strong>Why?</strong></td>
</tr>
<tr>
<td>When you arrive on campus</td>
<td>Obtain a HuskyCard</td>
<td><strong>Details</strong></td>
<td><strong>Why?</strong></td>
</tr>
<tr>
<td></td>
<td>Report to International Programs and Services (International students only)</td>
<td><strong>Details</strong></td>
<td><strong>Why?</strong></td>
</tr>
<tr>
<td></td>
<td>Complete Basic Responsible Conduct of Research Training</td>
<td><strong>Details</strong></td>
<td><strong>Why?</strong></td>
</tr>
</tbody>
</table>
Proposed Solutions
Degree Completion Timeline Web Site

Personalized timeline in MyMichiganTech

• Provide personalized Degree Completion Timeline (DCT) in MyMichiganTech (MMT)
• Web site is resource for everyone, but is not personalized
• Once student completes an item, they want to verify it is complete at a later date
• Students also want a checklist of items that are needed each semester
Proposed Solutions
MyMichiganTech Time

• Fall 2012 – prospective student tab launched
• Fall 2013 – launched most checklist items and status update for dissertations, theses and reports
• Fall 2014 – launched Degree Completion Timeline portlet in MyMichiganTech
• Summer 2016 – bill payment moved to MyMichiganTech

My Michigan Tech – Current Students
MyMichiganTech - Checklist

• Green Check
  ▪ Completed item
  ▪ These go away after a defined period of time

• Red Exclamation Mark
  ▪ Needs immediate attention

• Open Check Box
  ▪ Needs attention soon

Degree Completion Timeline and Dissertation, Thesis, Report Status

Having problems with the forms? See the Graduate School web site for help.

Your Timeline


Submit your draft dissertation and Pre-defense form two weeks before your final oral examination.

Final thesis accepted for Master of Science in Mechanical Engineering.
Top of the timeline – requirements for all students

<table>
<thead>
<tr>
<th>Graduate Degree Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requirements for all students</td>
</tr>
<tr>
<td>- Basic Responsible Conduct of Research Training</td>
</tr>
<tr>
<td>- Submit Patent, Research, and Proprietary Rights Agreement form</td>
</tr>
<tr>
<td>- Advanced Responsible Conduct of Research Training</td>
</tr>
</tbody>
</table>

Each degree is listed along with requirements for each

<table>
<thead>
<tr>
<th>MS in Mechanical Engineering, thesis option, expected Spring 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Appoint advisor</td>
</tr>
<tr>
<td>- Appoint advisory committee</td>
</tr>
<tr>
<td>- Submit Degree schedule</td>
</tr>
<tr>
<td>- Submit Petition to enter full-time research-only mode (optional) [more info]</td>
</tr>
<tr>
<td>- Complete Thesis and Defense</td>
</tr>
<tr>
<td>- Submit Commencement application form (optional) [more info]</td>
</tr>
<tr>
<td>- Degree will be awarded pending processing of final grades for this semester.</td>
</tr>
</tbody>
</table>
Effectiveness
Impact on Staff Questions

• Staff recorded the number of questions received at similar time points in five general areas
  ▪ Forms, Defenses, Theses, Am I done?, Other

• Two areas saw a decrease in questions
  ▪ Forms (67% reduction; 18 fewer questions)
  ▪ Theses (46% reduction; 11 fewer questions)

• Saw increase in “other” questions
  ▪ Investigating the topics; deeper questions
    ♦ Extensions, “am I done?”, etc…
Effectiveness
Impact on staff

• Staff can provide shorter, “standardized” answer(s) to students utilizing web links
• Programs can use degree completion timeline for reference

Effectiveness
Web page adoption

<table>
<thead>
<tr>
<th>Page</th>
<th>Page rank</th>
<th>Page views</th>
<th>Average Time on Page</th>
<th>Bounce Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forms and Deadlines</td>
<td>1</td>
<td>2,270</td>
<td>0:02:10</td>
<td>46.90%</td>
</tr>
<tr>
<td>Requirements for PhD</td>
<td>4</td>
<td>778</td>
<td>0:02:45</td>
<td>63.52%</td>
</tr>
<tr>
<td>Timeline landing page</td>
<td>5</td>
<td>671</td>
<td>0:00:40</td>
<td>34.85%</td>
</tr>
<tr>
<td>Requirements for MS</td>
<td>7</td>
<td>563</td>
<td>0:02:14</td>
<td>64.60%</td>
</tr>
<tr>
<td>Requirements landing page</td>
<td>9</td>
<td>517</td>
<td>0:00:34</td>
<td>38.16%</td>
</tr>
<tr>
<td>Timeline for MS (thesis)</td>
<td>12</td>
<td>415</td>
<td>0:03:50</td>
<td>40.70%</td>
</tr>
<tr>
<td>Timeline for PhD</td>
<td>19</td>
<td>227</td>
<td>0:03:08</td>
<td>63.64%</td>
</tr>
<tr>
<td>Timeline for MS (report)</td>
<td>21</td>
<td>185</td>
<td>0:03:22</td>
<td>43.18%</td>
</tr>
<tr>
<td>Requirements for Master of Eng.</td>
<td>24</td>
<td>166</td>
<td>0:01:14</td>
<td>86.67%</td>
</tr>
<tr>
<td>Timeline for MS (coursework)</td>
<td>27</td>
<td>114</td>
<td>0:02:27</td>
<td>77.27%</td>
</tr>
<tr>
<td>Timeline for Master of Eng.</td>
<td>63</td>
<td>30</td>
<td>0:02:14</td>
<td>100.00%</td>
</tr>
</tbody>
</table>
Effectiveness – student responses

• Every student is encouraged to complete an exit survey when they complete a graduate degree
• In 2014, we added questions asking students:
  ▪ Did they use MyMichiganTech?
  ▪ What did they like best about MyMichiganTech?
  ▪ What would they like to improve about MyMichiganTech?
• Results are highlighted on the following slides
Effectiveness  
Spring 2014 Student Comments

• [...] MMT was much **easier to use** and find information that was usually hidden in Banweb. I think it really cut back on the time that I would spend clicking around in Banweb since everything was **summarized** on [MMT’s] Current Students Page [...]  
• It is a place where I can get to know every academic status about me without logging into 3-4 different places
Effectiveness
Spring 2014 Student Comments

• I enjoyed the news feed on the front page. As a distance learning student [...] I always enjoyed reading about Houghton and MTU. I always liked the list of forms I was required to submit each semester. Again, as an off-campus student this helps a lot. With the stress of school and work, it is easy to slip through the cracks. The website was an excellent reminder.

Effectiveness
Spring 2015 Student Comments
Effectiveness
Spring 2015 Student Comments

• The Student Checklist
• Everything in one place
• The best feature would be the degree timeline. It helped me figure out all the paperwork associated with my degree

Effectiveness
Spring 2015 Student Comments

• I LOVED the degree completion timeline. Honestly it as the only part of MMT that I used [...]. With all the paperwork necessary for me to finish the graduate degree, I was ecstatic that there was a way to make sure I was on track, especially since my research mentor/ advisor didn’t really seem to know the extent of the paperwork that I needed to submit, and timeline for those things.
Effectiveness
Spring 2016 Student Comments

• Everything in one place
• I like the way [MMT reminds] us to complete the forms or anything that has to be done in the [Student Checklist]
• The best thing for a graduate student in MMT is the DCT made available for the specific to the user [...] 
• I can check if I have any forms due. Degree completion timeline was really helpful to keep track of everything...especially if you have to submit a thesis or report.

Student View

• Timeline is a great tool for students
  ▪ Information is clearly outlined
    ✷ What/When/Why/How
    ✷ Should eliminate confusion
  ▪ Can be checked anytime
    ✷ Website, MyMichiganTech
• Timeline is great tool for faculty and staff
  ▪ Advisors, program directors, assistants
  ▪ Graduate School staff
Challenges – Staff Perspective

• Not all problems are easily solved
  ▪ Takes time and resources
  ▪ Involve multiple offices and processes
• Students
  ▪ Anxious towards end of degree
  ▪ Want individual confirmation
  ▪ Want immediate confirmation on MyMichiganTech
  ▪ Want online form submission (except when they don’t)

Challenges - Student Perspective

• Implementations
  ▪ Can be hard and it may take time
  ▪ Need to benefit
    ♦ All graduate students
    ♦ Graduate School staff
• Student can / should
  ▪ Know what is expected
  ▪ Frequently check MMT, DCT
  ▪ Pay more attention to Graduate School’s email
  ▪ Provide feedback
Future and Ongoing Work

- Applied same principles to thesis submission process – binding was causing a bottleneck
  - Eliminated three steps in the process
  - Simplified process and reduced fees for students
- Electronic form submission through MMT
- Improve visibility of Degree Completion Timeline on MyMichiganTech
- Improve load time of MMT page
- Add department requirements to MMT
Future Work - Student View [1/2]

- “Degree Tracker”
- Electronic form submission
  - Pre-compiled forms in MMT
  - E-signatures
- Have a single portal in which student sign in
  - Learning Management System
  - News, Graduate School Info, etc...
  - Job search

Future Work - Student View [2/2]

- Survey comments
  - Would like to see more resources for graduate students
    - Investigate what specific resources students would be interested in seeing
  - Would like to see due dates next to items
    - Not all items necessarily have “exact” due dates
  - Mobile version or app of MMT
Summary

• Used Lean principles to address a problem about communicating degree requirements to students
• Developed a new web page to communicate the degree completion timeline to students, faculty, and staff
• Developed a personalized timeline on MyMichiganTech for students to see their degree progress

Acknowledgements

• Kaizen Team
  • Nancy Byers-Sprague, Craig Friedrich, Emmett Golde, Nate Hood, Jackie Huntoon, Julie Seppala, Andrew Storer, Sasha Teymorian
• Enterprise Applications Services
• Ruth Archer, Manager of Process Improvement
Questions and Discussion
Problems & Proposals in Graduate Pathways: A Problem-Based Learning Approach to Doctoral Education in Biomedical Research

Midwest Association of Graduate Schools
April 7, 2016
We are:

Julie Davis Turner, PhD
Associate Dean

Steve Triezenberg, PhD
Dean / President
Our setting:

Single small PhD program; independent charter

PhD in cellular and molecular biology

22 students / 5-6 in each cohort
Our setting:

Single small PhD program

Housed within a biomedical research institute (Van Andel Research Institute)

*Scientists of research institute = faculty of graduate school*
Our setting:

Single small PhD program
Housed within a biomedical research institute

We’re new!

First students 2007
First graduates 2012
Initial accreditation 2013
Mission: To train Ph.D. scientists as biomedical research leaders in cell and molecular biology relevant to human diseases with translational emphasis.
Houston, we have a problem
Houston, we have a problem

“How do we best help our doctoral students learn what they really need to learn for the work and career that they will come to?”

- Too much knowledge to know it all
- Access to information is very rapid
- Growth of knowledge is too rapid to keep up
- Telling them all that I know: isn’t the answer.
Reframing our problem

How do we best help our doctoral students think and act like (___________)?

• Fill in your speciality:
  • Scientists / Research leaders
  • Scholars (of your discipline)
  • Practitioner (of your profession)
Not just our issue, and not an entirely new issue:

Walker, Golde, Jones, Bueschel, Hutchings

*The Formation of Scholars* (2008)
Carnegie Foundation for Advancement of Teaching

*Key theme: “stewards of the discipline”*

generating ...

conserving ...

transforming ...
Reframing (y)our problem

How do we best help our doctoral students think and act like (____________)?

• Fill in your speciality:
  • Scientists / Research leaders
  • Scholars (of your discipline)
  • Practitioner (of your profession)
Well ... what do scholars do?

Take 3 minutes ...

list 4-5 key activities that define or demonstrate what scholars in your discipline do

(Yes, you may talk with your neighbor.)
Well ... what do scholars do?

Let’s collect a few examples:
Overarching Learning Outcomes
(aka Core Competencies for PhDs)

Four “domains”:
Knowledge
Research skills
Communication
Ethical and professional conduct
Reframing our problem again ...

How do we best help our doctoral students learn to do what scholars in that discipline do?
One approach: Problem-based learning

Common in medical training (nursing, law, business): “Learn to think like a doctor”

Use a relevant problem to drive learning:

Create the “reason to learn” / “need to know”
One approach: Problem-based learning

Common in medical training (nursing, law, business)

Use an *ill-structured (but well-planned)* problem to drive learning:

- Create a authentic “need to know” / “reason to do”
- Set the context for conceptual framework
- Students define what they do (and don’t) know
- Students drive the “learning”; teachers support
Today’s MAGS Workshop:

Case study:
our effort at using PBL in our setting

What can YOU learn / apply?
GOALS of this MAGS Workshop

➢ Know the hallmarks of PBL

➢ Evaluate whether PBL fits with your grad program / discipline

➢ Brainstorm “problems” as prompts for learning skills / knowledge in your discipline
VAIGS setting and philosophy:

Mission: Develop biomedical research leaders

Approach: “Think and act like a scientist”
(i.e., research leader)
= Combine research skills and leadership skills

“Practice how you play”
= do (as a student) what research leaders do
The science we do: basis of human disease

- Cell Biology
- Genetics
- Molecular Biology
- Biochemistry
- Bioinformatics
“What causes pancreatic cancer?”
How can we detect it?
How can we treat it?
Problem-Based Learning at Van Andel Institute Grad School

• Integrate disciplines: \textit{(content, methods)}
cell and molecular biology, genetics, bioinformatics, pathology, immunology ...

• Authentic context for learning:
  Research proposals (grant format)

• Driven by unsolved, ill-structured, (well-planned) problems in human diseases
Our curriculum - overview

Fall Semester:
- Cervical Cancer: 3 x 2hr classes, 4 weeks
- Neurofibromatosis
- Bone disease
- Parkinsons
- Leukemia
- Breast, Prostate C
- Pancreatic Cancer

Winter Semester:
- Brain cancer
Our curriculum - overview

• What happens in these modules?
  – Given: Problem relevant to disease
    \textit{(ill-structured ... unsolved ... well-planned)}
  – Outcome: Research Project Proposal (i.e., grant)
    – "How will you attack that problem?"
      = authentic context for learning!

  – “Learn whatever you need to learn
    \textit{in order to create / write that proposal}”
Our curriculum – example
Cervical Cancer

• Context:
  – Cervical cancer is caused by human papillomavirus (HPV)
  – Vaccines are available to block HPV infection
  – Not everyone gets vaccinated before infected

  – Problem: Could we design a therapeutic vaccine – to treat people who have cervical cancer, in contrast to inoculating all pre-adolescents?
Our curriculum – example
Cervical Cancer

– Problem: Could we design a therapeutic vaccine for cervical cancer?

– What would students need to learn?

(input from audience)
Our curriculum - example

Problem: Could we design a therapeutic vaccine?

– What would students need to learn?

– INSTRUCTOR has intended learning objectives

– Plan the “ill-structured” problem and the activities to lead students to achieve those objectives, whether they know it or not.
PBL at VAIGS

• What happens in these modules?
  – Class meets 3x/week, 2 hours / session

  – What do the STUDENTS do?
    • What do we need to learn NEXT?
    • What do we need to do to learn that?
      (go away and do / learn)

• What DID we learn since last time?
Our curriculum - overview

• What happens in these modules?
  – What do the STUDENTS do?
  – What does the PROFESSOR do?
    • Help students define new learning issues
    • Provide resources for learning
    • Clarify / correct their new understanding
    • Push for more depth / breadth
    • Disclose the “intended” learning objectives
How does PBL address our problem?

“How do we best help our doctoral students learn what they really need to learn for the work and career that they will come to?”

- Too much knowledge to know it all
- Access to information is very rapid
- Growth of knowledge is too rapid to keep up
- They will need to learn (later) more than I know now: transfer isn’t the answer.
Our curriculum - overview

• What happens in these modules?
  – Students learn concepts / knowledge
  – Students develop / practice “thinking skills”

How to:
  ➢ Define what I need to learn
  ➢ Find information I need
  ➢ Evaluate the quality of that information
  ➢ Find the “gaps in knowledge”
  ➢ Structure that information to make sense
  ➢ Communicate in the style that scientists use
Our curriculum - semester

What happens from one module to next?

- Progressive concept development
- Progressive skill development
Our curriculum – whole year

What happens from one module to next?

– Progressive concept development
  • Each module knows and depends on learning objectives in previous modules
  • Self-testing ... spaced repetition ... interleaving topics ...
    “Make It Stick” (Brown, Roediger, McDaniel, 2014)

– Progressive skill development: practice / feedback how to:
  • Find information you need
  • Evaluate the quality of that information
  • Find the “gaps in knowledge”
  • Structure that information to make sense
  • Communicate in the style that scientists use
What happens to the discipline-specific knowledge?
Major disciplines taught

- Biochemistry
- Cell Biology
- Molecular Biology
- Genetics
- Pathology
- Developmental Bio
- Microbiology
- Immunology
How do you know that this works?
Assessment in Problem-based learning

1. Formative assessment during learning process

- Small group; everyone engages in discussion
- Preparedness and participation (rubric)
- “Journal club” presentation (rubric)
Assessment in Problem-based learning

1. Formative assessment during learning process

2. Professional and peer review of proposals
   - Rubric for evaluating proposals
   - Formative and summative uses
   - All course directors from a semester will evaluate each proposal from each module
   - Peer review: classmates, postdoctoral associates
# Rubric for evaluating proposals

<table>
<thead>
<tr>
<th>Content</th>
<th>exceptional</th>
<th>good</th>
<th>adequate</th>
<th>insufficient</th>
<th>not applicable / no basis for judgment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrates understanding of the topic at <strong>sufficient depth:</strong></td>
<td>5</td>
<td>4</td>
<td>2.5</td>
<td>0-1</td>
<td></td>
</tr>
<tr>
<td>- good background</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- clear significance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Includes <strong>discussion at appropriate level</strong></td>
<td>5</td>
<td>4</td>
<td>2.5</td>
<td>0-1</td>
<td></td>
</tr>
<tr>
<td>- technical mastery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- knowledge/understanding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Language is compelling, concise, and accurate</strong></td>
<td>5</td>
<td>4</td>
<td>2.5</td>
<td>0-1</td>
<td></td>
</tr>
<tr>
<td>Clear, testable <strong>hypothesis</strong></td>
<td>10</td>
<td>8</td>
<td>5</td>
<td>0-2</td>
<td></td>
</tr>
<tr>
<td>Develops logical <strong>specific aims</strong></td>
<td>10</td>
<td>8</td>
<td>5</td>
<td>0-2</td>
<td></td>
</tr>
<tr>
<td><strong>Experimental plan is reasonable (i.e. do-able) and yet innovative (i.e. exciting)</strong></td>
<td>5</td>
<td>4</td>
<td>2.5</td>
<td>0-1</td>
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<tr>
<td><strong>Experimental plan directly and completely addresses the hypothesis</strong></td>
<td>5</td>
<td>4</td>
<td>2.5</td>
<td>0-1</td>
<td></td>
</tr>
<tr>
<td><strong>Appropriate review of literature and utilization in the written document</strong></td>
<td>5</td>
<td>4</td>
<td>2.5</td>
<td>0-1</td>
<td></td>
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<thead>
<tr>
<th>Structural</th>
<th>exceptional</th>
<th>good</th>
<th>adequate</th>
<th>insufficient</th>
<th>not applicable / no basis for judgment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Demonstrates appropriate structure</strong></td>
<td>20</td>
<td>16</td>
<td>10</td>
<td>0-4</td>
<td></td>
</tr>
<tr>
<td>- introduction</td>
<td></td>
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<tr>
<td>- specific aims</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>- background</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>- experimental design (rationale, experiments, expected outcome, pitfalls, future plans and ramifications)</td>
<td></td>
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<tr>
<td><strong>Appropriate interdependence / independence of Specific Aims</strong></td>
<td>5</td>
<td>4</td>
<td>2.5</td>
<td>0-1</td>
<td></td>
</tr>
<tr>
<td><strong>Utilizes appropriate scientific writing</strong></td>
<td>5</td>
<td>4</td>
<td>2.5</td>
<td>0-1</td>
<td></td>
</tr>
<tr>
<td><strong>Error-free (punctuation/grammar)</strong></td>
<td>10</td>
<td>8</td>
<td>5</td>
<td>0-2</td>
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<td><em>(Each typo is 0.5 point deduction)</em></td>
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<tr>
<td><strong>Accurate reference citations</strong> <em>(includes missed references and errored usage)</em></td>
<td>10</td>
<td>8</td>
<td>5</td>
<td>0-2</td>
<td></td>
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</tbody>
</table>

**Comments:**
Assessment in Problem-based learning

1. Formative assessment during learning process
2. Professional and peer review of proposals

3. Summative review of knowledge, thinking skills
   - Single-module exam (in some courses)
   - End-of-semester exam across four modules
   - In-seat exam / closed book
   - Take-home exam: interpret / analyze / evaluate / design
Overarching Learning Objectives (aka Core Competencies)

Four “domains”:

Knowledge
Research skills
Communication
Ethical and professional conduct
## Our rubric for Core Competencies

### RESEARCH

<table>
<thead>
<tr>
<th>Define sound rationale / identify gap in knowledge</th>
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<tbody>
<tr>
<td><strong>Beginning</strong></td>
</tr>
<tr>
<td>Perform experiments as instructed without considering rationale</td>
</tr>
<tr>
<td><strong>Intermediate</strong></td>
</tr>
<tr>
<td>Understand rationale provided by others</td>
</tr>
<tr>
<td><strong>Advancing</strong></td>
</tr>
<tr>
<td>Use rationale to justify priorities for daily work</td>
</tr>
<tr>
<td><strong>Heightened</strong></td>
</tr>
<tr>
<td>Build expanded rationale for project and experiments</td>
</tr>
<tr>
<td><strong>Exceptional</strong></td>
</tr>
<tr>
<td>Effectively defend given rationale against objections or alternatives</td>
</tr>
</tbody>
</table>
How do we use Core Competencies?

Formative use for students – (1-2 times per year)

Student and thesis adviser both complete the “core competencies” rubric separately

Meet to discuss – similarities, differences?

Set a plan to address lagging competencies
How do you know that this works for faculty?

Faculty: This is how they work!

“Class” sessions resemble lab meetings
“Problems” reflect the nature of research

But this is NOT how they learned to teach!

PBL takes more planning, less preparation

Hard for faculty not to TELL what they know
How can you use this approach in YOUR setting?

What challenges / issues will you need to address in YOUR setting?
How can YOU use this model?

• Think of a module – 3-5 weeks, 6 hr/week

• What kind of question / task in your discipline could drive students to learn:
  – (some) key concepts
  – (some) scholarly skills?

• How would you present that as a “problem”? (“ill-structured but well-planned”)
How can YOU use this model?

Then put together several such modules

- each with their own problem
- each with their own product / outcome
- progressive development of knowledge
- progressive development of skills
Questions, issues, concerns:

• How to get faculty to stop “teaching” and instead to let students learn

• Defining authentic exercises / activities based on the practice of your discipline

• How to get people “on board” – for a course, for a curriculum
Other questions, issues, concerns:
GOALS of this MAGS Workshop

- Know the hallmarks of PBL
- Evaluate whether PBL fits with your grad program / discipline
- Brainstorm “problems” as prompts for learning skills / knowledge in your discipline
Resources:

• Walker, Golde, Jones, Bueschel, Hutchings: *The Formation of Scholars*, 2008

• Brown, Roediger, McDaniel: *Make it Stick*, 2014

• Duch, Groh, Allen (eds): *The Power of Problem-Based Learning*, 2001

• Lovitts: *Making the Implicit Explicit*, 2007
More information at:

www.vai.org

Email: gradschool@vai.org
How do we use Core Competencies?

Formative use for Program Review (once/year)

- All students and mentors complete rubric
- Data gathered anonymously (“survey”)
- Pool data from each cohort; compare
- Compare student:mentor ratings
- Track given cohort over time
SESSION OBJECTIVES

- Know the hallmarks of PBL
- Evaluate whether PBL is consistent with the skills appropriate to their grad program/discipline
- Brainstorm problems as suitable prompts for developing skills/knowledge in your graduate program

GOALS OF OUR PBL PROGRAM:

- To leverage skill development within authentic learning situations in the biomedical arena
- To enable deeper student learning over time with evidence of scientific and professional growth

Participant tasks in the Session: Test-drive PBL in this setting, Implementation, and Assessment

INTRODUCING VAIGS: a unique graduate school environment

I. Historical and Scientific Background
   Van Andel Institute Graduate School
   http://vaei.vai.org/grad-school/about-vaigs/
   A. Young, private, research institute: focused on human disease (cancer, Parkinson's, bone, cardio)
   B. Single PhD Program
   C. Size: small
      - faculty = 33 total laboratories
      - student body = 22 total PhD students
   D. Mission: to train PhD scientists as biomedical research leaders in cell & molecular biology relevant to disease with translational emphasis

II. Professional expectations @ VAIGS
   A. “Doing” science
   B. Professional and ethical behavior

III. Principles for meaningful assessment
   A. Assess based on a developmental perspective of student learning
   B. Clearly align what is taught and what is assessed
   C. Teachers manage and use assessment data
   D. Assess with standards of validity and reliability

FOCUS A: FRAMING THE PROBLEM FOR EDUCATIONAL LEADERS

A. What is our “problem” today? ___________________________________________________________

B. What do scholars in your discipline DO?
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________

C. How do they serve as “Stewards of the Discipline”?  
   a. Generating
   b.Conserving
   c. Transforming

G O A L S  O F  O U R  P B L  P R O G R A M :
FOCUS B: FRAMING PROBLEMS TO DRIVE STUDENT LEARNING

1. Create a “need to know” with a relevant problem:
   – ill-structured but well-planned
   – authentic, open-ended
   – no “right answer”

2. Allow / Guide learners to determine what THEY need to learn to answer the problem.

3. Drive depth through progressive concept and skill development
   – Self-testing
   – Spaced repetition
   – Interleaving topics

FOCUS C: FRAMING PROBLEMS FOR YOUR SETTING

1. In YOUR discipline, what KIND of a question could drive students to some of key concepts while practicing key skills?

2. After building out one module, zoom out to longer period (semester or year) to determine greater development.

FOCUS D: HOW TO MEASURE STUDENT ACCOMPLISHMENT?

1. Formative assessment – during the learning process
   Examples:
   – 
   – 

2. Professional and peer review – formative or summative assessment
   Ideas:
   – 
   – 

3. Summative assessment

REFERENCES
REMINdERS:
• PBL hallmarks
  1. Problems are ill-structured but well-planned (in order to allow learning to drive accomplishment to clear objectives).
  2. Projects are authentic, based in best-practices of the discipline.
  3. Open-ended questions are best, with no “right answer”.
• Drive depth of learning through progressive concept and progressive skill development.

EXERCISE: How does my graduate program help our doctoral students think and act like ____________? (scientists, scholars, practitioners)

1. SKILL DEVELOPMENT CONTINUUM

<table>
<thead>
<tr>
<th>Early Skills</th>
<th>Mid-Program Developmental Skills</th>
<th>Late-Stage Professional Skills</th>
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</table>

2. CONTENT DEVELOPMENT CONTINUUM

<table>
<thead>
<tr>
<th>Early Content</th>
<th>Mid-Program Developmental Content</th>
<th>Late-Stage Content</th>
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3. CONNECTING SKILL DEVELOPMENT with CONTENT AREAS

4. FINDING “PROBLEMS” TO DRIVE STUDENT LEARNING

5. INNOVATIVE IDEAS FOR ASSESSMENT
Strengthening the chain: stronger alignment between departments, graduate students, and career services

Anne Krook
Owner and principal, Practical Workplace Advice
@akrook  www.annekrook.com
Midwest Association of Graduate Schools
April 7, 2016, Chicago, IL

• Sharon Marcus, “Scenes from the life of a graduate advisor,” Vitae, Sept. 11, 2015

Working together with career services

Work together: faculty, CS staff, students
Ask:
“what do you do?”
“What do you need from us that you do not have?”
“When and how often should we engage with you to make out students successful?”

What you teach grad students

Rigor
Subject-matter expertise: what it is
Research skills
Explanatory skills
Teaching normative standards

Core skills I need in employees

Use a basic office-productivity suite
Understand data-driven arguments
Understand how software code works
Work in teams
Communicate clearly and briefly, in speech and writing, to interested, intelligent non-specialists

Anne Krook, “Interviewing people with a PhD: here’s what I sometimes don’t find.”
http://annekrook.com/?page_id=877

• Manoah Finston, “The unique case of the PhD on the industry job market,” Connected Academics, March 29, 2016
https://connect.commons.mla.org/the-unique-case-of-the-phd-on-the-industry-job-market/
You teach the foundations of what I need, no matter what the subject
Career services can help shape what students know into what I need
Faculty and career services together can adapt students’ training to changing job requirements

Resources
@careersingov – Twitter notifications of all levels of government jobs. Good way to understand what local, state, and Federal governments are looking for and to learn how to read job descriptions
1. **Thank you** – I have an MA and PhD, I have hired PhDs into academic jobs and MAs and PhDs into non-ac jobs, so I am grateful for all the good work you do.

2. **Nothing I can say is as important as anything you can ask**, so don’t be shy. I will pause at various points for questions, and then allow a lot of time at the end.

3. I teach graduate students how to seek non-academic jobs, should they want or need to. My interest in today’s topic about Career Services is this: Sharon Marcus had a good piece online in ChronicleVitae about being a graduate advisor and what she learned from being placement officer in a recent job market. Her piece culminated in point #6: “Always send doctoral students to the career center when they begin their academic job search.” For a prominent PhD-granting institution in the Humanities, that attitude is a big step forward, but: there’s a number of assumptions in that point that show us all where we could do things better, for career centers and for departments and above all for students, which is what I will talk about today.

4. **Today**, about the link between Career Services, graduate students, and departments:
   a. Where we are: career services, masters’ students, PhD students, departments
   b. How we got here
   c. Where we want to be
   d. How to get there

5. **Where we are – generalizations with exceptions**
   a. **Career services** – exist now primarily to serve undergraduates, with masters’ services often bolted on, or viewed as an extension of undergrad services. Designed for scale, given the relatively large numbers of undergrads, small number of staff; focus on job-market entry tools, such as resume and job-letter support and helping students define skills. Some students use it; many do not.
   b. **Masters’ students** – some use career services well, especially if they go into well-defined jobs that require masters’ degrees in closely related fields. Historically close to placement, esp. for fields for which the university is known. They often do especially well as they are perceived not yet to have developed the bad habits of PhD students (more about that later).
   c. **PhD students’** placement works less well. PhD students use the services less, view them as less useful, succeed less when they do use them, and, understandably, report higher dissatisfaction with the services. In their turn, Career Services staff often don’t believe they can help PhD students and believe their advice goes disrespected and unheeded.
   d. **Departments** – the closer their work is to industry, and the longer they have had relationships with employers, the better their support is for esp. masters’
students. Not necessarily close to career services! When it comes to PhD non-academic placement, much less successful. Now that so many PhDs in so many fields are not getting non-academic work, this is a significant problem.

6. How we got here: history, with a dose of current problems

a. Career services is an outgrowth of “placement offices” back when it really was placement with organizations known to the college. There’s a generational gap between parents, esp. of undergrads, and more senior faculty, who recall placement offices, and staff and current students who may view them more as sources of information and skill-development centers. This sense is compounded by the belief, growing stronger every year, that what you get from college is a better job, rather than more education.

b. Credential creep has been part of creating many more masters’ students for jobs that, in the past, would have been filled by people w/ bachelors’ degrees, with consequent demand for placement. So scale issues are starting to touch masters’ students’ placement, as there are many more of them.

c. After credential creep, the biggest change in employment picture as it relates to graduate students and Career Services is that the majority of PhDs, and, increasingly, masters’ students, are no longer places in academics or research jobs for which their degrees currently prepare them. Their placement has historically been academic, and historically done by departments. So when those students want or need to look for non-academic work, their departments often have no idea how to help.

d. In that piece I spoke of, Sharon Marcus has figured this out, and advises colleagues to send their PhD academic jobseekers to the career center as well.

   i. But once PhD students, and to a lesser extent masters’ students, get to the career center, there are many problems:

      1. One way to address this is to put people with PhDs in Career Services to help those on non-academic job tracks. PhD students are used to working with other PhDs, and often don’t respect Career Services staff. The academic class system often prevents them from taking what they hear seriously. By the time PhD students are well into their dissertations, they focus on a small number of people’s feedback, and all of them have PhDs and work as faculty members.

         a. When Career Services are staffed with PhDs, there’s a perception that those PhDs couldn’t cut it to get so-called “real” academic jobs, that is, faculty appointments. So there’s a built-in potential for considering them unserious or failures.

         b. It is long past time for academics of every level and job to address the academic class system, in which PhDs and PhD-granting departments are at the top of the heap. PhD students and faculty need to take Career Services
seriously; I’ll have some suggestions for how to make that happen.

2. PhD students’ placement happens 1x1 for a tiny number of jobs, so PhD students expect that level of individual attention, but Career Services are normally set up for scale on the undergrad and masters’ model. So if PhD student arrives at the Career enter, she or he feels like a cog in a machine compared to what attention they are used to in their departments.

7. Where we want to be: we all have a stake in good outcomes
   a. Career services – students and faculty to treat them with the respect due them as professionals, treated with the same collegiality we insist faculty of different departments show each other. They are closest to the job market on a broad scale, and we all need their knowledge.
   b. Masters’ and PhD students – we want them to have the best possible information about and job opportunities across all employment sectors: academic and non-academic, public, private, and non-profit. We want them to enter the market with confidence that they have both skills and knowledge that can lead to interesting, worthwhile jobs.
   c. Departments – departments want their students placed in good jobs. We want to track their successes, and we want them to come back to their departments and tell us about their successes, so we can understand how we can better prepare them in their fields and for the job market and so we can make a case to our current and future students that our programs are good investments in and preparation for a variety of job markets. But – and this is a big “but” – faculty do not need more work.

8. How do we get there?
   a. You can’t “send” students to the career center; you have to go first. This cannot be a process of tossing students over the wall to Career Services if the students are to succeed. The department chairs, directors of graduate studies, and departmental placement officers, and some graduate students need to sit down with Career Services staff. And I do mean “sit down” – this needs to happen in person; email will not cut it. You need to listen to the other two groups talk to you and to each other; you need to hear each other’s questions and answers.
      i. Every group – career center staff, faculty, and graduate students – needs to ask the following questions of each other:
         1. “what do you do?”
         2. “what do you need from us that you do not have?”
         3. When and how often should we engage with you to make our students successful?
   b. We as faculty need to model the kinds of behavior that will help all three groups (career services and faculty and students) work well together:
      i. We need to engage as colleagues, routinely. The group I talked about needs to meet once a semester, and career-services staff need to be
present at both welcoming meetings for new students and at all departmental placement group meetings

1. These are professionals who can help you
2. Many people get non-academic work; many people get work outside of the fields for which they are now training
3. They know more of the varied opportunities of the job market than most faculty: they deal in breadth of choice as well as depth of field

Faculty often say to me: “I already have a job. How on earth do you expect me to learn and teach the job-market skills that students seeking work (especially those seeking work outside my field) now need?”

i. I don’t. I expect you will find in conversation with Career center staff and students that you already teach the underlying habits of mind they need.

ii. Students may well need certain skills that are accessible to them through short training courses rather than degree programs. You can support Career Centers in their development of such courses and support their requests for funding. I, for example, need students to have a basic knowledge of workplace productivity tools, familiarity and comfort with data-driven arguments, a basic understanding of what code does (not how to code, but what it does), and the ability to work in teams. All of that students already have or can learn quickly.

iii. The best way to ask what skills your students need that they do not get in your programs or from career services is to ask students who are between two and five years out in the workforce.

9. When I hire students, they will work in teams at least some of the time. I need them to harness their skills to others’ skills and work together. When I was a faculty member, a lot of the teaching I did was by example. You can model one of the most important workplace skills your students can have by working together with Career Services, respecting people with disparate skills and training, and talking about what you do and what they do and asking students, current and former, what they need.