Integrative Research Culture Workshop  
August 19, 2016

Research Task Force (TF) Initiatives:  
Current Status

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Current Status</th>
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<tr>
<td>Improve Graduate Student Quality</td>
<td>Showcased Mines to prospective grad students at Red Rocks in spring. RTT and Grad office discussing strategies for similar events. Identifying funding for named fellowships for top students.</td>
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<td>Faculty Work Load Analysis</td>
<td>President Johnson has assigned this initiative to his team to establish and implement a new workload model.</td>
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<td>Improve Faculty Mentoring</td>
<td>Research sessions were added to the Fall FY16 new faculty orientation. RTT office will host a series of brown bag sessions on research topics. Encourage all depts to have formal mentoring policy.</td>
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<td>Reduction of Administrative Burden</td>
<td>2 CRA initiatives: Checkbook grant accounting being tested. New contracts administrator hired.</td>
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<td>Interdisciplinary Research</td>
<td>TF will work closely with the Research Council Chair in the coming semester to kick start an initiative for hosting research conferences.</td>
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<td>Create Grand Challenge Institutes</td>
<td>Discussions ongoing with faculty in several areas. Will seek seed funding.</td>
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Recent Multi-Partner Initiatives

- Renewal of NSF ERC for Urban Water Center
- Alliance for Development of Additive Processing Technologies
- Light Weight Steels
- Carbon Materials for Wind Turbines
- Methane Emissions Reconciliation
- Critical Materials Institute
- Mines/NREL Partnership for International Center for Multiscale Characterization (ICMC)

Major Proposals In the Pipeline

- NSF ERC on Innovation for Carbon Capture, Utilization, and Storage
- NSF MRSEC on Center for Sustainable Materials for Energy (CSM-E)
- NNMI on Center for Process Intensification to Enable Renewables
- NNMI on Clean Energy Manufacturing Innovation Institute
Positioned to Address Major Scientific Challenges

- Strong connections with Federal Labs
- Close connections with Front Range Federal Labs
- Strong industry ties
- Increased international partnerships
- Commercialization activities and entrepreneurial outreach

Campus Workshops Held

- Water
- Catalysis
- Membranes
- Big Data
### PI/Financial Manager Fund Balance Summary

<table>
<thead>
<tr>
<th>Grant</th>
<th>Available Balance (Inclusive of Reimbursements)</th>
<th>Available Balance*</th>
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*Includes all current balances.
Research Support Services (CCIT)

Data Management
- Data Management Plans (templates, tools and reviews)
- Best practices (storage structures, file naming, etc.)
- Data curation (institutional and external repositories)
- Help understanding funder requirements
- Metadata guidance

Consultations
- Evaluate storage options for researchers
- Communicate specific and general IT needs
- Connect researchers with other departments or individuals
- Help navigating IP or connecting those needing IP help
- Limited scripting help
- Educational talks for researchers or departments

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HPC Resources
- BlueM and Mio
  - ~13,000 total compute cores
  - Additional accelerator/GPU cores
- Code optimization
- HPC consultations
- Education
  Tim Kaiser: tkaiser@mines.edu
hpc.mines.edu

Breakout Groups
- BO#1: Combining research centers into institutes
- BO#2: Accelerating buildup of intellectual property
- BO#3: Physical reorganization of research space on campus to achieve interdisciplinary research
- BO#4: Impediments to enhancing inter-institutional collaborations
- BO#5: Impediments to enhancing intra-institutional collaborations