Agenda

- Risk
- Enterprise Risk Management (ERM) & Benefits
- Proposed ERM Framework
- ERM Advisory Team’s Objectives
- Implementation Steps
- ERM @ Mines - Survey
- Next Steps
- Planned Milestones
Risks

Risks are EVERYWHERE in many forms

- Operational risk
- Strategic risk
- Stakeholder risk
- Compliance risk
- Reputational risk
- Financial risk
- Health and safety risk
- Cyber risks
Optimal Risk-Taking Yields Maximum Value

Source Credit: COSO: Risk Assessment in Practice by Deloitte & Touche, LLP
Enterprise Risk Management

“A process, effected by an entity’s board of directors, management, and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives.”

“Committee of Sponsoring Organizations of the Treadway Commission

Source Credit: Revised COSO ERM Framework (2016)
BENEFITS OF IMPLEMENTING ERM

- Holistic and cohesive system aimed at achieving Mines’ objectives
- Enhance decision making and purposeful resource allocation
- Helps management make informed decisions regarding risk
- Fosters collaboration through an organization-wide risk language
- Break down barriers between departments and support beneficial change
- Improve understanding of the interrelated impacts of risk at Mines
Advisory Team Objectives

- Ensure an effective means to identify risk throughout Mines
- Define levels of acceptable risk to take
- Manage identified risks with adjustments for sustainability
- Take acceptable risks to create value
- Maximize enterprise profits
- Reduce loss associated with risk
## ERM Implementation Steps

1. **Define Risk and Decide What is Acceptable Risk to Take**
2. **Define System to Identify, Assess, and Manage Risk**
3. **Train Core Teams in Each Department**
4. **Core Team Assess and Respond to Identified Risks**
5. **Provide Oversight of Smaller Teams and Monitor Decision Making**
6. **Further Improve System With Time Through Dynamic Evaluation**
Purpose: Gain an understanding of how risk management occurs at Mines

- 16 participants
- 3 areas: Academic Departments, A&O, and Student Life
- 7 Questions:
  1. On a scale from 1 (risk averse) to 5 (risk taker), how would you define Mines risk appetite?
  2. Is there a common meaning of risk across campus? In the box below, please articulate how you define risk?
  3. What risk information is generated in your area and by whom? How is it acted upon?
  4. What emerging external risks do you monitor?
  5. Would you or your department/unit be willing to participate in a cross-department committee review of risks originating from your activities?
  6. What are barriers or challenges for you to manage risk?
  7. Do you think your area would benefit from having a risk-based decision making process across campus? Why or why not?
ERM Survey Key Highlights

Varying perceptions of Mines risk appetite

On a scale from 1 (risk averse) to 5 (risk taker), how would you define Mines risk appetite?

# of responses

On a scale from 1 (risk averse) to 5 (risk taker), how would you define Mines risk appetite?
ERM Survey Key Highlights

we have a "do what you want" culture and any policy following is considered too risk averse

unknown risks due to not knowing the potential impact

There is a certain level of risk related to research

How would you define Mines’ risk appetite?

inconsistent - we are very risk averse on some things that aren't high priority and vice versa
Is there a common meaning of risk across campus?

How do you define risk?

- “Risk is the **likelihood** that a person may not be **harmed** or suffers adverse health effects if exposed to a **hazard**”
- “Management of **uncertain** or **unanticipated** conditions that impact business operations/goals”
- **Rule breaking** or results in **harm** to CSM”
- “I generally think of risk as the **likelihood** of something (generally bad) – a threat - **being realized**”
- “Don’t know”
- “Your definition of types above is the **first time** I’ve specifically considered a definition”
- “Causing significant harm to Mines from a **financial** reputation **academic standing** perspective”
ERM Survey Key Highlights

Challenges/barriers to risk management

- No barriers or challenges
- Other
- Lack of authority
- Lack of knowledge
- Lack of collaboration across departments
- Lack of training
- Lack of tools/resources
## ERM @ Mines

<table>
<thead>
<tr>
<th>Mines without ERM</th>
<th>Mines with ERM</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Inconsistent definition of risk</td>
<td>• Defined risk appetite</td>
</tr>
<tr>
<td>• Haphazard decision-making</td>
<td>• Risk mindset</td>
</tr>
<tr>
<td>• Silos</td>
<td>• Cross-departmental collaboration</td>
</tr>
<tr>
<td>• Challenges to managing risks</td>
<td>• Resources for managing risk</td>
</tr>
<tr>
<td>• Some monitoring of emerging risks</td>
<td>• Enhanced awareness and monitoring of risks</td>
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Next Steps

1. Establish roles, commitment and define risk
2. Develop framework to assess risk
3. Perform initial risk assessment
4. Monitor performance and report on metrics
5. Expand the team and refine the process
6. Create and train core team of risk owners and leaders
Planned Milestones

2017

2/28/2017 Socialize ERM and identify participants

5/31/2017 Formalize goals

10/31/2017 Develop framework

12/31/2016 Determine need & make recommendations

4/30/17 Train participants

8/31/17 Define risk appetite
Planned Milestones (cont.)

- **2018**
  - **2/28/2018**
    - Perform initial risk assessment
  - **4/30/2018**
    - Prioritize risks and develop response plans
  - **6/30/2018**
    - Monitor performance and reporting

- **Ongoing**
  - Communication
Questions