MINES@150
Playbook, Priorities, and a Vision for the Future
Signature Student Experience – Why?

Pipeline of Applicants
(conventional approach upended)

Yield of Admitted Students

Cost vs. Perceived Value and ROI
(families looking at this closer than ever)

Increasing Competition

Affinity & Philanthropy

Industrial & Other Partner Connections
(#1 reason for partnerships – access to graduates)
## MINES@150 Signature Student Experience

### Miners @ 150 Signature Student Experience

#### Many Possible Paths to Graduation, But Consistent Results

<table>
<thead>
<tr>
<th>Highly Qualified Students</th>
<th>Onboarding, Orientation, Readiness</th>
</tr>
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<tbody>
<tr>
<td>STEM interests</td>
<td>Oredigger Camp, Res Life, Every Oredigger, TLC’s, CSM101, CASA...</td>
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<tr>
<td>Academic achievement</td>
<td></td>
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<tr>
<td>Strong work ethic</td>
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<tr>
<td>Intellectually curious &amp; multidimensional</td>
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<tr>
<td>Challenge seekers</td>
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<tr>
<td>Outstanding character &amp; high potential</td>
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<tr>
<td>All backgrounds (state-wide demographics)</td>
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### Technical Competency

- [disciplinary core + multi-disc. & thematic context]

### Mines Traditions

- [M-Climb, E-Days, Continuum...]

### Business Competency

- [business skills, entrepreneurship, etc.]

### Professional Preparation/Career Readiness

- [Career Center, Career Days, alumni, workshops, mentoring...]

### Experiential Learning

- [internships, research, design challenges, field sessions, capstone, start-ups...]

### Honors & Scholars Experiences

- [McBride, pre-Med, pre-Law, study-abroad, X-cutting pursuits (energy, health, etc.)...]

### 1st Year *Excite and Explore* Programs

- [Thorson 1st-year Honors/IDEAS, Cornerstone...]

### Professional Preparation/Career Readiness

- [Career Center, Career Days, alumni, workshops, mentoring...]

### Vertically-Connected Communities

- [clubs/orgs, visual & performing arts, athletics, Greek life, scholarship groups]

### Technical Competency

- [disciplinary core + multi-disc. & thematic context]

### Business Competency

- [business skills, entrepreneurship, etc.]

### Honors & Scholars Experiences

- [McBride, pre-Med, pre-Law, study-abroad, X-cutting pursuits (energy, health, etc.)...]

### Produce Distinctive and Highly-Valued Graduates

- Hard-working, creative, collaborative, persistent and resilient ("Orediggers get things done")
- Technical, business, and contextual competency
- Professionally-prepared
- Future-prepared and adaptable
- Prepared to lead
- Strong affinity to Mines
- Pay-it-forward attitude

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**COLORADO SCHOOL OF MINES**

**EARTH • ENERGY • ENVIRONMENT**
# Signature Student Experience Components

<table>
<thead>
<tr>
<th>Component</th>
<th>The Present (2020)</th>
<th>Future (2024)…Imagine that:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Onboarding, Orientation, Readiness</strong></td>
<td>Only about ½ UG students fully access the existing programs and resources</td>
<td>All students are welcomed and positioned for success at the start (UG, Xfer, &amp; Grad)</td>
</tr>
<tr>
<td><strong>Vertically-Connected Communities</strong></td>
<td>Mostly only athletics, fraternity/sorority life, a few scholar programs (Harvey/Daniels/etc.)</td>
<td>All students are placed in a vertically-connected community and they may seek out others</td>
</tr>
<tr>
<td><strong>1st Year <em>Excite and Explore</em> Programs</strong></td>
<td>Mostly non-existent; capacity for 10% - 20% students in one first-year honors flavor</td>
<td>100% of students have a first-year experience that excites them and helps them select a major</td>
</tr>
<tr>
<td><strong>Technical Competency</strong></td>
<td>This is Mines strength; rigid/narrow disciplinary focus (w/some “+” options)</td>
<td>A Mines strength; different disciplinary + thematic + career paths (many types of graduates)</td>
</tr>
<tr>
<td><strong>Business Competency</strong></td>
<td>Minimal, but opportunities exist along some paths to graduation</td>
<td>Students are prepared to excel in business &amp; entrepreneurial pursuits; business major offered</td>
</tr>
<tr>
<td><strong>Experiential Learning</strong></td>
<td>Mostly internships and capstone projects; some by research experience</td>
<td>All students have four or more substantial experiential learning experiences at Mines</td>
</tr>
<tr>
<td><strong>Honors &amp; Scholars Experiences</strong></td>
<td>Capacity exists for only about 10% - 20% of all students</td>
<td>Capacity exists for &gt;75% of all students to have a complementary honors/scholars experience</td>
</tr>
<tr>
<td><strong>Professional Preparation/ Career Readiness</strong></td>
<td>Student initiative driven; no deliberate path; highly variable results</td>
<td>Very deliberate development of professional skills and leveraging of alumni, corporate relationships...</td>
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</table>
Student Life Assignment

- Every student has a vertically-integrated experience (freshman<>sophomore<>junior<>senior connections from Day 1)

- Every student is engaged in at least one local community
  - (Mines Athletics, Club Sports, Greek life, honors, Blue Key, etc.)

- Professional development is an over-arching theme
  - (pervasive in all components of Student Life)

- Students set, communicate, and reinforce community expectations for behavior, inclusion, ethical behavior, etc.
  - (students have ownership status in the community)

- Traditions, opportunities, and uniquely Mines activities
  - (M-Climb, Oredigger Camp, Continuum, % engagement in sports, etc.)

- Build Mines pride & external promotion of our students
  - (Athletics, community service, student org successes)
Creating the “Whole Engineer”

Our Roots

TECHNICAL
Science and Engineering

BUSINESS
Finance, Economics, Management, Operations Research/Logistics, Leadership, Communication

CONTEXT & PASSION
Societal Needs, Entrepreneurship & Innovation, Arts, Policy, Humanities, Social Sciences

Early Exploration
Excite & Inspire
Balance: students also need time for non-curricular activities that are key to development of distinctive and highly-valued characteristics of graduates

The next step in many of our graduates’ educations and careers

The reason why; The balance; This attracts & motivates our students
MINES@150 Campaign Investments
(McNeil Hall, Labriola Innovation Complex, Beck Venture Center, Grewcock Scholars, Vallejo-Irvine Professional Development Program Fund, etc.)

Mines Foundation Board of Governors Catalyst Fund
($500K for Sustainable MINES@150 Signature Student Experience Projects, Driven by the Faculty Senate)
MINES@150 Vision: “Top-of-Mind/First-Choice”

To achieve our MINES@150 aspirations, we must:

• become more accessible and attractive to the students we want at Mines (affordability, success metrics, living/learning, culture, demographics)

• produce distinctive graduates: highly-valued, future-prepared and adaptable.

• re-align our programs portfolio with the future; expand offerings and diversify delivery, grow the professionally-oriented pre- and post-graduate education.

• grow the scale and impact of our R&D and other innovation activities: build thematic strengths, expand partnerships, diversify funding sources, increase tech transfer.

• build/acquire the infrastructure needed for MINES@150.

• grow/acquire the leadership needed for MINES@150.

• strengthen affinity for MINES among our students, alumni, and external partners.

• attract investment to support our strategic initiatives.
### Emphasis Areas

- **Student success metrics**
- **Community demographics**
- **Supportive Living & Learning Environment**
- **Signature Student Experience/ Distinctive Education**
- **Financial accessibility & ROI**

### Progress: Student Success Metrics

<table>
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<tr>
<th>Student Success Metric</th>
<th>Comments</th>
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<tr>
<td>1st to 2nd year retention</td>
<td>Consistently 92% - 94% overall since 2012 (Goal 94%)</td>
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<td>2018 cohorts: Pell 90%; and Hispanic 95%</td>
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<tr>
<td>4-Year Graduation Rate</td>
<td>Up from &lt;50% for 2009 cohort to 63% for 2015 cohort (Goal: 75%)</td>
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<tr>
<td>6-Year Graduation Rate</td>
<td>Up from 77% for 2009 cohort to 83% for 2013 cohort (Goal: 85%)</td>
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<tr>
<td>Career Pursuit (employment or graduate school in field)</td>
<td>Typically 84% BS ($70K avg), 90+% MS ($78K avg), 92+% PhD ($80K avg)</td>
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<tr>
<td>Student Debt</td>
<td>50%-60% of students have debt at graduation: $30K - $35K median for those with debt</td>
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