Building Use

Department of Physics & Astronomy
- Faculty: 35
- Undergraduate Majors: 187
- Graduate Students: 83
- Students Taught: 4,499
- Research Funding: $6,250,203

Department of Atmospheric Sciences
- Faculty: 11
- Undergraduate Majors: 32
- Graduate Students: 34
- Students Taught: 564
- Research Funding: $5,260,248

- Aerospace
- Biotechnology
- Hazardous Weather Forecasting
- Applied Science
- Semiconductor Technology
- Air Quality
- Data Science
Remodeled Space: 40,729 SF

New Space: 100,000 SF

- 91% Instruction & Research Space
- 9% Offices for Faculty and Staff
- Preservation of the Historic Stewart Building
Requested from State: $60,000,000
Private Funding: $24,560,000
Current Donor Commitments: $3,400,000
O&M Increase: $646,500

Total Cost: $84,560,000
Strategic Objective 1: Completion
1. Completion

**STEM Degrees Awarded by USHE Institutions**

<table>
<thead>
<tr>
<th>Year</th>
<th>University of Utah</th>
<th>Other USHE Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>2106</td>
<td>2217</td>
</tr>
<tr>
<td>2016</td>
<td>1880</td>
<td>1992</td>
</tr>
<tr>
<td>2015</td>
<td>1630</td>
<td>1829</td>
</tr>
<tr>
<td>2014</td>
<td>1678</td>
<td>1768</td>
</tr>
<tr>
<td>2013</td>
<td>1280</td>
<td>1592</td>
</tr>
<tr>
<td>2012</td>
<td>1425</td>
<td>1553</td>
</tr>
<tr>
<td>2011</td>
<td>1320</td>
<td>1562</td>
</tr>
</tbody>
</table>

- **50%** Increase in STEM Degrees since 2011
- **49%** of STEM Degrees in 2017 were Awarded by the University of Utah

Source: IPEDS
1. Completion

**College of Mines & Earth Sciences**
- Atmospheric Sciences (BS, MS, PhD)
- Earth Science Teaching
- Geology and Geophysics
- Geological Engineering
- Metallurgical Engineering
- Mining Engineering

**College of Science**
- Applied Mathematics
- Biology & Biology Education
- Chemistry
- Mathematics & Mathematics Education
- Physics & Physics Education (BS, MS, PhD)

**College of Engineering**
- Biomedical Engineering
- Chemical Engineering
- Civil Engineering
- Computer Engineering
- Computer Science
- Construction Engineering
- Electrical Engineering
- Entertainment Arts and Engineering
- Materials Science
- Mechanical Engineering

**Pre-Professional Programs**
- Chiropractic
- Dental
- Medical
- Occupational Therapy
- Optometry
- Pharmacy
- Physical Therapy
- Podiatry
- Veterinary

Departments in the building teach courses necessary for all these degrees

**Others**
- Architecture
- Design
- Doctorate in Pharmacy
- Environmental Studies
- Geographic Information Science
- Geography
- Health Society and Policy
- Kinesiology
- Music Technology

1. Completion
Strategic Objective 2: Capacity
2. Capacity

Undergraduate Labs
56% increase in experimental and computing labs.

Instruction Space
Modern experiential teaching space.

Time to Graduation
Reduces bottlenecks in high-demand courses.

K-12 STEM Education
Integral part of Utah’s STEM education pipeline.
Strategic Objective 3: Affordability
3. Affordability

“[Maintenance] costs will only escalate and still barely stay ahead of their failing systems. The current state of these aging facilities and failing infrastructure places them in immediate crisis.”

Source: 2018 Feasibility Study
### 3. Affordability: Stewart vs. Fletcher

<table>
<thead>
<tr>
<th></th>
<th>Stewart Building</th>
<th>Fletcher Building</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sq. Ft.</td>
<td>Cost per SF.</td>
</tr>
<tr>
<td>Existing Building</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seismic Upgrade</td>
<td>40,729</td>
<td>$34</td>
</tr>
<tr>
<td>Life Safety Upgrade</td>
<td></td>
<td>$27</td>
</tr>
<tr>
<td>Infrastructure Upgrades</td>
<td></td>
<td>$106</td>
</tr>
<tr>
<td>Renovation</td>
<td></td>
<td>$420</td>
</tr>
<tr>
<td>New Addition</td>
<td>100,000</td>
<td>$606</td>
</tr>
<tr>
<td>Total</td>
<td>140,729</td>
<td>$601</td>
</tr>
</tbody>
</table>

**$28,253,993**

Savings with Proposed Project
Strategic Objective 4: Workforce
4. Workforce
4. Workforce: Graduate Programs

The STEM Economy

Companies need high-skilled employees with graduate degrees and research experience.

Satisfying the Demand

87% of physics graduate degrees awarded by USHE institutions in 2017 were from the University of Utah.

Unique to the U

The Atmospheric Sciences Graduate Program is the only one in the state.

Source: IPEDS
The Stewart Building for Applied Sciences
Elevating Statewide STEM Success
# Project Budget Summary

<table>
<thead>
<tr>
<th>COST CATEGORY</th>
<th>COST TO BUILD TODAY</th>
<th>ESCALATED COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demo Fletcher Bldg. (53,863 sq. ft.)</td>
<td>$932,945 ($17.32 / sq. ft.)</td>
<td>$1,030,329 ($19.12 / sq. ft.)</td>
</tr>
<tr>
<td>Renovate Stewart Bldg. (40,729 sq. ft.)</td>
<td>$15,273,370 ($375.00 / sq. ft.)</td>
<td>$17,201,670 ($422.34 / sq. ft.)</td>
</tr>
<tr>
<td>• Construction</td>
<td>$15,273,370 ($375.00 / sq. ft.)</td>
<td>$17,201,670 ($422.34 / sq. ft.)</td>
</tr>
<tr>
<td>• Soft Costs</td>
<td>$6,413,869 ($46.00 / sq. ft.)</td>
<td>$17,201,670 ($422.34 / sq. ft.)</td>
</tr>
<tr>
<td>• TOTAL</td>
<td>$23,687,239 ($579.81 / sq. ft.)</td>
<td>$17,201,670 ($422.34 / sq. ft.)</td>
</tr>
<tr>
<td>New Construction (100,000 sq. ft.)</td>
<td>$39,250,000 ($392.50 / sq. ft.)</td>
<td>$44,167,123 ($441.67 / sq. ft.)</td>
</tr>
<tr>
<td>• Construction</td>
<td>$39,250,000 ($392.50 / sq. ft.)</td>
<td>$44,167,123 ($441.67 / sq. ft.)</td>
</tr>
<tr>
<td>• Soft Costs</td>
<td>$15,747,671 ($112.00 / sq. ft.)</td>
<td>$44,167,123 ($441.67 / sq. ft.)</td>
</tr>
<tr>
<td>• TOTAL</td>
<td>$54,997,671 ($549.15 / sq. ft.)</td>
<td>$44,167,123 ($441.67 / sq. ft.)</td>
</tr>
<tr>
<td>TOTAL PROJECT COST</td>
<td>$78,662,854 ($558.97 / sq. ft.)</td>
<td>$84,560,663 ($600.88 / sq. ft.)</td>
</tr>
</tbody>
</table>
Supporting Material:

- **Old Dominion**
  - Chemistry Building
  - Size: 110,000 Sq. Ft.
  - Cost: $75,600,000
  - $667 Per Sq. Ft.

- **U. of New Mexico**
  - Physics & Astronomy Building
  - Size: 137,000 Sq. Ft.
  - Cost: $85,700,000
  - $630 Per Sq. Ft.

- **U. of Utah**
  - Applied Sciences Building
  - Size: 140,729 Sq. Ft.
  - Cost: $85,560,663
  - $601 Per Sq. Ft.

- **N.C. State University**
  - Engineering Building
  - Size: 225,000 Sq. Ft.
  - Cost: $154,000,000
  - $684 Per Sq. Ft.

- **Chico State**
  - Natural Science Building
  - Size: 110,000 Sq. Ft.
  - Cost: $101,700,000
  - $925 Per Sq. Ft.

- **Penn State**
  - Physics Building
  - Size: 152,000 Sq. Ft.
  - Cost: $146,000,000
  - $960 Per Sq. Ft.

**Cost Per Square Foot From Current STEM Capital Projects Nationwide**