COLLEGE OF ENGINEERING (COE)
Chemical & Biological Engineering (ChBE)
Civil Engineering (CE)
- Local Technical Assistance Program (LTAP)
Computer Science (CS)
Electrical & Computer Engineering (ECE)
Mechanical & Industrial Engineering (M&IE)
Air Force ROTC
Army ROTC

COE DEGREE PROGRAMS
Chemical Engineering (B.S., M.S.)
Civil Engineering (B.S., M.S.)
- Option in Bio-Resources Engineering
Construction Engineering Technology (B.S.)
Construction Engineering Management (M.)
Computer Science (B.S., M.S.)
Computer Engineering (B.S.)
Electrical Engineering (B.S., M.S.)
Environmental Engineering (M.S.)
Industrial Engineering (B.S.)
Industrial & Management Engineering (M.S.)
Mechanical Engineering (B.S., M.S.)
Mechanical Engineering Technology (B.S.)

COE PH.D. PROGRAMS
Ph.D. in Computer Science
Ph.D. in Engineering with options in:
- Applied Mechanics
- Chemical Engineering
- Civil Engineering
- Electrical & Computer Engineering
- Environmental Engineering
- Industrial Engineering
- Mechanical Engineering

COE RESEARCH & OUTREACH CENTERS
Center for Biofilm Engineering (CBE)
Montana Manufacturing Extension Center (MMEC)
Western Transportation Institute (WTI)

ENROLLMENT
BY ETHNICITY

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>Hispanic American</td>
<td>14</td>
<td>13</td>
<td>9</td>
<td>12</td>
<td>17</td>
</tr>
<tr>
<td>Native American</td>
<td>34</td>
<td>35</td>
<td>32</td>
<td>34</td>
<td>35</td>
</tr>
<tr>
<td>Asian American</td>
<td>20</td>
<td>17</td>
<td>14</td>
<td>19</td>
<td>17</td>
</tr>
<tr>
<td>Foreign National</td>
<td>113</td>
<td>103</td>
<td>88</td>
<td>86</td>
<td>93</td>
</tr>
<tr>
<td>Caucasian/Other</td>
<td>2,007</td>
<td>2,072</td>
<td>2,124</td>
<td>1,987</td>
<td>1,925</td>
</tr>
<tr>
<td>Total</td>
<td>2,216</td>
<td>2,242</td>
<td>2,269</td>
<td>2,145</td>
<td>2,090</td>
</tr>
</tbody>
</table>

ENROLLMENT
BY GENDER

<table>
<thead>
<tr>
<th>Gender</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>1,888</td>
<td>1,901</td>
<td>1,940</td>
<td>1,870</td>
<td>1,848</td>
</tr>
<tr>
<td>Female</td>
<td>328</td>
<td>314</td>
<td>329</td>
<td>275</td>
<td>242</td>
</tr>
<tr>
<td>Total</td>
<td>2,216</td>
<td>2,224</td>
<td>2,269</td>
<td>2,125</td>
<td>2,090</td>
</tr>
</tbody>
</table>
Designing Our Community program to Government Award. The Ash Institute U.S. Annual Innovations in American ing with Texas A&M University and the Council for Excellence in Government have chosen 15 finalists from a pool of over 1,000 agencies in recognition of creativity and excellence.

The Western Transportation Institute is a pioneer in rural highways. WTI is a pioneer in driver performance and safety research with a brief look at our productivity and overall mission achievement for the fiscal year 2004. I believe you will find the quick facts, graphs and mini-featuring the story of a very vibrant college. Whether it be the numerous accomplishments of our students and faculty, or the outstanding performance of our research and outreach centers, the College of Engineering is clearly fulfilling its mission’s Engineering Schools of the West. Adams has been featured on Good Morning America, ABC World News Tonight, and People Magazine as well as documentaries produced by PBS, Nova, and the History Channel. Adams’ mechanical engineering career was prompted by his fascination with avalanches during his post-college years as a “ski bum” and also by his involvement in a U.S. Army Corps of Engineers snow research project at MSU, his field and lab work involve MSU’s students and scientists, private research institutions, and other universities. On snowy winter days Adams and his team head out to their research station in the Bridger Mountains north of Bozeman to record data to better understand avalanche dynamics and snow metamorphism.

### College Highlights

**College of Engineering Hewlett Grant**
$787,000

The William and Flora Hewlett Foundation’s Engineering Schools of the West program is funding the three-year “Designing Our Community” program to recruit and retain Native American students.

**WTI Annual Research Expenditures**
$4.1 Million

The Western Transportation Institute is using a leading edge, “high fidelity” driving simulator to reduce fatalities on rural highways. WTI is a pioneer in driver performance and safety research.

**CBE Annual Research Expenditures**
$3.5 Million

Center for Biofilm Engineering engages in rural areas.

**Montana Manufacturing Extension Center, Finalist**

U.S. Annual Innovations in American Government Award. The Ash Institute for Democratic Governance and the Council for Excellence in Government have chosen 15 finalists from a pool of over 1,000 agencies in recognition of creativity and excellence.

**Fundamentals of Engineering FE Exam Scores**

<table>
<thead>
<tr>
<th>Year</th>
<th>MSU Average Pass Rate</th>
<th>National Average Pass Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>81.0</td>
<td>81.8</td>
</tr>
<tr>
<td>2001</td>
<td>80.6</td>
<td>81.3</td>
</tr>
<tr>
<td>2002</td>
<td>89.2</td>
<td>92.3</td>
</tr>
<tr>
<td>2003</td>
<td>95.3</td>
<td>92.0</td>
</tr>
<tr>
<td>2004</td>
<td>78.7</td>
<td></td>
</tr>
</tbody>
</table>

Bozeman and MSU are the top pick in the Northwest ranking of “The coolest college towns, places where the outdoors and intellectual esprit mingle blissfully.”

—Outside Magazine, September 2003

### 2004 Engineering Endowments

**By Designation**

- **General Support** $2,242,906
- **Endowed Chairs** $4,078,641
- **Research** $240,985
- **Capital/Equipment** $504,377
- **Faculty/Staff** $535,903
- **Student Resources** $8,323,519

### Trend in Giving

<table>
<thead>
<tr>
<th>Year</th>
<th>COE</th>
<th>NSF Advance Fellowship</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>$1,132,504</td>
<td>$121,500</td>
</tr>
<tr>
<td>2001</td>
<td>$967,389</td>
<td>$400,000</td>
</tr>
<tr>
<td>2002</td>
<td>$2,705,012</td>
<td>$400,000</td>
</tr>
<tr>
<td>2003</td>
<td>$3,554,041</td>
<td>$400,000</td>
</tr>
<tr>
<td>2004</td>
<td>$3,252,256</td>
<td>$400,000</td>
</tr>
</tbody>
</table>

**COE Research Expenditures**

<table>
<thead>
<tr>
<th>Year</th>
<th>NSF</th>
<th>NSF Advance Fellowship</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>$8,961</td>
<td>$121,500</td>
</tr>
<tr>
<td>2001</td>
<td>$4,965</td>
<td>$400,000</td>
</tr>
<tr>
<td>2002</td>
<td>$9,295</td>
<td>$400,000</td>
</tr>
<tr>
<td>2003</td>
<td>$11,609</td>
<td>$400,000</td>
</tr>
<tr>
<td>2004</td>
<td>$11,539</td>
<td>$400,000</td>
</tr>
</tbody>
</table>

### Awards & Recognition

**2004 NSF Career Award**
Dr. Jen Becker, ECE — $400,000
Dr. Joseph Seymour, ChBE — $400,000

**2004 NSF Advance Fellowship**
Dr. Sarah Codd, ChBE — $387,000

**Optical Society of America (OSA) Fellow Award**
Dr. Joseph Shaw, ECE

**2004 U.S. Frontiers of Engineering Symposium — The National Academy of Engineering honors 100 of the nation’s top young engineers. Elite Invitation Dr. Steve Shaw, ECE**

**2004 NSF Graduate Fellowship Award**
Cory Rupp, MSE Masters & PhD Candidate, CBE — $121,500

**2004 Goldwater Scholarship**
MSU ranks ninth in the number awarded in the nation
Angela Kinmel, CS & EE — $15,000

**2004 Pacific Northwest Regional Concrete Canoe Competition**
College Of Engineering Golden Stonewy Team — 1st Place