Welcome!
ASU is a comprehensive public research university, measured not by whom we exclude, but rather by whom we include and how they succeed; advancing research and discovery of public value; and assuming fundamental responsibility for the economic, social, cultural and overall health of the communities it serves.
new american university
ASU’s design aspirations

Leverage Our Place
Transform Society
Value Entrepreneurship
Conduct Use-Inspired Research
Enable Student Success
Fuse Intellectual Disciplines
Be Socially Embedded
Engage Globally
#1 in innovation
Two years in row, U.S. News and World Report
We build engineers
We are transcending the traditional.

School of Biological and Health Systems Engineering
Marco Santello, Director
1,099 students
843 undergraduate
166 graduate
Biomedical Engineering
Biological Design

School of Computing, Informatics, and Decision Systems Engineering
Sanjeev Gupta, Interim Director
5,675 students
4,341 undergraduate
1,331 graduate
Computer Engineering
Computer Science
Computer Systems Engineering
Engineering Management
Industrial Engineering
Informatics
Software Engineering

School of Electrical, Computer and Energy Engineering
Steve Phillips, Director
3,002 students
2,118 undergraduate
884 graduate
Electrical Engineering
Computer Engineering

School for Engineering of Matter, Transport and Energy
Lenore Dai, Director
4,026 students
3,339 undergraduate
691 graduate
Aerospace Engineering
Chemical Engineering
Materials Science and Engineering
Mechanical Engineering
Solar Energy Engineering and Commercialization

School of Sustainable Engineering and the Built Environment
Edd Gibson, Director
1,702 students
1,285 undergraduate
417 graduate
Civil, Environmental and Sustainable Engineering
Construction Engineering
Construction Management
Sustainable Engineering

The Polytechnic School
Ann McKenna, Director
4,556 students
4,268 undergraduate
288 graduate
Aviation Engineering
Environmental and Resource Management
Graphic Information Technology
Human Systems Engineering
Information Technology
Manufacturing Engineering
Technological Entrepreneurship and Management

Fall 2016 Enrollment (21st day)
6 interdisciplinary schools • 23 undergraduate programs • 39 graduate programs • 2 campuses + online
Investment fuels growth and success

Graduation rates have doubled over the last six years.

Freshman retention rate increased from 85% to 90% in the same time frame.

One in five ASU students is enrolled in the Ira A. Fulton Schools of Engineering.

Focused on Student Success

20,366 fall 2016 enrollment

2,843 fall 2016 first-time freshmen

3,536 degrees granted 2015-2016

30% of Barrett, the Honors College students are in the Fulton Schools

23 undergraduate programs • 39 graduate programs • Two campuses plus online
use-inspired research

$98.3M research awards

$99.4M research expenditures

1,000+ students conducting research

7 startups

26 patents

22 major agreements

New facilities 3-D Print Lab, New Tutoring Center, Generator Labs, College Avenue Commons, New residential community under construction

Invention Disclosures

College Avenue Commons
School of Sustainable Engineering and the Built Environment
School of Sustainable Engineering and the Built Environment

Del E. Webb School of Construction, Civil, Environmental and Sustainable Engineering (Fall 2017)
our vision

To be an acknowledged, world-wide innovator in producing leaders, pioneering solutions, and new knowledge for the betterment of human-kind.

We will be the leading source of Civil, Sustainable, Environmental and Construction engineers and managers in the U.S. Southwest.
our mission

To educate students and develop new knowledge and understanding in order to advance engineering and construction processes to achieve sustainability in the built environment.

We do this by focusing on five thematic thrust areas:

- Sustainability
- Energy
- Health
- Security
- Education
<table>
<thead>
<tr>
<th>enrollment</th>
<th>student profile</th>
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<tbody>
<tr>
<td>1702</td>
<td>25/1157 ACT/SAT</td>
</tr>
<tr>
<td>1285</td>
<td>11% Barrett Honors students</td>
</tr>
<tr>
<td>417</td>
<td>21% female</td>
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<tr>
<td>278 M.S./139 Ph.D.</td>
<td>22% international</td>
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<tr>
<td></td>
<td>31% underrepresented minority</td>
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<td>69 Accelerated Bachelor’s plus Master’s Program students (4+1)</td>
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<table>
<thead>
<tr>
<th>faculty</th>
<th>Scholars: Udall, Fulbright, Eisenhower</th>
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<tbody>
<tr>
<td>47</td>
<td>Global Engagement</td>
</tr>
<tr>
<td></td>
<td>Engineers Without Borders, Bridges to Prosperity, US/Mexico Border Water Training Program</td>
</tr>
<tr>
<td>6</td>
<td>22% of FTF first generation</td>
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<td>8</td>
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- 67 tenured and tenure-track faculty
- 6 lecturers
- 8 research faculty
- 3 professor of practice
Ranking of programs in US

civil engineering (#34 USNWR-grad)
construction management (top 3)
construction engineering (top 5)
environmental engineering (#21 USNWR-grad)
**enrollment**
- Overall enrollment for AY 2016 has increased 4 percent to 1702 over AY 2015
- Undergraduate graduate student enrollment increased 5.3 percent to 1285 students

**research awards**
- for AY 2015 were at $20.28 million which is a 130 percent increase over AY 2014

**research expenditures**
- for AY 2015 were at $15.03 million, which is a 19.3 percent increase over AY 2015

**accreditation**
- CEE and CNE accredited by ABET summer 2016
- CM accredited by ACCE summer 2015
university transportation center (UTC) project (cross-Schools)

- first USDOT UTC project at ASU
- subcontracted to Univ. of Maryland, UTC title: “National Center for Strategic Transportation Policies, Investments, and Decisions”
- dates of performance: 1/1/14 to 6/30/17
- expenditure total (ASU): $825K
- faculty involved:
  - Kamil Kaloush (lead PI)
  - Xuesong Zhou
  - Pitu Mirchandani
  - Mounir El Asmar
  - Shane Underwood
  - Mike Chester
  - Yingyan Lou

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other ASU transportation related projects (SEBE)

- two funded ADOT projects (i.e., asphalt specifications and ultra-high performance concrete)
- MCDOT training program
- MAG travel demand
- negotiations underway for projects in recycled pavements and reuse of waste streams in infrastructure
university transportation center (UTC) activity, current round (cross-University)

- 13 ASU proposals currently pending
- two collaborative (one with UA, one with UA and NAU (cost share ADOT))
- topics ranged from mega regions (planning) to infrastructure, focused on bridges and pavement
- collaborated with a number of institutions (i.e., UC-Berkeley, UT-Austin, Texas A&M, Maryland, Michigan State, Maryland, Kansas State, Iowa State, Nebraska, Nevada Reno, Georgia Tech, etc.)

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NSF Engineering Research Center Projects Awarded (SSEBE)

- Ed Kavazanjian and his team, leading a project entitled: “NSF Engineering Research Center for Bio-Mediated and Bio-Inspired Geotechnics”
  - $18.5 million over five years
  - Partners: ASU, UC-Davis, NMSU, Ga Tech
  - [https://engineering.asu.edu/cbbg/](https://engineering.asu.edu/cbbg/)

- Paul Westerhoff and his team, subcontracting with a Rice-led initiative entitled: “NSF Engineering Research Center for Off-Grid Nanotechnology Enabled Water Treatment (NEWT)”
  - ~$3.2 million over five years
  - Partners: Rice, ASU, Yale, UTEP
  - [http://www.newtcenter.org](http://www.newtcenter.org)
transportation materials and systems expertise at asu

**transportation systems:**
- Ram Pendyala*, Professor
- Yingyan Lou*, Assistant Professor
- Xuesong Zhou*, Associate Professor
- Mikhail Chester*, Assistant Professor

**structures and materials:**
- Kamil Kaloush, Associate Professor
- Ed Kavazanjian, Professor
- Shane Underwood*, Assistant Professor
- Mike Mamlouk, Professor
- Barzin Mobasher, Professor
- Narayanan Neithelath*, Associate Professor

**construction, project planning and delivery:**
- G. Edward Gibson, Jr., Professor
- Sam Ariaratnam, Professor
- Mounir El Asmar*, Assistant Professor
- Pingbo Tang*, Assistant Professor
- David Grau*, Assistant Professor
- Al Chasey, Associate Professor
- Wylie Bearup*, Professor of Practice

*Recent hires (within the past four years)

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transportation materials and systems expertise at asu (cont’d)

**logistics and simulation:**
Pitu Mirchandani, Professor
J. Rene Villalobos, Associate Professor
Ron Askin, Professor
Arnold Maltz, Associate Professor

**water and air quality:**
James Anderson, Research Professor
Zhihua Wang*, Assistant Professor
Matt Fraser, Professor
Enrique Vivoni, Professor

**planning:**
Michael Kuby, Professor
Deborah Salon*, Assistant Professor
Alan Murray, Professor
Patricia Mariella, Director
David Hondula*, Assistant Professor

*Recent hires (within the past four years)

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world-class facilities
this conference’s impact

- 13th ASU Pavements/Materials Conference
- 400+ participants
- Matt Witczak Faculty Endowment now is over $35k
- funds will enable our faculty in this area discretionary funds to support pavement program and students
- knowledge shared will allow all of us to do a better job

Thank you!!
school of sustainable engineering and the built environment

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