Director Search
School of Biological and Health Systems Engineering
Ira A. Fulton Schools of Engineering
The Ira A. Fulton Schools of Engineering (Fulton Schools or FSE) at Arizona State University (ASU) seeks a highly accomplished scholar and strategic leader as director of the School of Biological and Health Systems Engineering (SBHSE). SBHSE's biomedical engineering degree programs (BSE, MS and PhD) and use-inspired research focus on discoveries of foundational value and translational impact, innovating multidisciplinary solutions to global health challenges and leveraging partnerships with clinical collaborators. The director has the opportunity to lead the school in advancing its vision of becoming a leading biomedical engineering program that engineers novel solutions to improve human health and provides unique interdisciplinary training for the next generation of biomedical engineers.

The director of the school reports to the dean of the Fulton Schools of Engineering and will be the academic and administrative leader of SBHSE. The director is responsible for visioning, strategic planning, operations, finance, academic affairs, external relations and development. These activities include working with faculty and staff to recruit and retain high quality students, hiring and developing faculty, supervising support staff, catalyzing opportunities for externally funded research, fundraising and development and building strong interactions with industry, local, state and federal agencies and the greater healthcare community of Phoenix. Candidates will be qualified for appointment at the rank of full professor.

One of the nation's top public universities and ranked #1 in innovation by U.S. News & World Report, ASU is well underway in its bold reinvention of higher education as the New American University. ASU has developed numerous new programs and units that defy and bridge disciplinary boundaries to enable the exploration and discovery of new knowledge, while developing practical solutions to serve our communities and the world at large. ASU has strong and simultaneous commitments to educational access, research and teaching excellence and assumes significant responsibility for the cultural, social and economic vitality of its surrounding communities in the metropolitan Phoenix region and beyond. At ASU and the Fulton Schools of Engineering, we work to maximize opportunities for people of diverse backgrounds, abilities and perspectives. We value and encourage cultural and intellectual diversity and strive to foster a welcoming and inclusive environment for all faculty, staff and students - which we believe is critical to our success as a community.

One of the fastest growing academic research enterprises in the U.S., ASU has created a vibrant environment of discovery, interdisciplinary research and innovation focused on addressing society's greatest challenges. Its research expenditures have nearly tripled over the last decade, totaling $618 million last year. ASU is well on its way to expanding the university's research enterprise to over $800 million in annual activity by 2025. The Fulton Schools of Engineering play a pivotal role in this continued expansion.
The state of Arizona enjoys its current position as a leader in job growth and economic prosperity. To ensure this growth and prosperity, the Arizona Board of Regents has developed a plan to serve the state in the face of significant new forces that will transform our economy. The New Economy Initiative: Enhancing Arizona's Competitiveness is based on accelerating the transformation of Arizona’s three universities to adaptive drivers of Arizona’s economic success:

**Enhance** the universities’ capacity to prepare more graduates for critical New Economy areas that will allow Arizona to compete in the new high speed, digital economy of the fourth industrial revolution (where technologies combine hardware, software and biology, informed by high-speed change from AI, autonomous systems, 3D distributed manufacturing, etc.);

**Support** the universities to compete more aggressively for major, national research grants that focus on transformative ideas, innovative technology and emerging economy business startups that drive productivity for Arizona;

**Continue** the Governor’s efforts to expand career and technical training in specialized areas; and

**Raise** the high school graduation rate and the college-going rate of Arizonans, particularly those least likely to complete high school and attend college.
Science and Technology Center Outcomes

**Creation of high-value jobs**
Technology startups with AZ founders and innovators
Retention of more than 4,000 skilled engineering grads per year
Partnerships with established AZ technology companies

**Workforce training**
Hands-on research experience produces thought leaders
Entrepreneurial training paves way from lab to captured value

**Attraction and retention of leading corporations**
People, facilities, intellectual leadership
Partnerships and acquisition opportunities for established companies

---

### Return on Investment for Arizona in the New Economy

<table>
<thead>
<tr>
<th>FSE Current</th>
<th>Goal</th>
<th>Arizona Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Students</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16,800 In-person</td>
<td>25,000 In-person</td>
<td><strong>$14B</strong> over 20-year increased income impact</td>
</tr>
<tr>
<td>7,100 Online</td>
<td>15,000 Online</td>
<td>&gt;15x return on public investment</td>
</tr>
<tr>
<td>4,200 Graduates</td>
<td>6,000 Graduates</td>
<td><strong>5x</strong> multiplier on job growth</td>
</tr>
<tr>
<td>6,000 First-generation students</td>
<td>&gt;90% Average starting salary</td>
<td><strong>New industry attraction and formation</strong></td>
</tr>
<tr>
<td>5,300 Female students</td>
<td>#1 U.S. producer of technical talent</td>
<td></td>
</tr>
<tr>
<td>4,800 Hispanic students</td>
<td>#26 Worldwide in patents (2x output)</td>
<td></td>
</tr>
<tr>
<td>$85,000 Average starting salary</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Faculty</strong></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>350 Faculty</td>
<td>100 New faculty</td>
<td></td>
</tr>
<tr>
<td>25 Young investigator awards</td>
<td>#5 Worldwide in patents (2x output)</td>
<td></td>
</tr>
<tr>
<td>804 Invention disclosures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35 Startups</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#26 Worldwide in patents</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Research</strong></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>$115M Research output</td>
<td>$215M Research output</td>
<td><strong>New industry attraction and formation</strong></td>
</tr>
<tr>
<td>2 Engineering research centers</td>
<td>250+ New industrial partnerships</td>
<td></td>
</tr>
<tr>
<td>$44M DARPA awards</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 Industry/University research collaborative centers</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ASU's New Economy Initiative represents a bold effort to ensure that Arizona is prepared for the fourth industrial revolution — which will fundamentally change the way we live, work and relate to one another — and the accompanying future of high employment, strong economic growth and resilience to economic shocks. The initiative is comprised of three primary components:

**Grow the Fulton Schools of Engineering**

Invest in the Fulton Schools of Engineering to:

- Grow FSE’s world class faculty to accelerate research activity to the levels of Stanford, MIT and Georgia Tech.
- Broaden student access and increase the number of graduates in engineering, computer science and technology.
- Complete the launch of a global school alliance for engineering design.
- Emerge as a top 15 U.S. engineering college.
- Make the Phoenix metro one of the largest producers of technology, talent and innovation.

**Science and Technology Centers**

Invest to establish five Science and Technology Centers (STCs) that will foster the growth of the New Economy industries in energy; materials and devices; human performance; extreme environments; advanced manufacturing and future communications technologies. These STCs will produce significant return on public investment — driving job creation, hundreds of new industrial partnerships and startups, and advancing STEM education and workforce training. Together with ASU faculty, the STCs will empower engineering linkages around the world and propel ASU forward as a top 5 university patent provider and a top 10 university tech transfer center.

**Development and Expansion of Education Programs**

Invest in faculty, instructional space, experiential learning programs and student support services. This investment will shorten the time to earn a degree and increase education options for current students. It will also be used to accelerate the development and deployment of new ways of learning across New Economy fields as well as new hybrid learning and training models for workforce readiness. In addition, this investment will be used to develop content packaged as stackable certificates, micro-degrees, badges and other credentials that provide a flexible and cost-effective way to keep skills up to date in areas that are experiencing unprecedented change. New adaptive learning platforms, AI-infused advising platforms and portals will be included and faculty numbers increased to serve an expanded student and lifelong learning population.
The School of Biological and Health Systems Engineering, with 29 tenured and tenure-track faculty, research faculty and full-time lecturers, houses undergraduate and graduate degrees in Biomedical Engineering and is one of the seven schools comprising the Ira A. Fulton Schools of Engineering.

Its faculty members are responsible for more than $7M in annual research expenditures and nearly $100M in proposals annually (NIH, NSF, DARPA, private foundations, industry and philanthropy). As part of an urban-serving institution, SBHSE works with a network of partners in hospitals and healthcare organizations to build a strong community and advance health outcomes for the communities we serve.

ASU ranks #29 for best undergraduate biomedical engineering programs - U.S. News & World Report, 2022

827 Fall 2021 total enrollment
692 undergraduate
135 graduate

$7M research expenditures FY2021
29 tenured/tenure-track faculty

School of Biological and Health Systems Engineering
SBHSE Research

Faculty members in SBHSE apply engineering principles and methods to understand, define and address challenges impacting human health and with outcomes in medicine, physiology and biology. Through their wide range of research expertise and interests, they seek to transform society through developing use-inspired solutions and advancing multidisciplinary collaborations. The faculty in SBHSE have a wide range of research expertise and research interests and are particularly strong in the areas of biosensing and bioinstrumentation; bioimaging; molecular, cellular and tissue engineering; neural and rehabilitation engineering; and synthetic biology and systems bioengineering.

**Biosensing and bioinstrumentation** faculty focus their attention on research diagnostics for monitoring human and environmental health. They build microelectromechanical systems for better neural signal recording and drug delivery and devices for interacting in real time with biological systems.

**Imaging** faculty work on developing new imaging techniques and contrast agents that target specific pathologies, creating translational imaging technologies and using novel MRI phase mapping methods to measure tissue electrical properties. They collaborate closely with local medical centers across Phoenix, the Magnetic Resonance Research Center at ASU and the Keller Center for Imaging Innovation at Barrow Neurological Institute.

**Molecular, cellular and tissue engineering** faculty focus on novel biomaterials for rebuilding damaged tissue, molecular and cellular therapies and localized drug delivery systems for hard-to-treat cancers.

**Neural and rehabilitation engineering** faculty work on modeling and simulation of neural systems to gain insight into neural function, neural signal acquisition and analysis and the development of specialized devices and technologies to evaluate and treat individuals with neural and biomechanical pathologies.

The field of **synthetic and systems bioengineering** is based on the premise that living systems are modular and thus able to be engineered. In SBHSE, we design genetically encoded information and cell microenvironments to gain a deeper understanding of living things as well as to generate useful products, such as advanced medical treatments. Research and coursework spans from engineered gene networks, policy and governance and biological network modeling to biomaterials for multicellular systems.

Graduate students are involved in all of our research activities and have access to state-of-the-art facilities in faculty laboratories and centers as well as university-wide core facilities. Our strong network of partners – hospitals and healthcare organizations, both locally and globally – offers our students access to top physicians and researchers and hands-on training.
The Ira A. Fulton Schools of Engineering is the largest and one of the most comprehensive engineering schools in the nation and is excelling in its mission to educate engineers and inspire innovation. In fact, one out of every five students at ASU is a Fulton Schools engineer or technologist. FSE’s strategic goals center on advancing research and innovation at scale, revolutionizing engineering education, and expanding global outreach and partner engagement.

FSE’s differentiating hallmark is the "Fulton Difference" that is grounded in the following principles:

- A focus on student success in the classroom and beyond.
- Excellence in research from discovery to application and in engineering education.
- An acceleration of use-inspired research and entrepreneurial engagement.
- Engagement with stakeholders in industry and the community.
- Drive to make global impacts.
32 NSF CAREER awards over past three years

233 patents
54 startups in the last three years

355 tenured and tenure-track faculty

42% faculty from diverse backgrounds

$126M research expenditures FY 2020

Lead institution on two National Science Foundation Engineering Research Centers

Lead institution on the Department of Homeland Security Center of Excellence

#3 Issued U.S. Patents
   Ahead of Penn and MIT

#5 Startups
   Ahead of Northwestern and Purdue

#6 IP Disclosures
   Ahead of Georgia Tech and Cornell

#7 Licenses and Options
   Ahead of Princeton and MIT

U.S. Patent and Trademark office, 2019. Comparative performance per $10 million in research expenditures
Diversity and Inclusion

Arizona State University is deeply committed to positioning itself as one of the great new universities by seeking to build excellence, enhance access and have a positive impact on its community, state, nation and the world. To do that requires ASU faculty and staff to reflect the intellectual, ethnic and cultural diversity of our nation and the world at large so that students learn from the broadest perspectives, and we engage in the advancement of knowledge with the most inclusive understanding possible of the issues we are addressing through our scholarly activities. Diversity and inclusion are integral to ASU’s commitment to excellence in research, engagement and education.

Candidates who have demonstrated experience in fostering an inclusive environment and incorporating diverse perspectives in research and the classroom are strongly encouraged to apply.
Arizona State University

has developed a new model for the American research university, creating an institution committed to excellence, access and impact — the New American University: A comprehensive public research university, measured not by whom it excludes, but by whom it includes 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.

Eight design aspirations guide the ongoing evolution of ASU. These institutional objectives are integrated in innovative ways throughout the university to achieve excellence, access and impact.

- Leverage Our Place
- Enable Student Success
- Transform Society
- Fuse Intellectual Disciplines
- Value Entrepreneurship
- Be Socially Embedded
- Conduct Use-Inspired Research
- Engage Globally

For the sixth year in a row, Arizona State University was named the most innovative university in the nation, recognizing the university’s culture of groundbreaking research and partnerships, as well as its commitment to helping students thrive in college and beyond.

The ASU faculty is at the forefront nationally in advancing research and discovery. The university’s more than 3,400 faculty members inspire new ways of thinking, innovating and solving problems socially, culturally and economically in our region and in the international community. ASU has doubled its research funding and been recognized as one of the fastest-growing research universities in the nation over the past 10 years. ASU reported more than $670 million last year in research expenditures in 2020, up from $660 million the prior year.

- 5 MacArthur fellows
- 5 Nobel laureates
- 7 Pulitzer Prize winners
- 9 National Academy of Engineering members
- 36 Guggenheim fellows
- 143 National Endowment for the Humanities fellows
- 251 Fulbright American Scholars
- 25 National Academy of Sciences members
- 3 National Academy of Medicine members
- 7 National Academy of Education members
- 8 National Academy of Public Administration members
Greater Phoenix

Greater Phoenix is known for year-round sun, desert beauty, sophisticated urbanscapes, southwest culture and so much more.

**Climate**
Enjoy 300 days of sunshine a year and an average temperature of 76 degrees.

**Arts and Culture**
Greater Phoenix is a rich arts and culture environment with diverse museums, theater, concert halls and cultural centers, such as the renowned Heard Museum, Phoenix Art Museum, Arizona Science Center, Phoenix Symphony, Arizona Opera, Ballet Arizona and the Arizona Theatre Company.

**Outdoors**
Phoenix has a number of lakes just a short drive away offering opportunities for boating, sailing, windsurfing, water and jet skiing, fishing and more. The area is home to dozens of parks and preserves — both in and around the city — with hundreds of miles of multi-use trails for hiking and biking. The state is home to three national parks, including the Grand Canyon, and other popular destination spots like Sedona.

**Sports**
All four of Arizona’s major professional sports teams — Arizona Cardinals (NFL), Phoenix Suns (NBA), Arizona Diamondbacks (MLB) and Arizona Coyotes (NHL) — call the metro Phoenix area home, as do the Phoenix Mercury (WNBA), Arizona Rattlers (IFL) and Phoenix Rising FC (USL). The area has over 170 golf courses.

**Cost of Living**
Greater Phoenix offers the diverse amenities of a major metropolitan region without the high cost of living. As the fifth largest state in the U.S. and one of the most dynamic and rapidly growing regions in the nation, living and working here is both exciting and affordable.

**Low Tax Position**
Low personal income taxes and low effective property tax rates offer affordability and opportunities for everyone to thrive.

**Business and Industry**
Arizona is home to a surging industrial ecosystem, early stage entrepreneurs and tech-savvy millennial talent who are breaking new ground across a wide range of industry growth sectors. What’s more, Arizona offers a robust portfolio of programs and resources supporting both large and emerging tech companies. The state’s rich startup culture continues to thrive and is a preferred choice for technology companies seeking growth. Leading startups have collectively taken advantage of Arizona’s high-skills talent base. Arizona’s solid reputation and assertive stance on innovation led Fast Company to rank Arizona No. 1 in the country for “entrepreneurial activity.”
Qualifications and desired attributes for the Director of the School of Biological and Health Systems Engineering

ASU seeks a school director with the following minimum and desired qualifications, professional experiences and attributes:

Minimum Qualifications

➤ An MD or PhD in biomedical engineering or related field and a distinguished record of teaching and research appropriate for appointment at the rank of professor with tenure in any of the seven Fulton schools.

➤ Demonstrated commitment to diversity, equity and inclusion that align with upholding the ASU Charter*.

➤ Demonstrated leadership excellence of people, programs and resources within a complex organization.

➤ Demonstrated record of leading extramural-funded projects with an emphasis on institutional center and/or training grants.

➤ Strong interpersonal skills and relationship management capabilities; ability to interact with and engage diverse internal and external constituencies.

Desired Qualifications

➤ An innovative, curious and creative thinker who will leverage the Fulton Schools of Engineering’s foundational strength and institutional resources, while developing and advancing a clear vision for the growth and transformational impact of the School of Biological and Health Systems Engineering that represents the school’s breadth.

➤ Demonstrated experience with development and deployment of innovative pedagogy and/or online education initiatives.

➤ Leadership style that energizes and inspires others and fosters clear communication, collaboration and a respectful and collegial work environment.
AGB Search is pleased to assist ASU with this recruitment initiative.

Review of applications will begin December 6, 2021; if not filled, reviews will occur on the 1st and 15th of the month thereafter until the search is closed. To apply for this position, candidates are requested to submit the following to: ASUDirectorSBHSE@agbsearch.com

- Cover Letter that describes your interest in and qualifications for the school director position (two pages maximum)
- Curriculum Vitae
- Vision statement for the School of Biological and Health Systems Engineering
- Diversity Statement* (two pages maximum)
- Contact information for three references

“The ASU Charter states, “ASU is a comprehensive public research university, measured not by whom it excludes, but by whom it includes 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.” The diversity statement provides applicants an opportunity to demonstrate their past and current activities in promoting diversity, equity and inclusion and how future activities will align with upholding the ASU Charter. All individuals who can strengthen the diversity of our academic community are encouraged to apply.

Nominations and expressions of interest are encouraged. Please direct them to the AGB search consultants listed below.

Kimberly Templeton, JD, Principal
kimberly.templeton@agbsearch.com
C: 540.761.9494 / O: 202.776.0820

Alan N. Crist, PhD, Executive Search Consultant
al.crist@agbsearch.com
C: 608.695.0217

A background check is required for employment. Arizona State University is a VEVRAA Federal Contractor and an Equal Opportunity/Affirmative Action Employer. All qualified applicants will be considered without regard to race, color, sex, religion, national origin, age, disability, veteran status, sexual orientation, gender identity or any other basis protected by law.
(See https://www.asu.edu/aaad/manuals/acd/acd401.html and https://www.asu.edu/titleIX/.)

In compliance with federal law, ASU prepares an annual report on campus security and fire safety programs and resources. ASU’s Annual Security and Fire Safety Report is available online at https://www.asu.edu/police/PDFs/ASU-Clery-Report.pdf. You may request a hard copy of the report by contacting the ASU Police Department at 480-965-3456.