

# Arizona State University

Africa



UPDATED JUNE2023

# **ASU Charter**

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.

## **New American University**

Arizona State University has become the foundational model for the New American University, a new paradigm for the public research university that transforms higher education. ASU is committed to excellence, access and impact in everything that it does.





## Welcome

We are proud that ASU is the academic home of more than 490 students from Africa and that the university has impacted the lives of more than 2,220 alumni from Africa.

## We are committed to helping our students succeed -

not just academically, but throughout their lives – and be prepared for a rapidly changing world in which new careers are constantly evolving.

## Our legacy of excellence in education grows because

of the strengths of our award winning faculty who invest in collaborative, interdisciplinary and solution-focused approaches to research, education and entrepreneurship.

## We look forward to working with you to empower the workforce and leadership through discovery and impact.

Warmest regards,

**Julia Rosen** Vice President of Global Academic Initiatives Office of University Provost



# **Student enrollment**

### 2022



students from Africa enrolled at ASU in fall 2022

undergraduate students 373 graduate students

521% increase in student enrollment since 2012

## **254**

students enrolled in the Watts College of Public Service and Community Solutions' Mandela Washington Fellowship for Young African Leaders from sub-Saharan Africa between 2014 and 2023



## Chikezie "Chike" Anachu (Nigeria)

W. P. Carey School of Business, MBA

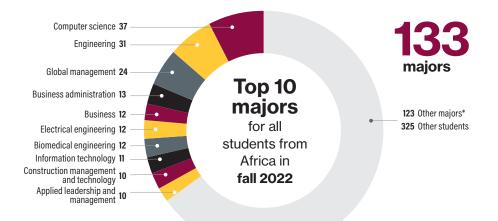
W. P. Carey School of Business Outstanding Graduate Student Chike was also named a "Best & Brightest MBA" student in 2022 by Poets&Quants.

I chose ASU for its incomparable combination of value for money, quality education and optimal outcomes. As a graduate student, I wanted a program that offered the best combination of all these things so that I could justify the cost of taking two years away from work to return to school. ASU has exceeded my expectations on all three fronts, especially once considering scholarship opportunities. Looking back now, I realize how incredibly fortunate I am to have listened to my friend who advised that I apply to ASU.

# **Student enrollment**

### 2022

### Top ASU programs chosen by students from Africa in 2022



## \* The remaining 123 majors

include psychology, organizational leadership, clinical research management, health care innovation, medical nutrition, global affairs and management, and civil, environmental, sustainable, industrial, and mechanical engineering.



## Ahmed Radwan (Egypt)

Interdisciplinary programs, MS

Ahmed, from Cairo, is one of 190 ASU Online students graduating in 2022 with scholarship support through the Abdulla Al Ghurair Foundation for Education. He received his degree in program evaluation and data analytics from the Watts College of Public Service and Community Solutions. He flew to Arizona with six others in the program to attend his graduation.

Being able to make it to the graduation ceremonies in person is something I was always looking forward to, because after all the hard work and effort I would love to get recognized for my achievement. It also allowed me to have the chance to tour the place that I have been studying at.

## Student support and services

### Africa Rises

The purpose of this organization is to portray, promote and share modern African culture with the diverse ASU community and act as a platform for sharing a positive image of a continent wrongly portrayed by the media. This organization seeks to create ambassadors of the very distinct and diverse cultures and heritages of Africa and serve as a source of information to those interested in learning more about the continent of Africa. This is a service-driven organization that aims to engage with the local community through community service, fundraising and other social opportunities.

### The African Student Association

The African Student Association is an organization that was created out of the need for unity, camaraderie, fellowship and the desire to work together. The association is open to all who are interested in learning about and enjoying African culture. The African Student Association prides itself on creating a sense of community on campus for students of African descent and strives to educate its campus community on African-related topics. The association aims to be a social forum for all students of African descent as well as all students who are interested in sharing the African experience at ASU.

### **Black African Coalition**

The Black African Coalition at ASU is an umbrella organization. Its mission is centered on increasing the enrollment, graduation, and retention rates for Black and African American students. The coalition also acts as an advocate and support system for Black and African American students at ASU, in addition to supporting all of its member organizations. The coalition is dedicated to creating inclusive spaces at ASU.

### Egyptian Student Association in North America

The Egyptian Student Association in North America is a registered nonprofit organization that aims to integrate the Egyptian student community in North America with the research and public communities in North America, Egypt and worldwide. The association is the largest Egyptian student gathering outside Egypt, with more than 1,800 members and 37 local chapters throughout Canada and the U.S.

### National Society of Black Engineers at ASU

This group believes that having a support system of individuals with similar experiences is an important part of creating success in college. The club is a chapter of a larger, national organization whose mission is to increase the number of culturally responsible Black engineers who excel academically, succeed professionally and positively impact the community. At ASU, the group serves as a support system and network for engineering students at ASU who identify as Black, African or African American.

## **Academic programs**

### **ASU Mastercard Foundation partnership programs**

Since 2012 ASU has partnered with the Mastercard Foundation Scholars Program. The first four cohorts selected for the program (120 scholars) represented 20 countries across the African continent. In 2016, ASU launched a second phase of the program, the Strengthening Institutional Linkages Initiative. The program is currently in its eighth cohort of 59 students from seven African countries. A third project developed by ASU's EdPlus is a social learning network, the Baobab Scholars Platform. Since launching in October 2016, the platform has connected 3,300 scholars across nine time zones and 27 institutions. The newest project is e-Learning for Strengthening Higher Education in Ethiopia. This program intends to reach 800,000 students by training and utilizing the learning platform.

### The Mastercard Foundation Scholars Program at ASU

The Mastercard Foundation Scholars Program at ASU equips scholars with academic skills and professional competencies to make significant contributions to economic growth and social development in Africa. It leverages ASU's extensive resources and provides signature programming designed to support students' transitions, leadership development and vision for giving back to their communities. Through the two phases of the program, ASU supports 270 Mastercard Foundation scholars who are committed to economic and social transformation, particularly in Africa.

### Phase I:

### **Undergraduate Scholarship Opportunities**

In 2012, ASU received a grant to launch the first phase of the Mastercard Foundation Scholars Program at ASU. This grant supported four cohorts of scholars to pursue four-year undergraduate degrees in a variety of fields throughout the university. The 120 scholars selected for the program represented 20 countries across the African continent. The first cohort of scholars completed their studies in May 2016. The fourth cohort graduated in May 2019.

### Phase II:

### **Strengthening Institutional Linkages**

In 2016, ASU received a grant from the Mastercard Foundation to launch the second phase of the Mastercard Foundation Scholars Program at ASU. This grant supports 150 scholars over four cohorts from select partner institutions in Ghana to complete accelerated master's degrees at ASU through the university's 3+1+1 international accelerated degree program format. The students were selected during their third year of undergraduate study in two universities in Ghana – Kwame Nkrumah University of Science and Technology and Ashesi University. The students complete the final year of their bachelor's degree followed by a one-year master's degree at ASU.

### Scholars Program e-Learning Initiative

Supporting institutions in the scholars program network to develop capabilities and resilience to deliver high-quality and inclusive e-learning and related supports so as to enable all students, including those who face additional barriers, to successfully pursue their studies from anywhere. During the first phase of the program, 135 faculty and staff from across 10 partner institutions will be trained to design and deliver online courses, and an estimated 95,000 students will access online learning. In the second phase, the number of online learners will grow to more than 600,000 and the initiative will be scaled to include new partners and institutions in the scholars program network.

# Academic programs

### **Baobab Scholars Community Platform**

By 2023, the Mastercard Foundation awarded full secondary and tertiary scholarships to 30,000 scholars, enabling them to study at partner institutions around the globe. To unite this community of scholars, ASU developed Baobab, a social learning network that will link scholars with tools, resources and relationships that will support and equip them to build upon their scholarship experiences and achieve impact across sub-Saharan Africa. Baobab provides scholars continued learning opportunities and enhanced ability to connect and collaborate with others toward common goals. The platform has a unique one-to-many mentorship model, where mentors can engage directly with a few mentees and with the broader scholar community through curated experiences. Since launching in October 2016, the platform has connected 3,300 scholars across nine time zones and 27 institutions. In addition, the platform has already provided scholars with access to more than 100 external mentors.

### e-Learning for Strengthening Higher Education in Ethiopia

The Mastercard Foundation launched the e-Learning for Strengthening Higher Education project in partnership with the Ministry of Education of the Federal Democratic Republic of Ethiopia, ASU and Shayashone. The partnership enhances the quality, accessibility, and resilience of higher education by adopting a digital learning system. The project equips young graduates with the skills needed for employment and entrepreneurship. The project impacts close to 800,000 students by training and utilizing the learning platform.

### **Other ASU programs**

### Mandela Washington Fellowship for Young African Leaders

ASU was selected in 2014 as one of the 20 leading U.S. universities to serve as an academic institution for innovators and leaders from sub-Saharan Africa. The Watts College of Public Service and Community Solutions leads the Young African Leaders Initiative of the U.S. Department of State. As of 2022, this fellowship has provided 254 outstanding young leaders ages 25 to 35 with opportunities to hone their skills in a six-week professional civic leadership and public management training institute.

### Thunderbird SHARE Fellowship

The ASU Thunderbird School of Global Management SHARE Fellowship provides scholarships and mentorship to exceptional students from developing countries. The fellowship ensures full tuition and expense money so its fellows can participate fully in campus life, take advantage of unpaid internships, and attend optional academic programs. Fellows also receive access to coaching and a global network of mentors who work one-on-one to help them obtain internships and full-time employment upon graduation.

# **Student stories**



## Asmaa Khalifa (Libya)

Organizational leadership, MS

Asmaa, who earned a bachelor's degree in liberal studies in ASU's College of Integrative Sciences and Arts in 2017, completed her master's degree in 2022. She is not only a student but also a caregiver to an elder, and a parent and teacher to her three children whom she homeschools. She eventually hopes to complete a doctorate. Asmaa has lived in Tripoli for two decades, where her husband's family is from.

I would like to teach undergraduates as well as continue to develop my theory on everyday leadership. The possibilities are a bit daunting right now, but I am looking at ways to expand the discipline here in North Africa. I believe that working hard and doing everything that is in my power to survive and thrive is the only way to go through life. I do not believe in quitting. I believe in making the impossible commonplace.



## Yousra Manar (Morocco)

Sports law and business, MSLB

While pursuing her degree, Yousra became an SLB Selig Scholar and a graduate assistant for the program. During her time at ASU Law, she had the opportunity to intern for the Arizona Sports and Entertainment Commission and was the head coach for the girl's lacrosse team at Corona Del Sol High School in Tempe.

ASU Law and the Selig Sports Law and Business program truly equipped me with the professional tools and network I needed to succeed in my current career in sports. I gained an amazing support system from my peers and professors who encouraged me in pursuing a career in coaching.

# **Student stories**



## Rehab Meckawy (Egypt)

International health management, MS

Rehab graduated from ASU Online with support from the Abdulla Al Ghurair Foundation for Education for the Opening Learning Scholars Program. In addition to her studies, Rehab co-founded the Egyptian Sun Devils Club, which is currently 270 members strong. She also co-founded the Sun Devils Global Friends Club, an online organization that works to build bonds between domestic and international students and increase cultural competence.

My journey at ASU would not have been fulfilled without engaging in student organizations and leaving an impact on fellow online peers. ASU has been a life-changing experience for me because I discovered my own potential. I learned I needed to get out of my comfort zone because that's where learning opportunities exist.



## Adil Mounir (Morocco)

Hydrosystems engineering, PhD candidate

With bachelor's and master's degrees in civil engineering, Adil joined the School of Sustainable Engineering and the Built Environment to pursue his doctorate under the guidance of Assistant Professor Giuseppe Mascaro. He is currently part of the Innovations at the Nexus of Food, Energy and Water Systems program funded by the National Science Foundation. He is developing a model that can simultaneously evaluate the water and energy systems for the Phoenix metropolitan area. The goal is to implement this model to explore the effects of population growth as influenced by water and energy policies and management under a changing climate.

During my undergraduate degree, I was introduced to the importance of water management in my home country, Morocco. I then found out that ASU has a number of professors who produced an impactful body of work related to simulating water availability in regions suffering from water scarcity. I wanted to learn firsthand from their expertise. Since I have joined ASU, I felt like I have been given all the tools necessary to investigate the water issues I am interested in.





ASU alumni from Africa earned a degree between 2012 and 2023

2,211

**ASU alumni from Africa** have graduated since 1981

### **ASU** alumni chapters

ASU maintains chapters in Egypt, Ghana, Liberia, Madagascar, Morocco and South Africa.

### ASU Thunderbird Center of Excellence and alumni chapter

Thunderbird School of Global Management established a Center of Excellence in Nairobi, Kenya, in 2019, marking the school's first continuous physical presence in the African continent. The center has made a significant mark in the region by establishing Thunderbird as a thought leader, which has led to various partnerships and initiatives, student recruitment and alumni engagement. Thunderbird's immediate plans for expansion in the region include a Center of Excellence in Dakar, Senegal.



### Lois Andoh (Ghana)

Global logistics, MS

Lois and three other students in the Mastercard Foundation Scholars Program formed a team that was one of the top two winners of the first Rutgers TEN Plus Supply Chain Innovation Challenge. Lois' team, which included fellow scholars Samuel Gyan, Samuel Togodui and Asie Wadee from Ghana, presented ideas for electronic device manufacturer BetaWare, sponsor of the event, to innovate and add value to their customers. The W. P. Carey School of Business foursome believes their specialized master's program equipped them with tools and skills to address the issues in the case.

Through real-life projects, working with companies and addressing supply chain issues, I have learned adequate skills to start my career in the supply chain. This is a new beginning for me and I can't wait to embrace the experience I am going to gain and the specific value I can contribute to global supply chains.



Molecular biology and biotechnology, BS

Originally from Zimbabwe, Charity pursued her degree through Barrett, The Honors College as a Mastercard Foundation scholar. She was also a research intern in the Biodesign Institute. Noted for her thirst for knowledge and "brain for soaking up scientific information," Charity applied for and was awarded a Gates Cambridge Scholarship. She is presently pursuing her doctorate in pharmacology at the University of Cambridge. She investigates the mechanisms of hypersensitivity in gastrointestinal disease, which is a leading cause of child morbidity and mortality worldwide.

There is a big international community at ASU, and that gave me an opportunity to work with people from diverse backgrounds. I became more accepting and open to learning about different cultures and trying new things.





## Susan Dacosta (Gambia)

Mechanical engineering, MS

Susan is the first college graduate in her family and part of the pioneering cohort of the ASU accelerated master's program with Ashesi University in Gambia.

Being a Mastercard Foundation scholar is more of a responsibility than a privilege to me. I believe I have been chosen to be part of a family with a common vision to spearhead the changes we want to see in our mother continent Africa.



## Madit Deng Ring Yel (South Sudan)

Global affairs and management, MA

Madit, who is from Wunrok, South Sudan, plans to use his business degree and leadership skills to set up a reliable college preparatory program in Africa to connect promising students to education opportunities within and beyond their home countries. Madit was a Mastercard Foundation scholar and SHARE Fellow, which is a scholarship and mentorship program for exceptional Thunderbird students from developing countries.

The Mastercard Foundation Scholars Program gave me and others the opportunity to help younger people in South Sudan, and it will also help educate people in other parts of Africa. Having more citizens who are well-educated will aid countries' economies and the daily lives of citizens there.



## Godsway Dorlah (Ghana)

Global Digital Transformation, MGM Global Logistics and Supply Chain Management, MS

During his time at ASU as an undergraduate accounting student, two-time master's candidate, and as a Mastercard Foundation scholar, Godsway excelled academically and followed his entrepreneurship instincts. Godsway gives back to his community by utilizing technology, coupled with his supply chain and financial background, to solve relevant issues in Ghana, such as food waste. He created Godsway's Gari Factory, making it possible for farmers to send their excess cassava harvest to be milled into gari (cassava flour), which can be stored for up to five years. The factory also supports farmers by offering them seasonal loans, expert advice on how to increase their production yield, and transportation connections to help push their products out to wider markets. His venture started working with 51 local cassava farmers and is selling their gari product to 125 women in the wholesale market and to 64 restaurants in Ghana, with plans to expand to Nigeria and Togo.

Being a changemaker means doing something, no matter how small it is, to positively impact the life of other people".



## Abdelhamid Hamouda (Libya)

English (linguistics), MA

Abdelhamid came to ASU on a Fulbright Scholarship in 2012. However, circumstances caused by the war in Libya required his return home. Immigration considerations further complicated his return to the U.S. Then, he lost his scholarship one month before completing his master's degree while working with the International Committee of the Red Cross in his city. He reached out to his thesis advisors at ASU for help. The Department of English offered him a fellowship to cover his tuition while he completed his thesis remotely. To do his thesis defense online via Skype, he had to travel to Tunisia due to the intermittent internet connection in Libya. Hamouda has gone on to teach English with the University of Bengazi and the Higher Institute of Comprehensive Professions in Benghazi, Libya.

I felt privileged to study with some of the finest linguists in the world at ASU. I cannot emphasize enough how grateful I am to the entire ASU community for standing by me and helping me finish my studies.



### Naruro Hassan (Somalia) History, BS

Naruro is a refugee with an extraordinary story of survival, resilience and rediscovery that began in war-torn Somalia and, after long, trying chapters in a remote refugee camp in Kenya, is unfolding at ASU. She is majoring in history, minoring in philosophy and African studies, and has pursued certificates in religion and conflict and political thought and leadership as well as a research internship. She founded the Somali Student Union at ASU and also works with the Humanitarian African Relief Organization, one of the largest groups aiding refugees and displaced people in Africa. Her goal is to become a human rights lawyer.

When I got to ASU, it felt like a whole new chance in life. I want to be the voice for people who are marginalized, for the people who are left behind. Our freedom, our justice – it's all interconnected. We have to look out for each other.



George first came to ASU as a Mastercard Foundation scholar. He completed his bachelor's degree in 2018 and master's degree in 2019 in biomedical informatics, graduating with summa cum laude honors. Interested in becoming a university professor in clinical informatics, he went on to earn his doctorate with the College of Health Solutions in 2022. He is the first ASU graduate to be named student editor for the Journal of the American Medical Informatics Association, a top-tier journal in the field. His advice to incoming students?

Be passionate about what you are studying. Be determined, committed and collaborate with other people. Know that other people are in your life to help you grow and challenge yourself. Reach out for help if you need it.





## Ntombizodwa Makuyana (Zimbabwe)

Biochemistry, BS

From Harare, Zimbabwe, Ntombizodwa wants to understand how the immune response fights against diseases and the development of new drug therapies. She also co-founded a project in Zimbabwe, Female Dreamers, with her friend, Mastercard Foundation scholar Shantel Marekera, that empowers girls and women. Fostering quality education and poultry-rearing skills to support financial independence, their project won awards at ASU, including the Changemaker Award 2018, Venture Devils 2018, the Millennium Fellowship with United Nations Award 2018, and the Pitchfork Award 2019 for Global Change and Global Impact Project.

I was inspired to dream bigger and exceed expectations. [My mentors'] Unparalleled one-on-one mentoring helped me to shatter the glass ceilings and aim for the horizon. I felt included and appreciated, and that's a huge reason why I love ASU.



## Balanding Manneh (Gambia)

Biological sciences, BS

Balanding, originally from Gambia, made much of his time at ASU. Aside from his degree in biological sciences with a concentration in genetics, cell and developmental biology, he earned the President William Jefferson Clinton Global Hunger Leadership Award, he started a nonprofit organization to assist women in farming in his native country, he spoke at a conference of TEDxASU innovators in 2018, and received the Outstanding Graduate Award. He completed his master's degree in public health in 2020 at the University of British Columbia.

For me, coming to ASU was a huge opportunity that has transformed my life. Besides the theoretical scientific knowledge I have acquired, my daily interaction with people from all over the world here at ASU has taught me so much. I learned there is always someone out there who has the solution or knows someone who has the solution to a problem you might encounter. This knowledge has significantly transformed the way I interact with people.



### Shantel Marekera (Zimbabwe)

Criminal justice and law enforcement administration, BA Justice studies, MS

A Mastercard Foundation scholar and Barrett, The Honors College graduate, Shantel completed her bachelor's and master's degrees in four years at ASU. A double graduate of ASU, Shantel recently was awarded the Äänit Prize from the Mandela Rhodes Foundation. She was awarded a Rhodes Scholarship in 2019 to continue her studies at the University of Oxford, where she is now pursuing her JD. While at ASU, she founded the Little Dreamers Foundation, a subsidized preschool for low-income children in Zimbabwe, and co-founded the Female Dreamers Foundation with classmate Ntombizodwa Makuyana, which focuses on creation of jobs and helping parents of those children to be financially self-sufficient.

As the current Global Peace Ambassador for Zimbabwe, I want to help create a culture of transparency and accountability to the law, as well as challenge existing practices against women.



## Sabrina Mehari (Eritrea, refugee in Ethiopia)

Biochemistry, BS

The conflict in the northern region of Ethiopia is personal and real to Sabrina, who spent three of her formative years living in a Tigrayan refugee camp before relocating to Tucson with her parents and younger siblings just over a decade ago. She was a member of the Ethiopian and Eritrean Student Association, the RISE Summer Leadership Institute and REACT – the Refugee Education and Clinic Team that works to address the health care disparities of refugee communities in the Phoenix area. She is the first in her family to graduate from college.

I want to pursue women's health and medicine to better understand the issues women all around the world face. My research lab at ASU where I study infectious diseases also allowed me to apply what I was learning in my classes to real life, which further confirmed my love and appreciation for biochemistry."



## Olivia Mulerwa (Rwanda)

Global Affairs and Management, MS Human and Social Dimensions of Science and Technology, PhD candidate

Olivia graduated from the ASU Thunderbird School of Global Management in 2018 and currently works to support the school's mission in Africa, as assistant director of international partnerships. Prior to Thunderbird, Olivia was a Senior State Attorney and Head of Department at the Ministry of Justice in Rwanda. In that role, she managed key partnerships with United Nations Institutions, the Diplomatic Corps, International Nongovernmental organizations and others. During that time, she was the primary author of Rwanda's first National Human Rights Policy, the second Universal Periodic Review report and several other country reports in compliance with the nine core UN Human Rights Conventions. She also represented Rwanda at various multinational meetings like the UN Human Rights Council, the Committee on Civil and Political Rights and the African Human Rights Commission. Olivia's career has taken her to over eight countries and across four continents.

I came to Thunderbird with the aspiration of having a global career, at Thunderbird I learnt what it means to be truly global.



## Janet Nalubega Ross (Uganda)

Global health, PhD

Janet has spent her life drawn to health care and sexual health. She says the journey started for her growing up in post-war Uganda where in addition to coming out of a civil war, the country was hit by the AIDS epidemic and HIV/AIDS started becoming a thing. The advice she was given when she started her PhD was that she should "read about your field and find the gap, and try and see if you can fill the gap."

I was really attracted to the ASU program because it looked very holistic, it focused on not just the person, but the data and it was very interdisciplinary.



### Thato Seerane (South Africa)

Counseling psychology, BS

Thato is a Barrett, The Honors College graduate and Mastercard Foundation scholar from South Africa. Thato's honors thesis focused on understanding reading comprehension and using a game-based curriculum called iSTART to improve the learning experience for students in South Africa. Performing her research in South Africa was extremely important to Thato, and she conducted her thesis research in her hometown of Soweto. She's gravitated toward the idea of combating the negative assumptions about mental well-being and creating awareness around its importance.

I came to ASU knowing I wanted to be a counseling psychologist because of my experience in South Africa. I wanted to help victims of traumatic experiences like sexual assault. Choosing a psychology major was a way to equip myself with knowledge before trying to help others. I am passionate about improving the education system in South Africa.





Chalachew's research interests include the evolution of early Homo, isotope geochemistry, habitat differences in the Plio-Pleistocene hominins, primate evolution and osteology. He has conducted multiple field studies with different research projects in Ethiopia, including the Ledi Geraru Research Project in Ethiopia. It was there that Chalachew and other members of the project discovered the oldest Homo specimen, dated 2.8 Ma (mega-annum or million years), a discovery that pushed back the origin of Homo by half a million years. He is now a postdoctoral researcher with the University of Missouri-Columbia.

It was an exciting moment. I had good experience in field surveying and knew where potential sediments are. I climbed a plateau and found this specimen right on the edge of the hill.



## Mohamed Vall Ahmed (Mauritania)

Mohamed was born in Mauritania, speaks Arabic, French and English, and chose Thunderbird School of Global Management when he read the school's mission statement. He received a SHARE Fellowship, a scholarship and mentorship program for exceptional Thunderbird students from developing countries. His long-term career goal is to create a management consulting company in West Africa to help companies improve their performance. He is presently a marketing science senior analyst with Critical Mass, a digital experience design agency in Canada.

When I read Thunderbird's mission, 'We educate global leaders who create prosperity worldwide,' I immediately felt this was the school I was looking for; the school that would prepare me to make changes to the world and help in the sustainable development of my country. The great opportunity to network with alumni all over the world is a unique feature of Thunderbird that is unmatched by any other business school.

# **Academic partnerships**



General collaboration agreements University-to-university agreements



Collaboratve degree programs International accelerated degree programs



Memoranda of understanding Signed agreements between universities

## **University partners**

- 1. Ashesi University
- 2. Kenyatta University
- 3. Kwame Nkrumah University of Science and Technology
- 4. Pan-Atlantic University
- 5. Stellenbosch University
- 6. University of Eastern Africa, Baraton
- 7. University of Rwanda

### Other partnerships:

- 8. Danish Refugee Council
- 9. Ethiopian Orthodox Church Development and Inter-Church Aid Commission

### Partnership countries

Ghana Kenya Nigeria Rwanda South Africa



# **Thunderbird in Africa**

### **ASU Thunderbird School of Global Management leadership**

### Sanjeev Khagram

is the director general and dean of ASU's Thunderbird School of Global Management and the Foundation Professor of Global Leadership and Global



Political Economy. He is a world-renowned scholar and practitioner in the areas of globalization, transnationalism, leadership, strategic management, entrepreneurship, social enterprise, cross-sector innovation, public-private partnerships, inter-organizational networks, good governance, the global political economy, sustainable development, human security and the data revolution. He has worked extensively all over the world with global startups, corporations, governments, civil society groups, multilateral organizations, cross-sectoral action networks, foundations, professional associations and universities on every level from local to international. He has lived and worked for extended periods in Brazil. India. Kenva. Mexico. Nigeria, South Africa, Thailand, Germany and the United Kingdom. Khagram is of Asian Indian heritage, a Hindu, and a refugee from Idi Amin's Uganda, which brought him to the U.S. in 1973 via refugee camps in Italy.

### DreamBuilder for women entrepreneurs

DreamBuilder, a Thunderbird for Good program for training women entrepreneurs, was chosen as the central curriculum for the Academy of Women Entrepreneurs in the U.S. Department of State's Bureau of Educational and Cultural Affairs global initiative. While this initiative will reach 2,000 women in 26 countries, Africa is a focus for the inaugural cohort and will include women from Ghana, Kenya, Nigeria, Rwanda, Senegal, Tanzania, Uganda, Zambia and Zimbabwe. Landry Signé is a world-renowned expert and award-winning professor of global politics. Born in Cameroon, he lived in Cameroon, France and Canada before coming



to the United States. At ASU, Signé is executive director of Thunderbird, where he co-founded and leads the Fourth Industrial **Revolution Initiative and Globalization** 4.0 Center and co-leads the Washington DC Regional Center of Excellence. He is respected worldwide for his grasp of the political economy of growth, sustainable development, governance, fragile and failed states, regional integration, and business in Africa. He is also a senior fellow in the Global Economy and Development Program at the Brookings Institution, a distinguished fellow at Stanford University's Center for African Studies, chairman of the Global Network for Africa's Prosperity and a World Economic Forum Young Global Leader.

## Thunderbird Regional Center of Excellence in Nairobi

The Thunderbird Regional Center of Excellence in Nairobi was established in February 2019 to bring the vast resources and expertise of Thunderbird's more than 73 years as a leader in global leadership and management education to serve the needs of the African continent.

Through a new international hub system, Thunderbird School of Global Management provides opportunities for understanding technology through knowledge and continuous collaboration.

- Philip Thigo, Nairobi technology leader

# **Thunderbird in Africa**

### **Global initiatives**

### The Francis and Dionne Najafi Global Initiative

Toward the goal of educating 100 million learners by 2030, the Francis and Dionne Najafi Global Initiative contributes \$25 million to the Thunderbird School of Global Management for an accredited online Global Management and Entrepreneurship certificate consisting of five world-class courses in 40 languages. Of the 100 million learners the program will reach worldwide, it is estimated that 70% will be women and voung women. Never before has such an ambitious global higher education program been launched. The certificate will be covered by full scholarships: there is no cost to students because of the philanthropic support undergirding the initiative. In year one, the initiative aims to reach learners in their native languages in Iran, Kenya, Mexico, Indonesia, Egypt, India, Senegal, Brazil, and Vietnam. By year two, the program will be expanded to at least 25 languages across Africa, the Middle East, Asia and Latin America. By year four (perhaps earlier), the program will have expanded to Europe and Central Asia and comprise 40 languages.

### Konza Technopolis Development Authority partnership event

The Thunderbird School and Konza Technopolis Development Authority partnership hosted "Innovating, Accelerating and Scaling Silicon Savannah" on Dec. 14, 2022, a convening of high-level representatives from the government of Kenya and ASU to define areas of mutual cooperation. President William Ruto of Kenya, ASU President Michael Crow, and Thunderbird Director General and Dean Sanjeev Khagram gathered to announce a new partnership and future collaborations at the ASU Barrett and O'Connor Washington Center in Washington, D.C. The event coincided with the 2022 U.S.-Africa Leaders Summit hosted by President Joe Biden, which aimed to strengthen ties and collaboration between the U.S. and Africa.

The event brought top leaders from the government of Kenya, subject matter experts from ASU, representatives from the Africa Development Solutions Group, Smart Africa, United Nations Development Programme Africa and several high-level U.S. government officials together to discuss collaboration between ASU and the government of Kenya around space leadership, creative industries, climate innovations, Smart cities and educational and entrepreneurial innovation. "This is precisely the reason that ASU has a presence in Washington, D.C. to bring together the resources of the nation's most innovative university to work with leaders from around the world to advance solutions to issues that are vital to our future." Crow said. The event focused on Ruto's ambitious agenda to catalyze a transformative Silicon Savannah in Kenya by harnessing the technologies and capabilities of the Fifth Wave of Innovation and the Fourth Industrial Revolution.

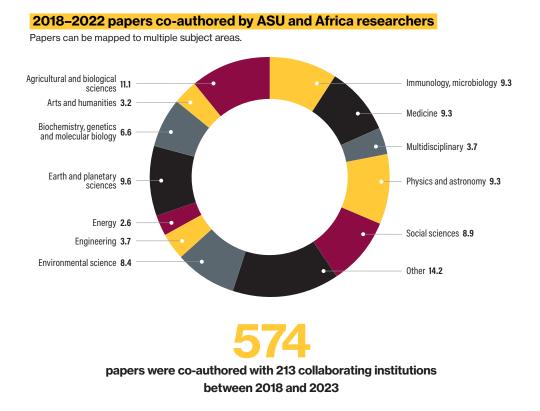


## ASU researchers received 88 grants totaling more than

## \$76.7 million

### from sponsors in Africa, the U.S. and other regions.

In addition, more than \$76.7 million has been pledged by the Mastercard Foundation for four projects at ASU that support education and leadership in Africa: Mastercard Foundation Scholars Program, Mastercard Foundation Strategic Initiative, Baobab Scholars Platform and Young Africa Works.



## Research

### Accelerating Climate Adaptation via Meso-level Integration Project (Ghana, Kenya and Malawi)

Eric Welch in the School of Public Affairs and director of the Center for Science. Technology and Environmental Policy studies received a 1.25 million grant from the Bill & Melinda Gates Foundation to study how to better understand the roles public, private and nonprofit organizations play in helping African farmers adapt to the growing impact of climate change. Other collaborators include the University of Illinois at Chicago. CIRAD in France, the Africa Research and Impact Network in Kenya and the Southern African Confederation of Agricultural Unions in Cape Town. Team members have already begun work to examine conditions in three African nations: Ghana, Kenya and Malawi.

### Institute of Human Origins

One powerhouse pursuing work in Africa and other continents is the Institute of Human Origins, whose research scientists are on faculty with the School of Human Evolution and Social Change at ASU. The institute is one of the preeminent organizations in the world devoted to the science of human origins and directed by Yohannes Haile-Selassie, Virginia M. Ullman Professor of Natural History and the Environment at ASU and one of the world's foremost experts in paleoanthropology, known for major fossil discoveries in the African Rift Valley and extensive scholarship in human origins. The institute's prominent researchers include 18 ASU faculty members who work internationally on 16 field sites, including sites in Botswana, Ethiopia, Kenya, Malawi, Morocco, South Africa, Tanzania and Uganda. The institute joined ASU in 1997 and was founded in 1981 by ASU Virginia M. Ullman Chair of Human Origins Professor Donald Johanson, who discovered the 3.2-million-year-old fossil bones of a new species, Australopithecus afarensis,

popularly known as "Lucy." November 2024 will be the 50th anniversary of the discovery, with major events scheduled in Africa and the U.S. to celebrate "A Year for Human Origins."

Other pivotal discoveries by researchers in Africa with team members including the Institute of Human Origins:

- A fossilized lower jaw that pushes back evidence for the human genus, Homo, to 2.8 million years ago. The discovery was made in 2015 by President's Professor Kaye Reed, Associate Professor Chris Campisano and then ASU graduate student Chalachew Seyoum, part of a field team working in the Ledi-Geraru research area in Afar, Ethiopia.
- A 2-million-year-old skull, the earliest known skull of Homo erectus in South Africa, the first of our ancestors to be nearly human-like in their anatomy and aspects of their behavior. Research findings were published in 2020 by an international team that included ASU Professor Gary Schwartz.
- Pinnacle Point, site of ASU's South African Coast Paleoclimate, Paleoenvironment, Paleoecology, Paleoanthropology project, has become one of the world's most important localities for the study of modern human behavioral and cultural origins. Established by Foundation Professor Curtis Marean, scientists at this site have discovered the earliest evidence for symbolic behavior, complex pyrotechnology, projectile weapons, and the first use of ochre and foods from the sea.



### **Biodesign Institute**

ASU's Biodesign Institute addresses critical global challenges in health care, sustainability and security. Researchers work to translate discoveries from bench to bedside, from understanding cancer to personalized medicine and infectious disease. The Biodesign Institute created a saliva-based test for COVID-19, and the origins of the world's first vaccine for Ebola in 2014 had its roots in a high-risk, plant-based therapeutic research program conducted at the institute.



### Nsa Dada

Assistant Professor, School of Life Sciences and Biodesign Center for Fundamental and Applied Microbiomics

Dada is a vector biologist and microbial ecologist interested in how microbes shape mosquito biology and mosquito-borne disease transmission. She leads pioneering and award-winning research on microbe-mediated evolution of insecticide resistance in mosquito populations around the world. Dada is the founder and lead of the Mosquito Microbiome Consortium. She also leads initiatives toward closing research capacity gaps in Africa.



### **Bruce Rittmann**

Regents Professor, Ira A. Fulton Schools of Engineering

Rittmann is in the School of Sustainable Engineering and the Built Environment and the director of the Biodesign Swette Center for Environmental Biotechnology at ASU. He studies microbial communities in humans, water and biofuels. His lab explores how to manage these microbial communities and how to exploit them to an advantage. His work also extends into renewable energy. He is developing technology that uses naturally occurring microorganisms to remove contaminants in water. Rittmann, along with research scientist Chen Zhou, is also using photosynthetic bacteria to develop biofuels and is looking at recovery of rare earth metals from phosphorus mining in Morocco. He is a member of the National Academy of Engineering and a fellow of the American Association for the Advancement of Sciences, the American Society of Civil Engineers and the National Academy of Inventors. He has 17 patents and was the co-winner of the 2018 Stockholm Water Prize.

### **Biodesign Institute**



### **Arvind Varsani**

Associate Professor, School of Life Sciences and Biodesign Center for Fundamental and Applied Microbiomics

Varsani works across ecosystems - from plants to animals, from the tropics to the Antarctic – with a strong focus on viral evolution and dynamics, and viral metagenomics. His research uses a combination of traditional virology, microscopy, molecular and cellular biology techniques in conjunction with modern techniques, including next-generation sequencing, synthetic biology and bioinformatics. One of his projects is with South African researcher Darren Martin. They have set up a collaborative worldwide network of scientists to study viral evolution through recombination, viral phylogeography and global viral movement patterns of the plant-infecting geminiviruses and nanoviruses. Their research was based in Africa and South America, but recently it has extended to include Asia-Pacific region. As a team. this group is attempting to identify drivers of viral emergence in plant ecosystems. Most recently, with a three-year grant from the National Institutes of Health, Varsani is undertaking the investigation of how HIV infection impacts the vaginal virome and risk of preterm birth in pregnant South African women.



### **Chao Wang**

Associate Professor, School of Electrical, Computer and Energy Engineering and Biodesign Center for Molecular Design and Biomimetics

Wang aims to bridge nanoscience and biotechnology in research. His primary research interests have been in nanofabrication, nanoelectronics, nanofluidics, plasmonics and biosensing. His goal is to develop a multidisciplinary research program that focuses on advancing nanomanufacturing technologies to address the grand challenges in biomedical, communication and energy applications. Wang has 26 granted and pending U.S. patents. One of his current grants from the USDA pursues "Nanotechnology for Agricultural and Food Systems PARTNERSHIP: Portable And Multiplexed Detection of African Swine Fever with Metal Nanoparticles." According to Wang, et.al., African swine fever is one of the most devastating hemorrhagic infectious diseases that affect pigs and wild suids due to the lack of a vaccine or an effective treatment (Research in Veterinary Science, 2021).

### **College of Global Futures**

The College of Global Futures' three schools bring leaders together, including 500+ sustainability scientists, to develop practical solutions to environmental, economic and social challenges.



### Timiebi Aganaba-Jeanty

Assistant Professor, School for the Future of Innovation in Society

Aganaba-Jeanty is an expert in space law and international governance. She is also the project lead for ASU's Interplanetary Initiative Space Advisory project, designed to ensure diversity and inclusion, showcase talent and provide opportunities to students of African descent. In partnership with Space in Africa, the Lagos Court of Arbitration and the Outer Space Institute, the advisory project launched the 2020 Space Governance Innovation Contest. The contest challenges interdisciplinary teams of innovators who compete to address policy gaps in international space law and bring fresh ideas and perspectives to old and new governance problems of space.



### **Greg Asner**

Professor, School of Ocean Futures School of Geographical Sciences and Urban Planning, The College of Liberal Arts and Sciences

Asner is an ecologist recognized for his exploratory and applied research on ecosystems and climate change at regional to global scales and is the director of ASU's Center for Global Discovery and Conservation Science at ASU. His research spans the areas of spatial ecology and biodiversity, coral reefs, terrestrial carbon cycle, animal-habitat interactions and climate change. His airborne laboratory makes advanced sensor mappings of Earth, allowing his team to map ecosystems across the globe, from the Bornean rainforest to tropical reefs and corals. His team's examination of savanna in South Africa enables the development of predictive models to forecast how savannas will respond to global change, helps to inform protection strategies for threatened species, and leads to smarter conservation and management of these ecosystems.

### **College of Global Futures**



### **Arianne Cease**

Associate Professor, School of Sustainability Director, Global Locust Initiative

Locusts and grasshoppers have a long history of coexisting with humans, but outbreaks and their management continue to have devastating impacts on human livelihood and the environment. The Global Locust Initiative is designed to help researchers, international agencies, government organizations, agribusinesses and farming communities address and mitigate the effects of locust plagues and outbreaks. The initiative combines lab science, fieldwork and data modeling to help reduce locust outbreaks and the effects of plagues, with the goal of improving the well-being of farm communities and global sustainability. This initiative and its partners work to fundamentally change the way the world addresses locust plagues – collaborating across borders to manage pests and improve communities. The initiative's current USAID project in Africa focuses in Senegal. Other projects are ongoing in Australia, China, Argentina, Bolivia and the United States.



### Faheem Hussain

Assistant Professor, School for the Future of Innovation in Society

Hussain has more than 15 years of experience conducting socio-economic development and technological interventions related research in Asia, sub-Saharan Africa and North America. His research interests include digital solutions for refugees, information and communication technology for sustainable development, digital afterlife, social media, digital rights, gender empowerment using STEM, and sustainable development goals.

### **College of Global Futures**



### **Clark Miller**

Professor, School for the Future of Innovation in Society

Miller is a global leader in the field of carbon-neutral energy transitions and director of the Center for Energy and Society. In Africa, he was principal investigator of an Energy and Economic Growth project focused on "Improving social and economic impact of energy infrastructure investments in Sierra Leone through enhancement of social value creation, capacity-building, and decision support." From 2019 to 2021, a comparative analysis was carried out in four areas of Sierra Leone: Freetown (the capital city), Bo and Kenema (two smaller cities undergoing grid extension projects), and Segbwema (a rural community with a stand-alone, solar-powered micro grid).



### **Mary Jane Parmentier**

Clinical Professor, School for the Future of Innovation and Society

Since her appointment at ASU in 1999, Parmentier's research and curriculum development have focused on the role of technology in economic, social and political development and the regions of North Africa and Latin America. Between 2013 and 2016, she designed and led study abroad programs each summer for ASU that focused on sustainable development policy and practice in Morocco, and students were collaborating with Moroccan government ministries, local NGOs and universities to create seminars and projects with Moroccan and U.S. students. This work with students led to collaborations with the Midelt Apple Growers Association and grant proposals for sustainable development in the region of Midelt in 2018. Parmentier is a member of the Center for Maghrib Studies at ASU. She is proficient in Spanish and French and conversant in Moroccan, Arabic and Portuguese. She served as a Peace Corps volunteer in Morocco, teaching high school English from 1986–1988.

### The College of Liberal Arts and Sciences

Many faculty members in The College of Liberal Arts and Sciences study African contemporary society, culture or history and the roots and implications of the African diaspora. Among the research efforts are studies by:



### Souad T. Ali

Professor, School of International Letters and Cultures

A professor of Arabic literature and Middle Eastern and Islamic studies in the School of International Letters and Cultures, Ali is also the founding chair of the Council for Arabic and Islamic studies at ASU. A native of Sudan, Ali established the council to acknowledge the significant contributions, throughout history and in the modern age, of Arabic studies and Islamic civilization and cultures to the world. The organization promotes cross-cultural understanding, multiculturalism, interfaith dialogue and diversity at ASU and collaboration between ASU and groups throughout the Arab and Muslim worlds.

Education – and education is the key word – to help people understand both cultures.



### Hannah Barker

Associate Professor, School of Historical, Philosophical and Religious Studies

Barker's research interests center around ideologies and practices of slavery in the medieval Mediterranean, especially the slave trade from the Black Sea to the markets of Cairo, Egypt and the Italian cities of Genoa and Venice during the 13th through 15th centuries. She is particularly interested in both the merchants who conducted this trade and in the processes of shipping, marketing and purchasing slaves. Barker believes a better understanding of these medieval ideas will provide a new perspective on contemporary ideas about human difference, power and race. In 2020, she created a website that provides pedagogical resources for K-12 teachers who want to address the global history of slavery and captivity during the medieval period: buff.ly/3foVZ3g.

### The College of Liberal Arts and Sciences



### **Chouki El Hamel**

Professor, School of Historical, Philosophical and Religious Studies

El Hamel specializes in West and Northwest Africa. His research interests focus on the spread and growth of Islamic culture and the evolution of Islamic institutions in Africa. He is particularly interested in the subaltern relationship of servile and marginalized communities to Islamic ruling institutions. His research into these relationships revolves around issues of power and class, slavery, race, gender, and social justice.



### India Schneider-Crease

Assistant Professor, School of Human Evolution and Social Change

Schneider-Crease's research takes a One Health approach to wildlife disease ecology and evolution by using tools from behavioral ecology, epidemiology and immunology and by working collaboratively to leverage the principles of disease ecology to disrupt zoonotic transmission. She co-directs the Kasanka Baboon Project in Zambia and is a member of the Simien Mountains Gelada Research Project in Ethiopia.



### **Heather Switzer**

Associate Professor, School of Social Transformation

Switzer's book, "When the Light is Fire: Maasai Schoolgirls in Contemporary Kenya" (University of Illinois Press 2018) uses qualitative data gathered through an ethnographic case study of Maasai schoolgirls' perceptions of education and development in their everyday lives. The book is based on in-depth interviews with more than 100 Maasai girls ages 10–20 enrolled in nine rural co-ed government-run primary day schools in Kajiado County, Kenya and key adults in their lives, including 30 mothers and 30 teachers, along with 10 months of fieldwork observations. Switzer theorizes "schoolgirlhood" as a relatively new socio-cultural space that creates unprecedented opportunities for the negotiation of gendered and generational relations of power and new forms of regulation for Maasai girls who go to school.

### The College of Liberal Arts and Sciences



### Aribeidesi Usman

Associate Professor, School of Social Transformation

Usman's research is in Nigeria. He is currently conducting ethnographic and archaeological research in the Niger-Benue Confluence, looking at settlement evolution, sociopolitical and economic organization, early European contact, and the nature of power relations prior to 1900. An anthropologist, Usman is also involved with developing undergraduate curriculums in history, anthropology and archaeology at the Kwara State University and the University of Ilorin in Nigeria.

### Pauline Wiessner



Professor, School of Human Evolution and Social Change

Wiessner is a member of the National Academy of Sciences. Over the last 44 years, Wiessner has tracked how the introduction of money changed networks of sharing and gifting in a historically hunter-gatherer society, the Ju/'hoansi Bushman in Botswana, most recently with support from Cindy Hsin-yee Huang, an anthropology doctoral student. Wiessner has spent 30 years among the Enga of Papua New Guinea. She has established a non-profit, the Tradition and Transition Fund, that addresses the current needs of the populations she studies: food security for the Kalahari Bushmen and constructing a museum and research center in Enga, the Enga Take Anda or house of traditional knowledge. The Enga Take Anda is currently integrating cultural education into all the schools of Enga Province with educational materials produced by Wiessner.

### **Edson College of Nursing and Health Innovation**



#### **Joseph Daniels**

Associate Professor, Edson College of Nursing and Health Innovation

Daniel's research focuses on the development, implementation and evaluation of social and behavioral interventions that will address health disparities and foster thriving individuals and communities. Most of his work focuses on improving outcomes globally for HIV, tuberculosis and cancer treatment among sexual and gender minorities and cisgender men, and the current research in these areas is with collaborators in South Africa and the U.S. The research he is doing now, funded by the National Institutes of Health, focuses on tailoring healthy relationships to improve HIV treatment outcomes globally for Eastern Cape, South Africa.

### Ira A. Fulton Schools of Engineering



#### **Terry Alford**

Professor and Interim Director, School for the Engineering of Matter, Transport and Energy

With an ASU career spanning more than nearly 25 years, Alford is a highly regarded teacher and mentor, having advised and graduated more than 140 master's degree students and 30 doctoral students in materials science and engineering, mechanical engineering, electrical engineering, chemical engineering, chemistry and physics. Professor Alford's teaching interests include X-ray and electron diffraction, introduction to physical materials science and laboratory, structure and properties of materials, advanced materials issues in semiconductor processing, and materials processing and synthesis. Alford has a passion for guiding students to become successful scholars and professionals, and he embraces opportunities to enhance diversity and multiculturalism during their graduate education experience.

### Ira A. Fulton Schools of Engineering



### Nathan Johnson

Associate Professor, Polytechnic School Director, Laboratory for Energy and Power Solutions

Johnson and his team of researchers provides technical and business solutions to facilitate the global transition to a resilient low-carbon economy. Research to commercialization efforts emphasize grid modernization, microgrids, off-grid solutions, critical infrastructure, and workforce development. He also leads ASU's Grid Modernization and Microgrid Test Bed. Johnson builds public-private partnerships in the U.S. and internationally to develop and evaluate technologies leading to pilot demonstration and scale. This work is paired with innovations in business models and regulation to benefit all stakeholders, and value propositions that increase energy access, energy security, and economic development through decarbonization and cost savings. His globally focused work continues in sub-Saharan Africa, Middle East, and East Asia. Among his projects was an effort funded by the U.S. Office of Naval Research Defense University Research-to-Adoption program to provide stable power, clean water and an increased capacity to deliver health care to the Ayilo II Refugee Settlement in the Adjumani district of northern Uganda.



### Sayfe Kiaei

Professor, Ira A. Fulton Schools of Engineering

Kiaei is the director of the Connection One Center (National Science Foundation IUCRC Center) and Motorola Chair in Analog and RF Integrated Circuits in the School of Electrical, Computer and Energy Engineering at ASU. In 2021, he established a Center of Excellence for Energy in Egypt with \$22 million in support from U.S. Agency for International Development and will work to improve the capacity of Egypt's higher education institutions to drive public and private sector innovation, modernization and competitiveness; strengthen government policy to stimulate economic growth; and contribute solutions to the country's development challenges in the energy sector. Prior to this project, Kiaei led a successful five-year program funded by USAID for more than \$45 million in Pakistan, resulting in two new university colleges in energy with more than 10 new degrees, 75 new courses and 1,000 new master's degrees and doctoral program students enrolled in the program.

### Mary Lou Fulton Teachers College

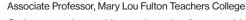


### Samuel DiGangi

Associate Professor, Mary Lou Fulton Teachers College

In Malawi, a nation of nearly 20 million in southeast Africa, more than 80,000 students graduate from secondary schools each year with no access to higher education. With support from USAID, Samuel DiGangi is leading an effort. "Strengthening Higher Education Access in Malawi Activity," designed to increase Malawi's skilled and employable workforce - particularly through opportunities for adolescent girls and young women - by strengthening capacity and fostering collaboration among five Malawian public universities: Lilongwe University of Agriculture and Natural Resources, Malawi University of Science and Technology, Mzuzu University and University of Malawi; Chancellor College and The Polytechnic. Through close collaboration with the National Council for Higher Education and Ministry of Education, Science and Technology, SHEAMA secured an agreement among the university partners to codevelop and share courses and learning materials in a jointly managed system of open, distance and e-learning centers located throughout the country, thus serving more students and reducing the cost of attaining a degree.

### **Molly Ott**





Ott's research, teaching and service focus on higher and postsecondary education. She is a faculty affiliate with the Center for Advanced Studies in Global Education in the Mary Lou Fulton Teachers College, with the Center for Organizational Research and Design located in ASU's School of Public Affairs, and with the Global Sports Institute at ASU. In 2021, Ott was awarded \$4 million from the U.S. Agency for International Development for an educational project in Ethiopia: the Integrated Youth Activity -Kefeta. Kefeta (an Amharic word which means elevate) represents the shared vision of success: Ethiopian youth who are game changers; empowered to advance their own economic, civic, and social development; resilient in the face of shocks; and are actively promoting development within their communities and contributing to the country's peace and prosperity. ASU is part of a consortium led by Amref Health Africa, which also includes seven Ethiopian civil society organizations, Addis Ababa University, Addis Ababa Tegbareid Polytechnic College, the International Youth Foundation, and Johns Hopkins University Center for Communication Programs.

### Mary Lou Fulton Teachers College



### Nicole Thompson

Professor, Mary Lou Fulton Teachers College

Thompson is a professor and vice dean of the division of teacher preparation in Mary Lou Fulton Teachers College at Arizona State University. Her work focuses on how best to prepare teachers to educate preK-12 students. Her research interests include teacher preparation, American Indian education and transformation and reform in education. Thompson is the lead on a \$5 million U.S. Agency for International Development grant that supports a collaboration to create a comprehensive curriculum for primary grade teacher education in Morocco. During a five-year period, Thompson and the Teachers College will work with Morocco's Ministry of Education, universities within the kingdom and teacher training institutions, with the aid of experienced technical assistance and private sector agencies, to form the Higher Education Partnership–Morocco.

### New College of Interdisciplinary Arts and Sciences



### **Duku Anokye**

Associate Professor, School of Humanities, Arts and Cultural Studies Director, New College International Initiatives and the Office of Interdisciplinary Global Learning and Engagement

A sociolinguist, Anokye's research focuses on African diaspora orality and literacy practices, folklore, discourse analysis, and oral history with a specialization in Ghanaian culture, religion, storytelling and dance. As director of New College's international initiatives, she also supports student internships with agencies working with victims of human trafficking and refugees seeking asylum. Students volunteer 60 hours with a local organization working to combat human and sex trafficking. Students then work an additional 75 hours in Ghana with a nongovernmental organization, Challenging Heights, while also continuing with their ASU courses via Canvas and Zoom.

## **Featured faculty**

### **Southwest Interdisciplinary Research Center**



#### Crista Johnson-Agbakwu

Associate Research Professor, School of Social Work Director, Office of Refugee Health in ASU's Southwest Interdisciplinary Research Center

Dr. Johnson-Agbakwu is an obstetrician and gynecologist and the founding director of the Office of Refugee Health with the Southwest Interdisciplinary Center at ASU. Her current research focuses on investigating strategies to improve sexual and reproductive health outcomes for newly arrived refugee women, particularly those who have undergone female genital cutting, and on sexual and gender-based violence, with the aim of improving health care access and utilization, sexual and reproductive health education, counseling and community engagement and enhancing health care provider cultural competency.

### Walter Cronkite School of Journalism and Mass Communication



#### Dawn Gilpin

Associate Professor, Walter Cronkite School of Journalism and Mass Communication Barrett, The Honors College

Gilpin and graduate student Rian Bosse are leading the Narrative Geographies of Coronavirus project. The production and consumption of media narratives are geographically and culturally situated phenomena, as is the act of reading and interpreting scientific information. This research examines the ways in which contextual factors influence the construction and reception of narratives and counter narratives amidst the global health crisis of the coronavirus pandemic. They will work to identify patterns based on semi-structured qualitative interviews with media professionals and scholars in at least 23 countries, primarily in the global south. Among those interviewed are past Humphrey Fellows and Study of the United States Institutes scholars. Data has been collected from South Africa and Zambia, with more contacts from African countries proposed.

The interviews explore topics such as institutional trust and vulnerability to malicious or conspiratorial narratives. The study also examines the impact of preexisting cultural and political relationships with neighboring countries and how the pandemic might be reasserting or reinforcing dominant power structures in relation to migrant labor and refugee populations.

## **Featured faculty**

### Watts College of Public Service and Community Solutions



#### Ijeoma Nwabuzor Ogbonnaya

Assistant Professor, School of Social Work

Ogbonnaya is an assistant professor in the School of Social Work. Her research investigates how intimate partner violence and IPV services impact health and well-being and how this impact varies across culture, race, and ethnicity. She focuses on populations most vulnerable to IPV, including child welfare system-involved families and people living with HIV. She is heading up a project called the Kisoboka Mukwano Intervention, designed to improve HIV care engagement among Ugandan adolescent girls and young women through reductions in male partners, alcohol use and intimate partner violence, funded in 2022 by the National Institutes of Health.

### W. P. Carey School of Business



#### **Dale Rogers**

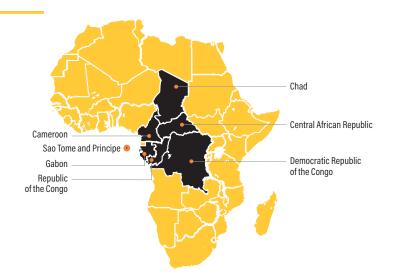
ON Semiconductor Professor of Business, Department of Supply Chain Management, W. P. Carey School of Business Director, Frontier Economies Logistics Lab

With a \$15 million investment from U.S. Agency for International Development, ASU established a catalytic partnership with the Kwame Nkrumah University of Science and Technology and multiple public and private sector partners to establish the Center for Applied Research and Innovation in Supply Chain-Africa and advance research, translation and training in supply chain management. The CARISCA project leverages ASU's world-class supply chain expertise and multidisciplinary experience in international research projects. Rogers is the principal investigator and executive director for the five-year project.

## **Region Central Africa**



## **Region Central Africa**



### **Preparing the next generation of African leaders**

The Watts College of Public Service and Community Solutions at ASU takes part in the leadership training program offered through the Regional Leadership Center network of the Young African Leaders Initiative. The four centers serve as regional hubs the continent of Africa to encourage transformational learning and enhance leadership skills. For the past year, ASU faculty have traveled to the East Africa Regional Leadership Center in Nairobi, Kenya, every month to deliver civic leadership courses in person as well as online. The center serves 14 countries in East and Central Africa.



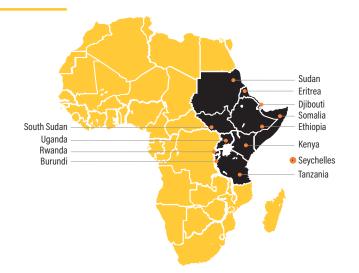
**Lisa Aubrey** Associate Professor, School of Social Transformation

A political scientist, Aubrey does communityembedded work related to reconnecting peoples of the African diaspora to their heritage lands of Cameroon, Nigeria and Ghana. She is also a key player in ASU's prestigious Mastercard Foundation Scholars Program. She involves ASU students in her work, which brings to life historical knowledge of forgotten slave trade sites in Cameroon and links slave ship records to current family history research. She was a Fulbright U.S. Scholar at the University of Yaounde I in Cameroon in 2014 to 2015 where she studied the transatlantic slave trade. With her students. Aubrey was able to trace almost 200 slave ships that left Cameroon territory bound for more than 30 countries. In her publication. "Sankofa to Bimbia, Cameroon: Little Known and Largest Site of Transatlantic Slavery in Africa Exposed," Aubrey offered a scholarly and personalized journey of tracing roots and reconnecting to Africa. The study also examined the importance of Bimbia in the last presidential election in Cameroon in October 2018, on the eve of the 400-year commemoration of transatlantic slavery in the U.S.



34 undergraduate students





#### Student exchange programs

#### ASU in Tanzania HIV/AIDS and Public Health Education Service-Learning Internship

This internship program is managed by HEAL International, a nonprofit organization founded in 2007 by Damien Salamone and Bertram Jacobs, both professors with ASU's School of Life Sciences. The organization provides study abroad and research opportunities. Students are involved in community engagement and public health by participating in education, cultural and service experiences in Tanzania such as capacity-building in rural public health and teaching public health lessons.

#### East African Endeavors in Community Engagement and Health Development

ASU's Edson College of Nursing and Health Innovation faculty partner with University of Eastern Africa, Baraton to provide an immersive experience centered on community engagement and health development. The UEAB has a significant international student body, with students from up to 20 countries, which provides ASU students with valuable learning experiences. The purpose of integrating UEAB and ASU students is to facilitate peer-to-peer intercultural discussions on course topics. This program combines didactic and experiential learning in the field.

#### The Role of Tourism and Park Management in Sustainable Community Development in Kenya

This program blends together all that the country of Kenya has to offer, from the great migration through its Serengeti plains to its white sand beaches along the Indian Ocean, with academic experiences that impact students' lives forever. Through the lens of sustainable tourism and park management, students learn how they can play a part in solutions to pressing sustainability issues. Students receive lectures from professors at Kenyatta University and officials from Kenyan Wildlife Service while helping with some of the ongoing community projects.



### Hadar Paleoanthropology Field School, Ethiopia

The Institute of Human Origins and the School of Human Evolution and Social Change offer a field school in paleoanthropology at Hadar, Ethiopia. Hadar is home to the world-renowned Lucy skeleton and is one of the richest areas in the world for fossil remains of our ancient human ancestors. Dating from 3 to 3.4 million years ago, fossils have been recovered of the species Australopithecus afarensis, including the skeleton of Lucy. Early Homo remains are associated with Oldowan stone tools in Hadar sediments older than 2.3 million years. The five-week-long field school offers undergraduates the unique opportunity to work alongside ASU faculty in recovering some of the oldest fossil and archaeological evidence of our evolution.

### Preparing the next generation of African leaders

### Integrated Youth Activity – Kefeta (Ethiopia)

In 2021, ASU professor Molly Ott, a faculty affiliate with the Center for Advanced Studies in Global Education and the Center for Organizational Research and Design, both located in ASU's School of Public Affairs, and with the Global Sports Institute at ASU, was awarded \$4 million from the U.S. Agency for International Development for an educational project in Ethiopia: the Integrated Youth Activity - Kefeta. Kefeta (an Amharic word which means elevate) represents the shared vision of success: Ethiopian youth who are game changers; empowered to advance their own economic, civic, and social development; resilient in the face of shocks; and are actively promoting development

within their communities and contributing to the country's peace and prosperity. ASU will form an Ethiopian Higher Education Institution alliance, supporting youth in higher education to join the employment systems. ASU will strengthen pathways to youth employment and entrepreneurship and enhance data systems to monitor student outcomes. ASU is part of a consortium led by Amref Health Africa. which also includes seven Ethiopian civil society organizations, Addis Ababa University, Addis Ababa Tegbareid Polytechnic College, the International Youth Foundation, and Johns Hopkins University Center for Communication Programs.

### Mastercard Foundation Scholars Program e-Learning Initiative

Arizona State University and USIU-Africa are working with the Mastercard Foundation to support learning institutions in the global Scholars Program network. The partnership helps develop institutions' capabilities and resilience so they can deliver high quality and inclusive e-learning and related supports that enable all students, including those who face additional barriers, to successfully pursue their studies from anywhere. With support from this dynamic partnership, participating institutions are building capacity to accelerate, adopt and sustain e-learning. The initiative seeks to change policy, develop practices and build resources that create favorable conditions for scalable, sustainable online education. Mindset shifts toward online learning will become increasingly positive through strengthening supportive infrastructure at the institutional level. Partner institutions in East Africa are based in Ethiopia, Kenya, Rwanda and Uganda.



### Young African Leaders Initiative Regional Leadership Center in East Africa

The Watts College of Public Service and Community Solutions at ASU takes part in the Young African Leaders Initiative through Regional Leadership Centers, a network of four centers serving as regional hubs across the continent of Africa to encourage transformational learning and enhance leadership skills. For the past year, ASU faculty have traveled to the East Africa Regional Leadership Center in Nairobi, Kenya, every month to deliver civic leadership courses in person as well as online. The center serves 14 countries in east and central Africa.

### **Expanding access to education**

### Collaborations with Kenyatta University (Kenya)

ASU and Kenyatta University signed a collaboration agreement in July 2018, following a symposium attended by faculty and leaders from both institutions. The agreement expands academic and nonacademic collaboration with Kenyan partners to pursue research in the areas of disability studies and humanitarianism.

#### Education for Humanity (Eritrea, Ethiopia, Kenya, Rwanda, Uganda)

The Education for Humanity initiative leverages the educational resources and digital strengths of ASU to extend education access to more than 2,000 refugees and communities in eight countries affected by displacement. The initiative focuses on the distribution of digital tools in a blended learning model to enable admission to the university and proof of academic and workplace readiness. The program seeks to work in close collaboration with local partners and implementing organizations to offer a comprehensive and holistic learning ecosystem that addresses the critical barriers refugees face when trying to pursue a degree.

### **Fostering economic development**

### GlobalResolve program (Ghana and Kenya)

GlobalResolve connects ASU students to local communities to design solutions that help relieve the effects of poverty in impoverished nations. Students can create business ventures from the solutions and aid in the sustainable economic development of underserved communities. Since 2006, GlobalResolve has expanded partnerships and projects in 13 countries across the continents of Asia, Africa, and North and South America. Projects include the development and installation of an ethanol gel fuel production plant in Ghana and a Maasai-owned auto repair facility with a training curriculum in Kenya.

### **Promoting sustainability**

### Household Water Insecurity (Ethiopia)

Researchers at ASU's Center for Global Health co-led the Household Water Insecurity Experiences Research Clinical Network, a consortium of 19 universities that have collaborated to develop the HWISE Scale, the first-ever tool to reliably compare household water access across diverse international settings. The HWISE network worked across 28 sites in 24 countries and more than 8,000 households to create,



implement and validate the tool's survey research questions. The HWISE Scale enables rapid access to actionable data for water insecurity-related development interventions and policy change. ASU researchers are using the tool to unravel the complicated relationships between food and water insecurity and health as well as to develop longitudinal studies in partnership with research institutions in Ethiopia. The HWISE network is currently partnering with USAID's Demographic and Health Surveys Program to implement the HWISE Scale so it can provide the first standardized picture of global water insecurity.

### Ngogo Chimpanzee Project (Uganda)

The Ngogo Chimpanzee Project, co-directed by ASU Professor Kevin Langergraber, is a long-term field project devoted to the scientific study and conservation of the Ngogo community of chimpanzees living in Kibale National Park, Uganda. Ngogo is the largest known chimpanzee community, and much of the research there has focused on explaining the ecological reasons for this unusual demographic situation and its influence on chimpanzee behavior. The project also employs a team of local Ugandans who work alongside local law enforcement officers of the Uganda Wildlife Authority to collect snares and curtail illegal hunting within the park. Additionally, the project uses available funds to grant scholarships for Ugandan graduate students to research Ngogo during their postgraduate training through Makerere University in Kampala. Langergraber also takes part in local conservation-focused events such as U.N.I.T.E. for the Environment and others organized by local NGOs.

### Advancing health innovation

### Adoption of HIV-related technology (Tanzania)

ASU staff and students work toward determining what barriers might prevent the adoption of HIV/AIDS prevention and treatment in Tanzania. The project involves meeting with various local stakeholders working in Northern Tanzania to assess priorities and willingness to adopt a new HIV viral load test. ASU also created a private Google map to dynamically plot the location of HIV clinics in the area. In partnership with nonprofit HEAL International, founded by ASU's School of Life Sciences faculty members, faculty and students travel to Tanzania to teach basic public health and HIV/AIDS prevention. ASU will continue to work with local medical professionals to gather information on patients' adherence to the newly introduced treatments.

### Burundi women's health study (Burundi)

In partnership with the Refugee Women's Health Clinic of Valleywise Health, this project advances knowledge about health issues faced by women survivors of war who are either internally displaced, affiliated with ex-combatants or repatriated returnees. The long-term goal of this health education initiative is to reduce health disparities through culturally and gender-specific health interventions sustainable in the urban and rural communities of Burundi. Using a community-based participatory research approach, the program focuses on several culturally sensitive dimensions of wellness (spiritual, mental and physical) important for health behavior.



### Needs assessment and efficacy trial (Kenya)

In partnership with the African Institute for Children Studies in Nairobi, Kenya, the Global Center for Applied Health Research and the Center for Child Well-being are facilitating community needs assessment and an efficacy trial of a prevention program. The project begins with a community needs assessment to identify and better understand substance use behaviors, attitudes, and resistance strategies among adolescents in Nairobi, Kenya. The goal of this project is to understand perspective of adolescents in Kenya to help inform a future effective and evidence-based prevention intervention for this age group. The second phase of the project, testing the efficacy of the school-based drug prevention program, will inform potential cultural adaptation of the program and will examine whether desired outcomes of the program are related to the social-emotional well-being of youth participants.

#### Medical care off the grid (Uganda)

Professor Nathan Johnson and his team of researchers will bring stable power, clean water and an increased capacity to deliver health care to the Ayilo II Refugee Settlement in the Adjumani district of northern Uganda. The settlement serves more than 12.000 South Sudanese refugees and administers care out of a cement block building and tented structures. The new structure designed by ASU researchers will come in the form of a 40-foot shipping container converted into a self-sustaining clinic. The rapidly deployable, turnkey, off-grid, solar-powered medical clinic is part of a \$2 million, four-part research project funded by the U.S. Office of Naval Research Defense University Research-to-Adoption program.

### Conserving and understanding history

### The Bioarchaeology of Nubia Expedition Project (Sudan)

The Bioarchaeology of Nubia Expedition project in Sudan and The Bioarchaeology of Abydos in Egypt are two research efforts headed by Brenda Baker, an associate professor in the School of Human Evolution and Social Change. Baker's research encompasses bioarchaeology, paleopathology, mortuary archaeology and human osteology, emphasizing the investigation of human skeletal remains within their archaeological contexts to reconstruct past lifeways and the health status of ancient people. Baker's research along the Nile River in northern Sudan documents sites as old as the Early Stone Age, through the Middle Stone Age and into the age of Christianity. Her study in Abydos, Egypt centers on the study of subsidiary graves around First Dynasty royal tombs and nearby funerary enclosures.

### Hominin Sites and Paleolakes Drilling Project (Ethiopia and Kenya)

The Hominin Sites and Paleolakes Drilling Project, funded in part by the National Science Foundation's Frontiers in Earth Systems Dynamics Award, is a multinational research effort led by the University of Arizona, ASU and 22 other institutions. The project aims to fundamentally transform the debate concerning how environmental dynamics at global, regional and local scales may have shaped hominin evolutionary history. The project has collected approximately 2,000 meters of lake sediments from key localities in Kenya and Ethiopia to vastly improve the understanding of the paleoenvironmental and paleoclimatic context of human evolution.

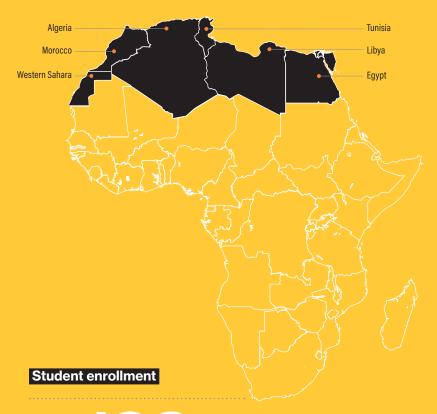


### **Advancing justice**

### Advancing transitional justice in Ukraine and South Sudan

The U.S. Department of State Office of Global Criminal Justice awarded Arizona State University a \$2.6 million grant - one of the largest ever issued by the office to implement a three-year project advancing transitional justice in Ukraine and South Sudan. It is led by former U.S. Ambassador Clint Williamson, distinguished professor of practice at the Sandra Day O'Connor College of Law at ASU and senior director for the International Rule of Law. Governance and Security program at the university's McCain Institute for International Leadership. The project positions ASU to engage directly in two of the most volatile crisis zones in the world, confronting issues that are at the heart of international peace and security. This ASU-led team of experts will work to build both countries' capacities to investigate, prosecute and adjudicate crimes and to establish crucial accountability for the conflicts.

## **Region North Africa**



# students from North Africa

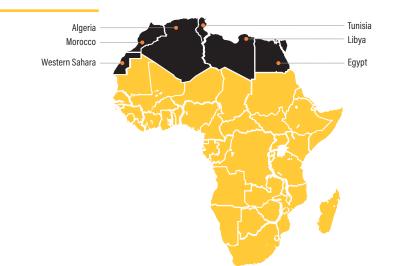
### enrolled at ASU in fall 2022

4.3 undergraduate students



graduate students

## Region North Africa



### Promoting scholarly exchange and collaboration

#### Historic roles of the Maghreb region

The Center for Maghrib Studies at ASU produces knowledge and understanding of the Maghreb region, which consists of North African countries west of Egypt. The center focuses on the historic roles of the Maghreb society over the centuries to increase understanding of and insight into this understudied and pivotal region. The center has a pedagogical mission to promote educational innovation, research and dialogue between the U.S. and the Maghreb region. Their goals are implemented through conferences, newsletters and collaborations with scholars and institutions of learning in the U.S. and North Africa.

### **Sustainability**

### Feed the Future of Egypt, Food Security and Agribusiness Support

ASU partnered in 2015–2020 with the Cultivating New Frontiers in Agriculture nonprofit organization to conduct cost benefit analyses, develop methodology and track on-farm net present value indicators for the Feed the Future of Egypt, Food Security and Agribusiness Support program. The program's goal was to increase incomes and improve food security for at least 14,000 Egyptian smallholder farmers across seven locales by 2020. The expected impact includes a 12% annualized increase in incomes and up to 50% of increased yields in selected crops, such as basil. ASU's project was initiated by Rajesh Buch, the director of sustainability practice with ASU's International Development.

## Region North Africa



### Center of Excellence for Energy – Egypt

Sayfe Kiaei, a professor of electrical engineering with the Ira A. Fulton Schools of Engineering, directs the Center of Excellence for Energy in Egypt. With funding from the U.S. Agency for International Development of more than \$22 million. ASU leads a collaboration with three Egyptian universities over five years. This center will work to strengthen the capacity of Egyptian higher education to deliver relevant applied research, produce graduates to meet the evolving needs of industry, and engage government stakeholders in dialogue to advance evidence-based policymaking for the energy sector. Kiaei expects as much as one quarter of the project funding will support 15 projects each year, targeting issues that Egyptian government authorities and energy utilities identify as most important.

### Preparing the next generation of leaders

#### Boosting critical sources of rare earths – Morocco

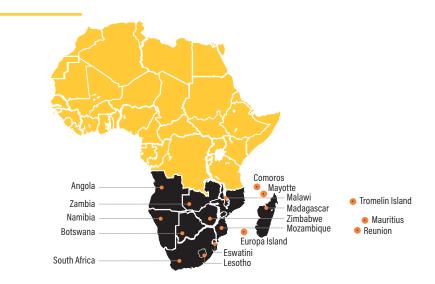
Morocco is home to 70% of the world's phosphate rock reserves, the source for phosphorus in fertilizers. That makes this North African country the global hub for food security, since all food crops require the element phosphorus to grow. Regents Professor Bruce Rittmann, a faculty member with the School of Sustainable Engineering and the Built Environment in the Ira A. Fulton Schools of Engineering and director of the **Biodesign Swette Center for Environmental** Technology at ASU, and assistant research professor Chen Zhou have undertaken a project funded by the OCP Group S. A., a phosphorus rock mining entity owned by the Moroccan government. Their project will pursue the recovery of sulfur and rare-earth metals from orthophosphate production. Rare earth metals are critical to high tech applications in industry. At present, China is the dominant supplier of rare earths. Recovery of rare earth from secondary sources, such as phosphorus mining, could provide new sources to support U.S. industry, impacting electronics and smart phones, wind turbines and electric vehicles, lasers and satellites.



### students from Southern Africa enrolled at ASU in fall 2022

16 undergraduate students





### Student exchange programs

### Ancestors, habitats and changing climates of South Africa

South Africa has much to offer about how humans from the present and the past are linked through their relationship to the environment. In this program, students conduct research for the Hominins and Habitats Project, visit ancient fossil localities and see the actual fossils. Cultural immersion activities include both exploring how migrations and colonization created strife, marginalization, and apartheid and, through an understanding of the life of Nelson Mandela, examining the struggles against the apartheid government.

### Sustainability challenges of the wildlife economy in South Africa

This unique program will immerse students in the social, cultural, environmental and economic challenges facing South Africa with its legacies of colonialism and apartheid, and the 1994 ratification of one of the world's most progressive constitutions. The program focuses on the social, cultural, environmental and economic conflicts and opportunities in and around Kruger National Park, associated with the government's wildlife economy policies, from both sustainability and conservation biology perspectives.

### Sustainability, wildlife and conservation in the Okavango Delta (Botswana)

This unique study abroad program is offered in cooperation with the PLuS Alliance, a consortium of ASU, University of New South Wales Sydney and King's College London. ASU students will be joining students and faculty from these leading global universities as well as from the University of Botswana. This is an interdisciplinary experience centered on water resource management that takes place in the Okavango Delta near Maun. Botswana. The delta is one of the last free-flowing river systems in the world and is designated as a UNESCO World Heritage site. The complex dynamics among social, economic and environmental issues provide students an unparalleled opportunity to study sustainability, community development, tourism and transboundary river management.



### Expanding access to education

### Global Sport Institute exchange (South Africa)

ASU's Global Sport Institute, established in 2018 to bring diverse disciplines together to examine critical issues impacting sport, partners with South Africa's Stellenbosch University. The institute works with Stellenbosch's Centre for Human Performance Sciences to exchange faculty and research staff, jointly develop research programs and projects, and explore opportunities for student exchanges, professional and academic events, and other areas of interest or collaboration.

### Strengthening Higher Education Access in Malawi

The Strengthening Higher Education Access in Malawi Activity is an ASU-led partnership with five Malawian universities, supported by a \$9.5 million grant from USAID and led by ASU's Associate Professor Samuel DiGangi. The effort aims to transform higher education in Malawi and promote local ownership through a radical collaboration model that ensures long-term sustainability and impact. The program improves postsecondary education access through technical assistance in the uptake of innovative technologies and mentoring in instructional design to improve the scale and impact of distance learning. The program prioritizes the needs of Malawi's most vulnerable students, including adolescent girls, young women and people with disabilities, and creates new employment pathways for students.

### Fostering economic development

### Financial literacy experiment (Mozambique)

In collaboration with the Mozambique Ministry of Agriculture and the World Bank, ASU seeks to determine whether consultants can help communities with their investment and savings goals. Through the study, ASU research faculty will implement a randomized control trial to examine whether a financial literacy program combined with follow-up consulting visits from Ernst and Young inclines communities to achieve successful matching grant applications.

### **Promoting sustainability**

### **ASU Environmental Humanities Initiative**

Directed by President's Professor Joni Adamson, the Environmental Humanities Initiative and the Institute for Humanities Research at ASU are collaborating with the University of Texas Humanities Institute in a grant awarded by the Consortium of Humanities Centers and Institutes. The grant. funded by the Andrew W. Mellon Foundation, was for the purpose of conducting a Global Humanities Institute in summer 2021 on climate justice and problems of scale. The institute will also advance the ongoing work of humanities faculty at the University of Pretoria and ASU, who are researching ways to increase food sovereignty and ensure climate justice in two distinct regions in the global south and global north. In South Africa, this work includes working around drought-resistant crops.



### Coastal City Adaptation Project (Mozambique)

Chemonics International, a global development company, tapped anthropologists from ASU's School of Human Evolution and Social Change to help with its five-year, USAID-funded effort called the Coastal City Adaptation Project. The ASU researchers were brought in to help find smarter, more cost-effective research methods that allow development professionals to track how communities are understanding and responding to projects in real time and provide opportunities for quick iterations. CCAP aims to help neighborhoods preserve nearby mangrove forests, which protect against erosion, and encourages the construction of climate-smart homes and latrines, built high off the ground to prevent typhoid and cholera spread after a flood.

### Okavango Delta river management (Botswana)

In 2018, students participated in an inaugural study abroad trip to a critically important ecosystem with some of the top experts in the world. Through a new immersive three-credit research course titled "Intersection of Water, Ecosystems and Governance," students traveled to the Okavango Delta in Botswana to study aquatic ecosystems, ecology, management and tourism. The course is a new project of the PLuS Alliance, a partnership between ASU, King's College London and the University of New South Wales Sydney in Australia. The experience will include students and professors from the University of Botswana.

### Reducing scarcity through irrigation monitoring (Mozambique)

In collaboration with the Mozambique Ministry of Agriculture, the World Bank, and Hydrosolutions, Assistant Professor Valerie Mueller in the School of Politics and Global Studies and other ASU researchers developed a two-year pilot study to understand water use practices and develop water conservation techniques for farmers. Researchers developed monitoring protocols to collect daily water measurements and identify where there was waste. This data is then used to inform farmers where they can apply relatively less water, benefiting those who face regular water shortages.

### Advancing health innovation

### Hearing for Humanity (Malawi)

Hearing for Humanity is an ASU program created to provide sustainable humanitarian audiologic and rehabilitative services in Malawi and clinical training abroad for undergraduate and graduate students in ASU's College of Health Sciences studying speech and hearing science. Since its inaugural trip in 2010, Hearing for Humanity has conducted annual one-month missions to Malawi, typically in June.

### Tuberculosis diagnostic test in children (South Africa)

The Eunice Kennedy Shriver National Institute of Child Health and Human Development awarded ASU researcher Tony Hu \$2.7 million to develop a new rapid tuberculosis test for children. Hu, an associate professor in the School for Biological and Health Systems Engineering and the Virginia G. Piper Center for Personalized Diagnostics at ASU, has



partnered with Stellenbosch University's Desmond Tutu Tuberculosis Centre in South Africa to test blood samples from infected patients. Currently, South Africa has one of the highest rates of tuberculosis in the world. The grant aims to validate and develop a quantitative model for active TB in which they could potentially test the effectiveness of treatment and blood at various time intervals throughout treatment.

### Conserving and understanding history

### Hydrogen Epoch of Reionization Array (South Africa)

As a part of a \$10 million grant from the National Science Foundation, ASU is participating in an international experiment by utilizing HERA, a radio dish array aimed at the southern sky near Carnarvon, South Africa, to explore the first billion years of the universe, a period when hydrogen gas collapsed and led to the ignition of stars and galaxies throughout the universe. The international collaboration is led by the University of California, Berkeley and other partners include Brown University; Massachusetts Institute of Technology; Square Kilometer Array (South Africa); University of California. Los Angeles: University of Cambridge; and the University of Pennsylvania. Other collaborators in South Africa include the University of KwaZulu-Natal in Durban, University of Western Cape in Cape Town and Rhodes University in Grahamstown.

### Drivers and consequences of climate-induced migration

in sub-Saharan Africa Funded by the National Institutes of Health, Professor Valerie Mueller's project examines the climate determinants of internal migration in eight African countries



and the socioeconomic implications of environmental migration in receiving areas. Mueller will look at migration and employment data from 23 censuses, as well as geospatial data on climate, night lights and vegetation, to quantify the socioeconomic consequences of climate refugees.

Mueller is an agricultural economist in the School of Politics and Global Studies at ASU. Her research broadly focuses on the drivers and consequences of internal migration, paying special attention to the role of climate change in these relationships. She is also involved in ongoing field experiments aimed at improving the delivery of rural services in Africa. Prior to ASU, Mueller spent a decade at the International Food Policy Research Institute working on policy-relevant research in several African and Asian countries.

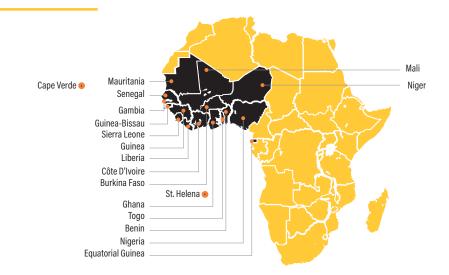


### Student enrollment

### students from West Africa enrolled at ASU in fall 2022

26 undergraduate students





#### Student exchange programs

#### Human trafficking (Ghana)

This hybrid course and internship offered by the New College of Interdisciplinary Arts and Sciences requires students to volunteer 60 hours during the semester at a local organization that works to prevent human and sex trafficking. Students also work directly with a Ghanaian NGO, Challenging Heights, to provide assistance to women and children who have been victims of sex and child labor abuses. This program offers opportunities for students to attain a skill set that will allow them to be advocates for such victims as well as prepare themselves for a world that needs to address this important work.

#### Politics, culture and society (Ghana)

This program combines three-week intensive classroom instructions by local professors and ASU faculty at the University of Ghana, Legon with four-week internships with local researchers and faculty or placement in government, private sector, NGO programs, depending on students' interests.

#### Sustainable energy in sub-Saharan Africa

The Crozier Research Group at ASU provides opportunities for students to visit sub-Saharan African countries to learn about the design and development of appropriate and sustainable energy technologies. This exchange program provides mutually beneficial opportunities to compare and contrast energy-related research in developing countries with research activity in the U.S. Students gain a unique and global perspective on energy issues and have opportunities to initiate and develop research initiatives. This activity is sponsored by a National Science Foundation-funded program entitled Research Collaboration Network: Sustainable Energy Systems.

### University Studies Abroad Consortium: Summer in Accra, Ghana

The University of Ghana at Legon is considered one of Africa's top universities. Students attending the university can study a wide range of subjects, including courses within its highly regarded Institute of African Studies. The USAC summer program allows



students to study in Accra for one or two summer sessions, during which time they can explore diverse cultural and historical sites and experience Ghanaian arts, dance and music through courses and local festivals.

### **Expanding access to education**

### ASU and Liberia partner to strengthen educational ties

In October 2016, ASU President Michael Crow and Liberian Vice President Joseph Bokai signed a memorandum of understanding to strengthen educational and political ties between ASU and the African nation, which is rebuilding its infrastructure and educational systems after a 14-year civil war and an Ebola outbreak in 2014. The MOU allows Liberian and ASU students to attend college in both countries as well as enables the exchange of faculty members interested in global development.

#### Pan-African Materials Institute (Nigeria)

The African University of Science and Technology Abuja is a Pan-African research university that hosts the Pan-African Materials Institute, an Africa Center of Excellence with a focus on materials science and engineering. The institute's goal is to use science and technology to add value to the abundant materials and mineral resources in Africa, yet it lacks the human capital to do so alone. With 17 partners, including ASU, the institute will engage in training and research on materials science engineering relevant to African development. The institute expects to graduate more than 50 doctoral candidates, 200 master's degree students and 1,000 people with 40 contact hours in hands-on skills that are convertible into products and services.

### SolarSPELL

#### (Comoros, South Sudan, Ethiopia)

SolarSPELL is a ruggedized, portable, solar-powered digital learning library. Making use of open educational resources and smaller, more efficient technology, SolarSPELL provides an all-in-one, self-powered plug-and-play kit, ready to be deployed with minimal training or maintenance required for start-up and continued operation. Designed and built by ASU faculty and students and led by Associate Professor Laura Hosman in the School for the Future of Innovation in Society at ASU, SolarSPELL provides relevant, localized educational content to assist Peace Corps volunteers and resource-constrained communities around the world. SolarSPELL has initiatives in southeast Asia, Rwanda, Uganda, Comoros, Ethiopia and South Sudan.

### **Fostering economic development**

### Center for Applied Research and Innovation in Supply Chain – Africa

With a \$15 million investment from U.S. Agency for International Development, ASU is embarking on a catalytic partnership with the Kwame Nkrumah University of Science and Technology and multiple public and private sector partners to establish the Center for Applied Research and Innovation in Supply Chain - Africa and advance research, translation and training in supply chain management. The CARISCA center at KNUST is envisioned as a globally recognized, locally owned hub for generating and translating innovative research into positive development outcomes for Ghana and Pan-African supply chains, driving self-reliance and increasing the impact of USAID investments. The CARISCA project



leverages ASU's world-class supply chain expertise and multidisciplinary experience in international research projects. Dale Rogers, ON Semiconductor Professor of Business in the Department of Supply Chain Management at ASU's W. P. Carey School of Business and director of the Frontier Economies Logistics Lab, is the principal investigator and executive director for the five-year project.

### DreamBuilder for women entrepreneurs

DreamBuilder, a Thunderbird for Good program for training women entrepreneurs, was chosen as the central curriculum for the Academy of Women Entrepreneurs in the U.S. Department of State's Bureau of Educational and Cultural Affairs global initiative. While this initiative will have a global reach, impacting 2,000 women in 26 countries, Africa is a focus for the inaugural cohort and will include women from Ghana, Kenya, Nigeria, Rwanda, Senegal, Tanzania, Uganda, Zambia and Zimbabwe.

### GlobalResolve program (Ghana and Kenya)

GlobalResolve connects ASU students to local communities to design solutions that help relieve impoverished nations. Students can create business ventures from the solutions and aid in the sustainable economic development of underserved communities. Since 2006, GlobalResolve has expanded partnerships and projects in 13 countries across the continents of Asia, Africa, and North and South America. Projects include the development and installation of an ethanol gel fuel production plants in Ghana and a Maasai-owned auto repair facility with a training curriculum in Kenya.

### **Promoting sustainability**

### **Global Locust Initiative**

Locusts and grasshoppers have a long history of coexisting with humans, but outbreaks and their management continue to have devastating impacts on human livelihood and the environment. The Global Locust Initiative is designed to help researchers, international agencies, government organizations, agribusinesses and farming communities address and mitigate the effects of locust plagues and outbreaks. The initiative, led by Arianne Cease, assistant professor in the School of Sustainability, combines lab science, fieldwork and data modeling to help reduce locust outbreaks and the effects of plaques. with the goal to improve the well-being of farm communities and global sustainability. This initiative and its partners work to fundamentally change the way the world addresses locust plagues - collaborating across borders to manage pests and improve communities. The initiative's current USAID project in Africa focuses in Senegal. Other projects are ongoing in Australia, China, Argentina, Bolivia and the United States.

### Improving the social and economic impact of energy investment (Sierra Leone)

The collaborative project initiated in Sierra Leone by Clark Miller, a professor in the School for the Future of Innovation in Society, investigates strategies to enhance the social value of energy and incorporate translation of energy use in energy planning. This helps Sierra Leone's energy sector pursue projects that promote sustainable development and thriving communities.



### Resource Innovation and Solutions Network Nigeria

In 2014, Nigerian leaders turned to ASU and the city of Phoenix's Resource Innovation and Solutions Network to improve Lagos' sanitation infrastructure by establishing RISN Nigeria, the first international hub of the network. The program accelerates the transition to a circular economy through a global network of public, private and NGO partners. RISN Nigeria is housed in the Sustainability School in Lagos, harnessing the knowledge of local and global academics, practitioners, consultants and students who will help inform Lagos' waste solutions.

### **Advancing health innovation**

#### International Fellows Program and Adolescent Substance Use Prevention (Kenya, Nigeria, South Africa)

A drug prevention program based on scientific data and respect for local cultures that has been created and tested by the Global Center for Applied Health Research.

### Medical care off the grid (Uganda)

Professor Nathan Johnson and his team of researchers will bring stable power, clean water and an increased capacity to deliver health care to the Ayilo II Refugee Settlement in the Adjumani district of northern Uganda. The settlement serves more than 12,000 South Sudanese refugees and administers care out of a cement block building and tented structures. The new structure designed by ASU researchers will come in the form of a 40-foot shipping container converted into a self-sustaining clinic. The rapidly deployable turnkey, off-grid, solar-powered medical clinic is part of a \$2 million, four-part research project funded by the U.S. Office of Naval Research Defense University Research-to-Adoption program.

### ShipShape (Ghana)

A USAID-funded project to develop a mobile education game to teach the basic skills of the supply chain to health care workers in emerging markets, ShipShape empowers health care workers to make more effective decisions to improve health supply chains. ASU is partnering with Kwame Nkrumah University of Science and Technology in Ghana to develop the app for initial release in Ghana, with plans to expand to Nigeria, Kenya and other developing countries in the future.

### Preparing the next generation of leaders

#### Mastercard Foundation Scholars Program e-Learning Initiative (Benin, Ghana)

Arizona State University and USIU-Africa are working with the Mastercard Foundation to support learning institutions in the Scholars Program. This global network develops capabilities and resilience to deliver high quality and inclusive e-learning to enable all students, including those who face additional barriers, to successfully pursue their studies from anywhere. With support from this dynamic partnership, participating institutions are building capacity to accelerate, adopt and sustain e-learning. The initiative seeks to change policy, develop practices and build resources that create favorable conditions for scalable, sustainable online education. The mindset shift toward online learning will become increasingly positive through strengthening supportive infrastructure at the institutional level. Partner institutions in West Africa are based in Benin and Ghana.



### Advocating for conflict resolution

### McCain Institute for International Leadership

The McCain Institute for International Leadership, a Washington, D.C.-based action tank, is dedicated to advancing human rights, dignity, democracy and freedom in the U.S. and around the world, with a focus on Eurasia, sub-Saharan Africa and East Asia. Through the institute's human rights and democracy programs, it seeks to build public-private partnerships that enhance common understanding of human rights challenges and common responsibilities in addressing them. The human rights defenders program launched in 2017 provides transition assistance to human rights activists who were forced to flee war, civil unrest and instability in their homelands. The program has supported 14 defenders from Ethiopia, South Sudan, and other countries in Asia, South America and the Middle East. The Human Rights and Democracy Working Group is a nonpartisan initiative that brings together experts and practitioners to promote democracy within U.S. foreign policy. In addition to the Human Rights and Democracy Working Group, the McCain Institute has organized working groups on Russia, the Democratic Republic of the Congo and Azerbaijan.

### Saharan Dust AERosols and Ocean Science Expeditions (Senegal, Mali)



#### Vernon Morris

Director, School of Mathematical and Natural Sciences New College of Interdisciplinary Arts and Sciences

New to ASU. Professor Vernon Morris has led 11 transatlantic research cruises that study the influence of dust emitted from the Saharan Desert on the global atmosphere. Morris' research focuses on the chemical evolution of atmospheric particulate in the lower troposphere and its implications to aerobiology. climate and cloud processes. He currently collaborates with colleagues in Senegal, with future studies planned to examine air quality and aerobiological studies in megacities that also experience heavy dust. In addition to his efforts with universities in West Africa, he's headed a project in Northern Ethiopia that examines the relationship between climate and public health in open air hospitals in the Gondar and Gojjam Zones of the Amhara Region. In these zones, the disruption of the East African monsoon has led to increased erosion, soil mobilization and transcontinental dust transport all of which increase the airborne pathogen load and complicate treatment and care at open air facilities. In 2021, he hosted a workshop on African megacities that focused on Addis Ababa as a pilot case. Morris is an internationally recognized scholar in atmospheric sciences and physical chemistry and champion in the promotion of broadened participation, equitable access and inclusion, and diversity in STEM fields.



### #1 in the U.S. and **#2** in the world for global impact