Navigating the challenge together

STRESS TESTING OUR GLOBAL FUTURES
Vulnerability in a connected world

RESEARCH INNOVATION
Testing, vaccine research and more — highlights of ASU’s response to the virus

A RETURN TO HER PEOPLE
A Sun Devil braves the COVID-19 front lines in Navajo territory

Spring Commencement 2020
Watch the video

ASU Alma Mater Song performed by the Devil Clefs
Watch the video

Inside the Luminosity Lab work to make PPE
Watch the video
Five years ago, Starbucks announced the Starbucks College Achievement Plan — a groundbreaking new effort to help partners attain a first-time bachelor’s degree through Arizona State University’s online program. Today, more than 14,000 partners are participating and nearly 4,500 have graduated from the college plan with 100% tuition coverage. See how Starbucks changes lives at starbucks.com/college.

I remember when it was unveiled. I felt like this was — for the first time — this was my moment.

Jaime Casap

As a 2018 graduate of the Starbucks College Achievement Plan, Julissa McWashington earned her degree from ASU in organizational leadership and works for Starbucks on the Law Enforcement Strategy and Outreach team. She is a board member at Wellspring Family Services for low-income families and an after-school program called After-School All Stars. Her oldest daughter, 18, has completed her freshman year in college.

Contributors

Carole G. Basile
The dean of ASU’s Mary Lou Fulton Teachers College, she is partnering with Arizona schools and other organizations to develop the Next Education Workforce.

May Busch
The former CEO of Morgan Stanley Europe, she is now an executive coach, speaker, advisor, author and executive in residence in ASU’s Office of the President.

Jaimie Casap
93 MPA in public administration, he is the chief education officer at Google.

Craig Guillot
A business journalist, his work has appeared in The Wall Street Journal, Forbes, Chief Executive magazine and Entrepreneur.

Colleen Jennings-Rogge
The executive director of ASU Gammage and ASU vice president for Cultural Affairs, she has been presenting the performing arts for 35 years. Previously she served on the National Council on the Arts.

Alberto Ríos
The first poet laureate of Arizona, he has taught at ASU since 1982. "Not Go Away My Name" was recently published by Copper Canyon Press.

Peter Schlosser
The vice president and chief protovest of the Global Futures Laboratory at ASU, he leads the university’s efforts to apply user-inspired research to ensure a future in which well-being is attainable for all humankind.

Be prepared to innovate

We are up and running. In response to the virus outbreak, we transitioned immediately and completely to a digital presentation format, ASU Sync, meaning synchronous interaction. The entire university with students from all 50 states and more than 100 countries, our digital preparatory academy, ASU Prep Digital and our 11 charter schools didn’t miss a single day of school.

What we are seeing, contrary to a lot of other places, is significant positive learning outcomes. We’re seeing new ways of teaching and learning. As we navigate this, we’re actually a better, stronger, more adaptable, more innovative and more technologically empowered institution.

We now have three modalities in which we create teaching and learning environments in: full-immersion, on-campus technology enhanced learning; synchronous immersion technology enhanced learning; and asynchronous, or online. Learn more about what these modalities offer on page 33.

In addition, we have thousands of research groups, including students, approaching 40,000 people. We have more than 100 core scientists, staff and students working on nothing but COVID-19. They are engaged in new ways of testing, understanding antibodies, genetic mapping, and analytically deriving ways in which we can defeat this thing.

We have one group focused on a paper-based test that allows you to determine the genetic presence of the coronavirus in its present form. We designed and set up a robotic, high-speed test that we’re using for first responders and we have more solutions in our research pipelines now.

We are fully engaged, fully locked on target. Our target is to continue the services we deliver, education through teaching and learning, discovery and problem-solving through research. We are doing everything we can to prepare for the future that lies ahead of us.

What we are seeing, contrary to a lot of other places, is significant positive learning outcomes. We’re seeing new ways of teaching and learning. As we navigate this, we’re actually a better, stronger, more adaptable, more innovative and more technologically empowered institution.

My message to all of us is to be prepared — to enhance your learning, your innovation capability, your voice with new ideas and new ways of getting things done.

Whatever the future is, we are engaged and we are on it.

Michael M. Crow
President, Arizona State University
asuthrive@asu.edu
Go

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Populate your agenda with upcoming event highlights from ASU, including summer camps, career workshops and lifelong learning as part of ASU for You. 4

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“Will we adapt and overcome”
Grads discuss their transformative time at ASU. 34

Digital extras and the latest updates
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Reflect

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A Sun Devil braves the COVID-19 front lines in Navajo territory. 36

Celebrating health care workers and first responders by painting “A” Mountain blue.

From basketball point guard to medical doctor, Michelle Tom has shown great strength in multiple arenas.

Check out “You Asked” host and recent grad Ben Ashby’s videos about connecting with professors and resilience during the pandemic.

ASU Charter
ASU is a comprehensive public research university that includes colleges, schools, research centers, enterprises and academic programs located on the Tempe campus and the Phoenix campus at the ASU West campus located in Phoenix.

reflect
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**June**

**Summer camps for K–12 learners**

Many camps have moved online. Scholarships are available for many and some are offering special discount pricing.

**Art, theater, leadership development and more**

This summer, ASU will offer virtual camp experiences designed to spark innovation and creativity. Here’s a sampler:

- **Japanese Illustration in 3D** Campers 13–18 will create traditional Japanese paintings on lanterns and ceramics, plus explore the laser cutter to create a unique canvas for the legendary Yokai, supernatural creatures of Japanese folklore.
- **Acting for the Camera** Students in grades 10–12 will learn acting basics and practice their craft in front of the camera.
- **Logic and Leadership Virtual Academy** Students in grades 7–12 will learn computer concepts and create productive summer habits.

**Fulton Summer Academy**

Calling all coders, builders and makers. This summer, treat your young Sun Devil to a whole new level of fun and learning at ASU’s Fulton Summer Academy. Students in grades 1–12 will experience instructor-led engineering design challenges and activities. The virtual experiences will have many of the same elements and activities as in-person camps, but the new virtual platform allows for expanded offerings and flexibility for participants. Students will work on engineering challenges and will work independently and in groups on projects. Optional evening programming is included in some of the camps and will offer virtual games and team-building activities.

**Sun Devils at Home: workouts, updates and more**

Get updates on Sun Devil Athletics, at-home workouts and athletics images for your video background.

**Vibrant offerings for learners over 50**

This summer, stay cool while discovering new interests, new opportunities and new friends through the Dilerth Lifelong Learning Institute at ASU. By participating in fun, high-quality classes, you can make this summer one to remember. Boost your art savvy in “The Prado Museum of Art,” deepen your science know-how in “What is Nanotechnology and How is it Used?” and learn fascinating details about cooking in “Bombohellas, Splatterdabs, and Slumgullion: A History of 19th Century Food in the American West” – and much more! There are no tests, grades or educational requirements, just the fun of learning!

Through June 30

**ASU Gammage updates**

Tickets are available for the 2020–21 season and show updates are being posted online.

**ASU Gammage Digital Connections: QVNL (Q-Violin) performance**

Singer, violinist and composer QVLN plays with an intense understanding of North, Central and South American rhythms, navigating all forms of musical expression with the electric violin. Watch this and other digital experiences at facebook.com/ASUGammageFan/live

**Saturday Storytime**

Tune in on Saturdays to Instagram @asuartmuseum to hear one of the museum ambassadors read a story. Every Saturday, including July 4, 1 p.m.

**Upcoming ASU Gammage shows include “Hamilton,” “Frozen,” “To Kill a Mockingbird,” “Oklahoma!,” “Mean Girls” and more.**

Check in to online events to earn Pitchforks and rewards! Log in to the Sun Devil Rewards app for ASU event listings, news, games and more. Earn and be rewarded!

**ASU Thrive Magazine**

4 SUMMER 2020

DRKA GRONEK/ASU

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For additional programs, see asugammage.com/digitalconnections

**July**

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**ASU Thrive Magazine**
We are here for you

In a period of economic uncertainty and shifting job markets, lifelong access to support and learning can help in navigating the transitions ahead. ASU offers alumni access to career resources for life and has launched new and expanded resources for lifelong learning through ASU for You and a comprehensive Summer School 2020 program for learners at all levels. There are waived fees, a streamlined application process and financial aid for Arizona residents.

Career

Job and internship search strategies
Through LinkedIn and Handshake platforms, we will show you how to make the most of your search. All students and alumni are invited to attend. Monday, July 13, noon–12:45 p.m.

Crafting your application: CV to resume
Should you use a resume or curriculum vitae (CV)? What are the differences between the two? Discuss best practices for landing the job. Tuesday, July 14, 10 a.m.–10:45 a.m.

Interview strategies
Learn more about what to expect in an interview, strategies to answering questions and best practices for follow-up. Wednesday, July 15, 10–10:45 a.m.

Summer session
There’s still time for current students and those visiting from other universities to enroll in Session B and earn credits this summer. Classes start July 1.

$500 summer 2020 award
Admitted ASU students who wish to get started right now on their university education will receive a $500 award for every three credit hours enrolled. summer2020.asu.edu

ASU Prep Digital
An accredited, full-time, online high school, ASU Prep Digital’s open-access resources are useful for all K–12 students.
  • Opportunities for high school sophomores and juniors to earn college credit now.
  • An accelerated path toward college admission.
  • Online courses and training videos for parents or teachers still teaching from home. asuprepdigital.org

Open Scale courses
General studies courses open to anyone, with the option to convert them to university credit if they later choose. Discounted from $400 to $99 now through Aug. 25.

Career services for life
All ASU alumni have lifetime access to ASU career fairs, webinars, networking and other career development events. ASU is here to help you chart your career path.

Events for budding and established entrepreneurs
From coffee meetups online to conferences to competitions, whether you are a small business owner or simply curious about entrepreneurship, ASU has many ways you can grow your network and get plugged in; many now in virtual format. entrepreneur.asu.edu/events

ASU for You: professional development
Enrich your life with programs and professional development courses created for those already in the workforce or navigating a career change.

Courses include:
  • ASU and Mayo Clinic Health and Well-Being Certificate
  • ASU Startup School, Stage 1
  • Course in leadership and interdisciplinary studies: The Role of Business

We’re all adjusting to a new normal, and educators who teach online face unique challenges. We’ve gathered learning tools, many provided at no cost, to keep students engaged while you’re teaching from home.

For parents:
ASU for You: K–12
For teachers:
ASU for You: educators
ASU for You: professional development
Community

ASU Prep Digital
An accredited, full-time, online high school, ASU Prep Digital’s open-access resources are useful for all K–12 students.
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What is Time?

Ponder with this playlist

Having trouble remembering what day it is? Us too!
ASU Art Museum Director Miki Garcia put together a Spotify playlist, crossing genres and exploring time. Enjoy!

Click here to listen on Spotify.

Unstoppable: Webinar with Anthony Robles

In these uncertain times, we all need a little motivation to get through the day. NCAA wrestling champion, ESPN sports commentator, author, motivational speaker and ASU alumni Anthony Robles shares his strategies for overcoming life’s obstacles and staying fit.

Watch the webinar.

Collaborative playlists for comfort and peace

What song brings you comfort and peace? Check out ASU School of Music Presents: Our Tunes, one of several playlists featuring songs that students, faculty and staff in the school curated in response to the COVID-19 pandemic.

Click here to listen on Spotify.

_Article continued from page 39_

**Powwows move online to keep indigenous communities together**

Some Native Americans have found a way to safely host traditional powwows by moving them online. A new Facebook group called Social Distance Powwow is bringing virtual powwows to life.

Visit Cronkite News to learn more.

**Summer online concert series**

The ASU summer concert series “Live from ASU” was conceived as a way to engage with students and the ASU community during the COVID-19 pandemic. Each concert will be an opportunity to reinforce ASU’s commitment to students as well as provide an interactive shared experience with artists.

See the summer concert series schedule at asuforyou.asu.edu/asu-live.

Free Family Online

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Free Family Online

**Coloring book to help manage pandemic anxiety**

To help children make sense of the novel coronavirus and its implications, Watts College of Public Service and Community Solutions Professor Paige Salyer and collaborators created the story coloring book “Georgie & the Giant Germ.” It is available in English, Spanish, French, German, Hebrew and Arabic.

Click here to download the coloring book.

Free Family Online
Never let a crisis go to waste
3 steps to emerge stronger.

COPING WITH UNCERTAINTY

Go after your objectives now

We don’t know how long this is going to last. It could be two weeks, six months, or even 18 months. And what you need to do is get yourself out of the waiting game. Many people are just sitting there waiting and spending the day watching the news and panicking — and waiting for life to become normal again. And what we need to recognize is that it’s probably not going to happen for a while, so you need to find creative ways to pursue the things you’re passionate about.

Make sure you’re putting together your to-do list and using this as an opportunity to focus on things that you’ve been wanting to learn and things that you’ve been wanting to do for some time.

Read more at this link.

See more of how Jaime is managing through global change on his YouTube channel at youtube.com/jaimecasap.

Jaime Casap, ’93 MPA in public administration, is the chief education evangelist at Google. He evangelizes the potential of digitalization as an enabling capability in pursuit of promoting inquiry-based learning models. He collaborates with school systems, educational organizations and leaders focused on building innovation into our education policies and practices.

“You can’t just sit there and wait. Use this opportunity to focus on things that you’ve been wanting to work on for a long time. You still need to be you and find ways to do the things that you’re passionate about.”

— JAIME CASAP

“Advance your career”
Never let a crisis go to waste

How are you doing these days? Some people are on what one of my clients calls “the struggle bus.” Others are relatively unscathed. But we’re all feeling the effects somehow.

While it may feel like things could drag on indefinitely, and there’s unlikely to be a clearly marked “all clear” signal, the current situation will not go on exactly as is forever.

Whatever way this COVID-19 situation is affecting you and the ones you love, as the saying goes: “This too shall pass.”

So, what’s the best way to weather the proverbial storm? Never let a crisis go to waste.

“The most important question you can ask yourself right now is this: ‘How do I want to emerge from this better and stronger?’”

As a junior associate experiencing my first financial crisis, I remember one of our senior managers saying, “Never let a crisis go to waste.”

It was his way of reminding us to get out of our narrow view of the world and look at the bigger picture — to see beyond the immediate panic in order to identify future opportunities and make the changes needed to take advantage of them.

The key is to make the right kind of changes. And that requires some clear thinking on your part.

1. The single most important question to ask yourself.

The most important question you can ask yourself right now is this: “How do I want to emerge from this better and stronger?”

2. Let your vision for “better” drive your actions.

It might be becoming stronger physically and mentally, developing a new skill that will land you a higher paying job, or finally beginning that personal project that you’ve set aside for years, waiting for when you have more time.

There’s no single right answer.

Just what “better” looks, feels and sounds like for you.

3. Get career counseling resources at alumni.asu.edu/services

What enduring habits, qualities and attitudes do you want to emerge with?

Don’t wish this time away. Even in moments of struggle, remember that time is precious. Once it’s gone, it’s gone. And your sense of time depends on how you frame it.

Make productive use of this time. Spend some time thinking about how you want to emerge from this crisis better. Then, start taking steps toward creating your better future.

This is your time. How do you want to emerge from this time better and stronger? 

3 steps to emerge from this crisis better and stronger

Story by MAY BUSCH

May Busch
The former COO of Morgan Stanley Europe is now an executive coach, speaker, advisor, author and executive in residence in ASU’s Office of the President. Watch May Busch’s video at youtube.com/ASU.
HONORING HEROES
In April, Tempe Police Detective Greg Bacon and other volunteers rolled out paint as ASU and the city of Tempe celebrated health care workers and first responders by painting “A” Mountain blue.

“Pandemics of this scale were only mentioned in our nursing school books. We are now living one that will forever be written in nursing books for years to come. We will help our community return to health and will help fight this war. We will win.”

- JENNIFER ROQUE, ’17 BS IN NURSING, RN, SENIOR CLINICAL MANAGER LEADING A TEAM OF ABOUT 40 NURSES, CNAs, AND MONITOR TECHS ON THE NIGHT SHIFT

To learn more about ASU’s Health Heroes, see alumni.asu.edu/healthheroes

COVID-19: stress testing our global futures
Vulnerability in a connected world.

Research highlights
How ASU is responding to the pandemic.

Forecasting
Arizona’s economy

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CHARLIE LEIGHT/ASU NOW

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COVID-19 must be seen as the largest shock that has hit global society since World War II, spreading disease resulting in an accelerating loss of lives and societal and economic disruptions of staggering proportions. This global pandemic brings into stark relief the increasingly complex, interconnected and vulnerable systems that define the modern world. The world’s population was patently unprepared for COVID-19. We knew from previous pandemics that it was only a matter of time before we would be hit by another. Although the exact time and location of these events remain unpredictable, science had suggested how to prepare for such a shock.

COVID-19 hit global society like an earthquake, and like an earthquake, we can expect it to happen again, but cannot predict when. This places extreme hardship on most people on our planet because there is little time to respond with potential for significant loss of human life. Here, we focus on the connection of this crisis to another that is steadily building, although more slowly and on longer time scales: How will a globally interconnected society design, shape and manage its future, in light of all the challenges related to human-induced perturbations of the Earth system?

Possible trajectories of global futures will depend crucially on how the globally interconnected Earth system, including the human domain, can withstand and respond to: (a) known and ongoing changes that frequently occur on long time scales, and (b) shocks that can be anticipated in principle, but whose timing and impacts cannot be predicted. An example of the former are unfolding changes in the climate system and their consequences, including...
mortality, biodiversity loss, sea level rise, etc. COVID-19 falls into the latter category. This raises the fundamental question: What do we know about the basic dynamics of the globally interconnected Earth system and its resilience to shocks?

**The ultimate stress test**

If one was asked to design a stress test to evaluate the current capacity of the Earth system to respond to shocks, the current pandemic could be viewed as the ultimate design. Although such stress tests are not perfect, they offer valuable information on the state of a system, and can guide the enhancement of its resilience to perturbations and/or shocks.

A virus, such as the one that spawned COVID-19, hits at the heart of all human interactions including social contact and behavior. A new virus, with no known treatments or vaccines plus the additional challenge of a very long incubation time, means that the traditional functions of health care systems — treating illness and making vaccinations available to the population for prevention — do not work. This situation then tests if other societal structures and actions can substitute for the absence of the primary measures that should have buffered the impact of a particular shock, such as COVID-19. Our health systems find themselves in a position of earlier centuries: merely able to care for the sick and isolate the rest of the population. So-called social distancing is the modern equivalent of closed medieval city walls.

Shutdown of all but essential business has caused mass unemployment. Projections are that the economy could shrink by 20% to 30% or more. The size of the needed financial rescue packages grows by the day and will soon surpass state annual budgets or even their annual GDP. Supply chains are disrupted or approach disarray. Anxiety levels are skyrocketing with a real danger of elevated levels of domestic violence and child abuse. It may be only a matter of time until social unrest challenges the power structures struggling to contain the pandemic. These impacts of the pandemic, which rapidly affect the functioning of virtually all parts of the Earth system, raise the central question: Why are our societies not better prepared to respond to such shocks?

**Human preparedness and response to shocks**

Viruses do not discriminate based on rich or poor, but people who have greater access to financial resources and/or are part of societies with a developed social safety net are better equipped to respond to disruptions such as COVID-19. Many families depend on the income of low-wage laborers whose jobs require them to show up. As a double impact, those jobs put them at the greatest risk of contracting a virus; not only do their jobs lack a work-from-home option, they require human contact. These families are the least likely to afford alternative child care options or medical care to allow them to tend to a sick family member. In the U.S., paid sick leave is available very unevenly, and among those who have health insurance, many have prohibitively high deductibles that influence decisions to seek testing or treatment. Historically, pandemics have caused widespread change across social, economic, political and cultural spheres. The pandemics across the Americas that were brought on by European settlers bolstered the colonizers’ conquest of land and peoples. The Black Death of the 14th century killed between 75 to 200 million people across Europe and Asia, including approximately 30% to 60% of Europe’s population. It had traveled along the Silk Road, thus highlighting the early modern connection between economic and social networks. The loss of life destabilized feudalism, saw rising wages in response to labor shortages and led to reformation as a result of vacant land. Similarly, the consequences for global supply chains and the financial systems have repeatedly been modeled. Why does humankind once again find itself unprepared, ignoring necessary actions to mitigate known problems and bolster response systems?

This current global pandemic resembles climate change. But, unlike the consequences of climate change that will play out most dramatically in a few decades, the systemic shocks we are experiencing offer the chance to rebuild and redesign the system. The question is: Can we get it right? Can we design systems with the necessary adaptive capacity that decrease the likelihood of pandemics and allow us to react more swiftly and effectively in cases of unpredictable outbreaks?

**Underlying complexity**

Understanding if societies are prepared for shocks such as the one COVID–19 presents requires knowledge of the system-level properties that govern these interconnected systems. What matters most are the varied consequences of positive and negative feedback relations in complex systems. Negative feedback exerts regulatory control by keeping systems within certain bounds, while positive feedback allows systems to grow and exploit opportunities. But negative feedback can also lead to stagnation and intransigence.
while positive feedback can initiate uncontrolled, runaway effects. Both are clearly important in all complex systems, and those systems that find the right balance are the ones that thrive.

Over the last centuries, most globally interconnected systems have emphasized positive feedback mechanisms by prioritizing innovation cascades. This has led to the ever-accelerating dynamics of globalization and the Anthropocene. Consequently, this resulted in large numbers of unintended consequences. As certain societies came to value these advances, many nations removed or weakened the negative feedback loops and regulatory functions that kept the dynamics of global society in balance. This created the current deregulated system of our globalized economy and supply chains, fueled by a huge and more deregulated financial system.

The response to this pandemic is an attempt to set up regulatory controls and negative feedback mechanisms at different scales. Mostly, this means setting up boundaries such as isolation and quarantine measures at local, regional and national levels in the hope that people follow the regulations. We now confront the ripple effects at local, regional and national levels, existential threats to key aspects of social and economic life are growing exponentially. Among them: rising unemployment, a drop in demand and dramatic drops in economic activities, lack of child care and missing school meals, existential threats to key industries such as airlines, not to speak of the effects of increasing social isolation. A scenario where these measures would have to be in place for more than a year — the most optimistic estimate for the availability of a vaccine — seems unimaginable. This may play out more severely in places with weak health care systems, such as in less-developed countries. With no global governance and a delayed and ineffectual response in several important nations, we remain stuck without plans for an exit strategy.

What does the COVID-19 stress test show so far?

If we treat this pandemic as a stress test and observe and rank current responses, we see mostly failure. Failure at the highest levels to prepare for such an outbreak, despite scientific models and lessons from history. Failure to rethink human relationships to wild and domesticated animals. Failure in the nature, timing and scale of the response. Failure to anticipate, and therefore prepare, for the vast array of consequences that such a disruption causes across the tightly interconnected elements of the ‘Earth system. And finally, failure to prepare long-term scenarios that could mitigate the most harmful consequences of immediate actions.

Now that governments are responding with drastic measures to slow the rate of new cases in order to give overwhelmed health care systems a fighting chance, the ripple effects throughout all aspects of social and economic life are growing exponentially. Among them: rising unemployment, a drop in demand and dramatic drops in economic activities, lack of child care and missing school meals, existential threats to key industries such as airlines, not to speak of the effects of increasing social isolation. A scenario where these measures would have to be in place for more than a year — the most optimistic estimate for the availability of a vaccine — seems unimaginable. This may play out more severely in places with weak health care systems, such as in less-developed countries. With no global governance and a delayed and ineffectual response in several important nations, we remain stuck without plans for an exit strategy.

Opportunities for optimal future responses

In order to be effective, the suppression and mitigation measures will have to be highly coordinated across the whole spectrum, from local to global. This includes fully transparent information flows and data sharing, the strategic deployments of resources, planned coordinated interventions to support economic activities and triage at all scales. The whole set of responses will have to be guided by strong institutions devoted to shared values and guided by common principles. The fact that nations have radically different political and economic systems — that the world has become more polarized and more inequality makes coordination more difficult, and also more necessary.

Virtues are transboundary problems, and thus are an expression of our global interconnectivity. This could be an opportunity to overcome anachronistic nationalistic behavior in favor of global solidarity, inviting transparency and a shared sense of humanity.

As a species, we have chosen economic globalization again and again in varying forms for thousands of years, from the days of the Silk Road and colonial trading networks to today’s teleconnected planet. Presently, our system of global interactions is designed primarily to reap the benefits of global trade but retreats into a nationalistic frame in times of crisis. Perhaps we are at a crossroads that highlights that economic benefits cannot be separated from social responsibilities.

Even the initial responses to COVID-19 suggest that all societies may be willing to respond in ways that have not been seen outside of wartime. But what of coming threats to global futures for all of humanity? Are we willing to confront these with the same sense of urgency, even though the main consequences will be in the future and might not directly affect the majority of those currently making decisions? The answer from the global community, indeed from each of us, will determine whether we only recognize the present crisis is an opportunity to design long-term strategies that ensure the healthy, interconnected survival of the human species and our planet.
PPE Response Network

Luminosity Lab’s PPE Response Network links university and community resources, such as 3D printers and disposable face shields, to health care providers in need. It also helps contributors print, sterilize and deliver personal protective equipment (PPE) to those on the front lines of the COVID-19 response.

New digital teaching tools quickly launch and train thousands of nurses for ICU

Experts at EdPlus, ASU’s digital teaching and learning unit, and the Edison College of Nursing and Health Innovation joined forces with Sana Labs to create a program to cross-train nurses for critical care. New York City’s Mount Sinai Hospital had an immediate need, so the fast-track program rolled out to 35 NYC nurses — and is now available to thousands more.

Computer model clearinghouse

ASU ramped up COVID-19 modeling efforts on the Research Network for Computational Modeling in Social and Ecological Sciences (CoMSES Net), an international clearinghouse administered by ASU.

100+ core scientists, staff and students organized by ASU to work on COVID-19 near-term and long-term solutions

‘Let’s go save some lives!’

—Joshua LaBaer, Director of ASU’s Biodesign Institute, in daily meetings with teams

Ultraviolet BBQ to sanitize PPE

ASU researchers created a device that delivers the perfect dosage of UVC light to kill the coronavirus in 5 to 10 minutes in order to sanitize PPE, such as N95 masks. Being able to reuse masks is critical, as Arizona hospitals are going through 5,000 to 6,000 a week.

Entrepreneurship program responds to COVID-19

A week after the first U.S. case of the new coronavirus was confirmed, Biodesign Institute and School of Life Sciences researchers Brenda Hogue, Bert Jacobs and Qiang “Shawn” Chen began work on a coronavirus vaccine. Hogue has been working for nearly 40 years to find answers that will help solve the mysteries of coronaviruses. Today, she is considered one of the world’s experts in understanding the structure and behavior of coronavirus proteins.

Vaccine race

A week after the first U.S. case of the new coronavirus was confirmed, Biodesign Institute and School of Life Sciences researchers Brenda Hogue, Bert Jacobs and Qiang “Shawn” Chen began work on a coronavirus vaccine.

Help stamp out COVID-19

Individual donors have continued to support making a vaccine a reality. Donations may be made at asufoundation.org.
How do viruses work? Are they alive? How can they be destroyed? Why do vaccines take a long time to make?

Since the coronavirus pandemic began changing aspects of American life this spring, questions like these have been filling the inbox of one of ASU’s most popular scientific resources: the Ask A Biologist website for faculty, students and learners of all ages. The site contains thousands of pages of biology based games, coloring pages, puzzles, articles and more, with the goal of sharing ASU’s scientific knowledge with the world.

Read answers from scientists or ask your own question at askabiologist.asu.edu/questions/are-viruses-alive.

Technology engineered at ASU 50 years ago helps battle COVID-19

Researchers contributed to the development of medical technology, called extracorporeal membrane oxygenation, or ECMO, that is now helping patients recover from COVID-19. It enables temporary replacement of heart and lung function by pumping blood outside a patient’s body, oxygenating the blood and removing carbon dioxide waste, and then returning it to the patient’s body. ECMO is also used in heart and lung transplantation. “ECMO has had increasingly broad utility not imagined 50 years ago,” says Vincent Pizziconi, the founder and director of the Bioengineering Design Studio in the Ira A. Fulton Schools of Engineering at ASU.

Researcher creates home lab to help PPE safety

“I connected with a very talented student team at Luminosity Labs who also had an interest in using ozone to sterilize medical and personal items and had a beautiful low-cost ozone generator designed and built. I helped them characterize this generator and we used it to treat a number of different masks.”

— MICHAEL KIZZICH, PROFESSOR OF ELECTRICAL ENGINEERING, BUILT A LAB AT HOME TO CREATE SYSTEMS FOR OZONE RECONDITIONING OF N95 MASKS AND OTHER SURGICAL GEAR

Dashboard created to help match resources with nonprofits’ needs

The Center for Emergency Management and Homeland Security at ASU is working with more than 300 front-line nonprofit agencies to match needs and resources. Food is the overwhelming need, followed by money, water, hygiene products and volunteers. The center involves students through Emergency Corps at ASU, a program for students to find volunteer, professional or internship opportunities. See the dashboard at asu.maps.arcgis.com.

Biodesign Institute develops state’s first saliva-based COVID-19 test

In an effort to make COVID-19 diagnostic testing easier, less expensive and more readily available, researchers have developed the state’s first saliva-based test, which is as simple as spitting into a screw-top tube through a straw. For the past couple of weeks, ASU’s Biodesign Institute has been pilot testing the saliva-based test with its first responder partnership network, showing the test works as well, if not even better, as nose swabs.

Remote resilience: connecting virtually

Over this period, Sun Devils have been busy living out new possibilities for work and learning. Each Zoom session — a class, office hours, a virtual coffee catchup — has encompassed the learning experiences, collaborative strategizing and personal connections that have helped the university thrive during a challenging time. In a silver-lining turn of events, the move to online meetings has often fostered a greater sense of community because people see into each other’s houses and virtually meet kids and animals, and because teams rally during crises.
Forecasting Arizona’s economy

What job creation and recovery might look like for the state

Story by CRAIG GUILLOT

Even though the Grand Canyon State experienced record-shattering job losses and economic contraction during the pandemic, there’s hope the pain will be short-lived. Strong underlying fundamentals, an influx of stimulus money and ASU’s support for innovation could help stave off an extended recession.

Prior to COVID-19, Arizona had one of the strongest economies in the country in terms of population growth and job creation, says Lee McPheters, director of the JPMorgan Chase Economic Outlook Center at ASU. In 2019, the state added a record 80,000 new jobs while wages increased 4.4% compared to the nationwide average of 3%.

“We went from one of the most thriving economies in the country to double-digit unemployment. It’s probably the worst we’ve seen since the Great Depression, but we’re following the national cycle,” McPheters says.

In the seven weeks ending May 4, more than 514,000 Arizonans applied for unemployment benefits, according to the state Department of Economic Security. The number translates to a 15% unemployment rate, with some of the biggest job losses in tourism, hospitality and restaurants.

Of surprise are the declines in health care, an industry that is often recession-proof. The postponement of elective surgeries (a large source of...

A rebounding economy over the next two to three years

Arizona is being impacted by the pandemic, but not to the degree of some other states. Arizona is still second in the U.S. for economic growth. 2.5% growth in Arizona employment before the pandemic

-6.4% job growth for 2020–21 Expected to hit -10.9% in 2020 then rise in 2021 to make up half of jobs lost during the pandemic

1.5% increase in new residents in the Valley including births, down from 2% before the pandemic

1.5% increase in new residents in the Valley including births, down from 2% before the pandemic

-6.4% job growth for 2020–21 Expected to hit -10.9% in 2020 then rise in 2021 to make up half of jobs lost during the pandemic

ASU has numerous resources, including free mentoring at entrepreneurship.asu.edu

Get business resources, including partnership options, at wpcarey.asu.edu/corporate-relations

During the pandemic, Venezia’s New York Style Pizzeria in Tempe, owned by Domenick Montanile, ’98 BS in purchasing/logistics management (pictured), began offering curbside pickup as well as robot deliveries. The business is recognized as a Sun Devil 100.

SOURCE: LEE MCPHETERS, BASED ON PROJECTIONS ON MAY 11
Building smarter supply chains

W.P. Carey experts think big while supporting local business with their worldwide pipelines

In mid-May, Arizona had yet to return to normal product availability. While supply chains have since loosened, some impacts may linger for a long time. Even though the world has experienced supply chain disruptions from natural disasters and from other viruses in the past, COVID-19 is an “unprecedented global event” that has left many supply chains in limbo, says Mohan Gopalakrishnan, supply chain chair in the W. P. Carey School of Business. It also was the first time many Americans remember seeing bare shelves and stores entirely out of some food products and toilet paper.

“There are some really unique things about this pandemic,” Gopalakrishnan says. “Unlike Ebola, which was restricted to one area, this has quickly spread across the globe.”

Read more at this link.
Solar panels cover many roofs on ASU campuses, including this one on the parking garage at Fulton Center on the Tempe campus.

Silver linings in sustainability

Leading the way toward a healthier planet
On April 22, on the 50th anniversary of Earth Day, ASU was recognized for notable achievements in its ongoing commitment to sustainability leadership. Times Higher Education released its annual Impact Rankings of the world’s universities based on 17 United Nation Sustainable Development Goals. ASU ranked fifth in the world out of more than 700 institutions, placing first among American universities.

ASU also achieved carbon neutrality—an ambitious goal accomplished six years early. ASU also won the AASHE STARS Platinum rating for sustainability, the highest possible designation that only five of 300 eligible institutions have earned.

Posibilities as we restart
Mick Dalrymple, director of University Sustainability Practices, and Alana Levine, who directs the university’s Zero Waste and Grounds Services, pointed out several positives since the pandemic. Among them are increased home gardening and more pet adoptions. Additionally, they see the current situation as a test bed for showing what can be done as society restarts, including making business and society more sustainable.

Read more at this link.

Driving less (through permanent remote working options) and switching to electric cars could help improve air quality after the pandemic.
Many workplaces were closed, changing traffic levels and commuting patterns. With gyms closed, Valley paths became more crowded.

There has been a significant drop in automobile use in the wake of the COVID-19 outbreak. According to Ram Pendyala, director of the School of Sustainable Engineering and the Built Environment at ASU, Phoenix traffic may have been reduced by 30% during stay-at-home orders.

“From a transportation perspective, it means reduced traffic and energy consumption, cleaner air and less wear and tear on our roads — all good things for sustainability,” Pendyala says. “But the lack of traffic is not really a good thing. Traffic is a sign of economic and social vitality. Mobility is a sign that people are interacting with each other, businesses are thriving. It’s only the adverse effects of traffic that we don’t want.”

Forecasting travel demand to better manage traffic, promote sustainable transportation and support infrastructure planning is a focus of Pendyala’s work. His research related to transportation offers insights for navigating the pandemic.

Colleen Jennings-Roggensack has been presenting the performing arts for 35 years. She is executive director of ASU Gammage and ASU vice president for Cultural Affairs. She previously served on the National Council on the Arts.

For an industry accustomed to the phrase, “the show must go on,” closing the theaters was no easy task.

The theater is a place for people of all ages and backgrounds to come together and celebrate live art. No one can tell what the future holds, but there is one thing I am sure of. The theater is no place for fear. So, we will reopen when it is safe to do so. We are considering the measures we can take to ensure to the best of our ability the health and wellness of each person who enters — such as gloves worn by employees, stricter cleaning measures and monitoring the food and products entering the facility. We are operating with one thing in mind: fluidity. We’re rewriting the script on procedures every single day.

One way we have adapted is by presenting more virtual events. We’ve expanded online content by hosting performances, Q&As, talks and our DBR Lab with Dr. Daniel Bernard Roumain. We can’t wait until we can swing open the doors. Until then, we are working to stay safe and healthy for our communities, our loved ones and ourselves. It is imperative to prioritize health and wellness — right now and every day.

Colleen Jennings-Roggensack has been presenting the performing arts for 35 years. She is executive director of ASU Gammage and ASU vice president for Cultural Affairs. She previously served on the National Council on the Arts.
Improving online teaching tools and methods

Times of extreme stress reveal cracks in the normal that have been there all along. As our college has responded to the disruptions caused by the coronavirus, we have lived in and peered through the cracks, and it has made us commit even more resources and strategy to educating professionals on how to teach well online, and to envision strategies for providing more educational access and opportunities to rural areas.

In the spring 2020 semester, we had 646 teacher candidates working full-time in schools. In mid-March we had five days to figure how to: 1) keep them safe; 2) provide them with meaningful clinical experiences that would allow them to graduate on time; and 3) create something that would be valuable to our school and district partners and to pre-K–12 learners.

The exercise has opened our thinking to new ways of working with school partners to integrate tech-enabled learning into Next Education Workforce models, and to new ways of thinking about how to prepare educators to succeed in that environment.

We learned a lot in a short amount of time about how to prepare professionals to teach online, and we will continue to make this a robust part of our education for professionals, both for our own ASU teacher candidates and for in-service educators working in schools.

What we’re learning about remote teaching could be especially valuable to underserved rural communities. Here’s a potential use case: In Arizona, we have many rural communities that struggle to find enough qualified teachers, especially science teachers. In these communities, it will likely always be difficult in the same way that finding doctors is difficult.

Just as telemedicine is a reasonable way to address some rural health challenges, bringing expertise into those schools via a remote presence is a viable solution to some rural education challenges. A biology expert appearing remotely could, with the help of educators on site, deliver instruction to provide deeper learning for students.

The work of implementing such ideas has been slow going. One reason is that we have tackled the issue as a “learning technology” problem rather than as a workforce problem. Today, too often we ask each educator to be all things to all people at all times. The real challenge is how to design and deploy teams of adults with distributed expertise to best serve learners.

We’ve always known there would be a significant tech-enabled dimension to the Next Education Workforce. The crack in the normal offers us all a glimpse into the possible.
Events, student services and learning continue — virtually

Although classes moved to distance learning in the wake of the COVID-19 pandemic, students had access to many campus facilities while maintaining safe physical distancing. Not only did classes move online, but so did many valuable resources. Here are just a few:

- **ASU Student Services** Counseling, free yoga and mindfulness sessions, mentoring, degree advising, financial aid, tutoring and more.
- **Devils 4 Devils Support Circles** A series of virtual, peer-led Zoom sessions available multiple times per day, Monday through Saturday, so students can continue making meaningful connections.
- **Concerts** The School of Music student recitals/performances are being streamed and posted to YouTube, where a wide virtual audience can appreciate them. Watch music.asu.edu/events/streamed-concerts.
- **Elementary-school coders program** “Girls Who Code” by the University Technology Office, resources online at girlswhocode.com.
- **Career and Professional Development Services** made the successful transition to remote support and mentoring at career.asu.edu.
- **Cronkite News** is still reporting — from a distance, online at cronkitenews.azpbs.org.
- **Fulton Engineering FURI/MORE Symposium** went virtual with nearly 180 graduate and undergraduate students presenting their semester research projects and meeting with industry representatives for feedback and networking. See highlights of their work at furi.engineering.asu.edu.

**ASU Sync reimagines ways to learn**

When COVID-19 hit, ASU pivoted and introduced a new learning modality — ASU Sync. With the use of state-of-the-art tools to enhance real-time collaboration, more than 14,000 classes were held in the spring and more than 5,000 courses offered in the summer. These highly interactive, live class sessions between learners and teachers deliver synchronous learning through a variety of digital and video tools. ASU was able to quickly make this transition because of its rich history in providing digitally enhanced learning experiences for students studying online or in-person. In addition to ASU’s top ranked ASU Online program, which is ranked sixth in the nation by U.S. News & World Report, the ASU Sync format will be added to the fall 2020 offerings.

**Course design and curriculum**

- **ASU Sync** (live, digital enhanced)
- **ASU ONLINE** (Asynchronous, digitally enhanced)
- **ON-CAMPUS** (live, in-person)

<table>
<thead>
<tr>
<th>Category</th>
<th>ASU Sync</th>
<th>ASU Online</th>
<th>On-Campus</th>
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<tbody>
<tr>
<td>Course design and curriculum</td>
<td>✔</td>
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<td>Strong instructor presence guides the academic experience.</td>
<td>✔</td>
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<td>Follows established curricular requirements to ensure quality of instruction.</td>
<td>✔</td>
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<td>Student engagement</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>Live instruction engages students through visual cues, real-time questions and answers with live chat and ability to raise hands.</td>
<td>✔</td>
<td>✔</td>
<td>X</td>
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<tr>
<td>Larger class sizes may be broken down into groups and breakout rooms for more personalized attention and to build a sense of community.</td>
<td>✔</td>
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<td>Polls are utilized to measure student comprehension and instructors can quickly provide clarification and feedback.</td>
<td>✔</td>
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<tr>
<td>Tutoring and faculty office hours supplement experience.</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>Out-of-classroom experiences</td>
<td>✔</td>
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<td>Ability to participate in extracurricular activities and student groups.</td>
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<td>Orientation and advising support.</td>
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<tr>
<td>Access to robust student support services (libraries, disability resources, military support services, etc.)</td>
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**Events**

ASU students, faculty and staff have risen to the unique challenges of the coronavirus pandemic.

“**The amount of creative new events we can join with Zoom have honestly impressed me so much. I love this school. Remote learning has nothing on weakening our connection.”**

– AUTRIVA MANESHNI, STUDENT, BARRETT, THE HONORS COLLEGE AND WALTER CRONKITE SCHOOL OF JOURNALISM AND MASS COMMUNICATION

**Graduation goes virtual**

For the first time ever, ASU hosted a virtual graduation featuring video presentation of degrees including highlights in which each graduate’s name was read. New filters on Snapchat, Facebook and Instagram of grad caps, campus backgrounds and the 2020 sculpture were used by grads to celebrate their success.

“**All of the prep work paid off, because I completed my [honors thesis] defense without any issues.”**

– KATHLEEN CASEY, A SENIOR IN BARRETT, THE HONORS COLLEGE STUDYING KINESIOLOGY, WORKED WITH FACULTY AND TESTED THE TECHNOLOGY FOR A REMOTE PRESENTATION

“**Peggy has been awesome. Even with everything moving online, she is emailing us to set up times to go over our pitches and making herself available.”**

– ASHLY BROWN, WHO STUDIES BUSINESS ENTREPRENEURSHIP, ON HER WORK WITH PROFESSIONAL-TA PEGGY THOMPSON, WHO HAS BEEN A SERIAL ENTREPRENEUR AND WILL BE A MIRABELLA RESIDENT

Keep up with the headlines at ASU by subscribing to the ASU Now e-newsletter at asunow.asu.edu/subscribe.
‘We will adapt and overcome’

New grads made the transition to online learning and graduated into a changed world

Starting traditions for my family
By KALYN YAZZIE

Native Americans have many traditional values and teachings. We celebrate ceremonies for coming of age, health, blessings and more. Our languages, clothing and religious beliefs are types of traditions. These are passed down generation to generation. However, for some families, like my own, that wasn’t the case. I am a 23-year-old Dine asdzáán (Navajo woman) from a part of Phoenix that has a low Navajo population. My grandparents passed away at a young age, so my mother wasn’t taught Navajo traditions. As a result, I came to ASU with little sense of cultural identity, and I was reminded of that on campus, which has a strong Native American community.

The most influential part of my cultural identity journey was interning at ASU’s Turning Points Magazine. I feel like I’ve met my own aunts, uncles and older sisters, who have helped me gain knowledge about Navajo traditions. At the end of the day, I get to go home sharing with my family all the wisdom and knowledge I obtained from everyone at ASU. This is why graduation is important to me: to display to my family that my hard work has paid off. In preparation, I learned the Navajo tradition of making our own handmade celebratory clothing and jewelry, including a concho belt for graduation. I will be wearing it when I graduate this fall.

Kalynn Yazzie, pictured with sister Vanessa Cresci, expanded her understanding of Native American culture at ASU.

Relishing the moment

Marisa Von Holten, a military veteran who graduated in May with a BS in public service and public policy, chose ASU because of the university’s standout role in helping to educate veterans and active duty service members. The veteran community on campus has made all the difference for her in her education journey. She spoke at the virtual Veterans Honor Stole Ceremony.

“Our journey to this special moment has long been anything but traditional. I’m proud to share in this accomplishment with you. We will adapt and overcome. Best of luck, forks up and aim high!”

Read more at this link.

Von Holten, who served in the U.S. Air Force for six years, told fellow grads, “We will adapt and overcome.”

Capturing campus in the cloud

For four years, “You Asked” host Ben Ashby has been creating entertaining and informative videos for ASU students, showing them around campus, and demystifying the ways to get things done and thrive at ASU.

In the weeks leading up to his May graduation with a BA in film from the Herberger Institute for Design and the Arts, Ashby explored how ASU’s 75,000-plus on-campus students transitioned to digital learning platforms and how professors quickly adapted their lesson plans.

Connecting with professors

In one special Zoom edition, students talk about how ASU staff and faculty are committed to keep learning moving forward — with an innovative and entrepreneurial spirit.

Watch the video at youtube.com/ASU.

Not giving up

In another special Zoom edition, Ashby explores other aspects of how the global pandemic has changed life for students at ASU, and shares inspiring stories of resilience.

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Starting traditions for my family

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In-person health and telehealth services available to all students

All on-campus students have access to ASU Health Services, a fully accredited health care provider operating in five locations across ASU campuses. In addition, ASU Counseling Services offers confidential, personal counseling and crisis services for students experiencing emotional concerns, problems in adjusting and other factors that affect their ability to achieve their academic and personal goals.

Through ASU telehealth services, students can receive medical consultations via phone, from anywhere.

COVID-19 testing will be available on all campuses for any student or employee who needs it.

Face coverings, social distancing, training, hospital-grade and repeated cleaning, health kits and other health precautions are in place for fall semester.

Employees and students will be required to wear a face cover while in ASU buildings. Face coverings will also be required in outdoor community spaces where social distancing isn’t possible.

All on-campus ASU students and staff will be required to participate in a “Community of Care” training program. ASU is also instituting hospital-grade repeated cleanings of buildings.

Training, guidelines and kits to support community health

ASU looks forward to the fall 2020 semester and has been hard at work making plans to create a safe and welcoming environment in which students can live and learn. Campus life will look different in many ways, and we will all need to make adjustments. With the cooperation and care of every member of the Sun Devil community, we’re confident we can all have a successful fall semester.

In these pages, you will find the latest information about how we intend to do that and where to go for updates if circumstances change between now and when classes begin.

These plans reflect current public health guidance and are subject to change before and after classes begin. ASU will continue to proactively communicate any changes that may affect campus life.

One thing is certain, we will be ready for whatever may come. It’s what Sun Devils do — we face challenges with creativity and grit, leaning on adaptability and innovation. Our commitment to building student success is what unites the ASU community.

Preventive measures

All ASU students and employees will be prescreened for information related to prior COVID-19 testing and travel. ASU will follow CDC guidance pertaining to isolation requirements for individuals traveling domestically or internationally.

COVID-19 testing available for all students and employees. Testing will be available on all campuses.
for any student and employee who needs it. In particular, we encourage anyone who is experiencing COVID-19 symptoms or may have been exposed to someone with COVID-19 to request a test.

The university houses a CLIA-certified testing lab at the Biodesign Institute and has been implementing testing for front-line health care workers, first responders and critical infrastructure employees since April.

ASU will provide a saliva-based COVID-19 test and will prioritize testing for any student or employee who is exhibiting symptoms or may have been exposed to someone with COVID-19. Turnaround time for test results is 24 to 48 hours. ASU has staff available to support contact tracing as needed.

Proactive health monitoring

Students and employees should monitor their temperature each day they’re on campus. If their temperature is 100.4 degrees or higher, they should stay home and not come to campus. If their temperature is less than 100.4 degrees, they should monitor their symptoms.

Students and employees who are symptom-free, with no known COVID-19 exposure and have received a negative test result may return to campus as scheduled.

Students and employees who exhibit COVID-19 symptoms will be directed to a designated health screening location. If identified as symptomatic, they will follow the appropriate process to support them and their health and well-being.

Students and employees who test positive or exhibit COVID-19 symptoms will follow established protocols.

ASU has staff available to support contact tracing as needed.

Optimizing environments for social distancing

Sneeze guards and Plexiglas barrier installations will be used in high-frequency visitor areas, touchless technology will be used where possible, and social distancing will be observed.

For students who live on campus, isolation space will be available along with a complete suite of health care and food delivery services. While in isolation, students will be able to continue their classes via ASU Sync.

“Community of Care” training and kits

All on-campus ASU students and employees will be required to participate in a “Community of Care” training program designed to inform, educate and encourage healthy living and learning on campus and as a member of the ASU community.

Welcoming visitors to ASU locations

Visitors to any ASU location are expected to adhere to established, posted guidelines. This includes observing social distancing measures, wearing face coverings and answering health screening questions.

Campus life

ASU takes a holistic approach to the health and wellness of our students. We believe that student success involves much more than the grade earned in a class — it encompasses the physical, emotional, mental and spiritual well-being of all of our students. ASU’s Live Well Community is dedicated to supporting students in their health and well-being during their university experience. COVID-19 is a unique challenge that ASU is prepared to help students manage.

Enabling a full housing experience while introducing new safety precautions

ASU has consulted with public health officials and national associations — and will continue to do so — on recommended housing configurations and protocols. The university will accommodate shared housing spaces and single-room requests.

Visitors will not be permitted in residence halls; accommodations will be made during move-in periods.

ASU will maintain vacant rooms in residence halls for isolation spaces, if needed. Common areas and outdoor community spaces may be subject to restrictions depending upon current local health conditions; face coverings will be required; high-touch points will be cleaned and disinfected frequently; and sanitation stations will be available.

Dining on campus

ASU will maintain takeout dining with prepackaged, disposable utensils for the fall semester. Touchless payments, physical distancing in lines, sneeze guards/Plexiglas barriers and extended hours will be implemented.

ASU will use Environmental Protection Agency-approved, hospital-grade products for cleaning and will increase the frequency of cleaning of high-touch areas. Sanitizing stations will be installed throughout dining areas. All food service employees will receive a health symptom screening prior to every shift.

Enhanced outdoor spaces

Health experts say that being outside lowers the risk of coronavirus transmission, and students are encouraged to take advantage of ASU’s outdoor spaces. We understand the importance of connection as part of the college experience. Additional outdoor spaces will be designated for students to dine
Robust student services offered

ASU transferred many services for students to a digital environment to ensure continuity of all aspects of the university experience during COVID-19. These services will continue to be available virtually and in-person as health guidance permits. Examples include:

• Academic advising, coaching and tutoring.
• ASU’s Career and Professional Development Services offers virtual drop-in career and internship advising.
• ASU Counseling Services created a peer-led Zoom support group, Devils 4 Devils Support Circles, for students to support and connect with each other while taking classes remotely and practicing social distancing.
• Many student events and programs have also transitioned to a virtual format, with a wide variety of activities and events still available.
• All four campus locations of the ASU Library will be open for the fall semester, with a vast number of digital service offerings. Those include One Search, which provides access to online-only resources at ASU; library guides for help with research and citations; and Ask A Librarian, online chat library assistance. Learn more about library resources that are accessible anywhere.
• ASU’s Technology Enhanced Learning Services offers virtual drop-in career and internship advising.

Fall break

To lessen travel risk, ASU is canceling fall break, which originally covered Oct. 12 and 13. Information on how this will affect Monday and Tuesday classes will be forthcoming from individual professors. See the calendar for fall semester here.

Campus shuttle services continue social distancing

Shuttles will operate on a normal schedule with social distancing guidelines and increased cleaning. For the well-being of fellow riders, passengers are asked not to board if they feel ill. All passengers are required to wear a face covering and should maintain physical distancing of at least 6 feet. Visit cfo.asu.edu/shuttles and follow @asuOasisShuttles for route updates.

Mayo Clinic and ASU COVID-19 Initiative

ASU and Mayo Clinic are launching the Mayo Clinic and ASU COVID-19 Initiative to provide timely health care information to students and employees on demand through the Mayo Clinic Health Information Library; to provide additional COVID-19 testing services to students and employees; and to collaborate on COVID-19 research projects and clinical trials. Learn more at asu.edu/about/fall-2020#mayo.

Class flexibility for students

Technology enhanced learning to keep on track

Consistent with our efforts to always meet learners where they are, ASU will offer courses in a variety of learning environments to accommodate students’ needs depending on location or circumstance as a result of COVID-19.

Our goal is to provide a quality learning environment that adheres to public health and safety guidelines from the U.S. Centers for Disease Control and Prevention. Many classes will include a blend of in-person and ASU Sync experiences.

Some labs, clinical experiences and fine arts courses that do not lend themselves to remote instruction will only be available through on-campus, in-person instruction.

The university will implement increased cleaning protocols including daily cleaning of classrooms with two additional cleanings of high-touch surfaces, providing cleaning and sanitizing supplies in all classrooms for students, and reducing attendance in classrooms by half on alternating days. Those not attending in person on assigned days will participate in class through ASU Sync.

Out-of-state and international students who wish to attend classes on campus but may not be able to arrive in time for the start of the semester will be given the opportunity to learn through ASU Sync for the first half of the semester, and if necessary, the full semester. Faculty will hold special office hours that accommodate different time zones.

Offering three options for on-campus classes

For the majority of classes, immersion (on-campus) students will have access to the following three learning environments:

• ASU immersion On-campus, in-person, technology enhanced learning environment.
• ASU Sync Synchronous, technology enhanced and fully interactive remote learning using live lectures via Zoom. This approach can be used simultaneously with in-person instruction to accommodate students in different circumstances and enable social distancing in classrooms or as stand-alone technology. It offers the benefits of face-to-face instruction in an interactive group learning environment. Learn more at provost.asu.edu/sync.
• iCourses Courses delivered entirely online with lectures available on demand.

Courses may include ASU Sync and iCourses options, which can be accessed from home.
A Sun Devil braves the COVID-19 front lines in Navajo territory

Story by JEREMY HAWKES

On March 18 of last year, Dina Michelle Tom, ’99 BS in microbiology, realized her goal of returning to her homeland as a licensed physician for her Navajo people. On her one-year anniversary of becoming a doctor, she found herself on the front lines against a virus that has ravaged the world and especially the Navajo Nation.

Although Tom knew from a young age that she wanted to become a physician to help her people, it felt more fantasy than achievable. Fewer than 15% of people 25 or older living on the Navajo Nation have earned a bachelor’s degree or higher, according to U.S. Census data, compared to nearly 33% of the general population. Still, she persisted in her goal, because she has long seen the challenges that indigenous people face when it comes to health and well-being.

“Being a product of the Indian Health Service, I grew up in that. I saw the disparities with my people,” she says. “I saw how few doctors and nurses there were and especially how few there were that looked like me or even spoke Navajo. So I wanted to be a provider. That was always my goal.”

Basketball as a path to education

“Rez Ball” is a way of life for the Navajo people, and Tom was a
“Rural medicine is hard enough. We’ve always been short-staffed in general. These tools that I got from ASU have come through more for me through medical school residency and especially now.”

— MICHELLE TOM, PHYSICIAN ON THE NAVAJO NATION

helped Tom keep going. She earned her master’s degree in public health from the University of Arizona, and found a well-paying job. She persisted in trying to get into medical school, but her entrance exam scores and her GPA remained low, so she took an extreme step: She left her job, left her apartment, worked part-time and slept on friends’ couches so she could focus on studying for her entrance exam.

It paid off. She was able to bring her grades and scores up and finally received a letter of acceptance into medical school at Nova Southeastern University in Fort Lauderdale.

“I’ve never met anybody so determined to do what they said they were going to do when it was so hard to do it,” Turner Thorne says. “She is the greatest success story of my life.”

Greatest challenge of Tom’s life

Tom earned her medical degree in osteopathic medicine in 2015 and completed her residency in family medicine.

Then, she quickly returned to help her people to assume her role at the Winslow Indian Health Care Center and the Little Colorado Medical Center, both located in Winslow, Arizona.

She barely had a moment to breathe after a decade and a half of higher learning before facing an extraordinary challenge. The Navajo Nation covers 27,000 square miles of territory across Arizona, New Mexico and Utah, and has a population of around 175,000, according to the nation. Sitting on the southern border of the reservation, the outpatient Winslow Indian Health Care Center oversees a user population of close to 17,000, while the Little Colorado Medical Center cares for approximately 30,000 people in north-central Arizona, including emergency services. The facilities are strained at the best of times for personnel, funds and resources. COVID-19 has further revealed the glaring lack of resources the tribe faces.

“Rural medicine is hard enough. We’ve always been short-staffed in general,” Tom says. “These tools that I got from ASU have come through more for me through medical school residency and especially now.”

By May 13, there were more than 3,245 positive COVID-19 cases and 103 deaths on the Navajo Nation. Twenty percent of the deaths in Arizona have been Native Americans, even though they make up just 5% of the state’s population. “People lack access to health care. The death rate is high because the access is slow,” Tom says.

Resilience and hope

“The community has really tried to take hold of this,” Tom says. “I’ve had everyone from friends and family to professional colleagues and even patients reach out to me to ask me what I need, what I can use.”

It is that sense of family and community that strikes a chord with Tom, who sees all the positive and wonderful traits of her people in the tribe’s darkest hour.

“It’s tremendous the amount of hope and giving and sacrifice I have seen so far,” she says with tears welling up in her eyes and her hand across her heart. “It just gives me the strength to keep doing what I’m doing.”

standout at Winslow High School, where she played under coach Don Petranovich — the winningest girls basketball coach in Arizona history.

Her high school efforts earned her a place at Phoenix College, where she competed for two seasons and earned All-America honors before ASU came knocking, and Coach Charli Turner Thorne recruited Tom. “She helped build this into the program that it is now,” Turner Thorne says. “We recruited character and players that loved that game, and that was Chelly Tom.”

Tom led the Pac-10 in three-point shooting percentage at a 42.0 clip as a senior. She accumulated 300 career points in her two seasons, with 48 three-pointers. She provided one of the early highlights of Turner Thorne’s career, drilling a pair of threes “with a defender in her shorts” at the end of regulation before nailing a buzzer-beater.

“Tom was meant for something greater. It paid off. She was able to bring her grades and scores up and finally received a letter of acceptance into medical school at Nova Southeastern University in Fort Lauderdale, where she played under coach Don Petranovich.”

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Dr. Michelle Tom talks with Pac-12 Networks about her journey in this video.
The Morning News

Seasons will not be still,
Filled with the migrations of birds
Making their black script on the open sky,
Those hasty notes of centuries-old goodbye.

The clouds and the heavens make a memo book,
A diary of it all, if only for a day.

The birds write much, but then rewrite all the time,
News continuous, these small pencil tips in flight.

They are not alone in the day’s story.
Jets, too, make their writing on the blue paper —
Jets, and at night, satellites and space stations.
Like it or not, we are all subscribers to the world’s newspaper

Written big in the frame of the window in front of us.
Today, we wave to neighborhood riders on horses.

We hear the woodpecker at work on the chimney.
There is news everywhere.

All this small courage,
So that we might turn the page.

Alberto Ríos is Arizona’s first poet laureate and has taught at ASU since 1982. His recent book, “Not Go Away Is My Name,” was published in May by Copper Canyon Press.
Go after your objectives now, cont.

Reflecting back on what we just did this past weekend, I realized that we were finding ways to exercise our passions while sticking to the social distancing guidelines.

My wife is a triathlete, and she trains hard for the event. She has had several events postponed or canceled but can ride her bicycle because that's definitely a socially isolated activity. She's able to run. The one thing that she doesn't have an outlet for is swimming because the pools are closed, so we decided to go to one of Arizona's lakes. She can be socially isolated in Canyon Lake and swim. I can take that opportunity to either shoot video or pictures and get my creative juices going. So we did that at Canyon Lake, and it was great. We felt better about doing that and self-isolating in nature. It is one of my favorite places in Arizona. It's the first mountain range I fell in love with.

Replacing canceled events

Our outing was on a Saturday and on the following Sunday, we were supposed to have a big party for families. My 5-year-old was disappointed because all of her friends were supposed to be here. They were all going to play in the backyard. Instead of being down about it, what we did turn was the opportunity into a project that we've been talking about for a few days. We started a neighborhood book club. All the neighbors who were interested in participating, you can take a box, fill it with kids books, adult books, whatever kinds of books that you might want. People can give them away or put their address in a book, so they get returned. So my daughter and I worked on the project of finding and collecting books. We gathered some of my books and some of her books. We put them in a box and put them out there. It has been great to watch her take a disappointment and then turn that into a positive. Those are the things that can help your kids think through what’s happening.

Hopefully, there are two messages that you’ve pulled out of this column. First, you can’t just sit there and wait. Use this opportunity to focus on things that you’ve been wanting to work on for a long time. And the second thing is you still need to you and find ways to do the things that you can do as long as you’re staying at home. My wife is going to drive out to the state park and swim as long as they are open. And, as I posted in the video above, my 5-year-old is going to try ways to engage in activities she’s curious about. The best thing that we can do is not let this situation drastically impact us. Find ways to stay positive through all of this. 

Silver linings in sustainability, cont.

Bluer skies

“The air is cleaner,” Dailymáp says. Air travel is about half of the university’s greenhouse gas emissions. A lot of people who fly for one-off meetings or conferences are now doing them by videoconferencing. “How can we do things better using technology and not travel so much?” Dailymáp says. “It’s not to say that in-person — that’s not important, but it’s at least allowed us to think about what needs to be done in person and what can be done using teleconferencing. … This (situation) is helping us figure out what jobs can be partially or mostly done through telecommuting. And, also, how do you do it successfully?”

A more neighborly Valley

The urban sprawl of Phoenix, like Los Angeles, creates a certain lack of social cohesion. Everyone drives everywhere to shop, eat, exercise and go about their business. Now neighborhoods look more like they did 30 years ago, with kids playing in the streets and whole families out on bicycles.

Dailymáp has met neighbors he didn’t know before the pandemic. He done a neighborhood happy hour — at a distance, of course. Working at home and exercising in our neighborhoods has reconnected people and community relations at the neighborhood level, he says.

“From a sustainability and resilience standpoint, this is one thing that several different studies have talked about,” Dailymáp says. “I see neighbors and families and dogs out walking all the time. I ran into a neighbor the other day who has lived in the neighborhood for 32 years and she said someone who has lived here for 27 years. … They just met because of this virus. I think for the Valley specifically it’s helping us get out of our cars and helping us be less zooming from here to there. It actually helping people to be more connected at neighborhood level. I think that’s a great thing.”

People getting outside

During the shutdown, people were not going to bars or shopping malls. Dailymáp says. “They’re finding some way to generate the same material science and some of the business models,” Levine says.

More furry friends

As people have started hunkering down at home, they’ve adopted pets. “One shelter at least is completely out of business dogs,” Dailymáp says. “They’ve all been adopted out.” Levine has seen funny new friends all over social media. “I can’t stop looking it up,” she says. “I found my best friend! I found my co-worker! — Things like that. It’s awesome.”

The county animal shelter has put 200 dogs in foster homes. In New York and Los Angeles, the American Society for the Prevention of Cruelty to Animals says applications to foster dogs and cats is up 200%. Fostering and adoptions are up 700% over last year, according to software used by 1,200 animal shelters nationwide.

Building smarter supply chains, cont.

Disrupting demand

Manufacturers and distributors have had to contend with sudden fluctuations in supply and demand. Supply chains are typically designed to meet either commercial or consumer demands — via different means — and they trend to the same direction. In the pandemic, they’ve gone in opposite directions. As demands increased in the consumer market, demand dried up in the commercial market nearly overnight in mid-March as schools, restaurants, hotels and big facilities shut down.

“Supply chains weren’t prepared to immediately shift gears, which left excess inventories on the market, leading to shortages in the consumer area. It’s why you saw a lot of food being wasted and resources being focused on meat,” Gopalakrishnan says. “We’ve seen that people who are working from home are buying milk.”

Greener thumbs

People are taking up or relearning gardening and how to grow food, Dailymáp says. Some neighborhoods have never looked as good as they do now. “That’s pretty cool,” he says. “Some of the gardening shops are doing online ordering where you pick it up like takeout. I’ve talked to several people who have started gardening and planting food.”

What will stick?

“I think people are valuing the things that they have,” Levine says. “I think those kinds of very deep values are not going to go away again as quickly as we’re not going to the gym.”

Spend more locally

“Businesses and their business models not wanting to adapt to sustainability,” Levine says. “I think the current situation as a testbed for showing what can be done.

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**Upskill, innovate and adapt**

ASU for You is an ever-growing collection of remote, fully interactive tools for learners at any stage of life, including those already in the workforce.