The COVID-19 Crisis

Update October 29, 2020
CAVEAT!
I am not THAT kind of doctor.
I study rocks.

Ariel D. Anbar
Professor
School of Earth and Space Exploration
School of Molecular Sciences
Arizona State University
New Confirmed COVID-19 Cases per Day by US States/Territories, normalized by population

Data: Johns Hopkins University CSSE; Updated: 10/29/2020
Interactive Visualization: https://gpolvidas.com/

Highlight: Arizona  Data: New Cases, 1 Wk. Avg.  Scale: Log
Show: All States & DC  X-Axis: Days ago, all highlighted data  Y-Axis: All Highlight & All Current

+Add Additional Highlight or +Add Additional Data
Arizona has about 1,652 ICU beds. Based on best available data, we estimate that 43% (715) are currently occupied by non-COVID patients. Of the 937 ICU beds remaining, 187 are needed by COVID cases, or 20% of available beds. This suggests there is likely enough capacity to absorb a wave of new COVID infections.
MASK UP ARIZONA

MY MASK PROTECTS YOU, AND YOUR MASK PROTECTS ME.
SARS-CoV-2 is Likely Airborne
(as we’ve been saying... CDC finally caught up Oct. 5)

Yes, the Coronavirus Is in the Air

Transmission through aerosols matters — and probably a lot more than we’ve been able to prove yet.

By Linsey C. Marr
Dr. Marr is a professor of engineering.

July 30, 2020

Mounting evidence suggests coronavirus is airborne — but health advice has not caught up

Governments are starting to change policies amid concerns that tiny droplets can carry SARS-CoV-2. And after months of denying the importance of this, the World Health Organization is reconsidering its stance.

Dyani Lewis

# Arizona

<table>
<thead>
<tr>
<th>Current $R_t$</th>
<th>Cases</th>
<th>Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.16</strong></td>
<td><strong>241,163</strong></td>
<td><strong>1,731,418</strong></td>
</tr>
</tbody>
</table>

**Effective Reproduction Rate $ \cdot R_t$**

$R_t$ is the average number of people who become infected by an infectious person. If it's above 1.0, COVID-19 will spread quickly. If it's below 1.0, infections will slow. [Learn More](https://rt.live/us/AZ)
SESE Community Conversation: 29 October 2020
THANK YOU for a great first-ever virtual ESE Day on Saturday, October 24!!
Impact Experiments

Huge thanks to:
COG: Ric Alling, Kim Baptista, Meg Hufford, Cathy Shappell, Karin Valentine, Patrick Young. SESE Docents Alex Blanche and Sphurti Kachare & ASU’s Explorer-in-Residence Cady Coleman

Astrobiology
ASU/NASA Space Grant Program
Biology and Astrophysics for Graduate Exploration of Life in Space Group (BAGELS)
Center for Education Through eXploration (ETX), and Infiniscope
Center for Isotopic Analysis (CIA)
Center for Meteorite Studies (CMS)
Cosmology Research Group
Dr. Impact
Low-frequency Cosmology Group (LoCo Lab)
Lunar Reconnaissance Orbiter Camera (LROC)
Science Operations Center
Marston Theater Presenters - Alicia Hyatt
Multicultural Milky Way
Psyche Mission: Journey to a Metal World
Ronald Greeley Center for Planetary Studies
Secondary Ion Mass Spectrometer Laboratory
Society of Physics Students (SPS)
Sun Devil Rocketry
Sundial Program
The Hydrogen Epoch of Reionization Array (HERA)
The Planetary Society @ Arizona State University
ASU’s Commitment to JEDI: University-wide Initiatives

• September 2: President Crow outlined 25 actions that “will be undertaken with the goal of enhancing diversity, growth and opportunity for Black undergraduate and graduate students, faculty and staff, while also expanding our academic offerings, community services and collaborative relationships to the benefit of all underrepresented groups and individuals at ASU.”  https://president.asu.edu/statements/asus-commitment-to-black-students-faculty-and-staff
ASU’s Commitment to JEDI: University-wide Initiatives

• September 2: President Crow outlined 25 actions that “will be undertaken with the goal of enhancing diversity, growth and opportunity for Black undergraduate and graduate students, faculty and staff, while also expanding our academic offerings, community services and collaborative relationships to the benefit of all underrepresented groups and individuals at ASU.”  https://president.asu.edu/statements/asus-commitment-to-black-students-faculty-and-staff

• October 26: Establishment of Advisory Council on African American Affairs
  • Website for updates: https://president.asu.edu/commitment
  • Between now and July 2021, townhall meetings to address key issues related to the action plan
ASU’s Commitment to JEDI: University-wide Initiatives

• September 2: President Crow outlined 25 actions that “will be undertaken with the goal of enhancing diversity, growth and opportunity for Black undergraduate and graduate students, faculty and staff, while also expanding our academic offerings, community services and collaborative relationships to the benefit of all underrepresented groups and individuals at ASU.” [https://president.asu.edu/statements/asu-commitment-to-black-students-faculty-and-staff](https://president.asu.edu/statements/asu-commitment-to-black-students-faculty-and-staff)

• October 26: Establishment of Advisory Council on African American Affairs
  • Website for updates: [https://president.asu.edu/commitment](https://president.asu.edu/commitment)
  • Between now and July 2021, townhall meetings to address key issues related to the action plan

• Searches are currently on-going for two key leadership positions:
  • Provost (leading ASU’s Academic Enterprise)
  • Vice President for Research (leading ASU’s Knowledge Enterprise)
ASU Commits to:

- Establishing a multicultural space on campus and establishing and funding a working group to assess and begin design options for this space.
- Investing in and providing enhanced service support to student organizations and their initiatives on behalf of Black students.
- Hosting an annual spring recruitment fair for undergraduates of color into graduate programs across all disciplines with scholarship investments in acute areas of underrepresentation.
- Establishing a Presidential Postdoctoral Fellowship Program funding a minimum of 30 postdoctoral fellowships from underrepresented communities over the next two years who will — presuming satisfactory performance — continue on after two years into a tenure-track position.
- Creating a new class of graduate fellowships (Community Fellows) for Black students and other students of color.
- Establishing graduate assistantships for underrepresented students to go to graduate school. ASU will support the addition of 50 new graduate assistantships over the next two to three years.
- Establishing a university-wide student entrepreneurship, career advising and student success initiative to inspire and assist Black students and all students of color.
- Training of all faculty and staff on all search committees to address issues such as systemic bias in identification of candidates and hiring.
- Cluster hiring around leading faculty members from underrepresented groups with a commitment to 10 positions this year and continuing in subsequent years.
- Implementing the “To Be Welcoming” training for all continuing and new ASU employees and students.
- Implementing a program of service time for Black employees and other employees to serve as mentors to Black students and other students at ASU.
ASU’s Commitment to JEDI: The College Initiatives

• The College JEDI Task Force
• The College Natural Sciences JEDI Seed Grant opportunity
• Associate Dean for Diversity, Equity, and Inclusion (applications due Nov 6, 2020): https://thecollege.asu.edu/sites/default/files/associate_dean_dei_advertisement_job16490.pdf
ASU’s Commitment to JEDI: SESE Initiatives

• SESE JEDI Task Force established
  • Meets weekly for 1 year
  • Highest priority activity is developing a 3-5 year plan to improve equity within SESE structures & communities
  • Oversee SESE JEDI Small Grants Program

Ex-Officio Members of the Task Force

- Hilairy Hartnett, (ex-officio) Full Professor and College JEDI Task Force chair
- Patrick Young, (ex-officio), Associate Professor
School of Earth and Space Exploration JEDI Seed Grant
--Fall 2020 Application--

Motivation
The School of Earth and Space Exploration solicits seed grant applications that promote the mission statement of the JEDI Task Force: The SESE JEDI Task Force empowers a just, equitable, and inclusive School of Earth & Space Exploration by facilitating and promoting individual action, dialog, education, long-term planning and systemic change.

Who Can Apply?
We encourage applications from the broad SESE community including students, staff, and faculty. Alumni are welcome to co-propose with current SESE students, staff, and/or faculty.

Funding Amount and Relevant Dates
Total funding available for all grants awarded through this call is $2,000. The number of grants awarded will depend on the number and size of the submitted compelling applications. To fund as many grants as possible, we encourage applications with the minimum funding necessary to accomplish goals. We welcome applicants to reach out to the SESE Seed Grant Task Force to discuss their proposed budget. Applications are due by November 20th. We anticipate the first round of selections by the end of Fall term.
News/Communications: Research and Other Ops

• Most SESE research labs and other operations are open and running, with appropriate physical distancing and safety protocols in place.

• Grad and undergrad students and volunteers can work on campus as needed.

• All work-related travel (local or domestic) needs to be approved by the Dean; such requests (including for field work) are being approved as long as safety protocols are clearly defined.

• Work-related international travel is still being restricted.
News/Communications: Teaching

- For Spring 2021, most classes will continue to be taught in ASU Sync mode (synchronous teaching via Zoom, allowing students to join remotely or in-person for limited numbers).
- All courses with enrollments >115 will be online only.
- Similar to Fall 2020, a subset of our courses will have an in-person component.
News/Communications: COVID management

• ASU COVID-19 case updates provided at:
  
  https://eoss.asu.edu/health/announcements/coronavirus/management

<table>
<thead>
<tr>
<th>Category</th>
<th>Tests from 10/11 – 10/17</th>
<th>Positives</th>
<th>Percent positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-campus students</td>
<td>587</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td></td>
<td>1,955</td>
<td>8</td>
<td>0.41%</td>
</tr>
<tr>
<td></td>
<td>5,655</td>
<td>89</td>
<td>1.57%</td>
</tr>
<tr>
<td></td>
<td>5,536</td>
<td>9</td>
<td>0.16%</td>
</tr>
</tbody>
</table>

Cumulative data:
Since August 1, 98909 tests
  Students (+ve): 2052
  Faculty & Staff (+ve): 49
Fall 2020 activities **open to ALL in the SESE Community:**

- SESE Community Conversations (Final one for this semester will be on Nov 19, noon-1 PM)
- SESE Colloquium (Wednesdays, 3:30-4:30 PM, weekly)
- Virtual Tea (Thursdays, 3:00-4:00 PM, weekly)
- Engineering Coffee (Fridays, 2:30-3:30 PM, weekly)
- Open listening sessions with SESE leadership (weekly, 9-10 AM Tuesdays)
- One-on-one office hours with the director (weekly, 3-5 PM Thursdays) – sign up for 30 min slots on weekly basis
- Open office hours with AD Inclusive Community (3-4 PM Thursdays)
Fall Colors in Arizona!