

# RYAN HEINTZMAN, Ph.D.

Assistant Teaching Professor

School of Geographical Sciences and Urban Planning - Arizona State University

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## EDUCATION

- 2021**      **Ph.D. Geography** - Arizona State University  
*Climate Analysis & Geography Pedagogy in the Mountainous Southwestern U.S.*  
Committee Chairs: Dr. Randall Cerveny & Dr. Ronald Dorn
- 2018**      **M.A. Geography** - Arizona State University
- 2016**      **B.S. Geography** (Meteorology-Climatology Concentration) - Arizona State University  
Minors: Parks and Protected Areas Management; Sustainability  
Certificate: Geographic Information Science
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## EMPLOYMENT

- 2025 – Present**    **Assistant Teaching Professor**, SGSUP, Arizona State University
- 2021 – 2024**      **Instructor**, SGSUP, Arizona State University
- 2019 – 2020**      **Adjunct Professor**, Maricopa Community Colleges
- 2016 – 2021**      **Lead Teaching Assistant**, Arizona State University
- 2018 – 2019**      **Garden Educator**, Desert Botanical Garden
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## TEACHING EXPERIENCE

*Including modality and typical enrollment (as of Fall 2026)*

*Arizona State University, Tempe, AZ, USA – Anticipated courses for 2026/2027 AY*

- **GPH 111**            Introduction to Physical Geography Lecture (in-person & online, 100-200)
- **GPH 112**            Introduction to Physical Geography Lab (online, 400-600)
- **GPH 210**            Society and Environment (in-person, 30-50)
- **GPH 213/215**        Climate and Weather Lecture/Lab (online, 40-60)
- **GPH 413/513**        Meteorological Instruments/Measurements (in-person, 5-15)
- **GPH 494/598**        Topic: Global Regional Climate (online, 20-30)

Past Courses Taught

*Arizona State University*

- **GPH 212/214**        Introduction to Meteorology Lecture/Lab (online, 40-60)
- **GPH 213**            Climate and Weather Lecture (in-person, 120)
- **GPH 314**            Global Change (in-person, 100-125)
- **GCU 113**            US and AZ Social Studies (online, 100)
- **GCU 121**            World Geography (online/in-person, 100-125)
- **GCU 350**            Geography of World Crises (in-person, 30-40)
- **GCU 351**            Population Geography (in-person, 20)
- **GCU 496**            Geographical Research Methods (in-person, 12)

*Maricopa Community Colleges, Phoenix, AZ, USA*

- **GPH 113**            Introduction to Physical Geography Lecture/Lab (in-person, 20)
- **GPH 267**            Extreme Weather and Climate (online, 15)

## PUBLICATIONS & SUBMISSIONS

Krahenbuhl, D. S., Pace, M. B., **Heintzman, R.**, Graves, M., Henz, D., Malloy, J., ... & Cervený, R. S. (2026). Phoenix Dust Storm (PHX-DUST) Scale: A Cooperatively Developed Dust Storm Scale for Phoenix, Arizona. *Bulletin of the American Meteorological Society*, 107(1), E9-E25.

**Heintzman, R.**, Brandi, A., Kelley, M., Marvin, M.C. (2023). Student and Instructor Insights for an Online Synchronous Geography Lab Using iGEO 'Video Games' – Fall 2020 Term at Arizona State University. *Journal of Geography*. 122(3), 57-65.

**Heintzman, R.**, Balling, R., Cervený, R. (2021). Desert Regionalization for Joshua Tree National Park and Surrounding Areas Using New Climate Network Observations. *Journal of Applied Meteorology and Climatology*. 61(1), 13-23.

Shandonay, K., Moll, H. L., Marvin, M. C., López-Castañeda, N., Kelley, M., Hilgendorf, Z., **Heintzman, R.**, Dorn, R. I. (2021). The Fieldwork of Shared Experiences. *The Geographical Bulletin*, 62(2), 7.

**Heintzman, R.** (2020). Interactive Geovisualizations (iGEO): A New Approach to Teaching and Learning Physical Geography. *Review of International Geographical Education Online*, 10(4), 664-683.

**Heintzman, R.** (2019). Station-Based Climate Model Evaluation Comparison for Joshua Tree National Park, California, and Tucson, Arizona, with New Surface Air Temperature Data. *Yearbook of the Association of Pacific Coast Geographers*, 81(1), 205-222.

P. Crank, H. Fischer, **R. Heintzman**, J. Smith (2018) Introductory Physical Geography Lab Manual 12<sup>th</sup> Edition

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## PROFESSIONAL SERVICE AND STUDENT MENTORSHIP

**2025 – Present**    **Subcommittee Member:** ASU General Studies Council (SUST)

**2026 – Present**    **Faculty Advisor:** SGSUP Weather and Climate Club

**2022 – Present**    **Faculty Advisor:** Gamma Theta Upsilon Geographic Honors Society (Theta Branch)

**2026 – Present**    **PhD Committee Member:** Owen Bachhuber

**2025 – Present**    **PhD Committee Member:** Rachael Kroot Hippe - Expected Dissertation Completion Fall 2026  
*Interdisciplinary Collaboration and Scalable World-building for Higher Education Immersive Learning Production*

**2021 – 2026**        **SGSUP Lab Coordinator:** Lead faculty for lower-division TA assigned labs  
(GPH 112, GPH 214, GPH 215)

**2022 – 2025**        **MA Program/TA Mentor:** Carson Metzler – SGSUP

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## PROFESSIONAL MEMBERSHIPS

**2025 – Present**    **Member:** American Meteorological Society – Central Arizona Chapter

**2024 – Present**    **Member:** Career Faculty Association at Arizona State University

**2024 – 2026**        **Affiliate Member:** Arizona State Climate Office

## INTERVIEWS AND MEDIA

### 12News

- [ASU creates new way to categorize dust storms](#)

### ABC 15

#### Arizona Horizon

- [New dust storm scales to be used for upcoming monsoons](#)

### ASU News

- [Scaling the dangers of dust storms](#)
- [Innovating education during a pandemic with ASU Sync](#)
- [Creative approaches to remote learning: Arizona State University \(ASU\)](#)

### AZ Family

- [Phoenix hit by second Category 5 dust storm of the season days apart](#)
- [Phoenix dust storm rated Category 5. Here's what that means](#)
- [Monsoon's first dust storms put ASU's new rating scale to the test](#)

### Cronkite News

- [Arizona's dust storms will soon have a ranking system like tornadoes](#)

### FOX 10

- [Phoenix dust storms prompt health warnings as Category 5 dust lingers](#)
- [Arizona monsoon season brings Category 3 dust storm to Phoenix](#)
- [Arizona monsoon 2026: Preparing for microbursts, flash floods, and haboobs](#)

### KJZZ

- [ASU's new Phoenix Dust Storm Scale will measure and categorize the severity of storms](#)

### KTAR

- [Phoenix Dust Storm Scale designed to measure severity of Valley haboobs](#)

### The State Press

- [Devastating dust storms, explaining the science behind the desert phenomena](#)

### The Weather Channel

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## CONFERENCE PRESENTATIONS, & INVITED LECTURES

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|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>2026</b> | <b>Lecture:</b> “The Phoenix Dust Storm Scale – A 2026 Retrospective (So Far)” for the American Meteorological Association Society Central Arizona Chapter Monthly Talk |
|             | <b>Lecture:</b> “Rising from the Dust – The Phoenix Dust Storm Scale” for Arizona State Climatologist Monthly Webinar                                                   |
|             | <b>Lecture:</b> “Rising from the Dust – The Phoenix Dust Storm Scale” for Science on Tap                                                                                |
| <b>2023</b> | <b>Lecture:</b> “Sun, Storms, Snow – Climate of Arizona” at Mirabella’s Lifelong Learning Lecture Series, Tempe, AZ, USA                                                |
| <b>2022</b> | <b>Presentation:</b> “Learning Geography with Video Games: Interactive Geovisualizations (iGEOs) at the GeoConference for the Arizona Geographic Alliance, Phoenix AZ   |
| <b>2019</b> | <b>Poster:</b> “Preliminary Insights into Teaching Geography with Interactive Geovisualizations: San Francisco Peaks Lightning”                                         |

## **AWARDS, GRANTS, & NOMINATIONS**

- 2026** Outstanding Teaching Nominee for Transforming Pedagogy  
*Career Faculty Association CFA Awards*
- 2025** Professor of Impact Award for GPH 212/214 – Introduction to Meteorology Lecture/Lab  
*College of Liberal Arts and Sciences – Arizona State University*
- 2023** Professor of Impact Award for GPH 210 – Society and Environment  
*College of Liberal Arts and Sciences – Arizona State University*
- Professor of Impact Award for GPH 213 – Climate and Weather  
*College of Liberal Arts and Sciences – Arizona State University*
- 2020** Graduate Service Award (\$1400)  
*School of Geographical Sciences and Urban Planning – Arizona State University*
- The College Graduate Excellence Award (\$100)  
*College of Liberal Arts and Sciences – Arizona State University*
- 2019** PhD Poster Competition Winner (\$200)  
*Association of Pacific Coast Geographers Yearly Conference*
- Matthew G Bailey Scholarship Award (\$2,000)  
*School of Geographical Sciences and Urban Planning – Arizona State University*
- 2017** Melvin G Marcus Memorial Fellowship (\$1,500)  
*School of Geographical Sciences and Urban Planning – Arizona State University*
- 2016** Joshua Tree National Park Robert Lee Graduate Student Research Grant Analysis of Microclimate Variability (\$3,593)  
*Joshua Tree National Park Association*