## Curriculum Vitae: Jessica A. Garza

Instructor, Department of Physics and Geosciences

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### **EDUCATION**

2011-2008 Master of Science in Meteorology

Univ. of Hawaii at Manoa, Honolulu, Hawaii

Thesis Title: "Climatology and Changes of the North-East Trade Winds

Over the Islands of Hawaii"

2008-2004 Bachelor of Science in Meteorology, Minor in Mathematics

Univ. of the Incarnate Word, San Antonio, Texas Thesis Title: "Cloud Seeding Effects and Processes"

## TEACHING EXPERIENCE

8/2019-Present	Angelo State University, Instructor, Physical Geology and Meteorology Dept. of Physics and Geosciences, San Angelo, Texas
8/2018-05/2019	Angelo State University, Adjunct, Physical Geology and Meteorology Dept. of Physics and Geosciences, San Angelo, Texas
8/2018-Present	Howard College, Instructor of Physical Geography Dept. of General Studies, San Angelo, Texas
8/2012- Present	MiraCosta College, Instructor of Earth Science, Oceanography, Physical Geology Dept. of Physical Science, Oceanside, California
1/2017-12/2017	Mesa College, Instructor of Physical Geography, Physical Geography Lab Dept. of Geography, San Diego, California
8/2014-12/2016	Grossmont College, Instructor of Physical Geography Dept. of Earth Science, El Cajon, California
1/2013-8/2014	Palomar College, Instructor of Oceanography Dept. of Earth Space Science, San Marcos, California
8/2012-12/2012	California State University San Marcos, Instructor of Earth Science

Dept. of Chemistry and Biochemistry, San Marcos, California

8/2013-2016	St. Philip's College, Instructor of Meteorology, Oceanography, Earth Science Science and Mathematics Summer Academy, San Antonio, Texas
6/2014-2014	St. Philip's College, Instructor of Statistics Motivating and Engaging STEM Activities, San Antonio, Texas
7/2012-2012	San Antonio College, Instructor of Calculus, Pre-Calculus Upward Bound Math and Science, San Antonio, Texas
1/2012-8/2013	Tutor Doctor, Contracted Tutor of Algebra, Chemistry, Physical Geography San Diego, California

## **PUBLICATIONS AND PRESENATIONS**

7/7/2012	Journal of Geophysical Research-Atmospheres: "Changes of the Prevailing Trade Winds over the Islands of Hawaii and the North Pacific"
2008	McNair Scholars Research Journal, Volume VIII: "Cloud Seeding Effects and Processes"
6/6/2004	San Antonio Express Newspaper: "Littering An Epidemic That Must Be Treated", Metro Edition
9/2010	Featured in KITV Honolulu, Top Weather Story: "Are Trade Winds Winding Down?"
8/2011	Presentation: Meteorology, instrumentation, and career choices at St. Philip's College Center of Excellence Science and Math Summer Academy
11/2010	Seminar Presentation: "Climatology and Changes of Northeast Trade Winds over the Islands of Hawaii" presented at Joint Meteorology and International Pacific Research Center Seminar
11/2010	Symposium Presentation "Cloud Seeding Effects and Processes": 9 <sup>th</sup> Annual McNair Scholar Research Conference in College Park, Maryland, McNair symposium in San Antonio, Texas and McNair Scholar seminar in Denton, Texas

# FIELD WORK AND SERVICE

- Wildlife Tracker- San Diego Wildlife Tracking Team, 8/2017
- Chaparral Naturalist- California Chaparral Institute 2016

- U.S. Forest Ranger- San Gorgonio Wilderness Association, 5/2015- 5/2016
- Tide Pool Exhibitor- UC San Diego Birch Aquarium, 1/2015-5/2015
- STEM Events:
  - o Encuentros Education & Career Exploration STEM Conference 2013
  - o Barrios Empowerment Conference 2013 and 2104.
  - o Earth Day representative at Camp Pendleton 4/2014
- National Weather Service (NWS) volunteer:
  - o Fred Hall Boat Show 2012 and 2014
  - o California Science Education Conference 2013
  - o Mission Viejo Disaster Preparedness 2014
  - o San Clemente Readiness Festival 2015
  - o AMS Weather Fest volunteer 2007
- American Red Cross Disaster Action Team 2013-2016 and training workshops:
  - o Psychological First Aid
  - o Client Casework- Providing Emergency Assistance
  - O Disaster Assessment Fundamentals
  - o ARC 2005 Hurricane Katrina Relief volunteer
- Mentor with the Big Brothers Big Sisters of San Diego County 2012

#### RESEARCH SKILLS AND TECHNOLOGY

- Experience with Geographic Information Systems (GIS) ARC Map 10.1
- Graduate assistant research meteorologist skills include comprehension in: statistical methods in the atmospheric sciences involved techniques for data analysis, parametric probability distributions, forecast verification, time series analysis, and hypothesis testing
- MATLAB computer software and the Mann-Kendall nonparametric statistical test were used to evaluate 37 years of climatology data, while the GrADS computer program assessed Reanalysis II data

### **AWARDS AND HONORS**

- National Weather Service Fellowship, Univ. of Hawaii at Manoa
- Hispanic Scholar Fund Scholarship Recipient
- Academic Scholarship, University of the Incarnate Word
- Dean's List and McNair Scholars Program, University of the Incarnate Word
- Outstanding Service and Achievement in Meteorology Award
- Recognition at the Honors Convocation for the School of Math, Science, and Engineering

## PROFESSIONAL AFFILIATIONS

- American Meteorological Society San Diego Chapter
- American Geophysical Union Member
- Association for Women Geoscientists Member
- American Meteorological Society/National Weather Association Student Chapter Vice President, UIW
- Hispanic Latino Association Historian

## PROFESSIONAL DEVELOPMENT

- Courses and Programs/Curriculum Committee Member, MiraCosta College
- Best Practices in Learner-Centered Teaching: Active Learning Techniques for Use in Your Classroom, Palomar College and the North County Higher Education Alliance
- U.S. Geological Survey and The Water Education Foundation: Project Water Education for Teachers workshop
- Program for Online Teaching, MiraCosta College