Kenny L. Tapp

METEOROLOGIST — EARTH/GEOGRAPHIC SCIENCE EDUCATOR

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QUICK STATS

As of Summer, 2023:

- 239 college courses & 6,710 students taught
- 29 online courses developed & taught
- 2 online courses achieved national Quality Matters Seal
- 83-98% consistent course retention
- 200+ tornadoes observed
- Avg. Course: 19 custom learning modules with 128 ADA accessible webpages
- 96 micrometeorites discovered
- National & Local TV background

EDUCATION

M.S., B.S. in Meteorology, University of Oklahoma, 2007, 2004

Geography/GIS: Univ. of Oklahoma, St. Cloud State Univ., Bemidji Univ. [18 Grad. CR]

PROFESSIONAL EMPLOYMENT

Instructor, Texas State University, 2023 - Present

Instruction of Meteorology courses. *1 course section taught include:*

GEO 1305	**Meteorology**	

Instructor, School of Meteorology, Univ. of Oklahoma, 2006 – 2008

Instruction of Meteorology courses, coordinate teaching assistants. *5 course sections taught include:*

METR 2603	**Severe and Unusual Weather**	Achieved 92% retention
METR 2024	**Introduction to Meteorology Lab**	

Adjunct Professor, Northeastern State University, 2016 – Present

Instruct online science courses, including design within Blackboard LMS. *17 course sections taught include:*

SCI 1314	Astronomy + lab	Achieved 90% retention
SCI 4124	Earth Science	
SCI 4113	**Severe Storms**	

Adjunct Professor, Minnesota State Colleges and Universities, 2012 – Present

Develop and instruct ONLINE courses within D2L/ Brightspace LMS. *47 course sections taught include:*

GEOG 1250	**Intro to Meteorology + lab** (Riverland)	Achieved 92% retention
GEOG 1021	Physical Geography (Century)	
EASC 1310	**Meteorology + lab** (St. Cloud)	Achieved 83% retention
GEOG 2104	Modeling Techniques in GIS (Itasca)	
PHYS 1020	Descriptive Astronomy (Inver Hills)	QM Certified May, 2015
ASTR 1000	Introduction to Astronomy (Riverland)	QM Certified August, 2015
ASTR 1300	Astronomy (St. Cloud)	Achieved 97% retention

Adjunct Professor, Blinn College, 2022 – Present

Instruct online Meteorology courses, including design within Canvas LMS. *4 course sections taught include:*

GEOL 1347	**Meteorology + lab**

Visiting Lecturer of Atmospheric Science/Meteorology, University of the Incarnate Word, 2020 – 2021

Develop & Instruct Meteorology courses (asynch. and synchronous online). *10 course sections taught include:*

METR 3310 **Radar Meteorology**	METR 3330 **Weather Forecasting I**
METR 1360 **Climatology**	METR 4371 **Tropical Meteorology**
METR 3390 **Meteorological Instrumentation***	METR 1125 **Natural Hazards***
METR 1430 **Intro. to Meteorology***	*course + lab

Adjunct Professor of Physics/Geography, Univ. of Central Oklahoma, 2010 – 2017

Instruct and develop on-campus and online courses. Advise Supplemental Instructors, develop hands-on demonstrations, and design customized learning content and media. *39 sections taught include*:

PHY 1014, 1024	University Physical Science + lab (+ONLINE)	Achieved 98% retention
PHY 1304	Descriptive Astronomy (+ONLINE)	Achieved 96% retention
PHY 1114	College Physics I + lab	
PHY 3014	Earth Science (ONLINE)	Achieved 100% retention
GEO 2403	**Weather and Climate** (ONLINE)	Achieved 84% retention
GEO 3233	**Severe Weather** (ONLINE)	Achieved 92% retention

Adjunct Professor, Ivy Tech Community College, 2017 - 2022

Instruct online science courses with labs, within Canvas LMS. *20 sections taught include:*

SCIN 100	Earth Science + lab	Achieved 100% retention
SCIN 111	Physical Science + lab	Achieved 100% retention

Adjunct Professor of Physics/Geology, Oklahoma City Community College, 2007 - 2020

Instruct physics courses, including design within Moodle LMS, develop cooperative learning activities, and produce custom media content for Physics Labs. *71 course sections taught include:*

PHYS 1013, 1014	Physical Science + lab (+ONLINE)	Achieved 97.5% retention
ASTR 1504	General Astronomy	
GEOL 1064	Earth Science + lab	
PHYS 1114	Physics I + lab	

Adjunct Professor, Southwestern Oklahoma State University, 2018 – Present

Instruct online science courses, including design within Canvas LMS. *28 course sections taught include:*

SCI 1513	Concepts of Physical Science	Achieved 100% retention
SCI 1501	Physical Science Lab	

AWARDS AND SPECIAL RECOGNITION

Quality Matters Course Certification, Online Astronomy @ MNSCU, May & August 2015
Adjunct Professor of the Year, Div. of Science and Mathematics, OCCC, 2012
Meteorological Measurements Scholarship, School of Meteorology, Univ. of Oklahoma, 2003
Governor's Award for Tomorrow's Leaders, Governor Frank O'Bannon, State of Indiana, 2003
Best TV Newscast, "Norman Today", Oklahoma Broadcast Education Association, 2003

PROFESSIONAL DEVELOPMENT AND SERVICE ACTIVITIES

Peer Reviewer Course (APPQMR) Workshop, QMProgram.org, Dec. 2022
Peer Mentor (help faculty build online courses within D2L/Brightspace), Century College, 2020-2022
Applying the QM Rubric (APPQMR) Workshop, QMProgram.org, Mar. 2022
Invited Speaker, Minnesota State – OER Symposium, March 2019
Invited Speaker, Oklahoma Regents – Council for Online Learning Excellence, 2017-2018-2019
Participant, Grand Canyon National Park Annual Star Party, June 2014
Invited Speaker, Oklahoma City Astronomy Club @ OKC Science Museum, April 2014
eLearning Course Design Workshop, Univ. of Central Oklahoma, Spring 2013
Applying the QM Rubric (APPQMR) Workshop, QMProgram.org, Jan. 2013
Heartland eLearning Conference, Univ. of Central Oklahoma, Spring 2011, 2012, 2013
eLearning Facilitation Workshop, Univ. of Central Oklahoma, Fall 2011
OU Representative, COSMIC Workshop, National Science Foundation, Taipei, Taiwan, 2005.
OU Representative, Undergraduate Leadership Workshop, National Center for Atmospheric Research, Boulder, Colorado, 2003.

EDUCATION, OUTREACH, AND RESEARCH GRANTS

Campus Open Textbook Initiative, Minnesota State Colleges and Universities – Create digital/web based, universally accessible, OER introductory astronomy course: $25,000. (March, 2016)
Ripley County Community Foundation, Indiana –Meteorological Observation Tower: $12,000. (October, 2004)
Rising Sun Regional Foundation, Indiana –Environmental Educational Content Creation: $6,000. (April, 2003)
State Farm Insurance Company, Indiana – Interactive Severe Weather Exhibit: $4,000. (August, 2002)

PUBLICATIONS

McPherson, W. Jr., M. Yuan, D. Giuliano, K. Tapp, and J. Rush, 2005. Siting New England: a GIS prototype for site selection for the NWS Modernized Cooperative Network. Ninth Symposium on Integrated Observing and Assimilation Systems for the Atmosphere, Oceans, and Land Surface (IOAS-AOLS), January 12, 2005. San Diego, California.

Tapp, K., and R. A. McPherson, 2006. The use of WSR-88D precipitation estimates for near real-time quality assurance of surface network rainfall observations. 22nd International Conference on Interactive Information Processing Systems for Meteorology, Oceanography, and Hydrology (IIPS) Poster Session, February 1, 2006. Atlanta, Georgia.

GRADUATE RESEARCH

Thesis Title: "*Use of WSR-88D Precipitation Estimates for Near-Real Time Quality Assurance of Oklahoma Mesonet Rainfall Observations*"

This research project investigated the use of WSR-88D (National Weather Service Doppler radar) precipitation estimate products for near real-time quality assurance (QA) of surface meteorological networks, such as the Oklahoma Mesonet. At the time of this project, there was not an automated method to evaluate the quality of rainfall data in real-time. within the Oklahoma Mesonet. Case study events were examined in order to design and test an automated QA procedure using radar estimates and gauge measurements. A Geographic Information System (GIS) was used to assimilate radar data and perform spatial analyses to create time series rainfall data from an event; all precipitation events were categorized using GIS and other radar tools.