

**EDUCATION**

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**UNIVERSITY OF TEXAS AT ARLINGTON** – *Arlington, TX* **2010**  
**Master of Science, Earth and Environmental Science**

**NORTHERN ARIZONA UNIVERSITY** – *Flagstaff, AZ* **2005**  
**Bachelor of Science, Biology**

**PROFESSIONAL EXPERIENCE**

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**TEXAS A&M UNIVERSITY COMMERCE** – *Commerce, TX* **2019 - Present**

- Part-time instructor of Earth Science, Physical Geology, & Historical Geology.

**COLLIN COLLEGE COMMUNITY COLLEGE** – *McKinney, TX* **2015 - Present**

- Full time faculty instructor of Environmental Science 1401 and 1402.
- Instructor of Environmental Science I and II, with lab. Interdisciplinary study of both natural (biology, chemistry, geology) and social (economics, politics, ethics) sciences and as they apply to the environment.

**DALLAS COUNTY COMMUNITY COLLEGE** – *Dallas, TX* **2010 - Present**  
**Faculty, Earth Science and Environmental Science**

- Instructor of Earth Science with lab. An introductory survey of physical and historical geology, oceanography, meteorology, and astronomy.
- Instructor of Environmental Science I and II, with lab. Interdisciplinary study of both natural (biology, chemistry, geology) and social (economics, politics, ethics) sciences and as they apply to the environment.
- Instructor of Oceanography with lab. Introductory study of the geological, chemical, physical and biological characteristics and processes of Earth's oceans. Topics include the formation of ocean basins, currents, waves and tides, oceanic interaction with the atmosphere, marine pollution, marine resources, and life in the ocean.
- Course development of online and on campus courses in Earth and Environmental Science.

**STEM Grant Program Coordinator**

- A managerial level position responsible for hiring, training, supervising and evaluating STEM staff and student interns.
- Arranged student internships with STEM businesses in DFW area, including hospitals, city departments, research institutions, zoo, museums and private industry. Provide expertise in biology, geology, and environmental science, and individually work with interns to design research projects to conduct during their internship. Assist interns with data collection, analyses, and formal presentation to the STEM community.
- Provided a link between the grant program, and internal and external constituent groups, such as other colleges, businesses and philanthropic communities. Routinely meet with constituent groups to foster on going community involvement with our program and STEM students.
- Developed the design of new environmental science, geology and physics lab facilities. Managed equipment purchases, vendor relations, and grant reporting.

**COLORADO COMMUNITY COLLEGE ONLINE** – *Denver, CO* **2011 –2014**

**Adjunct Faculty, Online Biology and Geology**

- Instructor, Physical Geology with lab. Integrated study of earth materials and processes and interactions between solid earth, oceans, atmosphere, and biosphere. Included is an introduction to plate tectonic theory, geochemistry, geophysics, hydrology, and geomorphology.

- Instructor of General Biology I with lab. An introductory survey of contemporary biology for students majoring in the sciences. Topics taught include the chemical basis of life, structure and function of cells, energy transformations, and molecular biology and genetics.
- Instructor of General Biology II with lab. An introductory survey of current biological concepts for students majoring in the sciences. Emphasis is placed on topics of evolution, biological diversity, ecology, and comparative structure and function of organisms.

**UNITED STATES GEOLOGICAL SURVEY – Ft. Worth, TX**

**2010 - 2011**

**Hydrologist**

- Served as USGS scientific diver and researcher on invasive species zebra mussel project, funded by the North Texas Municipal Water District and the Trinity River Authority. Regularly monitored lakes for zebra mussel presence using SCUBA and plankton tow surveys, and determined distribution and abundance in state waterways. Expertise in identification of species by microscopy and molecular analysis.
- Expertise in paleoclimate and geochemical data analysis. Researcher and scientific diver on large scale paleoclimate study conducted in Florida Middle Grounds.
- Identified environmental contributors affecting water quality as part of the National Water-Quality Assessment Program. Routinely collected freshwater samples and conducted field lab tests including titrations, DO, BOD, and heavy metals.
- Experienced in water quality and sediment collection and analysis, and invertebrate benthic survey of Texas Gulf Coast in aftermath of Deep Water Horizon Oil Spill.

**GEO-MARINE – Plano, TX**

**2007 – 2010**

**Environmental Specialist and Science Librarian**

- Environmental Program Manager, Los Angeles Air Force Base Space Command. Program manager of Qualified Recycling Program, Solid Waste, and NEPA programs. Responsible for ensuring all federal policy's and management plans were correctly implemented by air force base personnel.
- Conducted literature reviews and generated *Endnote* reference libraries for contracted reports including environmental assessment and marine resources reports. Research expertise in areas of alternative energy, marine ecology, fishery science, terrestrial biology, and T&E policy.
- Expert in scientific SCUBA diving /identification of Pacific/Caribbean invertebrate, fish and limu species. Experienced in numerous underwater survey methods, underwater photography, and dive safety.

**UNIVERSITY OF TEXAS AT ARLINGTON – Arlington, TX**

**2008 – 2010**

**Graduate Student, Earth and Environmental Science**

- Conducted research on coral immune stress response to bleaching and water pollution. Experienced in coral tissue protein extraction and blot analysis. Studied differences in coral growth and calcification rates in response to heat stress.
- Paleoclimate research project involving in-depth study of Karst geology and cave exploration, and speleothem sample collection, and geochemical and isotopic analysis.

**HARVARD INSTITUTE OF MEDICINE, BRIGHAM AND WOMEN'S HOSPITAL – Boston, MA**

**2005 – 2006**

**Neurobiologist, Department of Neurology**

- Conducted research on Alzheimer's and Parkinson's disease. Breed transgenic mice and performed PCR based genotyping and protein expression assays on diseased colonies.
- Purchased lab equipment, maintained inventory records, and provided oversight of safety protocols.
- Utilized various computer software packages to organize research data and administrative records, and assisted with grant writing and submission.

**NORTHERN ARIZONA UNIVERSITY – Flagstaff, AZ**

**2004 – 2005**

**Researcher, Department of Biology**

- Granted two-year research award to study endocrine disruption associated with uranium exposure in drinking water. Research showed exposure results in the up regulation of progesterone receptor mRNA in exposed subjects.
- Project involved conducting conventional and real-time PCR, tissue culture and enzyme restriction. Extensive safety training in handling radioactive material and performing animal surgery.
- Research findings culminated with peer-reviewed abstract publication and poster presentation at the Endocrine Society meeting, June 2005.

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## ACADEMIC COURSE WORK, FIELD EXPERIENCE, AND LABORATORY SKILLS

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### UNIVERSITY OF TEXAS AT ARLINGTON – *Arlington, TX* 2010 **Environmental Geochemistry**

- Paleoclimate research project involving speleothem sample collection and isotopic analysis. In depth study of Karst geology with fieldwork and cave exploration.

### UNIVERSITY OF HAWAII, HILO - *Hilo, HI* 2008 **Quantitative Underwater Ecological Survey Techniques**

- Field course on coral reef survey methods and identification of Pacific invertebrate, fish and plant species; advanced topics in coral-reef ecology, community ecology and trophic ecology.

### NORTHERN ARIZONA UNIVERSITY – *Flagstaff, AZ* 2005 **Ecology Research**

- Field and laboratory data collection and interpretation of the effects of nitrogen deposition on ecosystem diversity and soil chemistry.

**Laboratory skills:** microscopy, real-time PCR, northern blot analysis, tissue culture, enzyme restriction, micro-core drilling, geochemical analysis, water quality (DO, BOD, trace metals, PCP's).

**Relevant coursework:** environmental geochemistry, marine geochemistry, GIS, environmental chemistry, environmental engineering, environmental risk assessment, toxicology, air pollution, molecular biology, biochemistry, microbial ecology, coral biology, reef ecology, physical oceanography.

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## HONORS AND AWARDS

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- **Phi Theta Kappa Teaching Excellence Recognition Award- 2013**
- **United States Air Force, Award for Excellence, Presented by the Commander 61<sup>st</sup> Air Base Group -2011**
- **U.S. Department of Interior Service Recognition Award, Deepwater Horizon Oil Spill Response – 2010**
- **Golden Key International Honor Society – 2009**
- **Northern Arizona University Hooper Undergraduate Research Award – 2004/2005 and 2005/2006**
- **Northern Arizona University President's Award for Academic Achievement – 2005**
- **Society of Physics – 2003**
- **European Organization for Nuclear Research (CERN) Student Award – Geneva, Switzerland – 2003**
- **Phi Theta Kappa -2002**

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## PUBLICATIONS

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**Kayla M. Gibbs**, S.R. Whish, C.A. Dyer, and T.M. Layton. 2005. Abstract, Uterine progesterone receptor mRNA levels are increased in mice drinking uranium contaminated water. Presentation at the Endocrinology Society Meeting, 4-7 June 2005, San Diego, CA.

### **Technical Reports**

NJDEP (New Jersey Department of Environmental Protection). 2010. Ocean/ wind power ecological baseline studies- Final report. Prepared for New Jersey Dept. of Environmental Protection, Division of Science, Research & Technology. Prepared by Geo-Marine, Inc., Plano, Texas.

Levesque, J.C., **K. Gibbs**, A.F. Perry, and A. Richardson. 2009. Evaluation of the United States essential fish habitat consultation process. Contract number WCI33FO8SE1978. Prepared for National Oceanographic

Atmospheric Administration, National Marine Fisheries Service, Office of Habitat. Prepared by Geo-Marine, Inc., Plano, Texas.

DoN (Department of Navy). 2008. Assessment of marine resources in the European waters- Final report. Contract number N62470-02-D09997, CTO 0025. Prepared for Dept. of the Navy, Naval Facilities Engineering Command, NAVFAC Atlantic, Norfolk, Virginia. Prepared by Geo-marine, Inc., Plano, Texas.

DoN (Department of Navy). 2008. Assessment of the protected and commercial marine resources in the Gulf of Mexico complex operating areas- Final report. Contract number N62470-02-D09997, CTO 0025. Prepared for Dept. of the Navy, Naval Facilities Engineering Command, NAVFAC Atlantic, Norfolk, Virginia. Prepared by Geo-marine, Inc., Plano, Texas.

DoN (Department of Navy). 2008. Marine resources assessment for the Southern California and Point Mugu operating area- Final report. Contract number N62470-02-D09997, CTO 0025. Prepared for Dept. of the Navy, Naval Facilities Engineering Command, Pacific Division, Pearl Harbor, Hawaii. Prepared by Geo-marine, Inc., Plano, Texas.

DoN (Department of Navy). 2008. Overseas environmental impact statement: Undersea warfare training range. Prepared for Dept. of the Navy, Naval Facilities Engineering Command, Norfolk, Virginia. Prepared by Geo-marine, Inc., Plano, Texas.

DoN (Department of Navy). 2007. Marine resources assessment for the Mediterranean Sea, Adriatic Sea, Aegean Sea- Final Report. Prepared for Dept. of the Navy, Naval Facilities Engineering Command, Norfolk, Virginia. Prepared by Geo-marine, Inc., Plano, Texas.

#### ***Recent Presentations***

“Endocrine disrupting compounds and emerging contaminants.” United States Geological Survey, Water Science Center. Presented by Kayla Gibbs to Trinity River Audubon Society, Dallas, Texas. 5 January 2011.

“Hydro-fracking, What does it even mean?” El Centro College. Presented by Kayla Gibbs to Texas for the Environment, Dallas, Texas. 12 June 2012.