

M. Cheri Davis, EdD
Texas A&M University-Commerce
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Education	Texas A&M University-Commerce
➤ Ed.D.	Supervision Curriculum & Instruction in Higher Education: Educational Leadership 2013
Dissertation	Mathematics and Science Education Attrition, Retention, & Migration: A Study of Three Urban School Districts in the State of Texas
➤ Master of Science	Broadfield Science focus in Physics 2005
Masters Research	K-12 Curriculum alignment differential between NSES & TEKS
➤ Bachelor of Science	Interdisciplinary Studies focus in Science 2002-2004
Teacher Certification	Composite Science Current

Professional Experience

- **Texas A&M University-Commerce** **2005-present**
Planetarium Director **2018**
Professional Track Faculty-Physics & Astronomy

- Assistant Planetarium Director 2005-2018
Professional Track Faculty-Physics & Astronomy

- Courses taught
 - ASTR 1303 Stars & Universe
 - ASTR 497 NASA Educational Astronomy Grant-Undergraduate
 - ASTR 597 NASA Educational Astronomy Grant-Graduate
 - IS 351 Science Inquiry I-Physics
 - IS 352 Science Inquiry II-Chemistry
 - IS 451 GLB/Historical Development of Science
 - IS 489 Independent Studies-Undergraduate
 - IS 1315/1415 Integrated Science
 - PHYS 489 Independent Studies-Undergraduate
 - UNCO 1301 Signature Course I: Egyptian Cultural Study

- Astronomy lab coordinator/instructor
 - ASTR 1104/1411/101 Solar System Lab
 - ASTR 1103/1412/102 Stars & Universe Lab
 - ASTR 260 Archaeoastronomy
 - ASTR 310 Observational Astronomy

Academic Service/Grants

Service

- Curriculum Development and Publication, IS 351, 352, PHYS 1401,1402,2425, & 2426, 2018
Van-Griner Publishing
- Search Committee PHAS 2018
- Mentor PASS Grant Awardees 2017-current
- Signature Course: *Walk like an Egyptian*, fall 2017, 2018
 - Research panel
- APS National Mentoring Community, 2017-current
- TSGC Grant Reviewer/Scholarship, NIP, K-12 Projects, & HIED 2014-current
- Mentor Adjunct Instructors, 2011-current

- Region VIII Collaborative, Astronomy/Weather 2015
- Search Committee SC&I, 2 positions, Math & Science, Sp 2015
- LeoTeach Council 2013-current
- Columbia Crew Scholarship Committee TAMU-C
- SARA Consortium/Undergraduate Research Group
- TExES Assessment Review Committee: THECB, ETS, & TEA
- Archaeoastronomy trip coordinator, New Mexico, (annually) 2011-current
- TAMUC Annual Research Symposium session chair (2013, 2015)
- Faculty Search Committee-Math Department 2012, 2013
- Region 8 Service Center-Teacher Professional Development (Exo Planets)
- Noyse Scholars, Chemistry-Summer Program 2012
- Metroplex Technology Business Council Member (2012-2017)
- REU Research Summer 2012, 2016
- Conference Committee for the 11th International Conference on Nucleus-Nucleus Collisions 2012
- Project Dream 2011, 2012
- Annual Research Symposium 2012-judge
- Region 8 Service Center Teacher Development Collaboration 2012 (Celestial Mechanics)
- Photometry and Lightcurve Analysis of Asteroids Research
- Region 8 Service Center Teacher Development Collaboration 2011 (Astronomy)
- Texas Section, American Physical Society Conference Coordinating Committee
- NSF Conference
- Consultant for planetarium facility: development/HR/budget/management
- Co-coordinator APS Conference-Texas Section

- Region 8 Service Center Teacher Development Collaboration 2010
- Photometry and Lightcurve Analysis of Asteroids-Feasibility Study 2010
- *Undergraduate/Graduate level course developed for preservice/in-service teachers-focus: pedagogy, mathematics, and science content*
- Organize and facilitate *Space Camp* for middle school students
 - Project co-administrator
 - Curriculum development
 - Instruction

Grants

- NSF Grant Participant: A Model of Educational Transformation: Developing a Community of Faculty Implementing Next Generation Physical Science and Everyday Thinking (Award #1626496) 2017 (current)
- NSF Grant PASS: Physics and Astronomy Scholarships for Success (Awarded) Bao-An Li (PI), Cheri Davis, and Matt Wood (Co-PIs), NSF, \$570,782, May 1, 2016-April 30, 2016 (resubmitted/awarded March 20, 2017) (current)
- TAMUC Planetarium renovation/upgrade planetarium system to Evans & Sutherland's Digistar 5, dlp projectors, (\$518,000 contract) 2013
- *Aerospace Educational Services Project-AESP Grant-Explorations of the Solar System* Funded through the National Space Grant Foundation, Grant PI (Award \$28,888) 2010
 - *Undergraduate/Graduate level course developed for preservice/in-service science teachers-focus: delivery methods and astronomy content*
- *Math, Science and Technology Teacher Academy (MASTA)* Grant funded through the Texas Higher Education Coordinating Board (Award \$685,000) 2009-2010 Senior member, Instructor, site visits
- *Aerospace Educational Services Project-AESP Grant-Lunar Exploration* Funded through the National Space Grant Foundation, Grant PI (Award \$25,314) 2009
 - *Graduate level course developed for in-service science teachers with a focus on delivery methods and astronomy content*
 - Grant PI, instructor, curriculum development, on-site school visits, exhibit procurement

Job requirements

- Planetarium operations
 - Contract negotiations, promotional material, public relations and media releases, public speaking engagements, special programs coordinator, computer programming and show development, hire/manage/train staff, equipment procurement, presenter for live planetarium shows

- Create and manage department website & social media sites for planetarium and observatory
 - Work with school districts; content delivery, staff support, program development
 - Train GA's for planetarium lab utilization
 - Special programs: Boy Scouts, Girl Scouts, Girls in Science
- STARLAB—portable planetarium system
- Observatory Operations
 - Construction, expansion
 - Observatory facilitation: Astronomical CCD Imaging, Astronomical computer programs: Maxtor, MaxIm DL, SBIG, Meade, InFocus, the SkyX, astronomical observation with astronomy students, host public open houses, photometric research analysis, feasibility study, labs
- Assistant Professor: science education courses, curriculum development, pedagogical standards, assessments and outcomes, testing strategies, mentor/adviser
- Train/Instruct astronomy labs, content development, astronomical imaging, developed user manuals for the observatory and imaging equipment
- Student projects: radio/TV

Professional Associations

- NASA Texas Space Grant Consortium Representative (current)
 - University representative
 - Nominated for Board Member 2018
 - Annual reviewer of grant proposals: New Investigations, Higher Education Programs, K-12 Educational Programs
 - Scholarship/Fellowship review and promotion
 - Fellowship Awardee 2008, 2009, 2010
- Professional Organizations
 - SARA Consortium-The Southeastern Association for Research in Astronomy
 - American Astronomical Society (AAS)
 - American Physical Society (APS)
 - ASCD-Association for Supervision and Curriculum Development
 - Association of Texas Professional Educators (ATPE)
 - Digistar Users Group (DUG)
 - International Planetarium Society (IPS)
 - National Science Teachers Association (NSTA)
 - Science Teachers Association of Texas (STAT)
 - Metroplex Technology Business Council (MTBC)

Research, Awards, and Publications

- Honorary Membership Phi Eta Sigma Honor Society, Signature Classes-First Year Development, 2018
- Davis, Margaret Cheri. *Mathematics and Science Education Attrition, Retention, and Migration: A Study of Three Urban School Districts in the State of Texas*, Order No. 3595285 Texas A&M University - Commerce, 2013 Ann ArborProQuest. 15 Oct. 2014
- Montgomery, K.A., Davis, C., Renshaw, T., & Rolen, J., *Photometric Study of 5 Asteroids at A&M Commerce Observatory*, Minor Planet Bulletin, 2013
- Texas A&M Commerce President's Meritorious Service Award 2011
- NASA Texas Space Grant Fellowship Award, 2010
- AESP Grant-Explorations of the Solar System 2010
- MASTA Grant, Senior Member 2009-2010
- Texas Space Grant Fellowship Award, 2009
- AESP Grant-Lunar Explorations, 2009
- Texas Space Grant Fellowship Award, 2008
- TxCept Grant Recipient, 2004
- A National Study of Baccalaureate Degree Completions in the Sciences: An Overview of Institutional Success by Public, Private, and Proprietary, Academic Leadership, Volume 7 - Issue 4, Dec 7, 2009

Previous Employment

- GISD 2005
 - Junior High Science Teacher, Longevity study for NOVA course development: Interviews, Committee Observations
 - Mentor students in the career development program at New Horizons for GISD graduating students who were interested in teaching as a profession
 - BETA Sponsor
- Texas A&M University-Commerce 2003-2005
 - GA-Dr. G Naizer—MLED & ELED Department: Assistant, Technology
 - TA-Dr. K West—Physics Department: Science Education Courses, Integrated Science-351 & Advanced Integrated Science 451, NOVA course development
 - Coordinator-NASA trip for preservice science teachers, training and content development
- CISD 1999-2004
 - Junior High Science Teacher
 - Alternative Education Program: Instructor (grades 1-12), Program Development, Collaboration for area school districts utilizing CISD's AEP Program
 - SPED: Facilitate resource and SPED for grades 7-12 serviced all subjects areas with a focus in math and science, ARD meetings, and IEP's
 - BETA Sponsor
 - Student Council Sponsor