Institutionalizing STEM Outreach
at Texas Tech University

Jaclyn Cañas-Carrell (Environmental Toxicology)
Jerry Dwyer (Mathematics)
Lawrence Schovanec (Provost)
Levi Johnson (STEM-CORE)
Historical Perspective
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Early Outreach and Engagement:

- CISER
- T-STEM Center
- IDEAL
- TTU UIL
- GEAR
- NSF Project SERVE (Science Enrichment Using Retired Volunteer Educators)
Outreach in Mathematics & Statistics

- TexPREP
- K-12 Math Clubs
- Service Learning
- S-STEM
- Outreach Mathematician
Funding Progression
A “Siloed” Approach

- Individual
- Departmental
- Sciences
- Engineering
- Education
Funding Progression

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Collaborative Efforts
- NSF GK-12
- NSF MSP
- GTF MS^2
- NSF Noyce
- NIH Bridges
- NSF I^3
Integrated STEM Initiative on the South Plains
Integrated STEM Initiative on the South Plains

- Original PI Team
  - Guy Bailey, President – PI
  - Lawrence Schovanec, Dean – Co-PI
  - Juan Muñoz, VP – Co-PI
  - Jerry Dwyer, Math – Co-PI
  - Jaclyn Cañas-Carrell, Environmental Toxicology – Co-PI

- Presidential support
- Program administrator
- Campus-wide coordinator
Integrated STEM Initiative on the South Plains

- STEM Website
Integrated STEM Initiative on the South Plains

- STEM Website
- STEM Education & Outreach Network
- K-12 Math & Science Clubs
- Fostered opportunities for collaboration
- Cross-departmental seminars
- Developed financial and HR infrastructure
- Institutional Research
Undergraduate Mentoring Initiatives

- One-to-one
- Peer
- Seminars
- Faculty Round-tables
- Mentee training
Community College Partners

- Plains Bridges – South Plains College
- Joint proposals – Midland College, Odessa College
- New partners – Howard College (4 campuses)
- Mesalands Community College (New Mexico)
Tenure and Promotion

- Outreach scholarship vs. service
- Campus wide OP
- College guidelines
- Departmental guidelines
Institutionalizing STEM Outreach at Texas Tech University

STEM Center for Outreach, Research & Education
STEM-CORE Evolution

- Motivated by I^3, A&S STEM Council
- 6 Academic Deans
- 6 Associate Directors
- Administrator
STEM-CORE Objectives

- www.stem.ttu.edu
- Database of resources
- Facilitate collaborations
- Enhance grant writing
- Assessment
- Advocate for T&P recognition
Challenges
Challenges

- Finance & HR processes
- Siloes
- Tenure & promotion traditions
- Traditional view of scholarship
- Dependencies on external funding
Looking Ahead
Looking Ahead

- Develop STEM-CORE resources
- Expand T&P guidelines
- Enhance research agenda
- Continued institutional research
- Texas critical degrees: Outcomes funding
- New TTU Office of Outreach & Engagement
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