THE GEOSPATIAL ECOSYSTEM MANAGEMENT PROGRAM (G.E.M.)

A TWO-YEAR PROJECT TO STRENGTHEN & ENHANCE EXISTING EDUCATIONAL PROGRAMS IN RANGE, WILDLIFE, NATURAL RESOURCES AND HABITAT MANAGEMENT

CONTRACT NO: **2007-38422-18038.** PROPOSAL NO: **2007-02407.** GRANT AMT: **$240,000**
Southwest Texas Junior College, Texas Agricultural Experiment Station, Texas A&M University
USDA Collaborator: NRCS

CSREES\USDA Relevant priorities:

Strategic goals: (2) Enhance the competitiveness and sustainability of rural farm economies, and (6) Protect and enhance the nation's natural resources base and environment.

Educational Needs Areas: (1) Curriculum design; (2) Faculty preparation and enhancement for teaching; (3) Instruction delivery systems; (4) Acquisition of new instrumentation; (5) Student experiential learning; and (6) Student recruitment and retention.

OBJECTIVES

- Broaden educational opportunities for Texas undergraduates in the GEM fields.
- Increase the diversity of the students entering GEM and related fields at the undergraduate, graduate and, ultimately, career levels.
- Expand the shared capacities of the partnering institutions through faculty training, improvements in GEM instructional facilities, and ongoing programmatic evaluation.

BENEFICIARIES

- Educational opportunities in geospatial techniques: 16 – 20 students (8 – 10 students per year).
- Academic and professional development pathway: 2 – 6 students (2 – 3 students per year).

EVALUATION:

External evaluation tasks, provided by West Texas A&M University, will be implemented to provide information to the following evaluation questions:

- How has the professional development for SWTJC faculty prepared them to implement geospatial technologies in their courses?
- How has the intern experience impacted student participants?
- How has implementation of geospatial technologies in classes impacted SWTJC students?

ACTIVITIES

- Development of two new pilot courses at SWTJC: Geographic Information Systems and Remote Sensing.
- Establishment of internship opportunities in partnership with Texas Agricultural Experiment Station.
- Research presentations at professional society annual meetings.
- Acquisition of equipment and resources for geospatial science instruction, expanded faculty training, and student academic and professional development.
- Articulation agreement between SWTJC and TAMU to transfer students to the Ecosystem Science and Management Department at Texas A&M University.
- External programmatic evaluation through The West Texas Office of Evaluation and Research (WTER) at West Texas A&M University (WTAMU).

EXPECTED IMPACT

- Enhanced educational and professional opportunities with multiple avenues for continued development.
- enhanced pathway for students to transition from junior college into B.S. degree programs in the GEM disciplines
- Enhanced Institutional Capacity through acquisition of equipment and resources for geospatial science instruction, and through expanded faculty training in geospatial techniques and analysis.
- Increased diversity for the workforce in geospatial technologies.

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