

USDA's HSI Education Grants

Building Capacity in Science, Technology, Engineering, and Mathematics

University of Texas –El Paso
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CSREES MISSION



“To advance knowledge for agriculture, the environment, human health and well being, and communities.”

Program Supports USDA/CSREES Priorities

- Agricultural and Environmental Quality
- Agricultural Security
- Genomics and Food and Fiber Production
- Obesity, Human Nutrition, and Food Science
- Food Safety
- Rural and Community Development

USDA's HSI Education Grants Program Facts

- Funded 1997-2007
- \$ 40.5 million in funding
- Supporting institutions in 10 states and PR
- 184 Awards to date

FUNDING, FY 1997-2007 (in millions)

■ Texas	\$12.5
■ California	11.6
■ New Mexico	5.6
■ Puerto Rico	5.0
■ New York	2.0
■ Florida	1.1
■ Colorado	0.9
■ Arizona	0.9
■ Washington	0.5
■ Massachusetts	0.2
■ Illinois	0.2

Scientists Wanted

- Agricultural Engineer
- Animal Physiologist
- Biochemist
- Biological Engineer
- Biometrician
- Botanist
- Environmental Scientist
- Food Scientist
- Geneticist
- Hydrologist
- Civil Engineer
- Remote Sensing
- Plant Physiologist
- Toxicologist

Grants Program Need Areas

1. Curricula Design, Materials Development and Library Resources
2. Faculty Preparation and Enhancement for Teaching
3. Instruction Delivery Systems
4. Scientific Instrumentation for Teaching
5. Student Experiential Learning
6. Student Recruitment and Retention

1. Curricula Design, Materials Development and Library Resources



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- **Examples:**
 - Biotechnology courses
 - Nutrition/Dietetics
 - Dairy Science
 - Statistics
 - Watershed Science
 - New doctoral programs**

- **Increases quality and constantly renew academic materials and programs**

2. Faculty Preparation and Enhancement for Teaching

■ Examples:

GIS/GPS

Biotechnology

Plant breeding

Plant genomics

Genetics



- Advances faculty development in areas of teaching competency and leadership

3. Instruction Delivery Systems

- **Examples:**

 - Soils science

 - Environmental sciences

 - Food safety



- Encourages use of alternative methods of instruction to accommodate different learning styles and enhance education

4. Scientific Instrumentation for Teaching

- **Examples:**
Food Analysis
Food Chemistry
Liquid and applied
chromatography-mass
spectrometry
Aquaculture



- Purchasing scientific equipment and/or upgrading existing equipment to provide students with suitable, up-to-date laboratories, allowing for increased scientific understanding

5. Student Experiential Learning

■ Examples:

Molecular techniques

Biotechnology

Isolating DNA and RNA

Cloning

Environmental health science



- Provides internships and experiences that will further the student scientific & professional competencies development

6. Student Recruitment and Retention

■ **Examples:**

Mentoring programs

Financial assistance

Student ambassador programs



- **Strengthens initiatives to attract and retain students within agriculture and food programs**

Guidelines

The HSIs Education Grants Program promotes and strengthens HSIs' ability to execute higher education programs in the food & agricultural sciences.

- **ALL Projects-- Duration** – 24 to 36-months
- **Regular Project** \$250,000 –300,000 (1-2 HSIs)
- **Collaboration--** Max \$500,000 (3 or more HSIs)

Evaluation Criteria

Six Evaluation Factors (Total 100 points)

- | | |
|---|-----------|
| ■ Potential for advancing education quality | 30 points |
| ■ Approach and cooperative linkages | 25 points |
| ■ Institutional commitment and resources | 15 points |
| ■ Key personnel | 20 points |
| ■ Budget and cost-effectiveness | 10 points |

Best Practices

- Dual enrollment at 2-yr and 4-year institutions and articulation agreements
- Student mentors and faculty mentors
- Experiential Learning & Shadowing Experiences
- Developing new 2-, 4-yr, and graduate programs
- Research opportunities & student early exposure
- Summer camps & programs
- Paid internships and research stipends
- Access to technology and equipment

Thank You !!!

Visit our Website: <http://www.csrees.usda.gov>

HSI Education Grants Program Website

[http://www.csrees.usda.gov/fo/fundview.cfm
?fonum=1094](http://www.csrees.usda.gov/fo/fundview.cfm?fonum=1094)

To Apply to be a Peer Panel Review Member
Please contact: David Sosa, (202)720-1973
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