TECHNICAL ASSISTANCE WORKSHOP

Title III Overview

Dr. Andrea Cunningham

October 12, 2022

What is The Title III Strengthening Grants Program?

- **Funded through the Department of Education, the Title III Strengthening Grants Program provides funding to support institutions of higher education to help them become self-sufficient and expand their capacity to serve low-income students by providing funds to improve and strengthen the institution's academic quality, institutional management, and fiscal stability.**
- The primary purpose of Title III funds must be outlined in the Comprehensive Development Plan (CDP) submitted to the Department of Education. (*The CDP describes an institution's strategy for achieving growth and self-sufficiency.)*
- The non-competitive grants are funded through annual discretionary appropriations by the Department of Education.
- Each grant has a 5-year grant cycle; however, the funds are awarded year-to-year.

Office of Title III Strengthening Grants Program

- Facilitates the administration of 3 Department of Education funded grants:
  1. **HBCU** Part B - Historically Black Colleges and Universities
  2. **HBCU** Part F - F.U.T.U.R.E. Act (Fostering Undergraduate Talent by Unlocking Resources for Education) and,
  3. **HBGI -** Historically Black Graduate Institutions.

HBCU- Part B/F Phase I Formula

The HBCU Formula considers:

- **Number of Pell Grant recipients** *(defined as number of recipients attending the applicant institution during the school year immediately preceding the beginning of the fiscal year in which the applicant applies for a grant.)*

- **Number of graduates** *(defined as number of graduates of the applicant institution during the school year immediately preceding the beginning of the fiscal year in which the applicant applies for a grant. (34 CFR Section 608.4 defines "graduates" as a student who has attended an institution for at least three semesters and fulfilled academic requirements for undergraduate studies in not more than five consecutive school years.)*

HBGI Phase I Formula

The HBGI Formula Elements include:

- Ability of institution to match Federal funds
- Graduate Student Enrollment
- Average Cost of Education
- Number of African-American Graduate Students in STEM Programs
- Number of Graduates (African-American) from STEM Programs

4 Primary Focus Areas

1. **Academic Quality**
   - Improvement of basic skills courses
   - Faculty development
   - Curriculum Development
2. **Student Services and Outcomes**
   - Counseling (career, peer, personal)
   - Tutoring/mentoring
   - Establishing learning communities
   - Improvement of student facilities
   - Financial Literacy/Parents
   - Improving student retention and graduation rates
   - Increasing academic achievement
3. **Fiscal Stability**
   - Establishing a development office
   - Enhancing financial management
   - Establishing or increasing an endowment
4. **Institutional Management**
   - Creating and maintaining Management Information Systems
   - Training and developing professional staff
   - Construction and renovation
   - Improving the infrastructure

University Strategic Priorities

The Office of Title III supports each Strategic Priority of the University.

- Strategic Priority 1 – Enhance AAMU's Distinctiveness and Competiveness
- Strategic Priority 2 – Strengthen Structures, Operations and Systems to Promote and Support Organizational Excellence and Stewardship
- Strategic Priority 3 – Upgrade University Infrastructure and Facilities
- Strategic Priority 4 – Secure the University's Financial Future
- Strategic Priority 5 – Enhance the University's Image and Recognition
- Strategic Priority 6 – Enhance University Engagement through Expanded Outreach

Strategic Priority Emphasis

Each Title III funded program activity is designed to tie back to a strategic priority (goal & objective) of the University's Strategic Plan.

Examples include:

The Strengthening Information Technology Services (ITS) to Improve Student Success Activity supports:

- Strategic Priority 1 - Distinctiveness and Competitiveness
- Strategic Priority 2 - Structures, Operations, and Systems
- Strategic Priority 3 - Infrastructure and Facilities

The Enhancing Student Engagement, Retention and Persistence Activity supports:

- Strategic Priority 1 - Distinctiveness and Competitiveness;
  - Goal 1 – To strengthen and grow the University by creating strategic academic investments and enhancing the academic and co-curricular experience to meet the changing educational needs of students;
    - Objectives B, C & D – to increase enrollment, retention, and graduation rates respectively.

The Revitalization of Facilities Physical Infrastructure Activity supports:

- Strategic Priority 3: Upgrade University Infrastructure and Facilities
  - Goal 2: To continue to modernize campus facilities and infrastructure to create an environment that is accessible and inviting to students, staff, faculty, alumni, and the greater community.
  - Goal 3: To provide up-to-date facilities and infrastructure to enhance academic, co-curricular, extracurricular programs, and university operations.

HBCU Grant – Program Activities {2022-2027} .	*Activity Director*
Program Administration	*Dr. Andrea Cunningham*
1. Optimizing Technology Services (OITS) to Improve Student Success	*Dr. Kylie Nash*
2. Enhancing Student Engagement, Retention, and Persistence	*Dr. Pamela Arrington*
3. Revitalization of Facilities Physical Infrastructure	*Mr. Brian Shipp*

HBCU-F Grant – Program Activities {2020-2025}	*Activity Director*
Program Administration	*Dr. Andrea Cunningham*
1. Strengthening STEM Facilities	*Mr. Brian Shipp*
2. Enhancing the Freshman/Sophomore Year Experience for STEM	*Dr. Tyeshea Farmer*
3. Expanding eLearning in STEM	*Dr. Rhonda Moore-Jackson*

HBGI Grant – Program Activities {2019-2024} .	*Activity Director*
Program Administration	*Dr. Andrea Cunningham*
1. Strengthening Information Technology/Distance Learning Support	*Dr. Kylie Nash*
2. Strengthening Food Science Graduate Program	*Dr. Martha Verghese*
3. Strengthening Bio-Environmental Science Graduate Programs	*Dr. Wubishet Tadesse*
4. Strengthening Contributions from Corporate, Governmental and Philanthropic Entities	*Mr. Jamal Ali*
5. Strengthening Fiscal Stability & Administrative Management	*Dr. Lynda Batiste*
6. Strengthening STEM Graduate Studies	*Dr. Zhengtao Deng*
7. Strengthening Teacher Education Graduate Studies	*Dr. Samantha Strachan*
8. Graduate Student Writing Lab and Fellowship Program	*Dr. Vann Newkirk*
9. Strengthening Physical Facilities	*Mr. Brian Shipp*

IMPACT OF TITLE III FUNDS

Highlighting a few of MANY areas of impact:

- **Academic Quality: Food Science**
  - Increasing Academic Achievement
    - FY21, there were 5 peer-reviewed publications and 13 peer-reviewed scientific research abstracts presented by students and the research scientist at the National Institute of Food Technologists (IFT) meeting.
- **Student Services: eLearning**
  - Curriculum Development and Learning Spaces
    - E-Learning Digital Content Labs have been equipped and opened in each STEM college
    - Two academic programs were identified for fully online development and delivery
    - Five (5) new fully online courses in STEM areas were developed and offered for student enrollment.
- **Improving the Infrastructure: Facilities**
  - Construction and renovation projects
    - Buchanan Hall Phase 2, renovations (mechanical, electrical, plumbing and cosmetic improvements).
    - Foster Irradiation Building, Morrison Fine Arts, and Elmore Gym (interiors, painting, and exterior maintenance)
    - Carver Complex Thomas Wing (elevator upgrades to meet ADA accessibility compliance).
- **Institutional Management: Information Technology**
  - Creating and maintaining Information Technology Systems
    - Funds have supported Banner, upgrading the internet and Wi-Fi capacity across campus.
    - Information Technology software upgrades

INSTITUTIONALIZATION OF TITLE III PROGRAMS

As part of the Annual Performance Report (APR) the Department of Education requires a narrative from each Title III Program Activity detailing the institutionalization, if necessary, of the grant activity.

- The expectation is for the university to make plans to institutionalize or assume the costs incurred by each Title III Grant Activity.
- The desire is for there to be continuity in the work began by each grant and the work that is done in the future.

THANK YOU

Title III Staff:

- Dr. Andrea Cunningham, *Director*
- Mr. Torin Malone, *Senior Grants Administrator*
- Mrs. Ursula Brooks, *Senior Budget Analyst*
- *Grants Specialist*

ALABAMA A&M UNIVERSITY
TITLE III Strengthening Grants Program

SUMMATIVE EVALUATION SUMMARY

- Summary of CHALLENGES
  - COVID Aftermath - Readjusting to in-person academic services, pivoting to hybrid formats of instruction and tutoring, and remote learning; travel hindrances; delays in graduation & lab work completion
  - Allocation of SPACE on campus to provide academic support (tutoring, labs, and resource centers) and for personnel
  - Filling personnel slots (competitive pay, adequate experience)

- Summary of RECOMMENDATIONS
  - Prioritize fully staffing the unit
  - Regimenting academic feedback; soliciting feedback from persons served
  - Reassessing performance indicators to reflect correlating impact
  - Exploring newer technologies; reimagining learning environments
  - Starting from a "good" starting point – Outlining purposeful baseline data to assess growth, success, and achievement
  - Reallocation of budget to line items that will ensure funds are spent
  - Reassess objectives in the next grant cycle to more directly address goals that constitute impact (stating specific objectives with specific outcomes)

- FY23 Aims
  - Quantifying & qualifying measurable outcomes (#s, %s, & narrative impact)
  - Note, track, and highlight achievements over the FY
  - Showcase year-to-year accomplishments showing growth & impact (positive trajectory)
  - Ensure you have sound baseline data, and reasonable & achievable goals
  - KEEP POSITIONS FILLED (staff personnel & graduate assistants)
  - Plan well and SPEND EARLY

- IMPORTANT DATES
  - End Year Report due FRIDAY, OCTOBER 21, 2022
  - Institutionalization Narratives – NOVEMBER 2022
  - Mid-Year Report (April 14, 2023)
  - Interim Performance Report (IPR) for HBCU-Part B (TBA – April 2023)

- FOR UPDATES:
  - See web site & email correspondences
  - See Procedures and Guidelines Handbook

Any Questions . . .

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- *Grants Specialist*

SUCCESSFUL ACTIVITY MANAGEMENT

Dr. Rhonda Moore-Jackson

Assistant Vice-President of Academic Affairs

Office of Distance Education, Extended Studies, and Instructional Technology

Expanding e-Learning in STEM, Activity Director

GOAL SETTING

S	M	A	R	T
SPECIFIC	**MEASURABLE**	**ATTAINABLE**	**RELEVANT**	**TIME-BASED**
				
Make goals clear and **specific**.	Define **measureable** assets.	Confirm your goals are **attainable**.	Verify your goals are **relevant**.	Set up a **time-based** plan.

Objective 2

- To provide at least ten (10) faculty workshops addressing online course design, online course development, and online best practices in web-based pedagogy, and to host at least five (5) e-Learning professional learning community sessions to engage STEM faculty in exploring e-learning opportunities within their discipline.

UNIVERSITY IMPACT

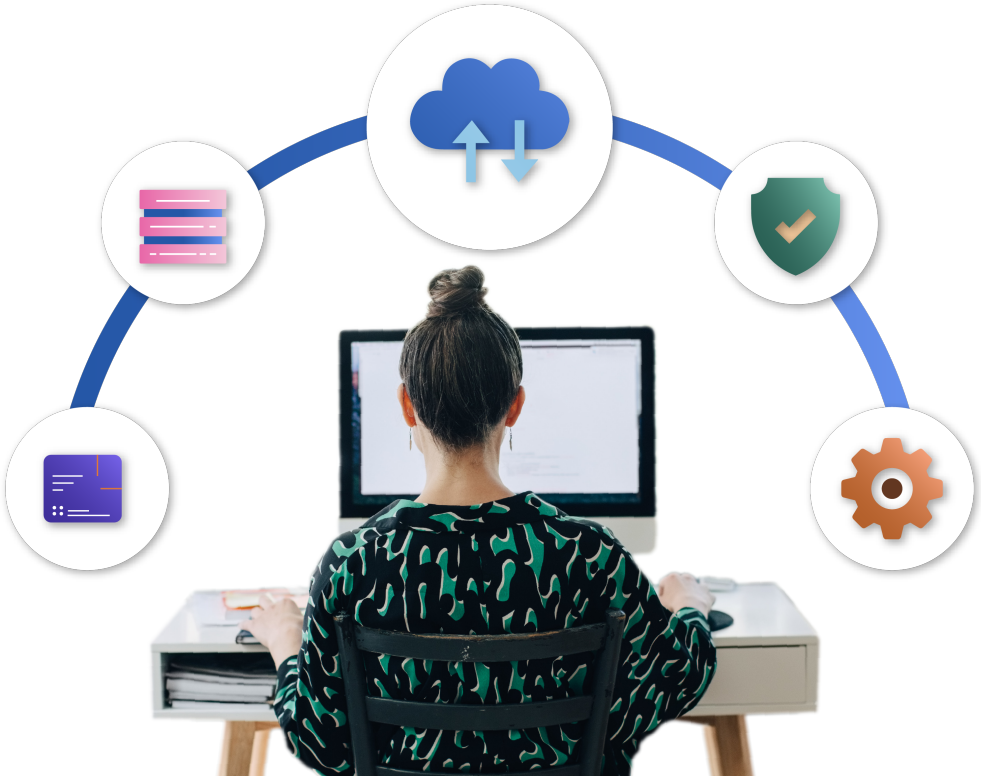
TITLE III

Strengthening Grants Program

UNIVERSITY IMPACT

- "The impact of this activity has been significant for the University. Following the pivot to online during the pandemic in the 2019-20 fiscal year, the activity has been an important piece of the University's response to the instructional challenges posed. As instruction begins its return to a new normal, the activity is solidified as a major piece of the instructional charge moving forward."

INFORMATION MANAGEMENT



People

Policies & Processes

Technology

Data & Information

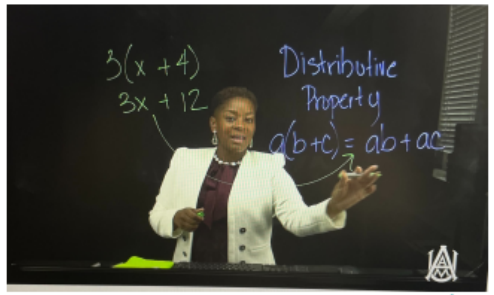
EVALUATION INTERVIEW TIPS

- Answer what you are asked and make brief relevant connections
- Listen to understand, not to respond
- Share pictures or video as artifacts
- Highlight university impact

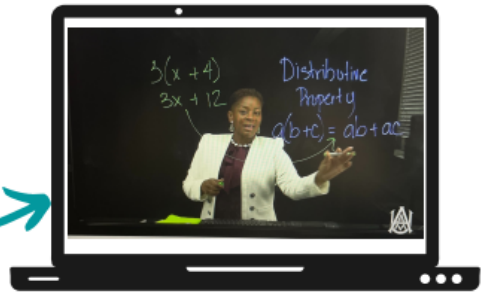
Faculty

e-Learning Labs Showcase

IN-PERSON & HANDS-ON EXPERIENCE



REGISTER TODAY



Q/A

ALABAMA A&M UNIVERSITY
TITLE III Strengthening Grants Program

HBGI - Activity 6: Strengthening STEM Graduate Studies

Dr. ZT Deng, Ms. Diane Banks and Dr. Andrea Cunningham

October 12, 2022

Special Acknowledgement

- CETPS HBGI Activity #6 Team would like to thank the excellent direction of Dr. Andrea Cunningham, Title III program Director.

- CETPS HBGI Activity #6 Team would like to thank the excellent support of Mr. Torin Malone, Ms. Ursula Brooks, and Ms. Roosemary Spragins from the Title III office for effective communication, time effort reporting and budget guidance.

HBGI - Activity 6: Strengthening STEM Graduate Studies

Objectives:

- The primary impact of the Title III funding to the university's goals is the increase in the number of underrepresented minorities receiving graduate degrees in the STEM fields.

- Title III funding ensures that we can attract and retain student in graduate programs including Computer Sciences, Electrical Engineering, Mechanical Engineering, Physics, Systems & Materiel Engineering, as well as Ph.D. degree in Applied Physics while providing them a clear pathway to completion.

HBGI - Activity 6: Strengthening STEM Graduate Studies

Measurable Objectives:

- To strengthen the graduate program by supporting 12 African Americans pursuing master's / Ph.D. degrees in STEM related fields (through GA assistantships, mentor support, research, and a mentee pipeline).

- To provide at least 2 professional seminars annually, in STEM-related field for graduate students.

HBGI - Activity 6: Strengthening STEM Graduate Studies

Supported:
10 MS, 2 Ph.D. Each Year
Graduated:
5 Master of Sciences
1 Ph.D. Physics

ALABAMA A&M UNIVERSITY
TITLE III Strengthening Grants Program

HBGI - Activity 6: Strengthening STEM Graduate Studies

Academic Advisors / Student Projects

Aerospace Structures Optimization using Mass Mitigation, Structural Dynamics Synergy, and Strain Frequency Failure Analysis

Executive Summary:

The proposed project addresses the NASA needs for technologies supporting the structural dynamics area. The main goal is to develop a new dynamic structural design/analysis method that will result in lighter structural designs for hardware that sustain dynamic loads. This will be achieved based on these two approaches:

1. The Dynamic strength of materials: may be based on displacement and will be for a relatively low number of cycles instead of a normal fatigue approach.
2. The Frequency dependency of strain:

This is applicable to Spacecrafts, landers, satellites, payloads, and Launch Vehicles (LV). Hence, saving a small fraction of a space craft's total primary structure mass or even a LV could amount to a very large mass savings.
The new methodology will concentrate on developing techniques that will reduce the total mass and achieving higher performance. The use of a new dynamic strength property (or disregarding dynamics above a to-be-determined frequency threshold) is one of the major goal of this project. The obtained results from this new methodology will be compared to the results attained if we apply the existing methodologies. Furthermore, the new methodology solution will be confirmed by experimentations.

This is a one-year project duration. The project will start by focusing on one dimensional problem. Once this first analysis has been accomplished, it will lead to investigating two and then three-dimensional parts. The results from the "***2019 MSFC Technical Excellence (TE) efforts"*** and "***2020 MSFC Technical Excellence (TE) efforts"*** are in line with this newly proposed approach and ensure that this work will be fruitful. Design methodology and design charts will be developed that will contribute tremendously to the advancement of the Structural Dynamics area.

Investigation of Electrical Characteristics of Electro-Active Polymer Composites

A general description for my research is the following: investigation and calculation of pertinent electrical and structural characteristics of electro-active nanofilms/membranes in regard to alternating current (AC) and direct current (DC) properties for their potential use in energy harvesting and biomedical applications. Our most recent films have been fabricated via electrospinning methods, which is relatively novel in terms of electro-active polymer solutions. We have found that our electro-spun films are membrane-like and have greater porosity than solution-cast films, which may potentially lead to films that are more viable for biomedical applications. Our experimental setup utilizes an LCR meter that measures capacitance as well as dissipation factor that allows me to calculate many important electrical parameters. Specific electrical parameters of note that we are currently researching for our smart films are the following: conductivity, permittivity, electric modulus, impedance, pyroelectricity, piezocapacity, and piezoresitivity. We have collaborated with other labs to investigate surface morphology and microstructure of our smart films through scanning electron microscopy (SEM) and fourier transform infrared microscopy (FTIR) as well. Our most recent paper on the DC conduction mechanisms of our electrospun films was published in a reputable scientific journal. I am presently working on a paper in regard to the AC properties of these films as well. Below is a list of the papers that our lab has published and that I have co-authored since receiving support from Title III during my PhD program:

HBGI - Activity 6: Strengthening STEM Graduate Studies

Technical Seminar

Cybersecurity Application and Challenges in the Virtual Environment

Speaker: Mr. Roosevelt Conley
Director of Corporate Growth
Tec-Masters, Inc., Huntsville, Alabama

Speaker: Dr. Claudette Owens
CEO, Quantus Link, LLC
Huntsville, Alabama

Date: February 17, 2021

Technical Seminar

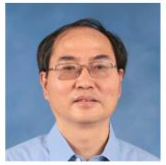
Electrical Properties Of Organic Thin Films and Many-Body Problems In Physics

Speaker: Dr. Matthew Edwards
Professor of Physics at Alabama A&M University

Date: March 31, 2021

Technical Seminar

Applications of Deep Learning



Speaker: Dr. Huaming Zhang
Associate Professor of Computer Science
The University of Alabama in Huntsville

Date: February 16, 2022

Technical Seminar

Modeling and Simulations for Engineering and Science

Speaker: Dr. Alak Bandyopadhyay
Associate Professor of Computer Science
Alabama A&M University

Date: April 14, 2021

- Deep learning, SVM, decision tree ….
  - →using different ways to represent a function
- Using neural network to represent a function

"I thoroughly enjoyed the AI seminar. I have recently been trying to work on my technical skills in addition to my research skills, so it was great to hear the possibilities of neural networks and to see an application of concepts and skills I have read about. "

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