

LAIJU, TOUGALOO
DHS Coastal Resilience Center
Education Project:
Annual Project Performance Report

Covers Reporting Period July 1, 2016 – June 30, 2017

1. Project Title:

Institutionalization, Expansion, and Enhancement of Interdisciplinary Minor:
Disaster and Coastal Studies

2. Principal Investigator / Institution:

Meherun Laiju, Ph. D. Associate Professor and Chair,
Sociology Department; Tougaloo College

3. Other Education Participants/Partners:

Interdisciplinary collaboration within Tougaloo
College (Sociology, Psychology, Physics and Political Science Departments faculty
members)

4. Short Project Description (“elevator speech”):

The project goal is to offer curriculum at Tougaloo College, making it more relevant to education and workforce development in homeland security operations. Three initiatives has been done to reach the goal: a) Interdisciplinary Minor in Disaster and Coastal Studies (DCS) offered courses and research opportunity to train undergraduate students in interdisciplinary skills necessary to mitigate natural and man-made coastal hazards, b) Develop professional certificate program’s to create a workforce for (DHS) and emergency management agencies, c) neighborhood outreach initiatives in collaboration with Mississippi Emergency Management Agency (MEMA), to facilitate education and training for local citizens in planning and implementing disaster strategies to build a more effective path to societal resilience and security.

5. Abstract:

This project took initiatives to institutionalization, expand, and enhance the Interdisciplinary Minor: Disaster and Coastal Studies implemented during the Coastal Hazards Center of Excellence-Education (2008-2015). The minor provides students an opportunity to be trained in interdisciplinary fields across academic divisions (Natural Science and Social Science), which is uncommon in small historically black colleges. Faculty members from Sociology, Psychology, Physics and Political Science departments collaborated to teach and modify courses which includes adding GIS component, FEMA’s Independent Study (IS) Training. Students pursuing the minor participate in faculty lead research in the field of community preparedness to enhance community resilience. Student receive training in the critical needs area through education, participating in research, and field experience by completing an

internship with a local emergency management agencies. The exposure helps students to acquire highly portable skills necessary to succeed in high impact careers, thus creating a more diverse future workforce. Furthermore, the project addresses the acute underrepresentation of African American minorities in the Science, Technology, Engineering and Mathematics (STEM) areas. In addition, worked on developing a professional certificate program which will prepare undergraduates to join in workforce related to DHS and emergency management agencies. The pilot program neighborhood outreach initiative in collaboration with MEMA offer opportunities for community leaders and interested citizens to be trained as first responders. The aim of this initiative is to facilitate DHS initiatives to build resilient community(ies) as a part of national preparedness in time of steady-state and natural and man-made disasters.

6. End users:

During the Spring 2016 academic session, an advisory committee was put together. The committee members are assisting in the designing the professional certificate program and neighborhood training. The committee members met at least once a semester, most of the time correspondence and meetings are conduct by email and phone. The participants and their roles are included in the following table:

End User	Agency/Employer	Project Role
Dr. Nicole Cathy	Political Science; TC	Coordinator
Dr. George Humphrey, CFM	Director (grants)MEMA	DCS Instructor, Place Intern
Mr. John Brown	Regional Manager; Red Cross	Serve on panel, place Intern
Ms. Loretta Thorpe, MEP	Bureau Director-Training State Training Officer, Office of Preparedness, MEMA	Serve on panel, Place Interns, & neighborhood training coordinator
Mr. Jesse Murphree	Emergency Preparedness Training Officer, MEMA	Conduct the neighborhood training
Ms. Marsha Manuel	Grant Director, MS office of Homeland Security	Serve on panel, Intern placement
Colonel Donnell Berry	MS State Trooper	Serve on panel
Mr. Ricky Moore	Director, Hinds County Emergency Management	Serve on Panel
Mr. Warren D. Miller	President, Mississippi Voluntary Organizations Active in Disaster(VOAD)	Serve on Panel, Intern Placement
Phyllis Parker	Director, Woodhaven Homeowners Association	Serve on Panel

Mr. Anderson	Pastor, United Methodist Church	Serve on Panel
Dr. Shaila Khan	Psychology Department, TC	DCS Instructor & Mentor student research
Dr. Santanu Banerjee	Physics Department, TC	DCS Instructor & Mentor student research

7. Unanticipated Problems:

The delivery method has been changed for the certificate program. Initially the non- credit bearing certificate program was commenced by the Tougaloo College Continuing Education Program for the community at large. The change of administration (Provost) during fall of 2015 and in spring of 2016 led to the administration decision to phase out the continuing Education Department and created a problem for the proposed certificate program. Anyhow, by March 2016, it was decided that the certificate program will be offered by Sociology Department in collaboration with the Political Science Department. Dr. Nicole Cathy, assistant professor of the Political Science Department, is assigned as a coordinator. We have contacted the local emergency management agencies and setup an advisory board to assist us in designing the certificate program. Unfortunately, we had to face another unanticipated challenge. In the fall of 2016, the new administration focused on restructuring the general education (common core) curriculum. The new curriculum reduces the general education requirements from 60 to 40 (credits hours) and plans to add professional certifications in different fields. These professional certificate program will provide an option for students who want to join in to workforce immediately after completing their undergraduate degree. Currently the proposed certificate program is selected to be part of one of the professional certifications which will prepare students for emergency management related workforce. Advisory committee members input and the existing DCS minor courses will be used to develop the certificate program. The courses will be taught by emergency management personnel, faculty and other relevant parties. The change in administration and their new initiatives put us slightly behind schedule to develop and launch the proposed certificate program.

8. Project Impact:

Tougaloo College is a private Historically Black College which offers undergraduate degree. The majority of the student body is comprised with 1st generation attending college. The main mission of the college is to prepare students for graduate school. The current project addresses the acute underrepresentation of minorities in the science, technology, engineering and mathematics areas (STEM). The project plans to diversify the future of DHS and S &T related workforce by training underrepresented minorities, mirroring some of the more vulnerable population impacted by disaster scenarios. The interdisciplinary minor: Disaster Coastal Studies (DCS) curriculum offers a multidisciplinary approach using social science perspective. The minor is designed to prepare students with skills and knowledge that are marketable in the field of disaster and emergency planning, management, response and

recovery. Students pursuing the minor have opportunity to be trained in interdisciplinary fields across academic divisions (Natural & Social Science). The minor consisted of six courses including forty (40) hours of field placement (internship) with local, state, federal, and NGO'S which deals with emergency management. Students are trained in use of GIS and its function in the disaster management field, they also complete the FEMA's Independent Study (IS) Training. All of these are achieved through course work. Student participated in faculty lead research in the field of community preparedness to enhance community resilience. Student presents their research findings in the field of disaster preparedness and recovery at the yearend annual symposium which is attended by various stakeholders including students, faculty, staff, administration, program partners, homeland security related organizations, and community members. The course syllabi, field placement supervisor student evaluation, students' presentation at the symposium, conferences, dissemination materials and program evaluation documents are the medium used to ensure that students are gaining knowledge in state of the art content related to the field. In addition, the pilot program neighborhood outreach initiative in collaboration with MEMA offered opportunities for community leaders and interested citizens to be trained as first responders. Which lend a hand to facilitate DHS initiatives in building resilient community (ies) as a part of national preparedness.

9. Education Activity and Milestone Progress:

Education Activities and Milestones: Progress to Date

Reporting Period 7/1/16 – 6/30/17			
Education Activity	Proposed Completion Date	% Complete	Explanation of why activity / milestone was not reached, and when completion is expected
Offer 6 courses for DCS minor	August, 2016 January 2017	100%	
Select new students for research and training (GIS & Survey Construction and Analysis), develop questionnaire, identify areas to survey, IRB permission, etc.	August – December, 2016	100%	
Select existing courses to modify	September, 2016	100%	
Student/Faculty/staff certified training in GIS	October, 2016	0%	PI was not available during that time due to personal reason. Plan is to complete on October 2017

Select and place intern students to end – user hosting organizations	February, 2017	100%	
Design the certificate program	February 2017	In progress	Due to administration changes and curriculum restructure***
Host DCS Research Symposium	April 2017	100%	
Education Milestone			
Students working in GIS project& risk identification and perception awareness project present at Mississippi Academy of Science (MAS) conference	March 2017	100%	
Intern and DCS minor students present at DCS Symposium & TCMC Undergraduate Research Symposium	April 2017	100%	
Invite CRC partners & end-user agency personnel as guest speaker from partnering institute to present at DCS Symposium	April 2017	100%	
Approval of the certificate program	May 2017	0%	Explained earlier, Fall 2017 we will seek the approval
Expecting 2 students graduate with DCS minor. Encourage graduates to attend graduate program at CRC Institute /seek employment at end-user agencies	May 2017	100%	3 students graduated with DCS minor in May, & 2 will graduate in December 2017
Promote the new certificate program	June 2017	0%	*** see the explanation, possibility to complete by December 2017

10. Transition Activity and Milestone Progress:

Transition Activities and Milestones: Progress to Date

Reporting Period 7/1/16 – 6/30/17			
Transition Activity	Proposed Completion Date	% Complete	Explanation of why activity / milestone was not reached, and when completion is expected
Recruit end-users to provide internships	July 2016 & January 2017	100%	

Recruitment for Certificate Program	January 2017	0%	*** Explained earlier, in progress plan is to launch by December 2017
Transition Milestone			
Internship with end-users organization	June 2017	100%	
Increase enrollment in Certificate Program	June 2017	0%	*** in progress, expected to complete by January 2018

*** The pilot study: Neighborhood outreach Initiatives – the first training was done on May 6, 2017 with the residence of the Woodhaven subdivision in Jackson, MS. This was done in collaboration with Mississippi Emergency Management Agency (MEMA) office of Preparedness. The goal is to strengthen the community resilience. A survey was conducted with the participants after the training. The survey results and the relevant suggestions will be incorporated for future training initiatives. **(Addition to Work Plan)**

11. Interactions with research projects:

The existing Minor in Disaster Coastal Studies hosts a research symposium each academic year. The symposium showcases the DCS students' activities. Dr. Gavine Smith, from the University of North Carolina-Chapel Hill attended the Symposium as a guest lecturer. His talk was entitled *Post Hurricane Mathew Disaster Recovery Assistance: Linking Research, Practice and Community Engagement*. This year, a collaborative working partnership was developed with the University of Rhode Island. Three Tougaloo students, Courtney Hill (Psychology), Rosaline Cisse (Biology), and Kierra Jones (Biology), have been offered summer internships with DHS – Coastal Resilience Center Supported Research at the University of Rhode Island. The students will spend at the institution from June 5 – August 11, 2017.

12. Publications:

Ball, I & Laiju, M. (2017) Sociodemographic Characteristics and Natural Disaster Preparedness among Mississippi Residence, abstract published in *The journal of Mississippi Academy of Sciences* (ISSN 0076-9436) April edition.

Senior paper:

Young, K, & Hunter, F. (2017) Hurricanes, Mudslides, and Drought: Considering the Publics Perceptions of the Role Governments Should Play in Providing Aid Using the NORC General Social Survey (GSS), presented at MCTC research Symposium

Hopkins, A. & Banerjee, S. (2017) Using ArcGIS to Map Natural Disasters in Mississippi presented at MCTC research symposium.

Presentation:

Laiju, M and Banerjee, S (2017) Innovative Interdisciplinary Curriculum in Homeland Security at a HBCU presented this at the 10th Anniversary Homeland Defense & Security Education Summit at George Mason University in Fairfax, Virginia, on March 23, 2017

Award:

Meherun Laiju, received fellowship to participate in the Pardee RAND Faculty Leaders Program in July, 2017 to work on project titled, A Global Issue: Natural, Manmade Disaster, and Exploitation of Children.

Instrument:

Hunter, F and Laiju, M. (2017) developed a survey *Preparing Today for Tomorrow: Neighborhood Outreach Initiative* to administer at May 6 training session. [see end of this document]

13. Tables:**Table 1: Documenting CRC Education Project Courses and Enrollments**

Courses Developed and Taught by <u>Tougaloo College</u> under Project Institutionalization, Expansion, and Enhancement of Interdisciplinary Minor: Disaster and Coastal Studies						
<u>Course</u>		<u>Developed (D), Revised (R), and/or Taught (T), by Project Year</u>				
<u>Number</u>	<u>Title</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
DCS201	Introduction to Natural and Manmade Disaster		R, T			
	Offering: Elective (E), Concentration (C), Minor (M)		M			
	Enrollment		10			
DCS211	Public Health Issues in Disaster Preparedness	T	T			
	Offering: Elective (E), Concentration (C), Minor (M)	M	M			
	Enrollment	1	10			
DCS 301	Political and Legal Issues in Disaster Preparedness	T	T			
	Offering: Elective (E), Concentration (C), Minor (M)	M	M			
	Enrollment	14	10			
DCS311	Psychological Dimension of Disaster					
	Offering: Elective (E), Concentration (C), Minor (M)	E, M				
	Enrollment					

DCS314	Economic Aspects of Disaster		T			
	Offering: Elective (E), Concentration (C), Minor (M)		E, M			
	Enrollment		14			
DCS 320	Emergency Preparedness, Response and Planning	T	R,T			
	Offering: Elective (E), Concentration (C), Minor (M)	M	M			
	Enrollment	16	8			
DCS 400	Internship	T	T			
	Offering: Elective (E), Concentration (C), Minor (M)	M	M			
	Enrollment	7	8			

Table 2: Documenting External Funding and Leveraged Support

<u>External Funding</u>			
<u>Title</u>	<u>PI</u>	<u>Total Amount</u>	<u>Source</u>
NA			
<u>Leveraged Support</u>			
<u>Description</u>			<u>Estimated Annual Value</u>
Class room space and computer lab for GIS Training, space for hosting Symposium			\$15,000
Portion of university indirect returned to project			\$15,000
25% release time for PI			\$11,000

14. Metrics:

<u>Metric</u>	<u>Year 1</u> (1/1/16 – 6/30/16)	<u>Year 2</u> (7/1/16 – 6/30/17)
HS-related internships (number)	7	8
Undergraduates provided tuition/fee support (number)		
Undergraduate students provided stipends (number)	15	17
Graduate students provided tuition/fee support (number)	NA	NA
Graduate students provided stipends (number)	NA	NA
Undergraduates who received HS-related degrees (number)	3	5
Graduate students who received HS-related degrees (number)	NA	NA
Certificates awarded (number)	NA	NA
Graduates who obtained HS-related employment (number)		
Lectures/presentations/seminars at Center partners (number)	1	1
DHS MSI Summer Research Teams hosted (number)	0	0
Journal articles submitted (number)	0	0
Journal articles published (number)	0	0
Conference presentations made (number)	1	4
Other presentations, interviews, etc. (number)	10	12
Trademarks/copyrights filed (number)	0	0
Requests for assistance/advice from DHS agencies (number)	2	1
Requests for assistance/advice from other agencies or governments (number)	5	2
Total milestones for reporting period (number)	7	7
Accomplished fully (number)	4	5
Accomplished partially (number)	3	1
Not accomplished (number)	-	1

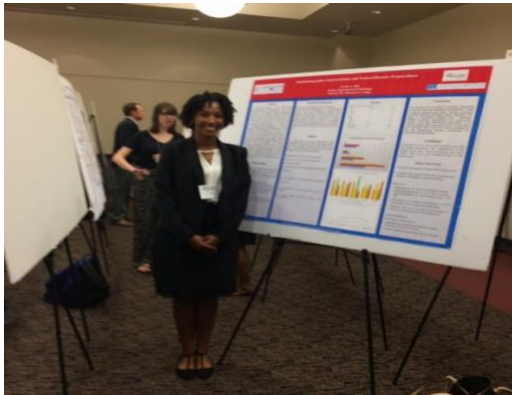
SPECIAL MOMENTS



Students and Instructor DCS 400 Internship Humphrey



Interns with MEMA personnel and Dr.



Irenia Ball: Mississippi Academy of Science (MAS) on February 23, 2017



GIS Training Course



DCS Students and Faculty research team



With instructors at Intro to Natural Disaster class

NEIGHBORHOOD OUTREACH TRAINING



Neighborhood Training Participants with MEMA Instructor and DCS faculty



DCS faculty after completing the Preparedness training

DCS RESEARCH SYMPOSIUM (April 2017)





**SUMREX 2017 INTERNS FROM TOUGALOO COLLEGE
To
UNIVERSITY of RHODE ISLAND**



Courtney Hill



Kierra Jones



Rosalie Cisse

Tougaloo College
Interdisciplinary Minor: Disaster Coastal Studies
Preparing Today for Tomorrow: Neighborhood Outreach Initiative
May 6, 2017
SURVEY

DIRECTIONS: Please complete the following questions to reflect your opinions as accurately as possible and to answer factual questions to the best of your knowledge. Your information will be kept strictly confidential. For the purpose of this survey, use the following definitions for the terms hazard and natural disaster:

- **Hazard** is defined as a situation that poses a level of threat to life, health, property, or environment and can create an emergency situation.
- **Natural disaster** is a major event that results in the natural process of the earth; for example, floods, hurricanes, tornados, and other geological processes. A natural disaster can cause loss of life or property damage, and typically leaves some economic damage in its wake.

**Risk
Awareness**

How strongly do you agree with the following statements?		Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1	I am aware of potential local hazards and/or natural disasters effecting my community/city.					
2	I am aware of local community systems and plans concerning local hazards and/or natural disasters.					
3	I am aware of the benefits of designing a plan for local hazards and/or natural disasters for me and my family.					
4	I am aware of local community organizations who participate in providing informational seminars and drills for local hazard planning.					
5	I believe that these types of hazards and/or disasters will occur in my community					
6	I believe that the effects of a hazard and/or disaster would be severe to me.					

7	I believe that preparing for a hazard and/or natural disaster now will help me in the future.					
8	I believe I will be able to successfully respond to a hazard and/or natural disaster.					

Beliefs About Risk and Efficacy

2

In the space provided to the right of the list below, please rank the following types of hazards and/or natural disasters based on their importance to your community (1 as the most important and 10 as the least important).		
	Extreme Heat	a prolonged period of excessively hot weather, which may be accompanied by high humidity
	Flood	an overflow of water that submerges land which is usually dry.
	Tornado	a localized, violently destructive windstorm occurring over land
	Wildfire	a large, destructive fire that spreads quickly over woodland or brush
	Hazardous Materials Accident	potentially dangerous or harmful to waste that causes harm to human health or the environment
	Disease Outbreak	the occurrence of cases of disease in excess of what would normally be expected in a defined community, geographical area or season
	Hurricanes	a storm with a violent wind, in particular a tropical cyclone that may reach inland and cause damage
	Terrorism	the unlawful use of violence and intimidation, especially against civilians, in the pursuit of political aims
	Other Natural Disasters	Write in:

Preparedness Behaviors

3

Which of the following descriptions best captures your level of preparedness for local hazards and/or natural disasters **before** this outreach initiative?

1	Pre-contemplation	No intention to change at present, but intending to take action.
2	Contemplation	Not prepared to take action at present, but intending to take action.
3	Preparation	Actively considering changing my behavior in the immediate future.
4	Action	Recent overt behavior change, but the changes are not well established.
5	Maintenance	Have an established plan but will not make any modifications to the plan.

4

Which of the following descriptions best captures your level of preparedness for local hazards and/or natural disasters **after** this outreach initiative?

1	Pre-contemplation	No intention to change at present, but intending to take action.
2	Contemplation	Not prepared to take action at present, but intending to take action.
3	Preparation	Actively considering changing my behavior in the immediate future.
4	Action	Recent overt behavior change, but the changes are not well established.
5	Maintenance	Have an established plan but will not make any modifications to the plan.

5

What do you identify as perceived barriers to your local hazard and/or natural disasters preparedness (planning)? Please use the area to the right to further explain.

1	Too Expensive	
2	Unsure	

3	Time	
4	Barriers to Information	
5	Other	

Plan & Intervention

6

Following this outreach initiative, how likely are you to do the following:				
		Very Likely	Somewhat Likely	Not at All
1	Develop a household emergency plan and discuss it with my household members.			
2	Get involved in local opportunities to volunteer for community safety and disaster response.			
3	Assists in a planning process for disaster relief in my community.			
4	I believe I will be able to successfully respond to a disaster.			

7

Considering your future plans, how important are the following for your community.				
		Very Important	Moderately Important	Not Important
1	Community training exercises and simulations for planning preparedness.			
2	Community informational sessions with emergency responders, emergency operations centers, and state and federal level disaster management systems to coordinate community preparedness.			
3	Community informational sessions on short and long term federal, state, and local assistance programs, community recovery strategies and actions, and post disaster mitigation planning.			

4	The creation of a, free or low-cost, certificate program at Tougaloo College in disaster preparedness for residents of your community.			
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Demographics

8 Please write in or circle the corresponding category to the right of the demographic characterisitc listed.

Age								
Gender	Man	Woman						
Housing Status	Rent	Own	Neither					
Ethncity	White	Black	American Indian	Alaska Native	Asian	Native Hawaiian	Pasific Islander	Other