

**LAIJU, TOUGALOO  
DHS COASTAL RESILIENCE CENTER  
EDUCATION PROJECT  
YEAR 4 PROGRESS REPORT  
July 1, 2018 – June 30, 2019**

**Project Title:**

Multidisciplinary Certificate: Disaster and Coastal Studies (DCS)

**Principal Investigator Name/Institution:**

Meherun Laiju, Ph.D.; Tougaloo College

**Other Partners/Institutions:**

Internal collaboration with Political Science, Psychology, Mass-Communications, Sociology Department, and Natural Science Division

**Short Project Description (“elevator speech”):**

Multidisciplinary Certificate: Disaster and Coastal Studies (DCS) is housed in the Sociology and Social Work Department in the Social Sciences Division at Tougaloo College, a Historically Black College (HBCU). One of the major goals of the certificate program is to diversify the Department of Homeland Security’s (DHS) workforce. Other objectives included: a) train interested students in the field of disaster management for local emergency management agencies and graduate studies; and b) create neighborhood outreach training programs in collaboration with Mississippi Emergency Management Agency (MEMA) to facilitate resilient community building.

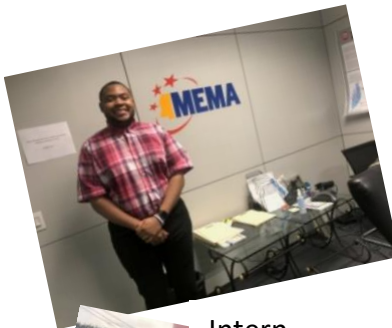
**1. Introduction and project overview:**

The education project, Multidisciplinary Certificate: Disaster Coastal Studies (DCS), addresses the acute underrepresentation of minorities in the Science, Technology, Engineering, and Mathematics areas (STEM). The project goal is to diversify the future DHS and S&T related workforce by training underrepresented minorities, mirroring some of the more vulnerable population impacted by disaster scenarios. The DCS curriculum allows students to develop skills and knowledge and provides an opportunity to be trained in multidisciplinary fields across academic divisions (Humanities, Natural Sciences, & Social Sciences). The curriculum helps create a pipeline of underrepresented minority students with multidisciplinary skills, incorporating a Social Science focus that is marketable in the field of disaster and emergency planning, management, response, and recovery. In addition to coursework that addresses the legal, social, and public health aspects of natural disasters, practical skills—such as student internships with emergency management agencies, Geographical Information System (GIS) training, and FEMA’s Independent Study (IS) training—are incorporated into the coursework. The Project also provides students the opportunity to participate in faculty lead research in the field of community preparedness to enhance community resilience. Students present their research findings in the field of disaster preparedness and recovery at the annual, year-end symposium—attended by various stakeholders including students, faculty, staff, administration, project partners, homeland security related organizations, and community members.

Additionally, the pilot program neighborhood outreach initiative, in collaboration with MEMA, offered opportunities for community leaders and interested citizens to be trained as first responders. The neighborhood training initiative addresses Homeland Security's Post-Katrina Emergency Reform Act of 2006—building resilient communities as a part of national preparedness.

**2. End users:**

In year 4, we worked with Mississippi Emergency Management Agency (MEMA), American Red Cross, and Salvation Army. During Fall of 2018, Grant Director of MEMA Dr. George Humphrey, taught the DCS 320 Emergency Management course. The five students who were in DCS 400 Internship course were placed in MEMA, Red Cross, and Salvation Army. Local county management agency personal were invited to speak with DCS students, participate at Tougaloo College job fair, and attend the DCS Symposium.



Intern



Instructor DCS 320

Intern



**3. Unanticipated Problems:**

Year 4 is the first time I did not face any major unanticipated challenges.

**4. Students and recent graduates:**

Tougaloo College is a Historically Black undergraduate institution, 99% of the student body are African-American and full-time students. The Certificate program was launched in year four. Five students completed the certificate courses 3 females (graduated) and 2 males (Junior). One is currently working with Red Cross (volunteer) and 2 applied for graduate school.



DCS Faculty & Students with

### **5. Project Impact:**

Interdisciplinary Minor Disaster Coastal Studies (DCS) was modified and changed into a multidisciplinary certificate program. In Fall 2018, the project commenced the multidisciplinary certificate Disaster Coastal Studies (DCS) program. The curriculum of the professional certificate incorporated the Interdisciplinary Minor (DCS) courses and courses from Humanities, Natural Sciences, and Social Sciences. The focus of this certificate program is to strengthen student careers in public safety, emergency management, community and research planning, and public-policy making. The goal of the certificate program is to create well-informed and socially-committed professionals able to use holistic, humane, and integrated strategies to mitigate the impact of disasters and support DHS efforts to build more resilient communities. The 12 credit hour multidisciplinary certificate in Disaster and Coastal Studies (DCS) is open to degree seeking students across the institution's majors. The DCS certificate conforms to the mission and vision of Tougaloo College by emphasizing a multidisciplinary and policy-relevant approach to a major 21st century challenge that will also confer competitive career advantages to students. The certificate consists of four courses (12 credit hours) including 40 hours of practical internship experiences with local, state, federal agencies, or NGOs.

<b>Curriculum of Certificate Program</b>	
<b>Core Courses</b>	
<b>Course Name</b>	<b>Objective</b>
<b>DCS/NSD 210 Introduction to Natural and Manmade Disasters</b>	Basic Concepts and GIS Training
<b>DCS 320 Emergency Preparedness and Response</b>	Training as a first responder
<b>DCS 400 Internship</b>	Practical skills working in a Local Emergency Management Agency
<b>Electives (Choose 1) Multidisciplinary</b>	
<b>Course Name</b>	<b>Objective</b>
<b>COP 211 Public Relations Writing</b>	Develop writing & editing Skills along with incorporate media role in disaster management
<b>POL 317 Public Policy and Legal Issues in Disaster Management</b>	Understand Policy and Legal issues related to disaster
<b>PSY 328 Health Psychology in Disaster Preparedness</b>	Understand Health issues pertaining Disasters & Policy
<b>SOC/SWK 331 Social Community Organization and Disaster Preparedness</b>	Understand Organization and Community's Connectedness in Rescue and Management Policy

The multidisciplinary certificate curriculum included three DCS minor courses as core requirements and one elective course. The elective courses were adopted from participating departments. These departments modified one of their required electives to be part of the certificate program. The modified elective courses include content, assignments, and field experts as guest lecturer to address the natural disaster and building/strengthening community resilience. This curriculum also exposed students not pursuing the certificate become familiar with the field of natural disaster and resilience. Students who are pursuing the DCS certificate are guided by the instructor to conduct research in field of disaster resilience, publish, and attend national conferences to present the findings. Also, students who are pursuing the certificate shared their course related project at the DCS research Symposium (Program attached). The following are some examples of DCS certificate course content which highlights the incorporation of current literature, advances in the field, and technology:

- ▶ **POL 317 Public Policy and Legal Issues in Disaster Management:** Elective course offered by Political Science Department and taught by Attorney Dennis Sweet who specializes in disaster management. The course presents concepts and basic

descriptive information about the public policy process in the executive and legislative branches of government and actions of the judicial branch in court cases that relate to disaster preparedness. This includes case studies to examine the Federal Emergency Management Agency's legal requirements, responsibilities, laws pertaining to emergency management, and actions based on these laws. Course content also includes analysis of public policies and understanding the procedures and requirements in emergency management.



Instructor Atty. Dennis Sweet Guest Speaker Atty. Bobby Owens Von Anderson Senior Planner

- **DCS/NSD 201 Introduction to Natural and Man Made Disaster:** This is a required course for the DCS certification. The course has been adopted by Natural Science Division as an elective. The course content incorporates a broad overview of natural and man-made disaster and applications of modern tools like Geospatial information System (GIS) to study natural disasters. Students receive training in GIS and work on project to present at the conferences.



DCS 201 Instructor & Class



- ▶ **DCS 320 Emergency Preparedness Planning and Response:** This is also a required course for the DCS certification. Instructor of this course is Dr. George Humphrey, Director of Grant Management at MEMA. The course content helped students gain competency to terminology, policy, planning, and management issues that arise in preparing for and responding to disasters. The course includes case studies from current and past disasters events to help students develop an understanding an organization's role in assisting individuals and communities affected by disasters during both immediate and long term recovery. Students participate FEMA's online Independent Study (IS) Training which focus on disaster preparedness and rescue as part of graded assignment.

## **6. Institutionalization:**

To institutionalize the DCS minor, past three years took steps such as collaborating with different disciplines, modifying courses, incorporating elective courses from other disciplines, and designing a self-sustaining Multidisciplinary Certificate Program. The certificate program replaced the DCS minor and was executed in Fall 2018. To be a self-sustaining program, the twelve credit-hour certification curriculum incorporates the existing elective courses from different disciplines (see Curriculum table). One of core required courses, *DCS 201: Intro to Natural Disaster*, was adopted by the Natural Science and co-listed (NSD 201) offered by the NSD division as an elective requirement. Mississippi Emergency Management Agency (MEMA) personnel currently teach another core requirement *DCS 320: Emergency Preparedness and Response* as adjunct faculty. Academic Affairs agreed to pay the adjunct salary if the enrollment in the course is 8-10 students after (2020). The same holds true for the Internship course (*DCS 400*). College rolled out Bachelor of Social Work (BSW) as a degree granting program in Fall 2018 and the DCS certification is included within the BSW degree program as an option of specialization. The DCS certificate is also a part of Tougaloo College's path to career program. The project also took initiatives such as continuing with the existing end-users, establishing collaboration with FEMA and other private agencies which deal with emergency management, placing interns into private emergency management organizations, inviting personnel to class as field experts, and inviting local public and private emergency management agencies to participate in the Tougaloo College job fair to help DCS graduates'

recruitment. I am expecting that these initiatives will help strengthen and sustain the certificate program beyond 2020.

### **7. Interactions with research projects:**

The Interdisciplinary Minor: Disaster Coastal Studies hosts a research symposium at Tougaloo College each academic year to showcase students' activities. In year 4 Ms. Mechelle B Smith, a Ph.D. student from Old Dominion University, Presented her dissertation *Social Vulnerability and Hurricane Response: Emergency Management Policy Implementation in a Social Construction Paradigm* at the symposiums. Students who are pursuing the certificate presented their class project at the symposium (Program attached). This academic year for the SUMERX program, two students, Sociology Senior Courtney Thomas, and Psychology Junior Madison Bibbs, attended Old Dominion University. Both of them are pursuing the Certificate program. Sociology graduates Alexandra Jwainat and Jessica Porter took courses in DCS and did there senior paper on Natural Disaster related topics.



SUMERX Interns: Courtney Thomas & Madison



DCS Research

**8. Publications:**

Mage, D. Reed, S. Hokins, A. Mangum, C. & Banerjee, S. (2018) Using Arc GIS to Map Disaster Effects on Mississippi, abstract published in *The journal of Mississippi Academy of Sciences* (ISSN 0076-9436) vol 63, 1 February edition

Bryant, J. Hill, C. Bibbs, M. Boler, D. & Khan, S. (2018) *Role of Effective Communication in Disaster Preparedness*, abstract published in *The journal of Mississippi Academy of Sciences* (ISSN 0076-9436) vol 63, 1 February edition

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.

**Laiju, M.** (2016) *Natural Disaster and Child Trafficking*, Mellon Fellowship

**Laiju, M.** (2017) *A Global Issue: Natural, Manmade Disaster, and Exploitation of Children*, Pardee RAND Faculty Leaders Fellowship, manuscript under review.



**Laiju, M. & Banerjee, S. (2017) *Innovative Interdisciplinary Undergraduate Curriculum in Homeland Security at a HBCU*, Presented at the 10<sup>th</sup>. Anniversary Homeland Defense & Security Education Summit on March 23, 2017**

#### **Year 4 Publications:**

Long, J., Rose, S., Jwainat, A. & Hunter, F. (2019), Tougaloo Community Preparedness for Homeowners, abstract published in *Mississippi Academy of Sciences (MAS)* ISSN 0076 – 9436, Vol 64 # 1

Jones, T. Robinson, S. Boler, D. & Hunter, F. (2019) Disaster Preparedness: How Prepared Are They? An Assessment of Renters in Tougaloo Mississippi, abstract published in abstract published in *Mississippi Academy of Sciences (MAS)* ISSN 0076 – 9436, Vol 64 # 1

Kinkaid, D., Ze'ronte, B. Sneed, H., & Banerjee, S., (2019), *Using GIS to Study Disproportionate Disaster Impact on Vulnerable Mississippi Population*, abstract published in *Mississippi Academy of Sciences (MAS)* ISSN 0076 – 9436, Vol 64 # 1, & Presented at 83<sup>rd</sup>. Annual Meeting in Hattiesburg, MS on February 21, 2019

Laiju, M. (2019), *A Framework: Address Vulnerability of Children and Current Policy of Disaster*, abstract published in *Mississippi Academy of Sciences (MAS)* ISSN 0076 – 9436, Vol 64 # 1, & presented at 83<sup>rd</sup>. Annual Meeting in Hattiesburg, MS on February 21, 2019

Laiju, M. (2019) *Career Pathway: Multidisciplinary Undergraduate Curriculum in Homeland Security's Coastal Resilience at a HBCU*. Abstract published in *Southern Sociological Society (SSS)* Journal and presented at SSS Conference on April 11, 2019, at Atlanta, GA.

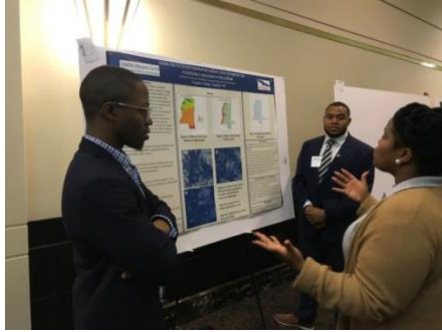
#### **Presentation:**

Laiju, M. & Hunter, F. (2018), *Transforming the Curriculum: Adding Disaster Management and Coastal Infrastructure Management to the Curriculum*, abstract accepted and presented at the Historical Black Colleges & Universities (HBCU) Faculty Development Network Conference in Jackson, Mississippi, November 2, 2018

#### **Senior Paper:**

Jwainat, A. (2019), senior paper Knowledge and Attitudes Regarding Disaster/ Emergency Preparedness

Porter, J. (2019), New Orleans Residents' Awareness of Disaster Preparedness



Students participating at MAS

## 9. Year 4 Education Activities and Milestone Achievements:

### Education Activities and Milestones: Status as of 6/30/2019

Reporting Period 7/1/2018 – 6/30/2019			
<b>Education Activities</b>	Proposed Completion Date	% Complete	Explanation of why activity/milestone was not completed
Promote DCS certificate program & recruit 10-12 students.	ongoing		
Offer three courses in Fall Semester (NSD 201, DCS 320, & SOC/SWK 331)	08/2018	100%	
Offer four courses in spring semester (PSY 328, COP 211, POL 317, & DCS 400)	01/2019	75%	COP 211 course was not offered; Instructor was on Maternity leave
Select students for course project. Students who are interested in the program must be sophomore or higher with a minimum 2.5 GPA.	08/2019 01/2019	<u>100%</u>	
Place 6-7 students in internships with end-users.	01/2019	100%	
RETALK- invite guest for symposium	02/2019	<u>100%</u>	
Neighborhood Outreach Training planning for homeowner's associations in Jackson, Mississippi.	12/2018	<u>0%</u>	Due to shutdown & inclement weather
Interview – future plan of graduates with DCS certificate	05/2019	<u>100%</u>	
<b>Education Milestones</b>			
DCS Students participation in conferences (MAS, SSC, PRAM etc.)	02/03/04/2019	100%	
Neighborhood Outreach Training for homeowner's associates in Jackson, Mississippi.	03/2019	0%	Due to shutdown & inclement weather
Select and place 1-2 students in SUMREX internships.	04/2019	100%	
Host DCS Symposium to showcase DCS students' research activity, bring guest lecturers from partner institutions, and to share their research with students	04/2019	100%	

**10. Year 4 Transition Activities and Milestone Achievements:**

**Transition Activities and Milestones: Status as of 6/30/2019**

<b>Reporting Period 7/1/2018 – 6/30/2019</b>			
<b>Transition Activity</b>	<b>Proposed Completion Date</b>	<b>% Complete</b>	<b>Explanation of why activity/milestone was not completed</b>
Recruitment for Certificate Program	ongoing		
Recruit 3 additional end-users to provide internships (course)	12/2018	0%	Did not need any additional placement
Advise and track the students pursuing the Certificate	05/2019	100%	
SUMREX- Summer Internship and bringing guest lecturer (DCS Symposium)	02/2019	100%	
Encourage the DCS certificate pursuing students to attend the job fair	02/2019	100%	
Collaborate College's career pathway sector to invite emergency management agencies to job fair	ongoing		
<b>Transition Milestone</b>			
Place 6-7 students into internships at end-user organizations	01/2019	100%	
Place 2 students in Summer Internship (SUMREX)	05/2019	100%	
Graduate 4-5 students from the DCS certificate program.	06/2019	100%	

**1. Tables:**

**Table 1: Annual Courses and Enrollments**  
**LAIJU: Annual Courses and Enrollments**

Courses Developed and Taught by Tougaloo College through project titled "Multidisciplinary Certificate: Disaster and Coastal Studies(DCS)"					
<u>Course Number</u>	<u>Course Title</u>				
<b>NSD/DCS 201</b>	Course Title: <b><u>Introduction to Natural &amp; Manmade Disaster</u></b>	<u>YR 1</u>	<u>YR 2</u>	<u>YR 3</u>	<u>YR 4</u>
Status: Developed (D), Revised (R), and/or Taught (T)		--	R,T	T	R/T
Offering: Elective (E), Concentration (C), Minor (M)			M	M	CERT** CORE
Number of Students Enrolled		*	10	10	10
*offer in fall semester					
<b>DCS 211</b>	Course title: <b><u>Public Health Issues in Disaster Preparedness</u></b>	<u>YR 1</u>	<u>YR 2</u>	<u>YR 3</u>	
Status: Developed (D), Revised (R), and/or Taught (T)		T	T	T,R	R
Offering: Elective (E), Concentration (C), Minor (M)			M	M	
Number of Students Enrolled		1**	8	11	
**Schedule to offer in fall; 2016 spring offered as an independent study for a graduating Senior with DCS minor					
<b>DCS 301</b>	Course title: <b><u>Political &amp; Legal Issues in Disaster Preparedness</u></b>	<u>YR 1</u>	<u>YR 2</u>	<u>YR 3</u>	
Status: Developed (D), Revised (R), and/or Taught (T)		T	T	T,R	R
Offering: Elective (E), Concentration (C), Minor (M)		M	M	M	
Number of Students Enrolled		14	10	8	
<b>DCS 320</b>	Course Title: <b><u>Emergency Preparedness Response &amp; Planning</u></b>	<u>YR 1</u>	<u>YR 2</u>	<u>YR 3</u>	<u>YR 4</u>
Status: Developed (D), Revised (R), and/or Taught (T)		T	R,T	T	T
Offering: Elective (E), Concentration (C), Minor (M)		M	M	M	CERT** CORE
Number of Students Enrolled		16	5	11	9
<b>DCS 314</b>	Course title: <b><u>Economic Aspects of Disaster</u></b>	<u>YR 1</u>	<u>YR 2</u>	<u>YR 3</u>	<u>YR 4</u>
Status: Developed (D), Revised (R), and/or Taught (T)			T	T,R	R
Offering: Elective (E), Concentration (C), Minor (M)			E	E	-
Number of Students Enrolled			13	7	-
<b>DCS 311</b>	Course title: <b><u>Psychological Dimension of Disaster</u></b>	YR 1	YR 2	YR 3	YR4
Status: Developed (D), Revised (R), and/or Taught (T)		-	-	R	R
Offering: Elective (E), Concentration (C), Minor (M)			E	E	-
Number of Students Enrolled		***			-
***offer one elective in fall for each academic year					
<b>DCS 400</b>	Course title: <b><u>Internship</u></b>	YR 1	YR 2	YR 3	YR 4
Status: Developed (D), Revised (R), and/or Taught (T)		T	T	****	T
Offering: Elective (E), Concentration (C), Minor (M)		M	M		CERT** CORE
Number of Students Enrolled		7	8		5
CERT** (Certificate Program)					

	Course title: COP Public Relations Writing**	YR 1	YR 2	YR 3	YR 4
	Status: Developed (D), Revised (R), and/or Taught (T)			R	-
	Offering: Elective (E), Concentration (C), Minor (M)				E
	Number of Students Enrolled				-
	Course title: SOC/SWK 331 Social, Community Organizations & Disaster Preparedness**	YR 1	YR 2	YR 3	YR 4
	Status: Developed (D), Revised (R), and/or Taught (T)			R	T
	Offering: Elective (E), Concentration (C), Minor (M)				E
	Number of Students Enrolled				10
	Course title: POL 317 Public Policy & Legal Issues in Disaster Management**	YR 1	YR 2	YR 3	YR 4
	Status: Developed (D), Revised (R), and/or Taught (T)				T
	Offering: Elective (E), Concentration (C), Minor (M)				E
	Number of Students Enrolled				17
	Course title: PSY 328 Health Psychology in Disaster Preparedness**	YR 1	YR 2	YR 3	YR 4
	Status: Developed (D), Revised (R), and/or Taught (T)				T
	Offering: Elective (E), Concentration (C), Minor (M)				E
	Number of Students Enrolled				14

**NOTE: The certificate program started in Year 4. The red font indicates offered courses and enrollment data of this new program.**

**Table 2: Performance Metrics**

**LAIJU: Performance Metrics:**

<b>Metric</b>	<b>Year 1</b> (1/1/16 – 6/30/16)	<b>Year 2</b> (7/1/16 – 6/30/17)	<b>Year 3</b> (7/1/17 – 6/30/18)	<b>Year 4</b> (7/1/18 – 6/30/19)
HS-related internships (number)	7	8	0	5
Undergraduates provided tuition/fee support (number)				
Undergraduate students provided stipends (number)	15	17	20	24
Graduate students provided tuition/fee support (number)	NA	NA	NA	NA
Graduate students provided stipends (number)	NA	NA	NA	NA
Undergraduates who received HS-related degrees (number)	3	5	4	5
Graduate students who received HS-related degrees (number)	NA	NA	NA	NA
Certificates awarded (number)	NA	NA	NA	5
Graduates who obtained HS-related employment (number)			0	1
Lectures/presentations/seminars at Center partners (number)	1	1	1	1
DHS MSI Summer Research Teams hosted (number)	0	0	0	0
Journal articles submitted (number)	0	0	0	0
Journal articles published (number) ABSTRACT	0	0	3	5
Conference presentations made (number)	1	4	6	6
Other presentations, interviews, etc. (number) Symposium, Seminar	10	12	14	15
Trademarks/copyrights filed (number)	0	0	0	0
Requests for assistance/advice from DHS agencies (number)	2	1	1	1
Requests for assistance/advice from other agencies or governments (number)	5	2	2	3
Dollar amount of external funding	\$12,000	--	\$8,000	-
Total milestones for reporting period (number)	7	7	7	7
Accomplished fully (number)	4	5	6	6
Accomplished partially (number)	3	1	1	-
Not accomplished (number)	-	1	-	1