The University of Southern Mississippi

The Aquila Digital Community

Southern Miss Gulf Scholars

Fall 8-21-2023

SUS 315 Southern Miss Gulf Scholars Program Module

Southern Miss Gulf Scholars Program
University of Southern Mississippi

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SUS 315: Field Methods

Module Curriculum Template
Module Title: Urban Streams (Fresh Surface Water)

Module Length (in hours): 6-9 hours over several sessions

Course: SUS 315: Field Methods

Subject Area(s): Sustainability

Description of Module: Urban Freshwater Resources are historically and culturally significant, but they have transitioned to urban water management systems with a disconnect to the waterways. Some still swim and fish in urban waterways. Some still have connections to the urban waterways, but many have lost that connection. How has your urban waterway changed and how is it managed? Can that change or would it have an impact if it did? What ways can we monitor or improve this waterway?

Module Learning Outcomes(s):

LO 1. Develop knowledge of the Gulf of Mexico and its coastal zone in order to identify potential leverage points for creating a more livable, equitable, resilient, and joyful Gulf Region

LO 3. Integrate perspectives and approaches from the humanities, engineering, social and natural sciences to develop interdisciplinary responses to complex socio-environmental challenges

LO 4. Practice civic responsibility and ethical reasoning in problem-solving and research

LO 5. Conceptualize, develop, research, and implement innovative responses to major Gulf region challenges, grounded in respect for community knowledge and expertise

Plan to make proposal project for first half of class leading into the sustainability capstone praxis.
Have students vote on best one to submit for possible implementation

Assessment Blueprint [align lessons with module learning goal(s)]:

Lesson	Objectives	Cognitive Level	Activities	Assessment
Introductory Lesson (personalize, localize, connect to global challenges)				
Read Marker at Bear Point and	LO 1.		Reading and Thinking	Oral/ peer assessment

discuss the importance of fresh water along the coast				
Discuss the switch from surface water to municipal water and why	LO 3.		Hypothesize	Oral/ peer assessment
Identification of target freshwater stream (Bear Point)	LO 1. LO 4.		Looking at Maps	Participation
Analysis of local maps to determine the flow of the stream from headwaters to delta	LO 1. LO 3. LO 4.		Writing on Paper Maps to figure out where the stream is. Maybe historic maps	Participation and graded map
Inquiry Project Lesson (personalize via values, localize relevance, globalize need)				
What is the condition of the freshwater stream? Are segments different?	LO 3. LO 4.		Dissect the stream into segments and figure out what to monitor or test	Guided research planning
What could you do to change or improve it?	LO 3. LO 4.		Brainstorming	Participation
How is the waterway's cultural landscape/ cultural significance change over the course of the flow of the river?	LO 3. LO 4.		Expand on the human aspect of the history of the stream and modern manipulation of the stream	Graded short writing
Are there other freshwater streams in the area that are treated	LO 1. LO 4.		Short writing exercise to think beyond the local	Graded short writing

differently? To what scale is this stream impacting the region.				
Communicate Results Lesson				
Take photos along the waterway to show the different segments	LO 4.		Photos and field notes	Completion
Create a map or visualization that helps show the importance of the stream	LO 3. LO 4. LO 5.		Use GIS story maps to tell the story of the stream now and in the past	Graded map
Write a project proposal for improving the waterway or bringing back cultural significance.	LO 1. LO 3. LO 5.		Pull together a plan to do something concerning the stream (monitoring, reengineering, cleaning, etc.)	Graded paper
**Critical reflection should be integrated throughout every lesson in the module.				

Introductory Lesson	Course: SUS 315	Date:
GSP Learning Outcomes 1. Develop knowledge of the Gulf of Mexico and its coastal zone in order to identify potential leverage points for creating a more livable, equitable, resilient, and joyful Gulf Region; 3. Integrate perspectives and approaches from the humanities, engineering, social and natural sciences to develop interdisciplinary responses to complex socio-environmental challenges; 4. Practice civic responsibility and ethical reasoning in problem-solving and research; 5. Conceptualize, develop, research, and implement innovative responses to major Gulf region challenges, grounded in respect for community knowledge and expertise		
Location: o In class	**GSP Framework Guidelines** ◊ Clear learning goals ◊ Framing of inquiry question or problem as interdisciplinary ◊ Relevance of inquiry personally & Professionally	**Strategies/Activities** ◊ Readings ◊ Digital Media ◊ Lecture ◊ Visual Mapping ◊ Think/Pair/Share

	◊ Relevance of inquiry locally & globally ◊ Collaborate ◊ Communicate results, including broader impact ◊ Critical reflection of experience	◊ Modeling or Simulations ◊ Writing/Speaking Exercises ◊ Problem-based learning ◊ Project-based learning ◊ Service Learning ◊ Group Work ◊ Discussion Questions ◊ Photovoice ◊ DEAL Approach to Critical Reflection ◊ Other
Introduction		**Assessment for Learning** ◊ Observations ◊ Conversations ◊ Anecdotal Notes ◊ Work Sample ◊ Class Check-Ins/Quizzes ◊ Checklist ◊ Diagnostics ◊ Other
Action		**Assessment as Learning** ◊ Self-assessment ◊ Peer-assessment ◊ Presentation ◊ Visual Mapping ◊ Collaboration ◊ Class Check-Ins/Quizzes ◊ Homework ◊ Other
Consolidation		**Assessment of Learning** ◊ Test ◊ Quiz ◊ Presentation ◊ Project Portfolio ◊ Critical Reflection ◊ Journal ◊ Essay ◊ Rubrics ◊ Other
Reflection and Next Steps		
Activities that worked	Topics to be Revisited	

Inquiry	Course:	Date:
GSP Learning Outcomes 1. Develop knowledge of the Gulf of Mexico and its coastal zone in order to identify potential leverage points for creating a more livable, equitable, resilient, and joyful Gulf Region; 2. Employ the intercultural knowledge, mindset, and skills through active involvement with diverse Gulf communities; 3. Integrate perspectives and approaches from the humanities, engineering, social and natural sciences to develop interdisciplinary responses to complex socio-environmental challenges; 4. Practice civic responsibility and ethical reasoning in problem-solving and research; 5. Conceptualize, develop, research, and implement innovative responses to major Gulf region challenges, grounded in respect for community knowledge and expertise		

Location:
  o In class
  o Out-of-class location
    _____
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Reflection and Next Steps		
Activities that worked	Topics to be Revisited	

Communication	Course:	Date:
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  o In class
  o Out-of-class location
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	◊ Relevance of inquiry personally & professionally
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	◊ Relevance of inquiry locally & globally ◊ Communicate results, including broader impact ◊ Collaborate ◊ Critical reflection of experience	◊ Modeling or Simulations ◊ Writing/Speaking Exercises ◊ Problem-based learning ◊ Project-based learning ◊ Service Learning ◊ Group Work ◊ Discussion Questions ◊ Photovoice ◊ DEAL Approach to Critical Reflection ◊ Other
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