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Viewing: **MARS 210-GE 210: Marine Geography**

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Changes proposed by: retchled

In Workflow

1. MARS Department Head
2. GV College Dean UG
3. CCC Preparer
4. CCC Chair
5. Faculty Senate Preparer
6. Faculty Senate
7. Provost II
8. President
9. Curricular Services

Approval Path

1. 03/27/18 3:49 pm
Kyeong Park (parkk):
Approved for MARS
Department Head
2. 04/11/18 5:32 pm
Patrick Louchouart
(loup): Approved for GV
College Dean UG
3. 04/12/18 1:00 pm
Barbara West
(barbwest): Approved
for CCC Preparer

Contact(s)

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Course Prefix MARS Course Number 210

Academic Level UG

Complete Course Title Marine Geography

Abbreviated Course Title MARINE GEOGRAPHY

Crosslisted With

Semester Credit Hour(s) 3

Proposal for:

Core Curriculum

How frequently will the class be offered?

Spring and fall semesters, every year

Number of class sections per semester 1-2

Number of students per semester 63

Historic annual enrollment for the last three years

Last year: 111 Previous year: 122 Year before: 143

Recertify for Core Curriculum? Yes ~~No~~**Core curriculum**Foundational Component Area **Core Social & Beh Sci (KSOC)**

TCCN prefix/number

Foundational Component Area: Social & Beh Sci

How does the proposed course specifically address the Foundational Component Area definition above?

Core Objectives:

Critical Thinking (to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information):

Communication (to include effective development, interpretation and expression of ideas through written, oral and visual communication):

Social Responsibility (to include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities):

Empirical and Quantitative Skills (to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions):

Additional Comments

Approved for core? **No**

Recertification for Foundational Component Area: Social & Beh Sci

Describe how this course met the Foundational Component Area description for Social and Behavioral Sciences. Courses in this category focus on the application of empirical and scientific methods that contribute to the understanding of what makes us human. Courses involve the exploration of behavior and interactions among individuals, groups, institutions, and events – examining their impact on individuals, society, and culture.

Marine Geography meets the Foundational Component Area description for Social and Behavioral Sciences through its focus on the use of empirical methods (including direct and indirect observation of the coastal environment) to understand the relationship between the physical (geographic and geomorphic) and cultural patterns of the world's coastal zones. Through the study of such relationships, students analyze human use and sometime abuse of the sea and coastal zones. Students also consider how the use of the coast is shaped by differing cultural norms and how differing coastal landscapes in turn contribute to diversity of coastal cultures.

For one representative course section (open to all majors, including a general population of students, not an Honors Section) taught in the year prior to this recertification request:

Describe how students are informed of the core objectives being addresses in this core curriculum course.

Students are informed of the core objectives via the syllabus.

For critical thinking, the syllabus highlights the course's focus on "interrelationships between the physical forms and the processes, and the cultural patterns used to analyze human use and sometime abuse of the sea and coastal zones." This is broken out into specific learning outcomes, including "analyz[ing] coastal settlement (population settlement patterns) through time" and "examin[ing] changing climate and rising sea levels and resulting effects on the world's coastal environments."

For written communication, the syllabus informs students of a weekly, one-page written journal assignment requirement. For oral and visual communication, the syllabus informs students that they will be responsible for preparing and delivering an in-class PowerPoint presentation covering a chapter from the Alongshore textbook. As noted on the syllabus and detailed in journal assignment instructions, visual communication is also addressed via the requirement to include photos or diagrams in some journal assignments.

For social responsibility, the syllabus highlights the focus on the abuse of the world's coasts; the effects of climate on our coastal environments; and management techniques for the changing coastal environments as a result of population pressures as well as rising sea level. This is broken out into specific learning outcomes, including "describe[ing] ocean fisheries," including "sustainability versus exploitation and major players (nations) in the commercial fishing arena;" "Explain[ing] susceptibility and vulnerability of the coastal waters to water pollution;" and "Examin[ing] changing climate and rising sea levels and resulting effects on the world's coastal environments."

For empirical and quantitative skills, the syllabus notes that students will "natural processes which shape our coasts," "human use and sometime abuse of the sea and coastal zones," "coastal settlement (population settlement patterns) through time" and "cultural diversity/makeup...of our coastal environments." Specific learning outcomes include consideration of: "sustainability versus exploitation" of fisheries based on catch and stock data; how use of ocean resources varies with culture based on observed patterns; comparison of "susceptibility and vulnerability of the coastal waters to water pollution" of different regions based on variation in drainage systems; and evaluation of effectiveness of "methodologies to protect coastlines from erosion and rising sea levels (hard versus soft-coastal forms of protection)" in different contexts.

Describe how the course fostered student development related to each of the four core objectives.

The course fostered development in critical thinking through journal assignments and exam essay questions that required analysis of the human-coastal interface with respect to: the human perspective of what is meant by the coastal realm; how human settlements along the coast have developed and changed over time; how climate, weather and oceanographic processes and changes affect both features of the coastal landscape and human settlements along the coast; the reasons why some coasts are more vulnerable to pollution than others; and how the impacts of natural disasters vary with differences in coastal landscapes and societies.

The course fostered development in written communication through weekly journal assignments and exam short essay questions requiring students to effectively describe coastal and marine landscapes, including their features, related processes, and interactions with society. The course fostered development in oral and visual communication by requiring

students to prepare and present to the class a “case study” PowerPoint summarizing content from an assigned chapter of the *Alongshore* text (these presentations focused on the diversity/makeup and societal use of our coastal environments). The course also fostered development of visual communication via journal assignments requiring students to find and submit photos or figures that: illustrate coastal and dune features discussed in class; show local landscape features illustrative of coastal beach types and bedforms; show how local plants and animals are part of the coastal landscape.

The course fostered social responsibility through journal assignments and exam short essay questions that require students to consider the effect of humans on the coastal and ocean environment, how laws have evolved to protect fisheries and other resources from exploitation and the impact and the societal responsibility to limit uncontrolled waste streams (run-off, dumping, other forms of pollution). The students will also study approaches various communities have taken to protect coastal areas (includes examination of ecological or soft protection versus hardening of the coastal areas through engineering structures) and associated ramifications. Also, as mentioned earlier, there is an examination of the cultural diversity/makeup and societal use of our coastal environments, especially as provided with the historical scrutiny of the book “*Alongshore*”; here again, students will be responsible for presentation via PowerPoint of a chapter from this book to the class.

The course fostered development of empirical and quantitative skills through the study of population dynamics in coastal areas of the world, changes in fish stocks and commercial fisheries over time, water quality concerns, and coastal protection. In journal assignments and exam short essay questions, students are asked to consider the tradeoffs involved in coastal management decisions related to these themes. Examples include analysis of scenarios such as how coastal land-use planners/city planners would approach rapidly eroding beaches (economic concerns such as tourism): do they take a hardening of the coastline approach such as with a seawall or breakwater or, use soft methods such as beach nourishment, establish of no-build areas or wildlife preserves? Similarly, for causeway construction, does one take a “cheaper” approach and use land fill with maybe a small drawbridge for circulation of the water inlet, or does one spend the money and develop an elevated causeway allowing for greater water circulation and fish migration? These topics are considered through real-world case-studies and scenarios presented in class; the journals and test questions require students to draw on these examples and concepts and use them to reach informed conclusions about their applicability in new contexts.

Describe how student learning of each objective was evaluated.

For critical thinking, learning was evaluated through the grading of exam essay questions (e.g., requiring a written analysis of why Galveston Bay is particularly vulnerable to pollution) and journal assignments (e.g., assessing personal and societal connections with the sea and shore, evaluating coastal landscapes by considering likely geomorphological processes responsible for their creation, and applying creating thinking to consider how a natural disaster affecting a distant coast and speculate as to how such a disaster would affect the natural and social landscape of nearby Houston-Galveston coastal areas). Grades were based on students’ ability to think creatively, analyze coastal landscapes and societies by breaking them down into specific landforms and societal norms typical of coastal areas, and synthesize information from several examples and apply it in new contexts.

Learning related to written communication was evaluated via grading of weekly journal assignments (submitted via eCampus) and exam essay questions based on students’ ability to interpret the assignment, develop ideas that respond to the assignment appropriately, and express these ideas in writing. Oral and visual communication were evaluated based on student effectiveness in developing and expressing oral and visual content (PowerPoint slides) summarizing information about diversity/makeup and societal use of our coastal environments from their assigned chapter of the *Alongshore* text. For journal assignments requiring submission of photos or figures, visual communication was also evaluated via grading of based on students’ ability to locate or produce photos and figures that illustrated the themes and concepts developed in their journals.

Learning related to social responsibility was evaluated via grading of weekly journal assignments (submitted via eCampus) and exam essay questions based on students’ abilities to: understand and appreciate cultural diversity in perceptions of the coastal realm (and how these have changed over time); demonstrate knowledge of the importance of protecting coastal areas from pollution and erosion (as accelerated by sea level rise and other anthropogenic changes); and show understanding of how physical processes, laws, and social norms that govern coastal zones vary from local, to national, to global scales and through time. Specific assignments addressing this objective include an exam question requiring the analysis of contrasting environmental impacts for two methods of causeway construction and a journal requiring consideration of small scale fishing and human relationships with the coast in the context of both local traditions, economies, and cultures and global change.

Learning related to development of empirical and quantitative skills is evaluated via grading of weekly journal assignments (submitted via eCampus) and exam essay questions. Grades were based in part on students’ abilities to use observations and examples of physical and social aspects of coastal systems to reach informed conclusions about population dynamics in coastal areas of the world, changes in fish stocks and commercial fisheries over time, water quality concerns, and coastal protection. For example, in journal assignments students were required to use observations of local beach to reach conclusions about plants and animals present on the landscape and likely landform types and processes, including effects of human coastal settlement. Additionally, an exam essay question required students to combine information about the observed rate of sea level rise on Galveston island, knowledge about the advantages and disadvantages of coastal

protection methods from class readings and discussions, and students' own knowledge of the social and physical environment on the island to evaluate the suitability of hard and/or soft coastal protection methods for the island.

Additional Comments

For assessment of core objectives, from the same representative course section used above, provide a sample of student work (a complete course set for the section being used) that demonstrates the required core objectives from each student enrolled in that section.

Recertification date:

Please ensure that the attached course syllabus sufficiently and specifically details the appropriate core objectives.

Attach Course Syllabus [MARS210_Fa17_syllabus.pdf](#)

Reviewer Comments

Key: 183