Career Paths

Academic Program Review



Data source: GSO Alumni database 2020

Student Population Trends

Academic Program Review



Data source: GSO Alumni database 2020



Data source: Meredith Clark Student Database

Faculty Retreat

Tuesday, January 11, 2022

Survey Results - Scenarios

Academic Program Review

No Change - keep core courses as they are

Slight Modification - more interdisciplinary

- more integrated

Significant Modification I - 1 sem. intro. overview - any 3 core courses

Significant Modification II - 2 sem. intro. overview - any 2 core courses

Significant Modification III

- 2 sem. Expanded overview
- Replaces 4 core courses



Survey Results - Scenarios

Academic Program Review







26 Class Meetings - 20 core - 4-6 interdisciplinary

- Capstone or JITT



2 Semester Overview **Replaces Core Courses**



Increasing Effort

20% Interdisciplinary



Make PO 4 credits

- 3 credit more conceptual, 1 credit PO "majors" 3 credit as is, 1 credit "recitation"

Intro/Overview – Model #1

GO

Core Concepts => Interdisciplinary Topics

5 meetings for each sub-discipline

Big Aha's from each sub-discipline

- 2 Hard rock (structure, tectonics, composition)
- 2 Soft rock (sediments, distributions, processes)
- 1 climate history (methods and changes)

1 meeting for other discipline connections

Sub-discipline connections

- PO => paleo-currents?
- CO => sources and sinks
- BO => biogenic sed distributions

Interdisciplinary Topics => Core Concepts



Faculty Retreat

Time Domain (years)

Tuesday, January 11, 2022

Intro/Overview – Model #2

Academic Program Review

Interdisciplinary Topics => Core Concepts

Narragansett Bay in the Anthropocene: (4 - 6 week module)

Focus:

Engagement: Why do we care about estuaries and coasts? What are the outstanding questions about Narragansett Bay? Goals: Here's what we want you to know about Narragansett Bay: Global scale, local scale, punctuating events.

Explore:

Lecture/Discussion (1-2): Geologic origin, Climatology, sea level changes, tides. Activity: Data from NCDC on predominant climatology patterns. Activity: Sidescan bathymetry of Narragansett Bay. Identify drowned river beds, putative paleohabitats

Lecture: Anthropogenic CO2, Ocean acidification, anthropogenic sea level rise. Lecture: Eutrophication, changes in fish species abundance, fresh water supply, stratification, beach closures, combined sewer overflows, hydrologic changes, phytoplankton blooms

Activity: USGS Gauging data vs. PORTS data: ADCPs of flow in the bay.

Reflect:

Synthesize, drive home key points (Discussion/Lecture)

Apply:

Compare & Contrast Narragansett Bay with other estuaries. Why is Narragansett Bay "cleaner" than Chesapeake Bay? Design a way to evaluate the scale and scope of the emerging contaminants.

Assessment:

Group project – applying what was learned to a different scenario. Traditional examination. Each student assesses the peers...

Core Concepts (from 2013 survey)

Continental margins structure and sedimentary processes Sediment dynamics of coastal environments Sea level change processes

Hydrologic cycle, Conceptual understanding of tides Coastal circulation Ocean instrumentation methods Transport mixing and timescales

Salinity: distribution & processes Coastal hypoxia & anoxia Chemistry of gases in water Macro nutrients: description, distribution & processes Marine pollution

Climate change and ocean biology Food web dynamics: primary production to fisheries Biology of estuaries and coasts HABs 1) Do we need to update Core Courses?

2) Preferred scenario(s)?

- benefit for students
- effort by faculty

3) Model preferences?

Note: Next steps will be covered later