US COASTAL RESEARCH PROGRAM
2019 ACADEMIC RESEARCH OPPORTUNITIES

www.uscoastalresearch.org

Webinar: summarize goals, requirements, and timeline for USCRP's 2019 academic research opportunities

Presenters:
Nicole Elko, American Shore & Beach Preservation Association
Leighann Brandt, Bureau of Ocean Energy Management
Mary Cialone, US Army Corps of Engineers (USACE)
Julie Rosati, USACE
Hilary Stockdon, US Geological Survey
Kathryn McIntosh, NOAA Knauss Fellow, USACE

US COASTAL RESEARCH PROGRAM 2019 ACADEMIC RESEARCH OPPORTUNITIES

Agenda

- USCRP Summary, Mission, Organization 2019 Academic Research Opportunity
  - o Brief introduction: 10 topics & 3 research themes Funding mechanisms via CESUs*
  - o Process, timing, and rough schedule for advertising, reviewing, and awarding
  - o Requirements & desired characteristics of research
- FAQs and Additional Questions

Cooperative Ecosystem Studies Units (CESU) http://www.cesu.psu.edu/

US COASTAL RESEARCH PROGRAM
USCRP SUMMARY, MISSION, ORGANIZATION

Goals: Address national nearshore coastal research priorities of greatest societal relevance & build skilled US workforce.
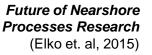
Approach: Leverage & expand federal, academic, industry, & non-gov nearshore research to address consensus needs.

Mar 2014: Future of Nearshore Processes Workshop
Winter 2015: "Nearshore Report" identified 3 broad research themes:

    (1) Long-term coastal evolution,
    (2) Extreme events,
    (3) Human and ecosystem health.

Identified need to coordinate nearshore observations & modeling; mentor & train coastal community.

Future of Nearshore Processes Research
(Elko et. al, 2015)

US COASTAL RESEARCH PROGRAM RECENT ACCOMPLISHMENTS

U.S. Nearshore Community Integrated Research Implementation Plan – The National Plan

- Topical Workshops
  - Dune Management Challenges (2015)
  - Storm Processes & Impacts (2018)

- Academic Awards
  - Dune Research Studies (5 projects; 2016; $265.6K)
  - Storm Research Studies (7 projects; 2018; $775K)

- Interagency Coordination
  - National Research Plan (2016)
  - Collaborative Projects – for example, Coastal Model Test Bed, During Nearshore Event Experiment (DUNEX)

US COASTAL RESEARCH PROGRAM
2019 AWARDS SUMMARY

10 Priority Topic Areas: Identified by federal agencies as current research needs

Emerged from 3 Broad Research Themes identified in Nearshore Report

USCRP COASTAL RESEARCH PRIORITY CATEGORIES

1. Identify and Communicate Coastal Impacts
2. Coastal Structure Design and Rehabilitation incorporating Stochastic Risk and Uncertainty
3. Understanding the Crossroads of Human and Ecosystem Health
4. Evaluating the Distribution and Geotechnical Properties of Outer Continental Shelf (OCS) Sand Resources and Coupled Environmental Responses to Dredging
5. Nearshore Sediment Transport and Sediment Budgets over Decadal Scales

USCRP COASTAL RESEARCH PRIORITY CATEGORIES

6. Long-term Implications of Coastal Restoration

7. Development of a USCRP Coastal Data Portal

8. Quantifying and Communicating Numerical Model Uncertainty

9. Develop Community Resilience Guidance for Recovery & Mitigation and Adaptation

10. Applied Storm & Recovery Studies as part of the DUring Nearshore Event Experiment (DUNEX)

US COASTAL RESEARCH PROGRAM

Cooperative Ecosystem Studies Units (CESUs)

- Funding mechanism for FY19 awards

  http://www.cesu.psu.edu/

- CESU Network: consortium of federal agencies, tribes, academic institutions, state & local governments, nongovernmental organizations

If not in CESU Network

- Join:
  http://www.cesu.psu.edu/about/join.htm

- Partner with an existing CESU organization

US COASTAL RESEARCH PROGRAM

Cooperative Ecosystem Studies Units (CESUs)

Request for Statements of Interests (rSOI) Process:

1. Go to http://www.cesu.psu.edu/

2. On the left hand side, choose your "Regional CESU Network"

3. On the Regional page, click on the website

4. rSOIs will be posted on this website

   a. Regional websites aren't consistent, be on the lookout for exact location (example shown is South Florida-Caribbean)

EXAMPLE STATEMENT OF INTEREST (SOI)

Include:
- Whether Student Challenge (1-2 yr) or Academic Research (2-3 yr) Study
- Topic #
- Brief description of team, capabilities, and approach

Student Challenge/ Academic Research Study: Investigation of Nearshore Bathymetry, Topic #X

PI: Name, Organization, Phone: --, Email: --
Co-PI: Name, Organization, Phone: --, Email: --
Student: Name, Organization, Phone: --, Email: --

Biographical Sketch:
Dr. ABC is Professor of Coastal Sciences at XYZ University (XYZ). Prior to joining XYZ, she was a professor of coastal engineering at QRS. She conducted postdoctoral research at TUV, and doctoral research at DEF. Dr. ABC specializes in the development and application of numerical models for coastal dynamics, the long-term processes driving coastal sediment budgets, and coastal extreme events. Her research includes field experiments and numerical modeling to solve fundamental science questions that inform societally relevant coastal management problems. Dr. ABC has secured over $15 million of federal, state, and industry research grants, which include the prestigious agency X award.

Selected Relevant Publications:
ABC, McBride, J.L., Chan, J., Emanuel, K., Holland, G., Landsea, C., Held, I., Kossin, J.P., Srivastava, A.K., and Sugi, M. (2010). Tropical cyclones and climate change, Nature Geoscience, 3, 157–163, https://www.nature.com/articles/ngeo779, accessed November 14, 2018.

ABC, Gralher, C., and Do, K. (2013). Effects of Woody Plants on Dune Erosion and Overwash. *Journal of Waterway, Port, Coastal, and Ocean Engineering*, 139(6), 466–472.

ABC, and Franklin, J.L. (2013). Atlantic hurricane database uncertainty and presentation of a new database format. *Monthly Weather Review*, 141(10), 3576-3592.

ABC, Erikson, L., and Hanson, H. (2004). An analytical model to predict dune erosion due to wave impact. *Coastal Engineering*, 51(8-9), 675–696.

Relevant Past Projects and Clients with Brief Descriptions of These Projects:
ABC, Analysis of dune development and migration along developed coasts in southeast Florida, funded by Agency G, 2015-2017. (one sentence description of this effort which might emphasize past partnering experiences with other academics, agencies, NGOs)

Research Team and Capabilities:
The research team consists of Dr. ABC, Dr. CBA (post-doc), and Ph.D. (or Master's) student BCA. Together, they have successfully developed string theory to reveal that sand bars on the west coast know what sand bars on the east coast are doing. Dr. ABC has developed Python code that operates within the new West Coast model test bed to replicate sand bar behavior based on remotely sensed field measurements from southern California and the outer banks of North Carolina. In this three year, $100,000 study, the team will utilize this model to address Topic #X, enlist the assistance of undergraduate STEM students at XYZ University, leverage the coastal management strategy of the state of Oregon, and make a clear connection to practitioners through facilitated training workshops. This research will provide insights to fundamental science questions that have puzzled nearshore oceanographers since SandyDuck. By resolving the east and west coast sand bar behavior patterns, the research team will better understand the implications of their movement on life safety and coastal infrastructure investments. Lifeguards and coastal managers around the world will be trained to recognize these sand bar patterns and will present their findings to their fellow practitioners at conference Q in Providence, Rhode Island in 2022. The research team will publish their findings in R journal and present their findings at T conference.

AWARD PROCESS AND APPROXIMATE TIMING (1 OF 2)

Task	Start Date	End Date	Duration, days
Requests for Statements of Interest (RSOI) posted at (http://www.cesu.psu.edu/)	7 Jan 2019	17 Jan 2019	10
Contracting Office (CO) processes all submitted Statements of Interest (SOI) and provides them to the USCRP Review Team	18 Jan 2019	28 Jan 2019	10
USCRP Review Team prioritized SOIs	18 Jan 2019	28 Jan 2019	10
USCRP Review Team notify CO of proposers (vendors) who should submit a full proposal	28 Jan 2019	29 Jan 2019	1
CO notifies vendors to submit a full proposal	29 Jan 2019	31 Jan 2019	3
Vendors prepare and submit full proposal	31 Jan 2019	28 Feb 2019	28
CO processes proposals and provides them to the USCRP Review Team	28 Feb 2019	10 Mar 2019	10
USCRP Review Team prioritizes Full Proposals	10 Mar 2019	20 Mar 2019	10

AWARD PROCESS AND APPROXIMATE TIMING (2 OF 2)

Task	Start Date	End Date	Duration, days
USCRP reviewers provides vendor selection and justification to CO	20 Mar 2019	22 Mar 2019	2
CO notifies vendor of selection for award	22 Mar 2019	1 April 2019	10
CO processes contracting package	1 Apr 2019	15 Jun 2019	75
Contract is awarded and vendor proceeds with execution of contract	15 Jun 2019	30 Jun 2019	15

RESEARCH REQUIREMENTS AND REVIEW CRITERIA

1. **Scope** - topical relevance; applicability to USCRP goals (25%)

2. **Technical and scientific merit** - appropriate methods defined; novel approach (25%)

3. **Experience/staffing** - expertise and experience; graduate student supported; informed by coastal manager (20%)

4. **Budget** - proposed project costs, in-kind contributions (20%)

5. **Products/timeline** (10%)

US COASTAL RESEARCH PROGRAM FAQS

Following the webinar, a Frequently Asked Questions (FAQ) page will be added to the USCRP website. Responses will be made publicly available to all interested applicants.

The page will be updated periodically throughout the Statements of Interest review process.

Please send additional questions to be included on the FAQ page to **info@uscoastalresearch.org**

US COASTAL RESEARCH PROGRAM
2019 ACADEMIC RESEARCH OPPORTUNITIES

What can you do now?

- Stay connected. Sign up for USCRP mailing list.

- Learn about the CESU process (www.cesu.psu.edu).

- Look out for the *Request for SOI*, coming in early January 2019, on coastal list, the USCRP mailing, and USCRP website.

Still have questions? FAQs will be available soon online.

USCRP: https://uscoastalresearch.org/2019-awards-info
  Julie Rosati: Julie.D.Rosati@usace.army.mil
  Mary Cialone: Mary.A.Cialone@usace.army.mil

Welcome to the U.S. Coastal Research Program
A National coastal effort to coordinate Federal activities, strengthen academic programs, and build a skilled workforce.
CONTACT US
info@uscoastalresearch.org