Part One: Accomplishments

In response to each item in Part One, provide no more than five bulleted points and brief descriptions of accomplishments:

1. **Teaching**: Summarize unit highlights in teaching during the reporting period. Indicate how these achievements support the unit’s goals and objectives for the academic year.
   - A wide variety of hazards-related courses were offered for AY 2016-17:
     - ATMO 1300/GEOG 1300, Weather and Climate
     - ATMO 3230/GEOG 3230, Global Climates
     - ATMO 4540, Coastal Storms
     - ATMO 4590/GEOG 4590, Tropical Meteorology
     - BIOL 7005, Coastal Ecological Processes
     - COAS 2025, Survey Coastal Marine Resource
     - ECON 3855, Environmental Economics
     - ECON 7010, Coastal and Marine Economics
     - GEOG 2350, Climate Change: Science and Society
     - GEOG 4440, Coastal Applications of GIS
     - GEOG 4540, Coastal Storms
     - GEOG 4580, Radar and Satellite Meteorology
     - GEOG 6540, Advanced Coastal Storms
     - GEOG 6580, Advanced Radar and Satellite Meteorology
     - GEOG 6590, Advanced Tropical Meteorology
     - GEOL 3800, Earth’s Climate: A Geological Perspective
     - GEOL 7002, Coastal Geoscience
     - PLAN 4015, Emergency Management Planning
     - PLAN 6015, Hazard and Emergency/Disaster Planning
     - SUTO 6100, Environmental Systems and Sustainability
   - Dr. Anuradha Mukherji led two courses in the Fall 2016 term that pertained directly to hazards; one on Hazard and Emergency/Disaster Planning (PLAN 6015) and one Emergency Management Planning (PLAN 4015). Having these courses offered during Hurricane Matthew was beneficial and provided real-world application.

2. **Improvement of student learning**: Highlight 3-5 documented improvements in student learning/performance resulting from pedagogical or curriculum actions taken based on analysis of assessment results in your unit.
• Christina Wiegand continues her CRM doctoral program (Economics Concentration), supported by state funds and a grant from NOAA-NCDENR.
• Eugene Frimpong, CRM doctoral program (economics concentration) has completed his first year and will be supported by state funds and NSF grant funds (Kruse) for the coming year.
• Connor Barton, undergraduate Economics, was supported during the 2016-17 AY by REU supplement to NSF grant (Kruse).
• Several advanced courses were offered in Geography to expand on the material taught in their predecessors (GEOG 6540 – Advanced Coastal Storms, GEOG 6580 – Advanced Radar and Satellite Meteorology, GEOG 6590, Advanced Tropical Meteorology).

3. **Research/creative activity**: Summarize unit highlights in research/creative activity during the reporting period. Indicate how these accomplishments support the unit’s goals and objectives for the academic year. Attach (where appropriate) the unit’s one page graphical results from the Academic Analytics.
   • Dr. Scott Curtis is the PI for a newly-awarded grant from UNC, which proposes interdisciplinary measures to model and track storm surges on North Carolina’s coast. This research will lead to improvements in communication, especially timing, duration, locality, and uncertainty with these storm surges.
   • Dr. Hochard, Dr. Bin, Dr. Keeler, and Dr. Kruse have a new research proposal with NOAA to leverage a $38.7 million beach nourishment project as a natural bioeconomic experiment funded jointly by Dare County, NC and the Outer Banks towns of Duck, Kill Devil Hills, and Kitty Hawk (with federal support from the Bureau of Ocean Energy Management).
   • Dr. Mukherji worked on a collaborative project with colleagues from Florida International University and Texas A&M University to study cross-sectoral collaboration to assist vulnerable populations (following Hurricane Matthew in October 2016).
   • Dr. Corbett, in conjunction with NC Sea Grant, NC DOT, and the US F&WS, has worked to evaluate estuarine sedimentation and beach sediment properties to help grapple with natural and anthropogenic changes.

4. **Service**: Summarize unit highlights in service during the reporting period. Indicate how these accomplishments support the unit’s goals and objectives for the academic year.
   • The 8th Annual NCEM/ECU Hurricane Conference took place on May 24th, 2017. This year’s conference included the following topics:
     o National Hurricane Program Technology Modernization Project, conducted at MIT Lincoln Laboratory;
     o A timeline for local emergency management before/during/after Hurricane Matthew;
     o Hurricane Matthew recovery efforts and statistics in Lumberton, NC;
     o A recovery overview for Hurricane Matthew, by NC Emergency Management and FEMA;
     o An interactive review panel, including NC Emergency Management, ECU Emergency Management, WRAL Meteorologist Nate Johnson, and National Weather Service Meteorologist Rich Bandy; and
     o A forecast of this year’s hurricane season.
The Hurricane Conference provides the opportunity for learning and discussion to a diverse audience, ranging from students and academics, to emergency responders and volunteers. The incorporation of an interactive session allowed more opportunity for attendees to pose questions to experts in various fields pertaining to hurricane forecasting and emergency management/planning.

Part Two: Key Performance Metrics

5. Based on review of the Key Performance Metrics included in the Departmental Productivity Matrix for 2015-16, what changes or improvements have occurred in enrollment, credit hour production, and research productivity? Provide up to five bullet points with descriptions (1 page). Productivity Matrix definitions can be found here.
Part Three: College Strategic Plan Update

In response to each item in Part Three, provide an update on any contributions made by the Department/Program toward implementing the College’s 2014-19 Unit Strategic Plan:

Status of Unit Strategic Plan Implementation (please mark an “X” in the appropriate cell below):

<table>
<thead>
<tr>
<th>Objective</th>
<th>Current Status</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not Started</td>
</tr>
</tbody>
</table>

**Student Success**

1. In support of this University commitment, the College of Arts and Sciences will improve the preparation, delivery, and assessment of its courses in the University’s core foundations curriculum. The College assumes an important responsibility for providing the highest quality foundational curriculum for ECU students, including those majoring in Arts and Sciences programs as well as those seeking degrees in other colleges and schools. Harriot College is dedicated to identifying and leveraging opportunities for improved instructional excellence. NA

2. Because so many of the University’s undergraduate students take foundational courses in the College of Arts and Sciences—and because Harriot College produces more graduates annually than any other college or school at ECU—improvements in retention and graduation rates for A&S students can dramatically impact the University’s overall trajectories in both areas. The College will work to improve the performance of undergraduate students by sharpening our understanding of the factors influencing attrition, by improving advising and early intervention, and by selectively redesigning courses. NA

3. The College of Arts and Sciences will help internationalize East Carolina University through programs that make our students globally aware, globally competent, and globally competitive. X

**Public Service**

4. Harriot College will redouble its efforts to provide students with the skills and knowledge necessary to become responsible citizens and leaders in a diverse 21st century society. X

5. Harriot College will prioritize increases in support for research and instruction in the areas of medical physics and health psychology. The College’s contributions to these fields of research and study advance collaboration across ECU’s campuses, and they are crucial to improving the quality of life for North Carolina’s citizens. NA

6. Harriot College is committed to community engagement, and we will forge, cultivate, and/or strengthen strategic partnerships with key constituents in Pitt County and in the broader region that advance our institutional mission. We will raise the public profile of the humanities, social sciences, natural sciences, and mathematics. We will partner with the College of Education to improve science education and teacher preparation programs that will benefit North Carolina’s schools. X
### Regional Transformation

| 7. | Harriot College will recruit and retain diverse, high-ability graduate students who will become tomorrow’s mission-driven problem solvers, graduating from ECU with the skills and knowledge to transform their disciplines and their communities. | X |

| 8. | Harriot College will achieve distinction for faculty research and creative discovery. We will target an increase to $8 million in annual sponsored research by the close of the 2019-20 fiscal year. The College will improve and broadly distribute annual grant application and award data by area, department, and individual faculty level to better monitor activity and to assist in setting of priorities and goals. We will partner with the Office of Sponsored Programs and the Office of Grants and Contracts to increase efficiencies in pre- and post-award infrastructure and processes. | X |

| 9. | Given the centrality of coastal studies to many of Harriot College’s disciplines and interdisciplinary programs—and given that a preponderance of the faculty currently affiliated with the Institute for Coastal Science and Policy (ICSP) are in Arts and Sciences—the College will provide constructive and collaborative leadership for designing and launching the School of the Coast. | X |

6. **Actions taken:** For Department/Program contributions to College Objectives marked as “In Progress,” “Modified,” or “Completed,” please provide the following:

**Section 3, 4 and 7**-in progress-CNHR supported travel for CRM PhD student Christina Wiegand to attend and international fisheries economics conference in Mexico.

**Section 6**-in progress-Community engagement-The 8th Annual NCEM/ECU Hurricane conference is an ongoing successful partnership between the North Carolina Department of Emergency Management and CNHR.

**Pitt county engagement**-Drs. Mukherji and Kruse have engaged with Pitt County Planning Department as part of a pending NSF consortium proposal led by UNC-CH called “Smart and Connected Communities”

**Section 8**- At least four new grants were funded in this fiscal year, and there are another four pending proposals. Currently there are eight grants housed in the Center for Natural Hazards Research. Affiliated researchers have increased co-investigation proposal submissions; interdisciplinary research activity remains prevalent.

**Section 9**- The coastal research enterprise is expected to undergo changes in the coming year with consolidation of the Institute for Coastal Science and Policy with the Coastal Studies Institute. CNHR’s mission focuses on coastal hazards of great importance to eastern North Carolina and will contribute to the design and implementation of the consolidated enterprise.

a. Describe new or expanded actions implemented by the department/program. Include budgetary or other resource investment/reallocation, if applicable.

i. A book, titled *GEOValue: The Socioeconomic Value of Geospatial Information*, has been written and is being co-edited by Dr. Jamie Kruse. This collaborative
effort stemmed from a workshop by the Organisation for Economic Co-operation and Development (OECD) held in Paris, France in March 2016. The book is in the process of being reviewed by the publisher, and includes chapters co-authored by Dr. Jamie Kruse and Dr. Jacob Hochard of ECU.

b. Provide data for the metrics associated with each Objective addressed.

7. **Actions planned**: Describe the Department/Program contributions to College Objectives and Actions to be implemented for the next reporting year.

8. **Reflection**: Provide brief descriptions and **no more than five bulleted points** of key opportunities, uncertainties, or challenges that may have impacted or will impact the implementation of the Department/Program’s own strategic plan.

   - **Uncertainty**- CNHR will start working on transitioning to new leadership with Dr. Kruse expected to retire by 2020. Dr. Kruse’s directorship was the result of a multidisciplinary external search for a candidate. This is coupled with how the hazards center’s role will evolve with the new consolidated Coastal Institute. This creates an excellent **opportunity** to identify strategic prospects based on the expertise of a new director and new funding initiatives.

   - **Challenge**- Research associates of the CNHR have successfully garnered funding to support existing and prospective students in the CRM PhD with economics concentration. The CRM is expected to transition into a Coastal and Marine Science PhD jointly administered with UNC-Wilmington. There is some **uncertainty** on what the final core curriculum will look like and whether sufficient quantitative training can be incorporated in the program of study to attract high quality students capable of providing research support to ongoing and future externally funded projects. CNHR will provide input at crucial decision points of the joint PhD.

   - **Opportunity**- Dr. Scott Curtis leads a proposal in collaboration with UNC-A&T that has made it past the first hurdle in UNC’s New Initiatives funding cycle. This will bring together East Carolina University, UNC-Chapel Hill, and North Carolina A&T University to conceptualize storm surge hazard and risk communication in a comprehensive and transformative way. This has the potential to forge a new avenue of funded research for CNHR.