# PLASTICS IN SOCIETY & THE ENVIRONMENT

## - A W&M UNDERGRADUATE COURSE



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Research Professor

VIMS Dept. of Biological Sciences

Center for Coastal Resources Management









# COURSE

## **Primary Audience**

W&M undergraduates interested in interdisciplinary approaches to problem

Open to graduate students

Intent: accessible to students regardless of background (discipline or "year class")

## **Course Description**

We will investigate how plastics have transformed Society (making life more convenient & often safer); but also consider harmful consequences to the environment and human health.

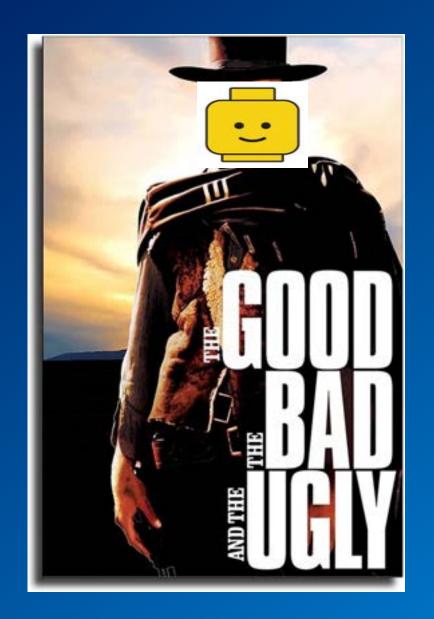
**Topics:** plastic manufacture/composition, uses, environmental releases, transport and accumulation, environ. justice & health impacts, alternatives, & the evolution of public attitudes, priorities, & policies on related environmental issues.

We will explore sustainable solutions through the lenses of science, art, culture, media, business, policy, law, and innovation.

# Teaching in "The Time of COVID"

Spring 2022. Format largely in person

Plastics....



# **COURSE COMPOSITION**



# Small class, limited to 15 (all undergrads)

Freshman to seniors, mostly environmental concentrators



# Presentation Style: lectures

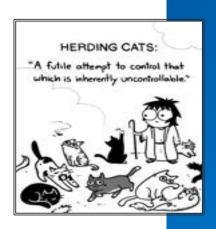
50%: (Bilkovic & Hale) primary instructors to "set the stage" What are plastics, uses, fate & effects....

50%: invited speakers: business, art, NGOs, law, sociology, utilities/wastewater, sustainability/policy...

+ Outside readings

# Assignments/Grading

- Class participation and in-class activities (10%)
- Student-led discussion. (10%) Teams of two will lead the discussion for a given lecture topic based on assigned readings/materials.
- Short evaluation/discussion/critique of a scientific paper (10%). 2-3 pg
- Two Exams (non-comprehensive) short essay format (20% each)
- Semester-long group research project (30%): Each group will investigate and critically evaluate an aspect of the plastics issue and provide a solution or interaction in their community, state, campus or nation.



# DIVERSE COURSE PRESENTERS

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Tonya Boone, W&M Business Alan C. Braddock, W&M Art History & American Studies Jennifer Kahn, W&M Anthropology Chris Pallister, Gulf of Alaska Keepers Chris Burbage, Hampton Roads Sanitation District Ashley King, VIMS graduate student Karen Aneiro, photography/cinematography/fine arts Xin Conan-Wu, W&M Art & Art History Calandra Lake, W&M Sustainability Jason McDevitt, Director W&M Technology Transfer Office Chris Nidel, Nidel & Nace, PLLC Law Kirk Havens, Director Center for Coastal Resources Management Elizabeth Andrews, W&M Law School

# STUDENT RESPONSES TO COURSE



- Please identify any strengths and weaknesses of this course.
- Class discussions and guest speakers were strengths of the course, weaknesses would be not the clearest drawn up expectations for the final project.
  - It was great to conceptualize how such a huge issue can be approached and it was eyeopening to see how many aspects of society this issue will impact if not fixed, as well as how many aspects of society contribute to the plastics issue.
  - This was one of the best courses I ever took and I have nothing bad to say about it, as the professors helped to keep us engaged in all of the amazing topics we learned about plastics within the real world and everything that is happens to affect as a great commodity within our society.
  - I think that this course should be taken by people of all different backgrounds and that they should really focus on fixing the problem with plastics across the globe.
  - Really liked the format of the course with all the different guest lecturers in addition to the good background information provided by the main professors. I also think that although intimidating at first, the class size worked really well for this class.

Two students mentioned changing career aspirations

# SPECIAL THANKS TO...





- W. Taylor Reveley, III Interdisciplinary Faculty Fellowship
- W&M Commonwealth Center for Energy and the Environment. Environmental Enquiry Group Proposal: *Plastics in the Environment*



- W&M Environment & Sustainability Program ENSP 440
  - Keck Laboratory