**TCORE 122C: Introduction to Science  
“Oceans Full of Trash”  
Spring 2014, 5 credits SLN 19504  
Instructor:** Julie Masura

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| **Class Times:** | M/W 8-10:05 a.m. Joy 104 |
| **Office Hours:**    **Office:** | Tu, 2:30 - 3:30 p.m. W 10:30-11:30 a.m. **(also by appointment)**  102a Science |
| **Contact:** | [jmasura@uw.edu](mailto:jmasura@uw.edu), 253-692-4317 |

**Librarian:**   
Carole Svensson, [svensson@uw.edu](mailto:anna3@uw.edu)  
**Academic Advisers:**    
Leisa Schmidt,[leisa@uw.edu](mailto:leisa@uw.edu) (last names A-L)  
Erica Tucker [epc2@uw.edu](mailto:epc2@uw.edu) (last names M-Z)  
**Peer Advisers:**

**Course Description:**  We will be exploring the North Pacific Garbage Patch, noted to be the size of Texas!  We will review various types of communications, including the **media and internet**.  We will also apply various scientific concepts to question the validity of claims made by researchers from our culture and other **cultures** around the world, especially the **myths** connected to the virtual **supernatural**.  Finally, we will be **checking ourselves** and reflecting on our contribution to the garbage patch.

**Core:** The Core program consists of a coordinated series of courses that represent the various disciplines in the university.  This course, along with the others in your cohort, fulfills one of the university’s general education requirements in each of the areas of knowledge plus composition.  The courses are designed to both support and challenge you to develop the critical thinking, writing, research, and analytical skills you’ll need at UWT while introducing you to relevant topics in the social sciences, humanities, and sciences.

**Core Student Learning Objectives:**

* express ideas clearly in writing and speaking in orders to synthesize and evaluate information before presenting it
* identify, analyze, and summarize/represent the key elements of a text
* think outside of cultural norms and values, including own perspectives to critically engage the larger world
* approach complex issues by taking a large question and breaking it down into manageable pieces
* make meaningful connections among assignments and readings in order to develop a sense of the big picture
* collect, evaluate, and analyze information and resources to solve problems or answer questions

**Required Texts and Materials:**

* Ebbesmeyer, C. and E. Scigliano. 2009. Floatsametrics and the Floating World. Toronto: Harper Collins.
* All students must have access to the online Canvas classroom for this course.

**Grading:**

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| --- | --- |
| Papers | 30% |
| Assignments/Quizzes | 25% |
| Discussions | 20% |
| Group Project | 20% |
| Participation | 5% |
| Total | 100% |

**Note:**  You will be given points for assignments throughout the quarter.  Your final grade will be calculated using percentage of points.

**Late work:** I will accept late work.  One point will be deducted for every day the assignment is late.

**Writing Requirements:** This course will use CSE format.  The format is very similar to APA format, and varies from one discipline to another.  Be advised that many formats are used in your collegiate courses and will be specific from course to course, year to year, and discipline to discipline.

**Teaching and Learning Center (TLC):**  The TLC provides a wide variety of instructional resources and support for teaching and learning at UW Tacoma.  Teaching and learning are ongoing processes that take practice, commitment, and time.  We are here to assist you in achieving your goals and provide math/quantitative, writing, science, and other tutoring services. <http://www.tacoma.washington.edu/tlc/>

**Academic Standards/Plagiarism:**  All student work must be free of plagiarism. Plagiarism is defined in the University catalog and in the Student Handbook. Consult your professor if you have any questions.

A major part of your experience in the class will be reading, synthesizing, and using the knowledge and ideas of others. It is the responsibility of the faculty to help you in this process and to be certain you learn to credit the work of others upon which you draw. To plagiarize is to appropriate and to pass off, as one's own ideas, writing or works of another. Plagiarism is no less of a misconduct violation than vandalism or assault. Ignorance of proper documentation procedures is the usual cause of plagiarism. This ignorance does not excuse the act. Students are responsible for learning how and when to document and attribute resources used in preparing a written or oral presentation.

For more information, please refer to the Academic Honesty: Cheating and Plagiarism document prepared by the Committee on Academic Conduct in the College of Arts and Sciences, UW Seattle:  <http://depts.washington.edu/grading/issue1/honesty.htm>

**Library:**  The UWT Library provides resources and services to support students at all levels of expertise. We guide students through the research process, helping them learn how to develop effective research strategies and find and evaluate appropriate resources. For more information about the Library and its services, see: <http://www.tacoma.washington.edu/library/>

**Electronic Devices:**  Electronic devices (including, but not limited to, cell phones, pagers, laptops, and personal digital assistants) may only be used in the classroom with the permission of the instructor. Activities that are non-relevant to the course, such as checking/sending email, playing games, and surfing the web, are considered disruptive activities when class is in session.

**E-mail Policy:**  <http://www.tacoma.washington.edu/policies_procedures/E-mail_Policy.pdf>

**Access and Accommodations:**  Disability Support Services (DSS) offers resources and coordinates reasonable accommodations for students with disabilities.  Reasonable accommodations are established through any interactive process between you, your instructor(s) and DSS.  If you have not yet established services through DSS, but have, or think you have a temporary or permanent disability that requires accommodations (this can include mental health, attention-related, learning, vision, hearing, physical or health impacts), you are welcome to contact DSS at 253-692-4522 V/ 253-692-4413 / [DSSUWT@UW.EDU](https://ap12.alpine.washington.edu/alpine/alpine/2.0/mailto?to=DSSUWT%40UW%2EEDU&pop=view/0/INBOX/68560) e-mail/ <http://www.tacoma.washington.edu/studentaffairs/SHW/dss_about.cfm>

**Campus Safety Information:**[http://www.tacoma.washington.edu/safety/emergency/Emergency\_plan.pdf](http://www.tacoma.washington.edu/safety/emergency/Emergency_plan.pdf" \t "_blank)

**Escort Service:**  Safety Escorts are available Monday - Thursday 5:00pm - 10:30pm. They can be reached either through the duty officer or by dialing #300 from a campus phone.

**In case of a fire alarm:**  Take your valuables and leave the building. Plan to return to class once the alarm has stopped. Do not return until you have received an all clear from somebody "official," the web or email.

**In case of an earthquake:** DROP, COVER, and HOLD. Once the shaking stops, take your valuables and leave the building. Do not plan to return for the rest of the day. Do not return to the building until you have received an all clear from somebody "official," the web‚ or email.

**Inclement Weather:** Call (253) 383-INFO to determine whether campus operations have been suspended. If not, but driving conditions remain problematic; call the professor's office number. This number should provide information on whether a particular class will be held or not, and/or the status of pending assignments. If the first two numbers have been contacted and the student is still unable to determine whether a class will be held, or the student has a part-time instructor who does not have an office phone or contact number, call the program office number for updated information.

**TCORE 122 Agenda  
(this schedule is subject to change)**

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| **Week/**  **Day** | **Topic** | **Activities** | **Reading** | **Assignments** |
| 1 | Introduction to Oceans Full of Trash |  | Syllabus  Ebbesmeyer, C. and E. Scigliano. 2009. Preface *in* Flotsametrics and the Floating World. Toronto: Harper Collins.  Ebbesmeyer, C. and E. Scigliano. 2009. Chasing Water *in* Flotsametrics and the Floating World. Toronto: Harper Collins, p. 1-17. | Quiz 1  Autobiography  Discussion 1  Preface Summary  Chasing Water Summary |
| M, 3/31 | Orientation | Introductions  Review Course  Introduce Showcase  Pieces of the Puzzle |  |  |
| W, 4/2 | Putting the Puzzle Together | CANVAS Training  Introduction to Assignment Requirements  Writing Summaries & Reaction Papers |  |  |
| 2 | Introducing the Garbage Patch |  | Ebbesmeyer, C. and E. Scigliano. 2009. Oil and Icebergs *in* Flotsametrics and the Floating World. Toronto: Harper Collins, p. 18-44.  Wikipedia [Internet]. Great Pacific Garbage Patch. Available from: <http://en.wikipedia.org/wiki/Great_Pacific_Garbage_Patch>  Wikipedia [Internet]. Marine Debris. Available from <http://en.wikipedia.org/wiki/Marine_debris>  Wikipedia [Internet]. Marine Pollution. Available from: <http://en.wikipedia.org/wiki/Marine_pollution>  Wikipedia [Internet]. Microplastics. Available from: <http://en.wikipedia.org/wiki/Microplastics>  Wikipedia [Internet]. Plastic Particle Water Pollution. Available from: <http://en.wikipedia.org/wiki/Plastic_particle_water_pollution> | Quiz 2  Oil and Icebergs Summary  Tapped Reaction Paper  References  Discussion 2 |
| M, 4/7 | Tapped Out | Tapped – Taking Notes & Reaction Paper |  |  |
| W, 4/9 | Plastics Problem | Creating Questions  Wikepedia |  |  |
| 3 | The Size of Texas? |  | Ebbesmeyer, C. and E. Scigliano. 2009. Messages in Bottles in Flotsametrics and the Floating World. Toronto: Harper Collins, p. 45-69.  Grant R. 2009. Drowning in Plastic: The Great Pacific Garbage Patch is twice the size of France. The Telegraph [Internet]. Available from <http://www.telegraph.co.uk/earth/environment/5208645/Drowning-in-plastic-The-Great-Pacific-Garbage-Patch-is-twice-the-size-of-France.html>  Blake H. 2010. Great Garbage Patch: the problem of plastics in the Ocean. The Telegraph [Internet]. Available from <http://www.telegraph.co.uk/earth/earthnews/8242659/Great-Garbage-Patch-the-problem-of-plastics-in-the-Ocean.html>  Cumming E. 2010. The Biggest Dump in the World. The Telegraph [Internet]. Available from <http://www.telegraph.co.uk/science/7450769/The-Biggest-Dump-in-the-World.html>  Alleyne R. 2011. Great Garbage Patch in the Pacific Ocean not so great claim scientists. The Telegraph [Internet]. Available from <http://www.telegraph.co.uk/earth/earthnews/8241265/Great-Garbage-Patch-in-the-Pacific-Ocean-not-so-great-claim-scientists.html>  Santillo D, Johnston P. 2011. Great Garbage Patch: size doesn’t matter. The Telegraph [Internet]. Available from <http://www.telegraph.co.uk/earth/earthnews/8242692/Great-Garbage-Patch-size-doesnt-matter.html> | Quiz 3  Messages in Bottles Summary  Addicted to Plastic Reaction  Group Project Development  Library Assignment  References II  Discussion 3 |
| M, 4/14 | Stating the Problem  Advisor Visit – Leisa Schmidt | Types of Information  Marine Debris  Plastic Properties |  |  |
| W, 4/16 | Librarian Visit-Carole Svensson | Primary Research – Using the Library and RefWorks  CSE Format |  |  |
| 4 | Exploring Plastic Properties |  | Ebbesmeyer, C. and E. Scigliano. 2009.Eureka, a Sneaker! in Flotsametrics and the Floating World. Toronto: Harper Collins, p. 70-93.  [Ljubomire, J., S. Sheavly, and E. Adler, 2009, Executive Summary *in* Marine Litter, Panama, United Nations Environment Programme](http://www.unep.org/pdf/unep_marine_litter-a_global_challenge.pdf) | Quiz 4  Eureka, A Sneaker Summary  Lab Report  Annotated Bibliography  Discussion 4 |
| M, 4/21 | What’s in Your Toothpaste?  Meet in Science 311 | Concentrating Plastic in Toothpaste |  |  |
| W, 2/23 | Talking Trash  TLC Visit-Jeff Fitzgerald | Lab Reports  Annotated Bibliography |  |  |
| 5 | Finding Plastics in the Sand |  | Ebbesmeyer, C. and E. Scigliano. 2009. Coffins, Castaways, and Cadavers *in* Flotsametrics and the Floating World. Toronto: Harper Collins, p. 94-117.  [Ljubomire, J., S. Sheavly, and E. Adler, 2009, Facing the Global Challenge of Marine Litter *in* Marine Litter, Panama, United Nations Environment Programme](http://www.unep.org/pdf/unep_marine_litter-a_global_challenge.pdf) | Quiz 5  Coffins, Castaways, and Cadavers Summary  Discussion 5 |
| M, 4/28 | Beach Sampling | Beach Sampling on Thea’s Beach  Directions: <http://goo.gl/maps/fWWyc> |  |  |
| W, 4/30 | NO CLASS | NO CLASS | NO CLASS | NO CLASS |
| 6 | Fishing for Plastics |  | Ebbesmeyer, C. and E. Scigliano. 2009. The Admiral of the Floating World in Flotsametrics and the Floating World. Toronto: Harper Collins, p. 118-137.  [Ljubomire, J., S. Sheavly, and E. Adler, 2009, Review of Regional Assessments and Action Plans on Marine Litter *in* Marine Litter, Panama, United Nations Environment Programme](http://www.unep.org/pdf/unep_marine_litter-a_global_challenge.pdf) | Quiz 6  The Admiral of the Floating World Summary  Beach Report  Group Project Development  Discussion 6 |
| M, 5/5 |  | Writing Field Reports |  |  |
| W, 5/7 | Lights, Camera, Action | Making a Video |  |  |
| Sa, 5/10 | Water Sampling  Meet at the Center for Urban Waters  Directions: <http://goo.gl/maps/CunDJ> | Water Sampling on the R/V Barnes  Group 1: 8-10  Group 2: 8-10  Group 3: 10-noon  Group 4: 10-noon |  |  |
| 7 |  |  | Ebbesmeyer, C. and E. Scigliano. 2009. Borne on a Black Current in Flotsametrics and the Floating World. Toronto: Harper Collins, p. 138-151.  [Ljubomire, J., S. Sheavly, and E. Adler, 2009, Analysis of Regional Review Documents and Action Plans *in* Marine Litter, Panama, United Nations Environment Programme](http://www.unep.org/pdf/unep_marine_litter-a_global_challenge.pdf) | Quiz 7  Borne on a Black Current Summary  Water Field Report  Lab Report  Group Project Development  Discussion 7 |
| M, 5/12 | Separating Bits of Plastic  Meet at the Center for Urban Waters  Directions: <http://goo.gl/maps/CunDJ> | Group 1: 8-9  Group 2: 8:30-9:30  Group 3: 9-10  Group 4: 9-10 |  |  |
| W, 5/14 |  | Field Report  Lab Report |  |  |
| 8 |  |  | Ebbesmeyer, C. and E. Scigliano. 2009. The Great Conveyor in Flotsametrics and the Floating World. Toronto: Harper Collins, p. 152-170.  [Ljubomire, J., S. Sheavly, and E. Adler, 2009, The Way Forward *in* Marine Litter, Panama, United Nations Environment Programme](http://www.unep.org/pdf/unep_marine_litter-a_global_challenge.pdf) | Quiz 8  The Great Conveyor Summary  UNEP Report Responses  Citizen Science Activity  Discussion 8 |
| M, 5/19 | Public Perspective | Citizen Science |  |  |
| W, 5/21 | Public Perspective | Citizen Science |  |  |
| 9 |  |  | Ebbesmeyer, C. and E. Scigliano. 2009. Ashes to Ashes, Life from the Sea in Flotsametrics and the Floating World. Toronto: Harper Collins, p. 171-186.  NOAA Microplastics, <http://marinedebris.noaa.gov/projects/microplastic.html> | Quiz 9  Ashes to Ashes Summary  Group Project Components  Discussion 9 |
| M, 5/26 | NO SCHOOL | NO SCHOOL | NO SCHOOL | NO SCHOOL |
| W, 5/28 | Lights, Camera, Action | Working on a Video |  |  |
| 10 |  |  |  |  |
| M, 6/2 | Previews | Peer Review of Videos |  | Group Project Video |
| W, 6/4 | NO CLASS | NO CLASS | NO CLASS | NO CLASS |
| F, 6/6 | Show Time | Spring Student Showcase  Group 1: 11-11:30  Group 2: 11-11:30  Group 3: 11:30-noon  Group 4: 11:30-noon |  |  |
| FINALS |  |  |  |  |
| M, 6/9 |  | Peer Reviews |  |  |