# ENGL 281 B - Intermediate Expository Writing (Science Writing and Society)

***Course Syllabus***

## Important Info

**Instructor:**Norman  Wacker

**Class Meets**: M, T, W, Th, 12:00 – 2:10, MOR 230

**Office Hours**: M/W 2:20 – 3:20

**E-mail:**nwacker@uw.edu

**Additional Required meetings**: Major essay conferences with the instructor and classmates (by appointment)

## Objectives:

The primary objective of this course is to establish an interactive classroom community to engage recent scientific research papers and science reporting that have important consequences for contemporary social issues, including global health, the nature of aggression and warfare, genetic engineering, climate change and advances in medical research. As we do so we will practice--, whatever our majors and interests--the patterns of knowledge creation practiced in the natural sciences with emphasis on its, commitment to a systematic way of thinking, and allegiance to a way of building on existing knowledge and explaining the universe through testing and factual observation. We will also emphasize the critical role science writing and reporting play in the construction, spread and application of new t knowledge.

We will work collaboratively in looking hard at recent science papers that have also been reported beyond the science community to a larger audience and have considerable consequences for public policy. We will also closely examine how Individual science papers contribute to new and flexible portfolios of knowledge and technical innovation, an open-ended process of knowledge use and knowledge making  central to research universities like ours and professional fields as various as medicine, resource management, information technology, finance, business and social and mass media. We will also practice the art of engaging the kind of specialized discussion that accompanies publication of science research, whether among scientists, policy makers and or to numerous and often deeply invested members of the general public.

## Overview:

Dating back to the times of Isaac Newton and Charles Darwin, observation and experimental research have been mobilized to identify the forces that produce the natural world, turning points that triggered both scientific and social revolutions.   Darwin’s *Origin of the Species,* important as it was to scientists, was written for a general audience that purchased the whole of the first printing within days of its release. The concept of evolution lead to a vision of time and life as defined by change and progress driven by highly selective processes of fitness, adaptation and competition that was introduced to  Darwin’s enormous readership with great consequences for both science and popular assumptions about the origins and nature of life. The resulting transformation of biology proper has been so pervasive that as late as 1973 the geneticist Theodosious Dobzhansky remarked, “Nothing in biology makes sense, except in the light of evolution.”

## Key Questions:

What are some of the processes and assumptions that inform scientific thinking and the results produced by them? How might they differ from other powerful agents of knowledge such as religious and cultural traditions, or influential works of literature and history?

How is scientific discovery undertaken and how is the science writing that reports them organized? What do we learn as we read science papers about research, scientific reasoning, and experimentation?  What are the larger stakes of the results reported in these often quite specialized studies?   What debates and conversations accompanied publication of these papers? How do these papers compare to science writing for a general audience? What are some common assumptions about scientific writing and scientific knowledge?  How should we evaluate and revise those assumptions as we work closely with this kind of writing in this class?

## Course Requirements and Grading:

Class Participation – 20 %

* Engaged preparation and active participation in each class meeting, including: Canvas HW assignments, sharing informal responses to the assigned reading for each class meeting, informal reading notes, crafting impromptu short stories of your own and bringing written *work-in-progress* for each of our three writing assignments (two short essays and a short story).

Three Short Analytical papers

1. One science paper, its context and stakes
2. One science paper and ensuing discussion and debate
3. A Review of three state of the moment papers and their contribution to advancing a thread of science research.

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| **Course Component** | **% of Total Grade** |
| Major Essay 1 | 20% |
| Major Essay 2 | 20% |
| Major Essay 3 | 20% |
| Class Participation  (aggregated hw and in-class activity) | 20% |

## Reading List

“Commencement Address at the California Institute of Technology June, 2016,” ”The Science of Science Writing.”

““Contrasting Futures for Ocean and Society from Different Anthropogenic CO2 Emission Scenarios”

 “Emergence of Individuality in Genetically Identical Mice;”

“Investigating the zoonotic origin of the West African Ebola epidemic;”

 “A new antibiotic kills pathogens without detectable resistance;”

“Bees at War: Interspecific Battles and Nest Usurpation in Stingless Bees;”

“Designing Tomorrow’s Vaccines;”

“Genomic Engineering and the Future of Medicine:”

“Neural correlates of verbal creativity: differences in resting-state functional connectivity associated with expertise in creative writing.”