

COURSE SYLLABUS

The construction of truth: A user's guide to knowledge

Honors 3900

Spring 2006

COURSE OVERVIEW:

This course examines how knowledge is produced, what it is used for, and what it means. Specifically, it looks to compare different forms of knowledge, their bases and purposes. In our society – even within our own university – we separate and distinguish different ways of making sense out of the world. Thus, English departments remain separate from departments of physics; an art studio is across campus from a mathematics building. Although such distinctions might seem obvious, if we think of all different disciplines as representing the learning of some set of ideas and/or skills, the obvious distinctions can become more blurred. In this course, you will consider where the edges between different ways of knowing exist, and even where the boundaries of knowledge itself must be. We will look specifically at science, nonfiction, literature, and cultural systems, seeking to understand how each of these produce a unique understanding, how they interact with one another, and how they contrast.

COURSE OBJECTIVES:

As a result of engaging in this course, a student should be able to:

1. Critically evaluate knowledge, its sources, and its claims.
2. Distinguish different ways of knowing and their different uses.
3. Explain and justify to others how specific knowledge is generated and legitimately used.

COURSE DETAILS:

Instructors:	Adam Johnston	Carl Porter
Phone:	626.7711	626.6872
Email:	ajohnston@weber.edu	cporter@weber.edu
Office:	SL 207	SC 170
Office Hours:	MWF 9-11 T,Th 10-12	TWTh 11-12 & by appt

Meeting Place: Library 227

Meeting Time: Tuesday & Thursday, 8:30 – 9:45 AM

Final Exam Time: Thursday, May 4th; 7:00 – 9:00 AM

Required Texts:

- O'Brien, Tim (1999). *The Things They Carried*. Broadway Books, ISBN: 0767902890
- Dillard, Annie (1998). *Pilgrim at Tinker Creek*. Perennial, ISBN: 0060953020.
- Lightman, Alan (1994). *Einstein's Dreams*. Warner Books, ISBN: 0446670111.
- Fadiman, Anne (1998). *The Spirit Catches You and You Fall Down*. Farrar Straus & Giroux, ISBN: 0374525641.
- Other readings will be made available on reserve.

Course Webpage: <http://physics.weber.edu/johnston/knowing/>

Any updates to the course schedule and other relevant course info will be maintained here.

COURSE OUTLINE:

This course is composed of three distinct but integrated “units” and a final synthesis:

- *The Nature of Science (6 weeks):*
 - Readings: Dillard (first five chapters), Lightman, and selected essays.
 - Assignments to include essays and response papers on science and in-class laboratories.
 - Research project: Select a topic that you will research independently and scientifically. Select this topic carefully and with some consultation with the course instructors, as you will re-visit this same subject in following units. More details will follow.
- *The Nature of the Written Word (6 weeks)*
 - Readings: Dillard, O'Brien, and selected essays/critiques.
 - Assignments: Response papers.
 - Research project: Using the same subject as you did in the previous science unit, create a written piece that explores this particular subject. Again, consult your instructor as you explore your options.
- *The Nature of Belief Systems (4 weeks)*
 - Readings: Fadiman, Dillard (finish), selected papers.

- Assignments: Response papers
- Research project: Using the same subject as in the previous two units, explain its use within a belief system (either your own, someone else's, or one of your own creation). Consult your instructors to make sure you are on the right track.
- Final Synthesis (Finals week)
 - Final exam essay: In 1000 words or less, answer the following: What is truth?
 - Final synthesis: Reflect on and present your final understanding of knowing for an informal presentation during the final exam period.

COURSE CALENDAR:

(Disclaimer: If you aren't told otherwise, this is what we'll be doing from day-to-day. However, be prepared for adjustments, amendments, and audibles called from the line of scrimmage.)

	Tuesday	Thursday
Week I:	Jan. 10 Introductions & why are we here? What is this course about? (Begin reading Dillard, pp 1 – 36.)	12 Debrief "Science v. Religion" response paper. The question of Umbrellaology: What is Science? Response paper due.
Week II:	17 Intro to scientific research: Pendula. Discuss: Lightman ("Time for the Stars") (reserve). Introduce Research Project #1.	19 Discuss: Dillard (pp 1 – 36), Scudder (reserve). Observation walk. Response paper due.
Week III:	24 Debrief observation walk. More scientific research: Hot chocolate. Introductions to scientific evolution and revolution: Planets and tracks.	26 Discuss Lightman ("Art of Science"), Popper, Kuhn (reserve), "Robot Scientists" (online). Response paper due.
Week IV:	31 Pseudoscientific research lab.	Feb 2 Intro to relativity and <i>Einstein's Dreams</i> . Pseudoscience research due. (Begin reading Lightman, first half of book.)
Week V:	7 Discuss: Science fact, law, and theory; Gould, Feynman (reserve).	9 Discuss: What is a scientific question? Loose ends: Research paper questions, etc. Response paper due.
Week VI:	14 Cosmology crash course. Discuss: In the beginning . . . Is cosmology a legitimate science?	16 Final science debriefing. Discuss: Lightman (entire book), Dillard (pp 37 – 77). Who does science? Response paper due.
Week VII:	21 What is Literature? Literary divisions and classifications. Discuss: Carver (all, reserve) What is the Canon? (handout)	23 Literary elements. Hemingway (reserve). Research paper #1 due.
Week VIII:	28 Literary journalism: fiction=fact. Discuss: Sims, Kramer (reserve). Blurring the lines of fiction: fact=fiction. Discuss: Wolff (both, reserve), Ford (reserve).	March 2 Historical context: 60s & 70s. Nature writing. Discuss: Dillard pp 79-104. Response paper due.
Week IX:	7 The individual & society. Setting. Discuss: Dillard pp 105-123. Introduce Research Project #3	9 "So I'm going to be a writer?" Getting Started. Lamott (handouts). Response paper due.
SPRING BREAK (March 13 – 17)		

	Tuesday	Thursday
Week X:	21 <i>Harper's</i> (reserve). Story truth & happening truth. Discuss: O'Brien pp 1-178.	23 Literary terms—craft. Discuss: O'Brien pp 1-178 (cont). Response paper due.
Week XI:	28 Themes: the individual & the collective, war, love, death, life, truth, ? Discuss: O'Brien pp 179-246.	30 National Undergraduate Literature Conference Response paper due.
Week XII:	April 4 Truth & Consequences (reserve).	6 Fact? Fiction? Discuss: Dillard pp 124-183. Research Project #2 due.
Week XIII:	11 Discuss: What is culture and from where does it come? Zuni & NASA, Jesus & Peter. Introduce Research Project #3	13 Ethnography as a research methodology. Discuss: Fadiman pp 1 – 77. Research Project #2 due (on web). Response paper due.
Week XIV:	18 A fine line between sprits and disease: A clash of culture and medicine? Discuss: Fadiman pp 78 - 180	20 The melting pot? Discuss: Fadiman pp 181 – 290 Response paper due.
Week XV:	25 Science vs. the word vs. religion: What to believe? Discuss: Dillard pp 184 – 224 Final exam essay assigned: "What is truth?"	27 Final debriefing and questions. Discuss: Dillard pp 225 - 282 Research Project #3 due.
Finals:	Thursday, May 4 th ; 7:00 – 9:00 AM Final essay due. Presentations of final synthesis during exam period.	

GRADING:

Grading is a funny thing: You pay good money for the privilege to learn new stuff, and then we seem to spoil it by giving you extra work to do. In a way, it would be nice if we could all just show up for class, think about the stuff, and say that we're better for it. However, it usually turns out that we learn this stuff better if we're continually reflecting upon, assessing, and gauging our own understanding. The main purpose of all of the actual "work" that you do in this course is designed to make you think more critically about the readings, engage in thoughtful discussions, and better understand the nature of knowing.

Response papers:	40%
Research projects (3 @ 12% ea.):	36%
Final essay and presentation:	10%
Class participation:	14%
Total:	100%

Grading will be based on several different activities: response papers/essay, research projects, in-class participation, and a two-part final. Your total grade will be assessed according to the percentages given above.

Response papers will be assigned approximately once per week. They will be reflections based on readings, activities, and questions, and are meant to prepare you for class discussions and keep you engaged with the course materials. Response papers should be roughly 2-3 pages in length (double spaced, typed) and should explicitly address a posed question or theme, utilizing the readings and discussions from the course. The response papers give you an opportunity to reflect on the readings of the course, prepare for the following week of class, clarify your own thinking, and simply work on your own writing skills. Each paper will be graded according to the following rubric:

Grading rubric for response papers and essays	Score	Evaluation
	4	This paper is excellent, not only answering a question, but also reflecting deeply about your own views and how they compare/contrast with readings/discussion. This paper is free of any major typo/grammar/spelling errors, and is especially easy and interesting to read.
	3	This paper answers a question and/or has a focused theme and is well presented. It is complete overall, although you may have been able to go into more depth or incorporate readings/discussions more.
	2	Paper addressed the question, but not in depth and did not show as much reflection as was expected. You had a very busy week.
	1	Paper was turned in, but with very minimal effort. You had a rough week.
	0	Paper was not completed. You were skiing and/or studying organic chemistry instead.

(For all grading rubrics used in this course, we anticipate that letter grades will be assigned to correspond to a 4.0 scale (i.e., A = 4, B = 3, etc.), but this may be reevaluated in light of the instructors' general grading tendencies and student performance over the course of the semester.)

Research projects will be discussed in more details later. (Don't worry, it's going to be fun.) Essentially these three projects will enable you to inquire about a specific topic in three specific ways. Your final synthesis of the course will evaluate these three different ways of knowing and how they compare. To cap off the experience, you will also write a final essay regarding what "truth" is. These will be evaluated according to the following rubric. Note that these rubric standards are somewhat vague in order to be applied to each project's specific objectives.

Grading rubric for projects and final	Score	Evaluation
	4+	This project was completed with an extraordinary amount of effort. Not only were all aspects of the project completed accurately and completely, but this project showed extra insight and clarity. This score is received on a small minority of projects.
	4	This project was completed accurately and completely. Any errors in this project are mostly insignificant. Essentially, this score is reserved for projects which reflect total integrity and accuracy, and are generally more sophisticated than the average project. The student learned more from this project than most students in the class.
	3	This is a good project. It was complete and generally accurate; and, though it might contain errors, the point of the project is well conceived. This student put an adequate amount of work into the project and it is evident that s/he learned something from it.
	2	This project is mostly complete, but it might be missing a major component of the assignment. Or, this project might have many substantial errors in it. While the student completing this project probably learned something from it, s/he also may have missed some important points.
	1	This project probably has some major flaws. This may be due to incorrectly completing the project, or just a large-scale lack of effort. This score is usually received by only a small minority of projects
	0	This project was not completed, or did not satisfy enough project requirements to receive credit.

The category of "class participation" does not only suggest that you should show up for class, but that you should participate actively. This takes place in a variety of forms: being prepared for class, active listening, thoughtful responses, friendly yelling matches, respectful silence, active engagement in activities, etc. As an honors student in an upper division honors course, it is presumed that your participation will be an everyday occurrence. Egregious lack of participation (e.g., not showing up to class regularly, disrespect towards others) will result in a zero in this category.

IMPORTANT NOTES:

- You are a vital part of this course and its success, and for this reason you need to show up regularly. Many other reasons exist to justify you waking up for an 8:00 AM class: First, the material covered in class is such that it is very difficult to get the same understandings and experiences on your own time outside of class. Second, there will occasionally be stuff to play with. Third, a part of your grade is based on participation. Finally, at least one of your instructors is known for doing idiotic, life-threatening (to himself, not to you) labs and demonstrations, and it is always interesting to see what might happen next.
- Late work will be accepted for half credit if it is turned in within a week of its due date. Individual “dog-ate-it” and “had-to-get-married” stories will be considered on a case-by-case basis. In order to get more leniency, notify the instructor in advance of any problems you might have.
- Academic dishonesty on any work will not be tolerated. Extreme violations will result in automatic failure of the course. In this course, it is difficult to imagine what academic dishonesty would look like, since so much work is necessarily very specific and of a particularly creative nature. But, we had to warn you anyway.
- Any student requiring accommodations or services due to a disability must contact Services for Students with Disabilities (SSD) in room 181 of the Student Service Center. SSD can also arrange to provide course materials (including this syllabus) in alternative formats if necessary. You are also welcome to discuss any special needs with the instructor, though you are not required to do so.
- This is intended to be a very interactive and student centered classroom. Please help us to make it so both by participating in class and by offering suggestions as to how to better structure the class. An inherent philosophy of this class is that knowledge is constructed in social arenas, so the expectation is that there will be great inspirations and new realizations made as we interact with one another. In fact, one of the benefits of teaching this class is that an instructor tends to learn as much (or more) from students as students should learn from instructors.
- Please do not hesitate to visit the instructor if you have any questions, concerns or comments about the course, or to discuss favorite cross-country ski routes, Bob Dylan, music, poetry, physics, beer-making, backpacking trails, etc. Often an instructor sits in an office, lonely and sad, during hours that should be filled with student interactions; so please feel free to drop in, even if it isn't during a posted office hour. (The worst that could happen is you would be told to come back at another time.) Also, email tends to be an incredibly useful mechanism for getting in contact with instructors and getting your questions or comments responded to.