

Fall 2013

Instructor: Stefan Höppner

Office Hours: Tuesdays and Thursdays 11 am - Noon or by appointment, 218C Craigie Hall

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Preliminary Syllabus (August 22, 2013)

This course will consider academic research within the social, historical and political context of its production and use. Questions to be considered include, but are not limited to: the historical development of professions and disciplines; the cultural framework within which research is produced and the cultural uses of research; and the ways in which research creates objects of knowledge and serves to define and categorize human experience and identity.

This semester, the course will focus on the relationship between arts/humanities and science, and their modes of producing knowledge. There will be three sections: 1) *The Two Cultures* – what is the relationship between arts/humanities and science and how has it evolved over time? Why are they often regarded as rivals or enemies? Is there or should there be a path towards “reconciliation”? 2) *Producing Knowledge* – How do science and the humanities produce insight? Is there a line between “pure” facts and the social construction of knowledge, and if so, where is it? 3) What Science Looks Like from the Other Side – Representations of Science in Literature and Film since the late 1700s.

The Nature of Research is an interdisciplinary class, blending elements from the history of science and intellectual history with cultural studies. Since it is taught by a literature scholar from German Studies, much of the material is culled from that field, but it is by no means limited to that. Much rather, the texts and films are to be used as the springboard for basic discussions about our self-understanding as students and/or scholars, our view of our own discipline and its relations to others as well as the relationship between researchers and the world at large.

Texts:

The following core texts will be available at the U of C bookstore. All of these will be required.

1. Broch, Hermann. *The Unknown Quantity*. 1932. Trans. Willa and Edwin Muir. Marlboro, VT: Marlboro Press, 2000.
2. Dürrenmatt, Friedrich. *The Physicists*. 1962. Trans. James Kirkup. New York: Grove Press, 1996.
3. Kehlmann, Daniel. *Measuring the World*. 2005. New York: Vintage, 2007.

All other texts will be made available via Blackboard or are freely accessible online.

Assignments, evaluations, and due dates

| Marking | | Grading | |
|------------------------|-----|-------------|------------|
| Class participation | 30% | A+ (97-100) | C+ (75-77) |
| Class presentations | 20% | A (93-96) | C (70-74) |
| Final paper or project | 50% | A- (90-92) | C- (64-69) |
| | | B+ (86-89) | D+ (56-64) |
| | | B (82-86) | D (50-55) |
| | | B- (78-81) | F (0-49) |

Participation: Class discussion is a key factor in this course. The quality of the sessions will depend upon your preparedness and willingness to engage with each other. You must have read and thought about the required readings before coming to class. You will need to read the assigned course material, look up the words you don't know, and prepare a preliminary analysis of the form and content of the poems we will discuss in class. Needless to say, you should own a copy of the course books and print out and mark up any additional readings. Please don't use a laptop and/or cell phone during class (that, of course, does not include computer use when directed by the instructor). Please note that you do not have to have understood everything you have read to make a valuable contribution. Expressing doubts, disagreements, and asking for clarification is a useful way of contributing to discussion, especially as the language used in poetry may vary greatly from the everyday German you have learned so far. Your class participation mark will be based on the quality rather than the quantity of your contribution. Dominating discussion without listening to others will damage your grade. Also, it is essential that all participants treat each other with respect and courtesy. Students who feel unable to actively engage in classroom discussion must bring their concerns to the instructor's attention early so that an alternative strategy to ensure adequate performance can be sought. Unexplained absences will be penalized up to a loss of a full letter on the final grade.

Presentations: Each student is expected to give brief (10 minute maximum) introductions to two of the texts discussed in class, including information on the author(s), and the main points of their texts. These introductions should be discussed with the instructor beforehand, preferably during office hours.

Term paper: Each student will write a term paper of approximately 20 pages (although that figure is only meant as a guide value). Basically, there are three options: 1) A research paper that discusses one or more texts we either treated in class or that is relevant to the questions in our class. You are encouraged to include topics and/or texts that are not on the syllabus. 2) A free-form essay treating a topic relevant to our class. 3) A creative project, such as song(s), poem(s), or a piece of prose clearly related to the topics covered in class. Regardless of which option you choose, the topic needs to be discussed with and approved by the instructor, preferably during office hours. At the discretion of the instructor, paper submitted after the deadline may be penalized with the loss of a grade (e.g.: A- to B+) for each day late. By turning in a paper, you certify that the work is your own; that you have given proper credit and citation to the work of others; and that you have not committed any other form of plagiarism or academic dishonesty. For definitions of plagiarism, please see the course calendar. Students are required to complete all assignments in order to receive a passing grade in this course.

Writing skills statement: All writings assignments will be marked according to content, form, analysis, and originality as well as clarity of writing including grammar, spelling, and organization. To improve your writings skills, contact the Effective Writing Centre (SS 301). If you are a student with a disability, who may require academic accommodation, it is your responsibility to:

- Register with the Disability Resource Centre (220-8237), and
- Discuss your needs with your instructor no later than fourteen (14) days after the start of this course.

| I. The Two Cultures | |
|---------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Week 1 September 10 | <i>Introduction – What is Research?</i> Johann Wolfgang Goethe / Thomas Henry Huxley – <i>Aphorisms on Nature</i> (1784/1869) Chang-Fu Zhou et al. – <i>A Jurassic mammaliaform and the earliest mammalian evolutionary adaptations</i> (2013) |
| Week 2 September 17 | <i>The Two Cultures</i> Charles Percy Snow – <i>The Two Cultures</i> Alain Sokal – <i>Transgressing the Boundaries: Towards a Transformative Hermeneutics of Quantum Gravity</i> |
| II. Producing Knowledge | |
| Week 3 September 24 | <i>The Humanities</i> Wilhelm Dilthey – <i>Introduction to the Human Sciences</i> (excerpts) <i>Additional texts to be announced</i> |
| Week 4 October 1 | <i>The Ethics of Science</i> Max Weber – <i>Science as a Vocation</i> Robert K. Merton – <i>The Normative Structure of Science</i> Steven Shapin – <i>The Man of Science</i> |
| Week 5 October 8 | <i>The Lab</i> Bruno Latour – <i>Text to be announced</i> Hans-Jörg Rheinberger – <i>Epistemology of the Concrete</i> |
| III. What Science Looks Like from the Other Side | |
| Week 6 October 15 | <i>Science and the Renaissance Man</i> Johann Wolfgang Goethe – <i>The Metamorphosis of Plants</i> (Essay) Johann Wolfgang Goethe – <i>The Metamorphosis of Plants</i> (Poem) |
| Week 7 October 22 | <i>Romantic Science and the Thirst for Knowledge</i> Friedrich Schiller – <i>The Veiled Image at Sais</i> Novalis – <i>The Novices of Sais</i> (excerpts) Mary Shelley – <i>Frankenstein</i> (excerpts) |
| Week 8 October 29 | <i>Only Revolutions: Science in the 1920s and 1930s</i> Thomas Mann – <i>The Magic Mountain</i> (excerpt) Hermann Broch – <i>The Unknown Quantity</i> |
| Week 9 November 5 | <i>Nuclear Ethics and the Mad Scientist</i> Friedrich Dürrenmatt – <i>The Physicists</i> Stanley Kubrick – <i>Dr. Strangelove, or How I Learned to Stop Worrying and Love the Bomb</i> |
| Week 10 November 12 | Reading Days: No Class |
| Week 11 November 19 | Science in Poetry |
| Week 13 November 26 | Daniel Kehlmann – <i>Measuring the World</i> |
| Week 14 December 3 | Romanticizing the Nerd? The Case of <i>The Big Bang Theory</i> / Final Discussion |
| Week 15 December 10 | Noon Term papers / projects due: please send to shoppner@ucalgary.ca via email |