This seminar meets on Monday from 4-6:50. I will try and change the location of the room so that we meet in Erickson Hall. All small group meeting and individual meetings will take place either in my home (632 Charles St) or in my office (116N Erickson Hall).

Because I have not taught this class in 7 years, and am redesigning it this term, this syllabus is a work-in-progress. Here I describe the overall purposes and plans for the course, the required books and assignments, as well as my expectations for your participation. You will receive three "mini-syllabi" throughout the term as I adapt the course to our collective work. At the end of the course, I will give you a final syllabus that summarizes the work that we did.

Overview

The purpose of this course is to explore various ways of knowing that characterize different disciplines, the history of knowledge, and the development of knowledge within and across fields. After exploring the ways that scholars and others think about and construct knowledge, we will compare knowledge as it is construed within disciplines to knowledge as it is presented in schools.

In order to provide a common language for talking about knowledge during our in-class discussions, we will do some focused work on mathematics and history, as well some in science. Because we have so little time, we will not address subjects within each subject matter. Instead, we will explore overlapping issues within and across mathematics and history. The concepts and tools we develop we examine these subjects should prove useful in exploring similar questions in other subject areas, which you will do in small groups of your own choosing.

The course is organized in two parts. In the first part, we will focus on the history and nature of knowledge in disciplines. Discussions will include considerations of political and social controversy that affect the types of knowledge that are valued, and the very ways in which knowledge is construed. During that part of the course, we will develop a set of questions to ask concerning knowledge. The second half of the course explores the relationships between disciplines and disciplinary ways of knowing on one hand and school subjects and school learning and knowing on the other. During the second part of class, we will test the questions developed in the first part of class by using them in the context of examining school knowledge.

There are conceptions of and perspectives on knowledge, ways of knowing and learning, and school curricula that we will not be able to cover in the relatively short time span of this class. This, of course, is true of all doctoral study. I have designed the class, however, in ways intended to help you launch your further learning around the ideas that surface in our discussions.
In addition to the curricular content denoted by the title of this course, I have other goals as well. First, we will focus on developing arguments both in discussions and writing. To this end, I will presume that you all have knowledge of several books on writing that are listed in the required texts of the class. We will also focus on critical reading, both because it is related to issues of knowing across disciplines and also because it is a core professional skill for scholars. We start the course by reading and discussing a piece by Schwab about reading and inquiry, and we will continue to consider the nature of our own reading throughout the course.

One of the pleasures of being a scholar of education is that it allows us all to read broadly and well. To this end, we will spend much of our time reading texts outside of education (and some critical texts from education as well). I will be asking individuals to find book reviews and essays from publications like the New York Review of Books, The Economist, the Atlantic Monthly, Harper’s, and journals from the disciplines in which members of the disciplines react to and comment on the work of their colleagues.

We will read this way for several reasons. For one, reading for scholars is habit, something that has become part of the marrow of one’s bones. Reading in doctoral courses is supposed to launch more extensive and personally relevant reading. That is, the sum of the courses one takes in doctoral study is not equivalent to one’s doctoral education. Instead, courses are meant to prime your intellectual mills, not teach you everything you need to know. Unfortunately, this is often not the case. So in this course, I will try and provide collective experiences that help you learn how to learn more outside of our class discussions and work. Thus, one way to think of the readings in this class is that they are designed as a scaffolded apprenticeship to support your learning about the same issues outside of class and on your own. In order to do this, we will have a heavier shared reading load for the first four weeks of class. After the fifth week, we will begin to read a shorter pieces and I will be asking people to draw both on our collective readings and the readings that you are doing outside of class.

Another reason to read this way is that disciplines are, in part, characterized by their discourses. Discourse in a community is often best understood by participating in or observing it. By reading how people talk about one another’s work in a discipline, I hope that you will learn more about the nature of discourse in that discipline. This then is intended to help you consider the ideal similarities and differences between discourse in a public school classroom and discourse among scholars of the relevant disciplines.

Course Requirements and Grading

Attendance and participation. Because the course will be run as a seminar, your participation in discussions is important not only for your own learning but also the learning of others. What you learn in this course will be influenced by the degree of everyone’s engagement in and contributions to discussions. Of course, not all people are equally comfortable participating in large group discussions, and I will work hard to all of you, no matter how quiet you prefer to be in class. This will require that people who are not talking in class to find other ways to help me hear what and how you are thinking. Other means might include coming to talk with me or writing me emails about your musings about particular ideas.

Note: several times throughout the term, I will ask volunteers to pursue one or two additional readings and be prepared to share what they learned with the class.

Virtual discussions. We will have a listserv for the course that I hope to use often. For most of the readings, I will use the listserv to send you questions to consider as you read.
Book review. As part of the on-going small group project, all of you will read a biography or autobiography of a scholar in a discipline that interests you. The first individual assignment you will hand in involves writing a book review — for an education or teacher education audience — about the book and how it does (or does not) have potential for informing the work of educators. This first draft of this assignment will be due on 14 February 2000.

Final essay. The other piece of individual work that you will turn in will be an essay in which you make construct an argument in response to the question: “What should the relationship between disciplinary knowledge and school knowledge be?” In the essay, you can choose either to argue about a particular subject matter, for example, biology or history, or you can write a more generic argument. You are welcome to draft this essay throughout the course and get feedback from me as well as other members of the class about your drafts.

Disciplinary versus school knowledge project. In subject matter groups, you will pursue — throughout the term — a curriculum of your own construction. During our class discussions, we will create several analytical tools to help you with this assignment, and we will discuss the stages of the assignment repeatedly. During the last week of class, each small group will prepare a poster session (modeled on AERA annual meeting poster sessions) about the inquiries and analyses they conducted during the term. The pieces of this assignment will include:

- Reading a biography or autobiography of a practitioner of the discipline
- Interviewing an active member of the discipline
- Reading a book about the discipline
- Analyzing a product of the discipline
- Analyzing a standards document about relevant school subject
- Analyzing two small pieces of curriculum (one contemporary, one older) that are related to the product of the discipline that you analyzed
- Creating an annotated bibliography of relevant readings

As a result of these smaller analyses, your poster session — which is a group product — will examine the similarities and differences between disciplinary and school knowledge. The small groups will meet with me once every two weeks to report on their progress, discuss reading and analyses, and deliberate on how to present the final product of the work.

Final grades in the class will be determined as follows:

* class participation 25%
* book review 25%
* final examination 25%
* group project 25%

Required Readings


There will be a small reading packet available after 1 February 2000 at Budget Printing in Trowbridge Shopping Center.

NOTE: We will not talk – in class – about the books about writing. However, these are all good books to read and review and I hope that you will be able to find time to read them over the course of the term. I have reread all of them for the course and will refer to them in my comments on your writing.

**Plans for the First Third of Class**

**Week 1, 10 January 2000:** Introduction to the course

**Week 2, 17 January 2000 (Martin Luther King, Jr. Day), no class**

**Week 3, 24 January 2000:** The evolution of knowledge in science

Schwab, J. J.  *Eros and education.*
Schwab, J. J.  *Enquiry and the reading process.*
Kuhn, T.  *The structure of scientific revolutions.*
Popper, K.  *Conjectures and refutations: The growth of scientific knowledge* (selections)

**Week 4, 31 January 2000:**  The work and lives of mathematicians

Continued discussion of Kuhn

Beginning discussion of the nature of mathematics, mathematical work, and the community of mathematicians

Singh, S.  *Fermat's Enigma : The epic quest to solve the world's greatest mathematical problem*

Weil, A.  *The apprenticeship of a mathematician*
Week 5, 7 February 2000: The work of mathematics (continued)

We will continue talking about the mathematics books from the week before, so you can get started with the history books and you will need to be drafting your book review.

Week 6, 14 February 2000: The work of history (a beginning)


Draft 1 of your book review is due

Week 7, 21 February 2000: An applied epistemology: The mathematician and the teacher

Dewey, J. *The child and the curriculum.* (from the selected readings text)
Schwab, J. J. *Education and the structure of the disciplines.*

Although their visit will be a little early in our deliberations, schedules require that Deborah and Hyman visit class this week. As a practicing mathematician and a practicing teacher and teacher educator, Bass and Ball have been collaborating on an investigation of the mathematics of elementary school. They will be discussing that work on the context of the issues presented in this course.

I will hand back comments on the book reviews and you will have one more week to redraft them.

Week 8, 28 February 2000: Returning to history

Ginzburg, G. *Clues, myths, and the historical method.* (selections)

We will continue with the discussion from the week of 14 February and we will ask some of our colleagues in the history group to present some of their findings from reviewing other books about history and historians.

Final book review is due

Week 9, 6 March 2000

We are on break this week. I will provide you with the syllabus for the remainder of March before break.