COURSE DESCRIPTION

The contemporary western economy is driven by knowledge and invention. High-technology industries (such as Biotechnology, Information Technology, and Nanotechnology) are woven together by networks that connect organizations, individuals, ideas, and money into a coherent field. Formal organizations are the centerpieces of these networks and the primary source of innovation in our society. This course is designed to provide an introduction to sociological and economic thinking about the role of invention and technology in the contemporary economy and to ground that knowledge in intensive, hands-on experience with academic research.

READINGS

All required readings for the course are available in electronic format on the class ctools site.

ORGANIZATION AND ASSIGNMENTS

Organization

This research seminar offers a unique opportunity to learn more about an important area in our economy while conducting new research in collaboration with the instructor. To that end, the class sessions will be divided into three general categories. Training days will emphasize the specific technical and analytic skills you will need to contribute to our common projects. Seminar days that will feature readings and discussions of concepts, theories, and phenomena useful to understanding dynamics and outcomes in the USKE. Finally, Lab days will center on hands-on work (sometimes in class, sometimes outside class) on data collection and case study development.

Evaluation

I treat advanced research seminars as graduate classes. What is important is the ideas we develop, the conversations we have, and the work we collectively accomplish. While I must evaluate your work and assign a grade at the end of the semester, I have little interest in defining an elaborate set of assignments and requirements. If you come to class prepared,
participate actively, and work diligently on the research projects we develop together, you will receive an A.

Expectations.

With that said, there are three general activities that I will weight equally in my evaluations of your performance in this seminar.

Attendance and Class Participation.

Attendance. This is a small class so everyone’s attendance and participation is important. Please let me know ahead of time (e-mail is fine) if you need to miss a class and please try not to miss more than one or two classes during the course of the semester.

Discussion Questions. The readings for this class are complex and may be difficult to understand. As you prepare for seminar days that have assigned readings please make note of particularly interesting or confusing parts of the readings and prepare one or more questions you would like to discuss in seminar. E-mail these questions to me and to the class list no later than midnight the day before class. We will use your questions to begin the day’s discussions. On days when no readings are assigned (e.g. Lab & Training Days) you do not need to submit discussion questions.

Research Participation.

Data Collection and Research Participation. A significant portion of your work in this course will be contributing to my ongoing research project on the emergence and ramifications of the U.S. Knowledge Economy. This will primarily take the form of coding corporate SEC filings for information on formal inter-organizational networks and the career histories of executives and directors.

Training. The first three weeks of the class will be heavily devoted to training you in the skills you need to be able to participate in USKE research. Training will culminate in two inter-coder reliability (ICR) tests that you will complete independently outside of class. In order to make real contributions to the project you must demonstrate that you are able to accurately and reliably identify and code data.

Coding. Once training and reliability testing are complete I will expect each of you to work independently on data coding. For a few weeks we will devote class time to this activity. Later, I will expect you to do this work outside of class. We will discuss expectations for the amount of work I would like you to accomplish in class.

Research team meetings (optional). While this course is designed to be a self-contained research experience, it is part of my larger research project. Thus you are free (but not required) to attend my larger research team meetings.
Independent Case-Study

In addition to work on data coding, each student in the class will be conducting independent case study research that will document the biography and outcomes of one or two high technology organizations. We will collectively develop topics and a sampling frame. While everyone will do their own case research, comparisons across cases will be developed by the class as a whole.

Case Timeline, Narrative, and Bibliography. The primary individual assignment for this class will be a short case study that you develop and write. Details will be discussed in class, but each case will include a detailed timeline of events, a complete bibliography, and a 5-7 page case narrative that details what happened to the organization you will study.

Case Presentation. Each student will prepare and present a short (~10 minute) case briefing that will serve as the basis for class discussion of lessons to be learned from all the cases.

COURSE SCHEDULE

Weds 09/09 -- Intro, syllabus expectations

WEEK 1

Mon 09/14 Training: Coding introduction, Interface, and Formal Ties (Computers)

Weds 09/16 Training: Coding Informal Ties (Computers)

First ICR Test (Virus Research) Due Friday 09/18 by 5pm

WEEK 2

Mon 09/21 Seminar: "Pirates of Silicon Valley"

Weds 09/23 Training: Go Over First ICR test

Second ICR Test (Metasolv) Due Friday 09/25 by 5pm

WEEK 3

Mon 09/28 Training Wrap-UP : Go over Second ICR test

Weds 09/30 Seminar: Knowledge Economy Overview (Powell & Snellman)
WEEK 4

Mon 10/05 Lab: Coding Work (Computers)

Weds 10/07 Lab: Coding Meeting (1/2 hour)
Seminar: Venture Capital (Chunks of Money of Innovation, Eboys)

WEEK 5

Mon 10/12 Lab: Coding Work (Computers)

Weds 10/14 Lab: Coding Meeting (1/2 hour)
Seminar: Case Studies (Robbins-Roth, Christensen)

WEEK 6

Mon 10/19 NO CLASS, FALL BREAK

Weds 10/21 Lab: Coding Work (Computers)

WEEK 7

Mon 10/26 Seminar: Innovation (Hargadon)

Weds 10/28 Lab: Coding meeting (1/2 hour)
Seminar: Case Selection and Comparisons (Vaughan)

WEEK 8 (Coding work is now independent of class)

Mon 11/02 Seminar: The Patent System (Ch 1 of Innovation & Discontents),
Tollhouse, Gum Patents.

Weds 11/04 Lab: Coding Meeting (1/2 hour), Case Selection Discussion.

WEEK 9

Mon 11/09 Seminar: Careers (Higgins, Paths to Power)

Weds 11/11 Lab: Brainstorming Session. Case topics, Comparisons

WEEK 10

Mon 11/16 Seminar: Academic Entrepreneurship (OS & P 2001)

Weds 11/18 Lab: Coding Meeting (1/2 hour), Individual Case Research
WEEK 11

Mon 11/23 Lab: Individual Case Research (Computers)

Weds 11/25 NO CLASS, THANKSGIVING BREAK

WEEK 12

Mon 11/30 Seminar: Regional Economies (Owen-Smith & Powell 2006, Saxenian)

Weds 12/02 Lab: Brainstorm: What should we do with Michigan (Powell et al. 2009)

GUEST: Marvin Parnes: Associate Vice President for Research and Executive Director of Research Administration at the University of Michigan

WEEK 13

Mon 12/07 Lab: Individual Case Research

Weds 12/09 Lab: Coding Meeting (1/2 hour)
    Case Presentations

Case Timeline & Bibliography due by 5pm Monday 12/07.

WEEK 14

Mon 12/14 Case Presentations

Case Study Due by 5pm on Exam Day.