

*The Pennsylvania State University*  
*School of Information Sciences and Technology*

**IST 541: Qualitative Research in Information Sciences and Technology**  
**Spring 2011: Mondays 2:30-5:30**

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**Office Hours:** Monday, Wednesday 1:00 – 2:00  
Also, by appointment

### **Course Description<sup>1</sup>**

As information and communication technologies (ICTs) have evolved, so too has our understanding of the role of the human contexts within which information technologies are situated. This has led to the need for appropriate methods of studying information systems and technologies in their context of use. There is a growing consensus that qualitative methods offer important research opportunities for this type of study. Therefore, researchers in such fields as the information sciences and technologies, communication technologies and information systems should have an understanding of the various types of qualitative methods so that they can determine ones that are most appropriate for addressing their particular research problems. The course is complementary to quantitative methods courses in that it addresses problems that are not amenable to those approaches. For example, studies involving very small groups, individuals, societal level concepts and others often lend themselves to qualitative research techniques.

This course begins by considering research topics that lend themselves to the choice of qualitative research methods. It then proceeds to examine the steps involved in conducting qualitative research. These include: developing the research question(s); choosing a particular research method (such as ethnography, case study or action research); making decisions about approaches to data collection (such as interview or focus group) and analysis (such as coding technique); and producing and publishing the results.

This course explores concrete issues that researchers have encountered in their use of qualitative methods. It does this by drawing upon the collective expertise of distinguished scholars who employ qualitative methods in their own research. The course will examine published work that focuses on research findings as well as that which discusses methodological issues. Upon completion of the course students will have developed skills in developing research proposals, making and justifying methodological choices, writing qualitative research reports, and understanding how to publish qualitative research in the field of information sciences and technology.

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<sup>1</sup> This course syllabus provides a general plan for the course but changes in the syllabus may be necessary. Changes in assignments, dates, etc. will be announced in class.

## Course Objectives

This course develops skills in designing, evaluating, and understanding qualitative research methods. The objective of this course is to help researchers in the information sciences and technology (and in related fields) in their efforts to learn about and employ appropriate qualitative methods in their research. Upon completion of this course, students will have an understanding of appropriate research contexts for the use of qualitative research methods. They will have a basic understanding of the most common types of qualitative methods, including, participant observation, interview, case study, action research, document analysis and others. They will have an understanding about the tools and techniques employed in qualitative research, and understand how to determine which tools are appropriate for specific research areas. Finally, they will have actual experience in conducting qualitative research.

## Course Approach

This course takes a collaborative, problem-based approach to learning. This is achieved in several ways. First, current and past research by qualitative researchers will be used as case studies of the application of qualitative research approaches. Second, students will engage in “hands on” exercises involving the techniques of data collection, analysis and presentation of research results. Third, students will carry out their own qualitative research projects. By focusing on actual research problems, students will not only learn about the range of qualitative research methods that exist, but they will also develop skill in the application of these methods to real problems.

In the real world of research, the issues are not clearly identified, there are competing interests, priorities are in conflict and often, there is no *single* answer to the research question. Therefore, in order to help you develop the skills necessary for coping with this research environment, the learning approach taken in this course mimics this real world of research. In order to accomplish this, the course employs collaborative and problem based learning approaches to education. In this course we will make heavy use of problems as a vehicle for learning the subject matter of the course.

## Course Materials

### Required

Golden-Biddle, K. and Locke, K.D. 2007. *Composing Qualitative Research*, 2<sup>nd</sup> Edition. Thousand Oaks, CA: Sage Publications.

Mason, J. 2002. *Qualitative Researching*, Second Edition. Thousand Oaks, CA: Sage Publications.

Additional readings for the course are located at the Angel course website.

### Optional

Myers, M.D. 2009. *Qualitative Research in Business & Management*. Thousand Oaks, CA: Sage Publications, Inc.

Trauth, E.M. (ed.) 2001. *Qualitative Research in IS: Issues and Trends*. Hershey, PA: Idea Group Publishing.

Wolcott, H.G. 2009. *Writing Up Qualitative Research*, 3<sup>rd</sup> Edition. Thousand Oaks, CA: Sage Publications, Inc. Additional readings located at the Angel course site.

## Course Evaluation

### I. Term project (60%)

In order to apply the concepts and tools learned in this class, students will engage in a field project that will enable them to apply in an actual research setting what they are learning in the classroom. Throughout the term students will work on parts of a research project so that by the end of the term they will have a finished product that will be presented to the class and will be peer-reviewed. This component of the final grade is based upon the research project consisting of: the proposal, the interim report, the final report and the oral project presentation.

1. Research proposal
  - a. Introduction to topic
    - i. Research questions
    - ii. Rationale for qualitative study
  - b. Research design
    - i. Theory
    - ii. Epistemology
    - iii. Research method
2. Interim report
  - a. Status of data collection and analysis
  - b. Issues encountered in conducting the research
  - c. Application to literature review & relevant theory
3. Final Report
  - a. Findings and implications
  - b. Contribution to the IST literature
4. Project Presentation

### II. Seminar Presentation (20%)

The purpose of this seminar presentation is to enable each student to explore, in depth, methodological issues in a research paper of their choosing. Each student is responsible for an individual review & critique of a research paper published in a relevant journal that is not one of the assigned/optional papers for the class. Students may choose the research paper from the set of papers provided at the Angel site or may choose another paper. The papers used in seminar must be approved in advance by the instructor. This presentation will provide the basis for subsequent class discussion.

III. Class Participation (20%): This component of the final grade comes from individual contribution to the class in the forms of:

- a. Class attendance and participation in seminar discussions
- b. Written peer-review critique of a research project

## **University Policies**

### **Academic Integrity**

Academic integrity is a basic guiding principle for all academic activity at Penn State University, allowing the pursuit of scholarly activity in an open, honest, and responsible manner. In accordance with the University's Code of Conduct, you must not engage in or tolerate academic dishonesty. This includes, but is not limited to cheating, plagiarism, fabrication of information or citations, facilitating acts of academic dishonesty by others, unauthorized possession of examinations, submitting work of another person, or work previously used without informing the instructor, or tampering with the academic work of other students. Any violation of academic integrity will be investigated, and where warranted, punitive action will be taken.

### **Inclusive Learning Environment**

The Pennsylvania State University is committed to the policy that all persons shall have equal access to programs, facilities, admission and employment without regard to personal characteristics not related to ability, performance, or qualifications as determined by University policy or by state or federal authorities. It is the policy of the University to maintain an academic and work environment free of discrimination, including harassment. The Pennsylvania State University prohibits discrimination and harassment against any person because of age, ancestry, color, disability or handicap, national origin, race, religious creed, sex, sexual orientation, gender identity or veteran status. Discrimination or harassment against faculty, staff or students will not be tolerated at The Pennsylvania State University.

IST welcomes persons with disabilities to all of its classes, programs, and events. If you need accommodations, or have questions about access to buildings where IST activities are held, please contact us in advance of your participation or visit. If you need assistance during a class, program or event, please contact the member of our staff or faculty in charge.

### **An Invitation to Students with Learning Disabilities**

It is Penn State's policy to not discriminate against qualified students with documented disabilities in its educational programs. If you have a disability-related need for modifications in your testing or learning situation, your instructor should be notified during the first week of classes so that your needs can be accommodated. You will be asked to present documentation from the Office of Disability Services (located in 116 Boucke Building, 863-1807) that describes the nature of your disability and the recommended remedy. You may refer to the Nondiscrimination Policy in the *Student Guide to University Policies and Rules*.

**IST 541: Qualitative Research in Information Sciences and Technology**  
**Course Syllabus: Spring 2010**

Date            Topic

***Part I – Understanding Qualitative Methods***

Jan. 10            Course introduction  
                      The choice of qualitative methods for IST research  
                      Developing research questions and literature review

Jan. 17            Overview of qualitative research process  
                      Research design  
                          Ethnography  
                          Case Study  
                          Action Research  
                          Interviews  
                          Text analysis  
                      Human subjects protection

Jan. 24            Overview of qualitative research process  
                      Epistemological alternatives  
                          Positivist  
                          Interpretive  
                          Critical  
  
                      Methods of data collection  
                          Interviews  
                          Participant observation  
                          Document analysis

Jan. 31            Overview of qualitative research process  
                      Data analysis  
                          Organizing data  
                          Interpreting data  
                          Analyzing data  
                          Mixed methods  
  
                      Theorizing data  
                          Grounded Theory  
                          Theory Development & Extension  
                          Theory Application & Testing

Feb. 7             iSchool Conference\*

***Part II – Applying Qualitative Methods***

Feb. 14            Examples of qualitative research  
                      Read: TBA

Feb. 21	Seminar reports <i>Read: TBA</i>
Feb. 28	Seminar reports <i>Read: TBA</i>
Mar. 7	Spring Break
Mar. 14	Seminar reports <i>Read: TBA</i>
Mar. 21	<b>Presenting interim research results</b>
Mar. 28	Issues with quality of qualitative research` Validity & bias Forms of generalizability Rigor vs. relevance Publishing qualitative research

***Part III - Qualitative Research Projects***

Apr. 4	Project presentations
Apr. 11	Project presentations
Apr. 18	Project presentations
Apr. 25	Project presentations <b>Final written report on research project due</b> Course Summary

\*In place of a makeup class, each student will have one required meeting with instructor to discuss research project.