# **Syracuse University School of Information Studies**

# **IST631:**

Theory of Classification and Subject Representation Spring, 2008 Barbara H. Kwaśnik bkwasnik@syr.edu 315 443-4547 FAX: 443-5806

#### **SYLLABUS**

#### I. OVERVIEW

We will examine the major aspects of classification and subject representation as a human and scientific endeavor. Classification is the partitioning of human experience into meaningful clusters and the establishment of useful relationships among the clusters. Over the years we have developed many interesting classification schemes to help us cope with making sense of the world.

# II. PRE- and CO-REQUISITES

None.

## III. LEARNING OUTCOMES

We will study many formal and informal classification schemes and their applications as well as the process of classification as a cognitive and social phenomenon. In preparation for your assignments and project I will provide:

- the basic principles underlying traditional classification in library and information science, as well as principles from other domains such as:
- prototype theory and the cognitive aspects of human classificatory decisions;
- natural and folk classifications and techniques for discovering them;
- the role of classification in research, and research fronts in classification.

At the end of the course you will be able to identify, critically analyze, and discuss:

- formal classification structures, such as taxonomies, trees, matrices;
- faceted classifications and their numerous applications;
- the properties of classification structures, such as scale, transitivity, inheritance, and relations among the components;
- classification notations;
- the relationship of classification to at least one field of study or professional application (such as biology, chemistry, psychoanalysis, medicine, anthropology, databases, knowledge-based systems, etc.);
- the social and ethical aspects of classification;
- the role of classification in knowledge representation in information systems, in particular the use of ontologies, taxonomies, and other knowledge-representation techniques;
- the evolution and nature of at least one bibliographic classification scheme (such as Dewey Decimal System, Library of Congress Classification, Universal Classification System, Bliss, Colon, Superintendent of Documents, U.S. Patent Office, U.S. Geological Survey, etc.);
- going beyond text -- the challenge of classification for at least one non-textual phenomenon such as images, sound, movement, chemical structures, and so on.

While this is primarily a course on the *theory and concepts* of classification, in the final project you will gain hands-on practical experience in eliciting an implicit classification scheme using ethnographic interview techniques or in creating a new classification from scratch using the principles of domain analysis.

#### IV. ORGANIZATION OF THE COURSE

**Schedule**. Please consult the schedule of classes, topics, and readings posted on the opening page of the class website. The course will be divided into 15 weeks, each week starting on a Monday. The first "working" week starts on Monday, January 14, 2008; the last week starts on Monday, April 28, 2008. I will post announcements, lectures, etc. on Mondays. Final projects are due on Friday, May 2, 2008.

"Office Hours" You are encouraged to consult with me as frequently as necessary and to post questions, responses and so forth to the forums at any time. You may also send me private email at any time. I will do my best to answer and respond as soon as I can, but given the large volume of email that inevitably builds up during distance classes, I will dedicate Thursdays to dealing with this class's email. In other words, Thursdays will be virtual office hours and you can be assured that email reaching me by Thursday will be seen and answered by Thursday, if not sooner. To put it another way, I will be monitoring the list as often as possible, but guaranteed on Mondays (class day) and Thursdays ("office hours" day).

In addition, you may schedule phone consultations with me, and if given advance notice I can arrange a conference call for your group. If you're near campus, we can set up a personal office meeting.

#### V. ASSIGNMENTS

Assignments are of four types. 1. graded assignments that are posted to the class as PowerPoint presentations; 2. ungraded assignments that will form the basis of class discussion; 3. readings, and 4. final project (presentation and paper).

- 1. **Graded Assignments**. In addition to the term project, there will be four assignments. You may work in groups on preparing and researching these assignments (no more than 3 in a group), and you can post them together as a single presentation. In this case everyone in the group will get the same grade.
- Ungraded Assignments. From time to time I will suggest a question to which you will post answers or examples. This will count towards your class participation grade, although I will not be grading each posting separately.
- 3. **Readings.** You will read the entire Spradley book. In addition, there will be a number of shorter readings. These will be available in full text on the ILMS site.
- 4. **Term Project**. Each student will have the option to do one of two final projects. The first is to conduct a study to discover and describe the classificatory schemes of a chosen "community of discourse." The second option is to create a classification scheme for a client using the principles of domain analysis. You may work individually or together in groups of no more than 3 people on this project. If you work as a group you may make a group presentation, but each student will prepare his or her own individual final paper.

I expect you to read all the postings, except the topics board for informal discussion, which is optional. Since postings in a class this size can add up to be in the many hundreds, I urge you to keep up with your reading of postings. It's especially important that you read any posting from me because I often convey important information through my responses to questions and posted assignments.

#### VI. POSTING ASSIGNMENTS

All assignments will be posted to the whole class. All except the final project paper will be posted to the appropriate forum as PowerPoint attachments during the week they are due *and also* deposited in the Assignment Drop Box. (Please consult the schedule and the calendar for dates). When posting, please include a brief (one- or two-sentence) introduction in the message, and identify your last name and topic in the subject line. If you're working in a group, only one person needs to post the presentation (but be sure all the names are on the title slide), but each member of the group should also deposit the presentation in the Assignment Drop Box individually so it can be recorded in the grade book.

Use the following convention in labeling the attachment files: <lastname.ass1.ppt>
Use the following convention in the subject line: <Subject: Kwasnik, Bliss Classification>

You have an entire week to post assignments. This means you can submit the assignment starting on the Monday listed in the schedule and ending the following Sunday. A staggered schedule avoids the deluge of postings all on one day, and also gives those of you who are a bit unsure some examples from which to learn.

Specifications for each assignment and the final project can be found under "Assignments" on the class website.

## VII. ASSESSMENT

The final grade will be computed using the following distribution:

Assignments (4) 15 points each: 60 points
Term project presentation: 5 points
Term project paper: 20 points
Contribution to class: 15 points

Each assignment includes its own criteria for evaluation. The grade for your contribution to the class will be assessed on the basis of responses to ungraded assignments and your contribution to the discussion of class topics and assignments. I expect you to contribute in some way (other than posting of graded assignments) at least once a week.

The numerical grade will translate to a letter grade as follows:

94-100 A 90-93 A-87-89 B+ 84-86 B 80-83 Betc.

## VIII. ACADEMIC INTEGRITY

The academic community of Syracuse University and of the School of Information Studies requires the highest standards of professional ethics and personal integrity from all members of the community. Violations of these standards are violations of a mutual obligation characterized by trust, honesty, and personal honor. As a community, we commit ourselves to standards of academic conduct, impose sanctions against those who violate these standards, and keep appropriate records of violations.

The academic integrity statement can be found at: http://provost.syr.edu/SU AI Policies Procedures.doc

# IX. STUDENTS WITH DISABILITIES

In compliance with section 504 of the Americans with Disabilities Act (ADA), Syracuse University is committed to ensure that "no otherwise qualified individual with a disability...shall, solely by reason of disability, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity..." If you feel that you are a student who may need academic accommodations due to a disability, you should immediately register with the Office of Disability Services (ODS) at 804 University Avenue, Room 308 3<sup>rd</sup> Floor, 315.443.4498 or 315.443.1371 (TTD only). ODS is the Syracuse University office that authorizes special accommodations for students with disabilities.

I am personally committed to this policy, and will be happy to work with you, if you wish, on any accommodations that the ODS authorizes.

## X. READINGS

## **Required texts:**

Spradley, J.P. *The Ethnographic Interview*. New York: Holt, Rinehart & Winston, 1979. This is an excellent book for guidance in doing your final project if you choose Option 1 for your project, but everyone in the class has to read the entire book regardless of the project option you choose.

If you'll be choosing Option 2 for the final project or if you're interested in applying classification in a work setting, you should also read:

Lambe, Patrick. *Organising Knowledge: Taxonomies, Knowledge and Organisational Effectiveness.* Oxford, England: Chadon Press, 2007. ISBN 1-84334-227-8.

# **Highly recommended but not required:**

Bowker, Geoffrey, and Leigh Star. *Sorting Things Out*. MIT Press, 2000. Chapter 1 is on the class website under "Readings" and will be assigned during the course.

### Other class readings:

Look under the "Readings" icon on class website.

- Beghtol, Clare. Bibliographic classification theory and text linguistics: aboutness analysis, intertextuality and the cognitive act of classifying documents. *Journal of Documentation* 42(2) (June, 1986): 84-113.
- Hunt, Morton. Chapter 5: "Let there be order." In: *The Universe Within*. New York: Simon & Schuster, 1982.
- Kwasnik, Barbara H. The role of classification in knowledge representation and discovery. *Library Trends* 48 (1), Summer, 1999:22-47.
- Mervis, Carolyn B. & Rosch, Eleanor. Categorization of natural objects. *Annual Review of Psychology*. 32 (1981):89-115.