**Course Description**

The development and use of management information systems (MISs) in the human services will be presented in this course with the goal of introducing students to relevant social work knowledge, skills, and practice. Basic principles of information management will be presented and students will apply those principles to the analysis of existing information systems and the planning and construction of information system improvements.

**Course Content**

This course will present the variety of roles that management information systems play in human service organizations. Students will learn about direct operations such as tracking services provided, client characteristics, billing, etc. Emphasis will be placed on how management information systems can be used in the assessment of agency operations, including a variety of process and outcome indicators. Potential problems associated with the introduction of information systems in social service agencies that can raise challenges to the ethical standards of social workers will be reviewed (e.g., possible violations of confidentiality/privacy, limits on the sharing of information, and potential misuses or misinterpretations of agency or client information).

In many organizations, experts in the technical aspects of computerization have extensive responsibility in the design and implementation of information systems, while those who are knowledgeable about services often are not an integral part of the system design process. This course will enable social work students to play an active role in the creation or upgrading of agency information systems.

Students will learn the basics of database management software and apply that knowledge to assessing an existing system as well as design an information system improvement. This course will enable social work professionals to play an informed role in information system development in social service agencies. Students will learn how to serve as a “translator,” or intermediary, between the needs of the agency and the demands of the technical process of information system development.

**Course Objectives:**

On completion of this course, students will be able to:

1. Identify the information needs within an agency and distinguish between those needs that can be met through a management information system and those that require other sources of information.

2. Conceptualize the relationship between different information sources in order to facilitate access and improve various shortcomings of existing management information systems.
3. Participate in the process of upgrading an information system in an agency, including:
   a) identification of points in the agency process for the collection of data,
   b) design of forms and procedures for systematic collection of data,
   c) development of prototypes of reports using those data, and
   d) use of database management software to implement a basic information system prototype.

4. Recognize potential problems with regard to the appropriate use of data and the limits based on client confidentiality, rights of access to data, and professional responsibility.

Course Design
Students have the opportunity to participate in an exciting venture this term. We will be working with the Shelter Association of Ann Arbor in the implementation of the latest version of ServicePoint, an online management information system developed by Bowman Systems (http://www.servicept.com/). This work will continue an effort begun by other students in both the School of Information and our own School of Social Work. Coupled with lectures, time in the computer lab working with ServicePoint, the readings, and discussion, students will have a unique opportunity to apply lessons learned to the implementation of a system that will make a practical difference in the lives of those in need. Most importantly, these skills will be entirely transferable to any future employment opportunity where an agency is considering implementing or updating its management information system.

Relationship Of This Course To Four Curricular Themes
- Multiculturalism and Social Diversity will be addressed through the development of information systems which reflect sensitivity to non-majority perspectives (e.g., the categorization of race, gender and the role of women in technology) and avoid societal stereotypes.

- Social Justice and Social Change will be addressed through the redesign of information systems to meet the needs of all agency personnel and create objective measures of effectiveness in meeting the needs of clients. Issues such as confidentiality of data and guidelines for sharing data between agencies will also be reviewed.

- Behavioral and Social Sciences Research will be used to develop the theoretical and empirical basis for understanding management information systems and their roles in organizations.

- Promotion, Prevention, Treatment, and Rehabilitation will be addressed through the application of management information systems technology to the array of human services organizations to create increased potentials for service coordination and assessing the quality of services for clients.

Relationship of the Course to Social Work Ethics and Values
Social work ethics and values will be addressed in terms of their application to the development and implementation of management information systems. For example, students will learn that confidentiality and data sharing issues are fundamental to the competent and responsible development of management information systems. In addition, students will discuss the use of management information systems to monitor employment productivity and address such issues as unfair workplace practices and tensions between efficiency and effectiveness in providing client services.
Accommodations
If you need or desire an accommodation for a disability, please let me know at your earliest convenience. Many aspects of this course, the assignments, the in-class activities and the way that the course is taught can be modified to facilitate your participation and progress throughout the semester. The earlier that you make me aware of your needs, the more effectively we will be able to use the resources available to us, such as the services for Students with Disabilities, the Adaptive Technology Computing Site, and the like. If you do decide to disclose your disability, I will (to the extent permitted by law) treat that information as private and confidential.

Required Readings
All readings will be found on our cTools site. They will be available in PDF format for downloading and viewing.

Valuable Resources
- Webopedia @ http://www.webopedia.com/ “The only online dictionary and search engine you need for computer and Internet technology.”
- Human Service Information Technology Applications @ http://www.husita.org/ The definitive site for the use of information technology in the human services. Contains complete abstracts for Journal of Technology in the Human Services, previously: Computers in Human Services.

Supplemental Readings
So much to read and so little time. However, if for some strange reason you desire to know more, then you might want to start here:

Assignments
The work for the term will not include any traditional exams or research papers. The major product will be a report delivered to the Shelter Association, and possibly the Washtenaw County/City of Ann Arbor Continuum of Care Board. The report will be compiled in sections produced by work teams. Each work team will be responsible for identifying their own tasks/assignments in order to get work done.

Students will be expected to make use of group and management skills acquired to date from previous classes and to undertake tasks that draw upon those skills -- and that may require the development of new skills. This is a non-standard evaluation situation in which activities are not uniform across students and are not well defined prior to the semester. The instructor will closely monitor the work teams to make sure there is a balanced workload. In addition, work teams will make interim presentations to their classmates reporting on progress to date. All of this will be done within a broad framework that assumes three graduate credit hours correspond to an average workweek of about twelve hours, including class time.

Grading
The normal grade in the course will be in the A to A- range. Daily class attendance and reading/being able to discuss the readings will typically earn the student a grade of B. Beyond this, students are expected to be fully engaged in the activities of their work team: building off of topics identified by the instructor leading into other areas of discussion, taking
the initiative on project activities, making a significant contribution to report creation, etc. An opportunity will be provided for you to provide formal feedback on your peers for work team participation. Students who do not complete their parts of assignments, do not contribute to discussion and planning, and/or do not carry their fair share of teamwork loads may receive grades lower than a B.

***Please note:
- Incompletes are not granted unless it can be demonstrated that it would be unfair to hold the student to the normal limits of the course. The student must formally request (in writing or email) an incomplete with the instructor prior to the final week of classes.

**FINAL NOTE**
The following paragraph will serve as the guiding philosophy for this course:

"In a world of ever-cheaper and more powerful hardware it makes less and less sense to allow technical requirements to dictate organizational choices and routines. This trend has resulted in organizations -- both public and private -- placing a premium on people who can manage the dialogue between organizational requirements and the capabilities of available hardware and software. Therefore, what professional schools should aim to produce is not only someone who knows a great deal about technology and learns a modest amount about any organization that needs her technical knowledge, but also someone who can rapidly learn a great deal about an organization in which she is working and knows enough about technologies to be able to intelligently design or manage their increasing role in the organization's activities." (Professor Michael Cohen, 1982 syllabus, IPPS 520)
# Course Outline and Readings

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<td>Introductory Class</td>
<td>Introduction to class requirements, goals for the semester, relationship of the course to social work practice</td>
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Oct 5
**Reading:**  
**System Design and Development – Part One**  
“Steps in Database Design” - handout


Oct 12
**Reading:**  
**System Design and Development – Part Two**  


**System Design and Development – Part Three**


Oct 19
**Reading:**  
**Organizations - Part One**


Oct 26
**Reading:**  
**Organizations - Part Two**


Nov 2
**Information Communication**

Nov 9  
Reading:  

**Knowledge Management (Part One)**


Nov 16  
Reading:  

**Knowledge Management (Part Two)**


Nov 30  
Reading:  

**Computer Ethics**


Dec 7  
Reading:  

**Information Confidentiality & HIPAA**


**"Why Security Policies Fail"


***PRESENTATION OF PRELIMINARY FINDINGS***

Dec 12  

***FINAL REPORT DUE***
Term Assignment:

Report: Recommendations for ServicePoint Customization and Implementation

The major project for this course is a report comprised of 4 parts that will be completed over the course of the term. The purpose of the report will be to outline a plan for the Shelter Association to implement Service Point, a homeless management information system.

Overall Goal
The goal of this assignment is to stimulate the student to examine an organization in terms of its operations and its existing systems of information and to propose improvements to provide better data for making clinical, programmatic and managerial decisions.

The ‘Consultant’ Role
You should approach this assignment as if you are a consultant to the agency with special expertise in technology facilitated information access and retrieval. In this role you will:

1. model and metamodel the agency’s current information resources;
2. model and metamodel the agency’s decision-making processes;
3. identify barriers and facilitators to information acquisition for decision-making processes; and
4. outline a detailed plan indicating how each barrier will be addressed with modifications to ServicePoint. [To the extent possible, some customization work will be implemented during the course of the term; however, it is to be expected that not all customization work will take place during the term.]

These four steps will be addressed by each of the four work teams:

1. Analysis and customization work on ServicePoint at the Data Entry or operational level.
2. Analysis and recommendations for Reports needed at the operational, tactical and strategic levels of the organization.
3. Development of Policies and Procedures for the implementation of ServicePoint to facilitate real-time data entry and management use.
4. Development of Training recommendations for the ongoing use of ServicePoint.

The quality of your work will be judged in terms of the clarity and comprehensiveness of the report. As a consultant, you and your work team are expected to take the initiative to define problem areas and to have suggestions which address those problems. Finally, your report should look like a consultant produced it. Therefore, it should be SINGLE-SPACED with generous use of bullets, lists, tables, diagrams and appendices. You can use the APA format for references or you can use the Footnote function in MS Word. Under no circumstance should your report look like an academic paper.

Part 1: Model and metamodel the agency’s information resources
Date – TBD

This first part describes the organizational context in which the information system improvement is to be undertaken. It should contain the following elements:

a) Organizational structure including the lines of authority and communication. You should use the Beer model to illustrate your discussion.

b) If the agency is part of a larger body, focus on the internal structure of the unit under consideration, but include an indication of the relevant organizational/administrative ties to the larger organization.

Describe the current information system in terms of how data are collected for different purposes and by whom. Focus on data collected about clients, services provided, and who
provides them. Also include supervisory and managerial data about clients and those who provide services to clients. While financial accounting activities are a major aspect of agency databases (typically the largest facet), you should focus instead on service-related activities of the agency.

**Part 2: Model and metamodel the agency’s decision-making processes**  
Date – TBD

This component of your document identifies all decision-making processes in the organization. It should include decisions made at the:
- a) operational,  
  b) tactical, and  
  c) strategic levels of the organization  

A necessary aspect of modeling these decisions involves the description of the:
- a) epistemologies  
  b) ontologies, and  
  c) time dimensions used by or constraining the various decision-makers

**Part 3: Identify barriers and facilitators to information acquisition for decision-making processes**  
Date – TBD

This section of your document identifies all organizational processes related to:
- a) entropy,  
  b) variety attenuation, and  
  c) variety amplification  
  at the  
  d) operational,  
  e) tactical, and  
  f) strategic levels of the organization  

with notation of all internal and external organization boundaries and/or barriers.

**Part 4: Final Report**  
Presentation – December 7  
Due – December 12

The Final Report is a compilation of the above three parts from the perspective of the four work teams:  
- Data Entry  
- Reports  
- Policies & Procedures  
- Training

It will outline a detailed plan indicating how each barrier or opportunity will be addressed with suggested modifications to ServicePoint if not already resolved during the term. You will also identify changes to their system/processes which will improve the operation of the agency by making data and information more readily useable for decisions in the organization. Specific changes in data collection, storage, processing and access should be identified and examples given of how these changes would improve agency operation.

In class, these recommendations will be discussed in terms of the entropic, variety attenuation, and variety amplification processes in the organization at the operational, tactical, and strategic levels of the organization. Particular attention will be drawn to concerns related to power, diversity and gender related issues.