SLIS 5637: MEDICAL INFORMATICS
SPRING 2003
DR. ANA D. CLEVELAND

COURSE INFORMATION

CONTACT INFORMATION

You may contact Dr. Cleveland anytime via WebCT e-mail. Office hours are from 1:00 p.m. to 4:00 p.m. on Tuesdays. Office visits may be arranged by calling 940-565-2445 or 1-877-ASK-SLIS for an appointment.

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Fax: 940-565-3101
E-mail: WebCT e-mail or ana@lis.admin.unt.edu
Teaching Assistant: Jodi Philbrick wilcoxon@lis.admin.unt.edu

GENERAL COMMUNICATION INFORMATION

Your e-mails will be read as soon as possible, but please do not expect immediate answers. We will respond as soon as possible.

The WebCT Discussions is a public bulletin board that will be seen by all students. If you have questions or concerns that you do not want made public, please direct them to the instructor in WebCT e-mail.

Please be sure to include your name on all documents that are sent as attachments. When attachments are printed, they become separate from the e-mail that you originally sent. Including your name on all attachments will help insure that your assignments are received and that you are given credit for them.
2002-2003 GRADUATE CATALOG COURSE DESCRIPTION

History of medical information. Biomedical communication. Types of information resources and services related to the transfer of information in the health sciences. Computer applications to health sciences libraries. Analyses of current issues in the health care field and their relationship to health sciences libraries and information centers.

COURSE OBJECTIVES

1. Introduce the student to the fundamental principles of health informatics.

2. To understand the environment of modern medicine and its relation to information.

3. To familiarize the student with information management and the application of information technology to health care.

4. To acquaint the student with biomedical knowledge resources that are basic to health care information agencies and health informatics.

5. To develop an understanding of the organizational structure of medical knowledge.

6. To present the concepts of clinical decision making as a foundation for health care and health informatics.

COURSE REQUIREMENTS AND GRADING SYSTEM

Readings
Reactions......................  15%
Exercises........................... 50%
Term Paper.............................. 25%
Class Participation............... 10%

100%

UNIVERSITY POLICIES

The School fully subscribes to the University's codes, policies, and procedures involving academic misconduct, grievances, sexual and ethnic harassment, and discrimination based upon physical disability. You should acquaint yourself with both your responsibilities and your protections.

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**Academic Misconduct**

Cheating and disciplinary action for cheating is defined by the UNT Policy Manual Code of Student Conduct and Discipline. Cheating is an act of academic dishonesty. It is defined and will be handled as follows: "Plagiarism and cheating refer to the use of unauthorized books, notes, or otherwise securing help in a test; copying tests, assignments, reports, or term papers; representing the work of another as one's own; collaborating, without authority, with another student during an examination or in preparing academic work; or otherwise practicing scholastic dishonesty."

"Academic dishonesty matters may first be considered by the faculty member who may assign penalties such as failing, reduction or changing of a grade in a test, course, assignment, or other academic work, denial of a degree and/or performing additional academic work not required of other students in the course. If the student does not accept the decision of the faculty member, he/she may have his/her case heard by the academic department chairperson or head for review of his/her case. If the student does not accept the decision of the academic department chairperson, he/she may then follow the normal appeal procedures listed in Disciplinary Procedures."

**Statement on ADA Compliance Policy**

Any student with a disability that will require accommodation under the terms of federal regulations must present a written accommodation request to the instructor on or before the second week of class. Copies of the School's ADA Compliance Policy - [http://www.unt.edu/oda/oda-facg.htm#Univ](http://www.unt.edu/oda/oda-facg.htm#Univ), ADA Policy on Auxiliary Aids and Reasonable Accommodation, and ADA Grievance Procedures - [http://www.unt.edu/oda/oda-nond.htm](http://www.unt.edu/oda/oda-nond.htm); are available through the School Office (ISB 205; 940-565-2445). It is also recommended that the student register with the Office of Disability Accommodation (University Union 318-A; 940-565-4323) - or [http://www.unt.edu/oda/index.htm](http://www.unt.edu/oda/index.htm). For more information see Student With A Disability in the Classroom - A Faculty Guide at [http://www.unt.edu/oda/oda-facg.htm#top](http://www.unt.edu/oda/oda-facg.htm#top)

**COURSE REQUIREMENTS**

The following is an outline of the course requirements, and instructions for each of the requirements can be found either by clicking on the headings below or by clicking on the "Instructions for Course Requirements" icon on the course homepage. Also, we have provided links to the instructions in the Course Calendar.
1. **Readings**

The readings, both textbook and supplementary, provide the background and basic infrastructure of health informatics. An attempt was made to cover the major facets of the field, but it is not possible to be comprehensive given the vast interdisciplinary nature and breath of the area. You are strongly encouraged to go beyond the assignments to expand your horizon on the subject. Try searching for information on topics that especially interest and appeal to you.

Instructions for your readings requirement can be found on the [Readings Assignment](#) page, and you can also access the readings assignment page from the Instructions for Course Requirements icon on the course homepage.

- **Textbook Readings**

  The textbook for the course is:


- **Supplementary Readings**

  Supplementary reading packets are provided to add to textbook materials.

2. **Exercises**

The exercises are designed to complement the other materials in the course and to give you hands-on, practical experience in various activities related to health informatics. When you have successfully completed the exercises, you should have an understanding of some of the major aspects and activities you would be involved in if you chose a career in the field.

There are seven exercises:

- Software Reviews
- CDLP Part I
- CDLP Part II
- Medical Vocabularies
- Information Resources
- Site Visit
- Telemedicine
Detailed instructions for doing each exercise and submitting it are provided on the [Exercises](#) page. You can also access your exercises from Instructions for Course Requirements icon on the course homepage.

### 3. Term Paper

The term paper is a major course requirement. The paper will be structured using the Evidence-based Medicine (EBM) research technique, which will be explained through reading assignments and lectures. Be sure to carefully read the assigned readings before finalizing your topic for the term paper. You should select your medical topic early in the course and then develop the paper in four steps:

- Topic
- Background of the Topic
- Systematic Review of the Topic
- Submission of the Paper

In developing the paper, you will actually perform the steps that an information professional would when interfacing with this technique.

Instructions for the term paper requirement can be found on the [Term Paper Instructions](#) page. You can also access the term paper instructions from the Instructions for Course Requirements icon on the course homepage.

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**READING LIST**

**SET I: INTRODUCTION TO HEALTH INFORMATICS**

**A. Health Informatics as a Discipline**

**Textbook:** Shortliffe, et al., Chapters 1 and 2

**Supplementary**


• Yasnoff, W., et. al. (2001). A national agenda for public health informatics: summarized recommendations from the 2001 AMIA Spring Congress. *Journal of the American Medical Informatics Association, 8*(6), 535-545.

**B. Health Informatics as a Profession**

**Textbook:** No readings

**Supplementary**

• See the activities under this topic in the Course Calendar.

The following readings relate to "Health Informatics as a Profession." Both of these articles will be discussed in the chat. *Note: Do NOT include them in the summary of Readings Set I.*


**SET II: THE HEALTH CARE FRAMEWORK**

**A. The Environment of Modern Medicine**

**Textbook:** Shortliffe, et al., Chapter 11

**Supplementary**

Select five (5) of the following:


• Taylor, Kevin. (Jan/Feb 2000). The clinical email explosion. *Physician Executive, 26*(1), 40-46. *(EBSCOhost-Business Source Premier)*

• Teich, J.M., et. al. (Mar/Apr 2002). The informatics response in disaster, terrorism, and war. *Journal of the American Medical Informatics Association, 9*(2), 97-104.

**B. Ethics and Health Information**

**Textbook:** Shortliffe, et al., Chapter 7

**Supplementary**

• Berman, J. J. (Sept/Oct 2002). Confidentiality issues for medical data miners. *Artificial Intelligence in Medicine, 26*(1-2), 25-36. *(ScienceDirect)*


**C. The Nature and Methods of Medicine**

**Textbook:** No readings

**Supplementary**


**SET III: ORGANIZATION OF MEDICAL KNOWLEDGE**

**Textbook:** Shortliffe, et al., Chapter 6

**Supplementary**


**SET IV: SEARCHING FOR MEDICAL INFORMATION**

**A. Information Seeking Behavior of Health Care Providers**

**Textbook:** No readings

**Supplementary**

Select four (4) of the following:
• Casebeer, L., et. al. (Winter 2002). Physician Internet information seeking and online continuing education use patterns. *Journal of Continuing Education in the Health Professions, 22*(1), 33-43. (**EBSCOhost-Academic Search Premier**)


**B. Information Resources**

**Textbook:** No readings

**Supplementary**

• Bachmann, L.M., et. al. (Nov/Dec 2002). Identifying diagnostic studies in MEDLINE: Reducing the number needed to read. *Journal of the Medical Informatics Association, 9*(6), 653-658.


• "User Guides to the Medical Literature (JAMA)" Available at: [http://www.shef.ac.uk/~scharr/ir/userg.html](http://www.shef.ac.uk/~scharr/ir/userg.html)

**C. Managing Clinical Information: Clinical Digital Library Project**

**Textbook:** No readings

**Supplementary**

**SET V: HEALTH CARE INFORMATION SYSTEMS**

**A. Systems**

**Textbook:** Shortliffe, et al., Chapters 5, 9, 14, and 16

**Supplementary**

Select four (4) of the following:


**B. Tools**

**Textbook:** Shortliffe, et al., Chapter 17

**Supplementary**


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**SET VI: GRANT WRITING & THE FUTURE OF HEALTH INFORMATICS**

**A. Grant Writing**

**Textbook:** No readings

**Supplementary**

- The Foundation Center, [http://www.fdncenter.org/](http://www.fdncenter.org/)
- Grant Resources-Schoenbaum Library, Charleston, WV, [http://www.uchaswv.edu/library/grants.html](http://www.uchaswv.edu/library/grants.html)
- Getting Grants-Help for Grant Writers, [http://granthelp.clarityconnect.com/default.html](http://granthelp.clarityconnect.com/default.html)

**B. The Future of Health Informatics**

**Textbook:** Shortliffe, et. al., Chapter 20

**Supplementary**

# COURSE CALENDAR

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<th>DATE &amp; LOCATION</th>
<th>CONTENT</th>
<th>ASSIGNMENTS DUE</th>
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<tbody>
<tr>
<td>January 22</td>
<td>I. Introduction to Health Informatics</td>
<td>Post your Personal Biography to the &quot;Biographical Information&quot; topic in WebCT Discussions</td>
</tr>
<tr>
<td>WebCT</td>
<td>Health Informatics as a Discipline</td>
<td>Post reaction to Readings Set I to the appropriate topic in WebCT Discussions</td>
</tr>
<tr>
<td>January 29</td>
<td>Health Informatics as a Profession</td>
<td>Submit Exercise: Software Reviews via WebCT e-mail to the instructor</td>
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<tr>
<td>WebCT</td>
<td>II. The Health Care Framework</td>
<td>Post reaction to Readings Set II to the appropriate topic in WebCT Discussions</td>
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<tr>
<td>February 5</td>
<td>Environment of Modern Medicine</td>
<td>WebCT Chat #1</td>
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<tr>
<td>WebCT</td>
<td>Ethics and Health Information</td>
<td>Groups 1 &amp; 2 meet in Room 1: 7:00 p.m. - 7:45 p.m.</td>
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<tr>
<td>February 12</td>
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<tr>
<td>WebCT</td>
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<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
<th>Location</th>
<th>Notes</th>
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<tbody>
<tr>
<td>February 19</td>
<td>WebCT</td>
<td>Nature and Methods of Medicine</td>
<td>Submit Exercise: CDLP-Part I via WebCT e-mail</td>
</tr>
<tr>
<td>February 26</td>
<td>WebCT</td>
<td>III. Organization of Medical Knowledge</td>
<td>Post reaction to Readings Set III to the appropriate topic in WebCT Discussions Submit Term Paper Step 1 via WebCT e-mail</td>
</tr>
<tr>
<td>March 5</td>
<td>WebCT</td>
<td></td>
<td>Submit Exercise: Medical Vocabulary to the appropriate topic in WebCT Discussions</td>
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</table>
| March 7      | Denton  
UNT ISB 218                                                       | IV. Searching for Medical Information  
Training on Evidence-based Medicine Databases  
Medical Digital Imaging  
Health Informatics in a Family Medicine Residency Program  
The Clinical Digital Library Project |                                                                                   |
| March 8      | Dallas  
University of                                                      | Training on NLM Databases  
Health Informatics: Perspectives of |                                                                                   |
<table>
<thead>
<tr>
<th>Texas Southwestern Medical Center Library</th>
<th>Professionals</th>
<th>Sources of Health Information</th>
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| March 12 WebCT | | Submit Term Paper Step 2 via WebCT e-mail to the instructor |

| March 19 WebCT | | SPRING BREAK |

| March 26 WebCT | V. Health Care Information Systems | Post reaction to Readings Set IV to the appropriate topic in WebCT Discussions |
| Tools | | |

| April 2 WebCT | | Submit Exercise: Information Resources via WebCT e-mail to the instructor |
| | | Submit Term Paper Step 3 via WebCT e-mail to the instructor |

<p>| April 9 WebCT | | Post reaction to Readings Set V to the appropriate topic in WebCT Discussions |
| | | Submit Exercise: Site Visit to the appropriate topic in WebCT Discussions |</p>
<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Submit Exercise:</th>
<th>Post Exercise:</th>
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<tbody>
<tr>
<td>April 16</td>
<td>VI. Grants and Proposal Writing</td>
<td>Telemedicine to the appropriate topic in WebCT Discussions</td>
<td>reaction to Readings Set VI to the appropriate topic in WebCT Discussions</td>
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<tr>
<td>WebCT</td>
<td></td>
<td><strong>WebCT Chat #2</strong></td>
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<td>Groups 1 &amp; 2 meet in Room 1: 7:00 p.m. - 7:45 p.m.</td>
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<td>Groups 3 &amp; 4 meet in Room 2: 8:00 p.m. - 8:45 p.m.</td>
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<td>April 23</td>
<td>VII. The Future: A Virtual Reality</td>
<td>Exercise: CDLP-Part II via WebCT e-mail</td>
<td>reaction to Readings Set VI to the appropriate topic in WebCT Discussions</td>
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<td><strong>Post</strong></td>
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<td>April 30</td>
<td>Summary of the Course</td>
<td>Exercise: Term Paper Step 4 via WebCT e-mail and <strong>executive summary</strong> to the appropriate topic in WebCT Discussions</td>
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<tr>
<td>WebCT</td>
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