**Consumer Health Informatics, Spring 2021**

Unique No.: 28339  
Class time: Tuesday, 9:00-12:00PM  
Classroom: Zoom  
Instructor: Yan Zhang, Ph.D.  
Office hrs: By appointment  
Email: yanz@ischool.utexas.edu

**1. Course description**

The concept of consumer health informatics, health behavior theories, health information seeking and information retrieval, various forms of consumer health systems, and the design and evaluation of such systems

**2. Course objectives**

Upon successful completion of this course, a student will be able to:

1. Understand major theoretical perspectives to health behavior  
2. Understand several widely-used health information seeking models  
3. Examine health information seeking and information retrieval in the broader context of health behavior  
4. Design effective consumer-oriented interventions for various purposes, including patient education, self-management, behavior change, and decision-making  
5. Critically evaluate web-based consumer health information systems and applications  
6. Analyze the social and ethical issues related to computerized healthcare information delivery.

**3. Texts**

**Required readings** will be available in Canvas: [http://canvas.utexas.edu](http://canvas.utexas.edu)  
**Recommended texts:**  

**4. Policies**

**4.1 Policies concerning assignments**

- Assignments must be submitted by midnight (11:59PM) on the due date.  
- In fairness to students who turn in assignments on time, all late papers will be penalized by lowering the earned grade one grade level (e.g., from A- to B+; from B to B-) for each day that the assignment is late.  
- No assignment submitted more than one week after the due date will be accepted.
- These penalties will not apply to students who know in advance that they will be submitting an assignment late, and let me know in advance. “In advance” means up until 24 hours before the class session in which the assignment is due.

4.2 Policies on class attendance and participation

- Reading assignments must be done before class so that you can meaningfully participate in class discussions.
- You must participate in class discussions. In-class discussions and activities play an important role in this class. Extensive participation in class discussion will be an essential element of your learning success on the subject of understanding and serving users. Active involvement in learning increases what is remembered, how well it is assimilated, and how the learning is used in new situations. Class participation will be graded as part of your final grade.
- Attending each class is highly recommended. If you know in advance that you must miss a class, let me know in advance (up until 24 hours before the class session).
- If you miss a class session, unexpectedly, get in contact with me or the TA ASAP.

4.3 Academic Integrity

Each student in the course is expected to abide by the University of Texas Honor Code:

“As a student of The University of Texas at Austin, I shall abide by the core values of the University and uphold academic integrity.”

This means that work you produce on assignments is all your own work.

Always cite your sources. If you use words or ideas that are not your own (or that you have used in previous class), you must make that clear otherwise you will be guilty of plagiarism and subject to academic disciplinary action, including failure of the course.

You are responsible for understanding UT’s Academic Honesty Policy which can be found at the following web address: [http://deanofstudents.utexas.edu/sjs/acint_student.php](http://deanofstudents.utexas.edu/sjs/acint_student.php)
5. Grading

5.1 Grading scale

In the School of Information, the following guidelines are used in grading:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4.00</td>
<td>Excellent. High degree of mastery of the course material.</td>
</tr>
<tr>
<td>A-</td>
<td>3.67</td>
<td>Very good.</td>
</tr>
<tr>
<td>B+</td>
<td>3.33</td>
<td>More than satisfactory.</td>
</tr>
<tr>
<td>B</td>
<td>3.00</td>
<td>Satisfactory. Work consistent with academic expectations of graduate students.</td>
</tr>
<tr>
<td>B-</td>
<td>2.67</td>
<td>Less than satisfactory.</td>
</tr>
<tr>
<td>C+</td>
<td>2.33</td>
<td>Unsatisfactory. May indicate the instructor's reservations about the student's ability to meet the iSchool’s academic requirements.</td>
</tr>
<tr>
<td>C</td>
<td>2.00</td>
<td>Unsatisfactory. Indicates the instructor's reservations about the student's ability to meet the iSchool’s academic requirements.</td>
</tr>
<tr>
<td>C-</td>
<td>1.67</td>
<td>Unsatisfactory. Indicates the instructor's strong reservations about the student's ability to meet the iSchool’s academic requirements. Any course with a grade lower than C cannot be counted toward a student’s degree.</td>
</tr>
<tr>
<td>D</td>
<td>1.00</td>
<td>Unacceptable. Indicates the instructor's very strong reservations about the student's ability to meet the iSchool’s academic requirements and to earn a graduate degree. Any course with a grade lower than C cannot be counted toward a student’s degree.</td>
</tr>
<tr>
<td>F</td>
<td>0.00</td>
<td>Failing.</td>
</tr>
</tbody>
</table>

Semester grades will be computed as follows:

A = 94-100; A- = 90-93
B+ = 87-89; B = 84-86; B- = 80-83
C+ = 77-79; C = 74-76; C- = 70-73
D+ = 67-69; D = 60-66
F = anything below 59
## 5.2 Grading rubric for presentations in the class

For all your presentations in this class (topic presentations and final project presentations), you are encouraged to use Powerpoint or some other presentation program (such as Open Office or Lotus Symphony). The grading rubric for the presentation is listed below (Note: This rubric was developed by Information Technology Evaluation Services, NC Department of Public Instruction. However, it was slightly modified for our purposes.)

<table>
<thead>
<tr>
<th>Organization</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Unacceptable</td>
<td>Audience cannot understand presentation because there is no sequence of information</td>
</tr>
<tr>
<td>Acceptable</td>
<td>Audience has difficulty following presentation because presenter jumps around</td>
</tr>
<tr>
<td>Good</td>
<td>Presenter presents information in logical sequence which audience can follow</td>
</tr>
<tr>
<td>Excellent</td>
<td>Presenter presents information in logical, interesting sequence which audience can follow</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subject Knowledge</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Unacceptable</td>
<td>Presenter does not have grasp of information; presenter cannot answer questions about subject</td>
</tr>
<tr>
<td>Acceptable</td>
<td>Presenter is uncomfortable with information and is able to answer only rudimentary questions</td>
</tr>
<tr>
<td>Good</td>
<td>Presenter is at ease with expected answers to all questions, but fails to elaborate</td>
</tr>
<tr>
<td>Excellent</td>
<td>Presenter demonstrates full knowledge (more than required) by answering all class questions with explanations and elaboration</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Graphics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Unacceptable</td>
<td>Presenter uses superfluous graphics or no graphics</td>
</tr>
<tr>
<td>Acceptable</td>
<td>Presenter occasionally uses graphics that rarely support text and presentation</td>
</tr>
<tr>
<td>Good</td>
<td>Presenter's graphics relate to text and presentation</td>
</tr>
<tr>
<td>Excellent</td>
<td>Presenter's graphics explain and reinforce screen text and presentation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spelling &amp; Grammar</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Unacceptable</td>
<td>Presenter's presentation has more than one misspelling and more than one grammatical error</td>
</tr>
<tr>
<td>Acceptable</td>
<td>Presentation has exactly one misspelling and/or exactly one grammatical error, which a spell- or grammar checker would catch</td>
</tr>
<tr>
<td>Good</td>
<td>Presentation has exactly one misspelling and exactly one grammatical error, which a spell- or grammar checker would not catch</td>
</tr>
<tr>
<td>Excellent</td>
<td>Presentation has no misspellings or grammatical errors</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Eye Contact</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Unacceptable</td>
<td>Presenter reads all of report with no eye contact</td>
</tr>
<tr>
<td>Acceptable</td>
<td>Presenter occasionally makes eye contact, but still reads most of report</td>
</tr>
<tr>
<td>Good</td>
<td>Presenter maintains eye contact most of the time but frequently returns to notes</td>
</tr>
<tr>
<td>Excellent</td>
<td>Presenter maintains eye contact with audience, seldom returning to notes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Elocution</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Unacceptable</td>
<td>Presenter mumbles, incorrectly pronounces terms, and speaks too quietly for audience in the back of room to hear</td>
</tr>
<tr>
<td>Acceptable</td>
<td>Presenter's voice is low. Presenter incorrectly pronounces terms. Audience members have difficulty hearing presentation.</td>
</tr>
<tr>
<td>Good</td>
<td>Presenter's voice is clear. Presenter pronounces most words correctly. Most audience members can hear presentation.</td>
</tr>
<tr>
<td>Excellent</td>
<td>Presenter uses a clear voice and correct, precise pronunciation of terms so that all audience members can hear presentation.</td>
</tr>
</tbody>
</table>
6. Assignments

6.1 Overview

This is an overview of the assignments for this course:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Due date</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>1   Attending class</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>2   Participating in class discussions</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>3   Show and tell</td>
<td>Various dates</td>
<td>15</td>
</tr>
<tr>
<td>4   Project</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project proposal</td>
<td>Feb. 2</td>
<td>5</td>
</tr>
<tr>
<td>1st check of project progress (report in-progress)</td>
<td>March 9</td>
<td>5</td>
</tr>
<tr>
<td>2nd check of project progress (report in-progress)</td>
<td>April 13</td>
<td>5</td>
</tr>
<tr>
<td>Final report</td>
<td>May 4</td>
<td>35</td>
</tr>
<tr>
<td>Final presentation</td>
<td>May 4</td>
<td>15</td>
</tr>
</tbody>
</table>

6.2 Requirements for each assignment

1. *Attending class*

   Students are required to physically attend each class and arrive at each class promptly. Class attendance will be graded as part of your final grade. If you know in advance that you must miss a class, let me know in advance (up until 24 hours before the class session). If you miss a class session, unexpectedly, get in contact with me ASAP.

2. *Participating in class discussions*

   Before each class, students are required to prepare one question, either about the readings or inspired by the readings, and post it to Canvas (http://canvas.utexas.edu) by noon (12:00PM) on each Monday. I will select among the posted questions for class discussion. You should also feel free to take advantage of the communication and discussion functions provided by Canvas to initiate discussion topics, express your opinions on certain topics, or share interesting readings.

3. *Show and tell*

   Each student will make one show-and-tell over the semester. In the show-and-tell, you will select one consumer health system or application and present it to the class. The system that you present could be, but not limited to, the following categories:
   - Consumer health information retrieval systems
   - Patient information and education systems
   - Social media and online communities
   - Personal health records or patient portals
   - Serious games
   - Mobile apps for disease management
   - Quantified self apps
   - Others… (discuss with the instructor)

   The presentation could include, but not limited to, the following information:
   - What does the system/app do?
   - Who created this system or application?
   - How does this system/app work? (a demo)
   - Are there similar systems?
How do you think about the system (in comparison to similar systems/sspss when applicable)?

The instructor is available for discussion about the show-and-tell. Each show-and-tell lasts about 10-15 minutes, followed by a Q&A session. This assignment will be evaluated based on the grading rubric for presentations (section 5.2).

4. Final project
The final project is a design project. Students will work in groups. Each group should not exceed four members. The rough steps for the project are:

- Propose a system that you are going to design (e.g., an iPad-based app on diabetes management for young adults, a web-based information and education system for breast cancer patients, an educational tool that helps educate patients on evaluating the quality of online health information);
- Perform a competitive analysis, i.e., conduct a review of existing similar systems (define your own rubrics in ways that would support your design decisions);
- Select one or multiple relevant health behavior or other theories and describe how the theories can inform the design;
- Create a design proposal outlining: goals that the system intends to achieve and major components of the system (in a table format listing system functions and theoretical foundations, if any, to support the design);
- Create a medium-fidelity mockup of the system (the mock-ups should include major components of the system (the top level) outlined in the proposal. When there are multiple major components, create one mock-up for each major component to represent major functionalities included in the component (the second level). No mock-ups are required for design at the third-level);
- Present your project. The presentation should be about 20 minutes long, with 5 additional minutes for Q&A. The grading criteria are listed in section 5.2.

Please discuss with the instructor if you want to choose alternative approaches (e.g., a literature review) to fulfill this assignment. The amount of work that you proposed should be equivalent to the work required by the design project outlined above.
7. Schedule & Readings

7.1 Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Subject</th>
<th>Due…</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Jan 19</td>
<td>Introduction</td>
<td></td>
</tr>
<tr>
<td>2 Jan 26</td>
<td>What is CHI?</td>
<td></td>
</tr>
<tr>
<td>3 Feb 2</td>
<td>Individual health behavior</td>
<td>Project proposal</td>
</tr>
<tr>
<td>4 Feb 9</td>
<td>Interpersonal health behavior</td>
<td></td>
</tr>
<tr>
<td>5 Feb 16</td>
<td>Health behavior change: community and group models</td>
<td></td>
</tr>
<tr>
<td>6 Feb 23</td>
<td>Health literacy, eHealth literacy, and health disparities</td>
<td></td>
</tr>
<tr>
<td>7 Mar 2</td>
<td>Consumer health information seeking: Information sources</td>
<td></td>
</tr>
<tr>
<td>8 Mar 9</td>
<td>Consumer health information seeking: Information needs</td>
<td>First check of project progress</td>
</tr>
<tr>
<td>9 Mar 16</td>
<td><strong>Spring Break, no class</strong></td>
<td></td>
</tr>
<tr>
<td>10 Mar 23</td>
<td>Consumer health information retrieval and information seeking behavior</td>
<td></td>
</tr>
<tr>
<td>11 Mar 30</td>
<td>Design consumer health systems: Theory-guided approach</td>
<td></td>
</tr>
<tr>
<td>12 April 6</td>
<td>Design consumer health systems: User-centered approach</td>
<td></td>
</tr>
<tr>
<td>13 April 13</td>
<td>mHealth</td>
<td>Second check of project progress</td>
</tr>
<tr>
<td>14 April 20</td>
<td>Games for health</td>
<td></td>
</tr>
<tr>
<td>15 April 27</td>
<td>Personal health records, patient portals</td>
<td></td>
</tr>
<tr>
<td>16 May 4</td>
<td>Project presentation</td>
<td>Final report</td>
</tr>
</tbody>
</table>

7.2 Readings

1. Jan 19 Introduction

2. Jan 26 Introduction; What is CHI


**Recommended reading:**

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>References</th>
</tr>
</thead>
</table>


6. Feb 23  **Health literacy, eHealth literacy, and health disparities**


7. March 2  **Consumer health information seeking: Information sources**

Review the following websites:
- National Network of Libraries of Medicine, NLM: [http://nnlm.gov](http://nnlm.gov); Consumer health information resources (multiple languages) [http://nnlm.gov/outreach/consumer/multi.html](http://nnlm.gov/outreach/consumer/multi.html)
- NIH Senior: [http://nihseniorhealth.gov/](http://nihseniorhealth.gov/)


8. March 9  **Consumer health information seeking: Health information needs**


9. March 16 ** Spring break, no class**

10. March 23 Consumer health information retrieval and information seeking behavior


11. March 30 Design consumer health systems: Theory-guided approach


<table>
<thead>
<tr>
<th>Date</th>
<th>Section</th>
<th>Source</th>
</tr>
</thead>
</table>
Check out the following sites:  
1. [https://medlineplus.gov/games.html](https://medlineplus.gov/games.html)  
2. [https://medicine.yale.edu/intmed/genmed/games/](https://medicine.yale.edu/intmed/genmed/games/)  
4. [https://www.webmd.com/a-to-z-guides/games/default.htm](https://www.webmd.com/a-to-z-guides/games/default.htm) |


15. April 27  Personal health records, patient portals


16. May 4  Final project presentation

8. University Resources for Students

The university has numerous resources that support your learning, use them to help you succeed in classes.

**Personal or Family Emergencies**

If you experience a personal or family emergency (death in the family, protracted sickness, serious mental health issues) you should contact Student Emergency Services in the Office of the Dean of Students. As advocates, SES supports students by providing the most comprehensive outreach, assistance, intervention, and referrals. They will also work with you to communicate with me and your other professors and let them know of your situation.

**Services and Accommodations for Students with Disabilities**

Any student with a documented disability (physical or cognitive) who requires academic accommodations should contact the Services for Students with Disabilities area of the Office of the Dean of Students at 471-6259 (voice) or 471-4641 (TTY for users who are deaf or hard of hearing) as soon as possible to request an official letter outlining authorized accommodations.
The University Writing Center
The UWC provides free programs to support and empower all UT graduate students. UWC consultants provide one-on-one feedback on any project at any stage of your writing process. For group accountability and instruction, check out UWC monthly writing groups, workshops, and retreats.

The Sanger Learning Center
If you are looking to improve your study skills, writing skills, or public speaking skills you should take advantage of the Sanger Learning Center’s classes and workshops, private learning specialist appointments, peer academic coaching, and tutoring.

Counseling and Mental Health Center
There are many helpful counseling and mental health resources available on campus and an important part of the college experience is learning how to ask for help. If you or anyone you know experiences any academic stress, difficult life events, or feelings like anxiety or depression, I strongly encourage you to seek support, including from the relevant university resources.

Land Acknowledgment
I would like to acknowledge that we are meeting on Indigenous land. Moreover, I would like to acknowledge and pay our respects to the Carrizo & Comecrudo, Coahuiltecan, Caddo, Tonkawa, Comanche, Lipan Apache, Alabama-Coushatta, Kickapoo, Tigua Pueblo, and all the American Indian and Indigenous Peoples and communities who have been or have become a part of these lands and territories in Texas, here on Turtle Island.

Important Safety Information
COVID-19 Update: While we will post information related to the contemporary situation on campus, you are encouraged to stay up-to-date on the latest news as related to the student experience.  
https://coronavirus.utexas.edu/students

If you have concerns about the safety or behavior of fellow students, TAs or Professors, call BCAL (the Behavior Concerns Advice Line): 512-232-5050. Your call can be anonymous. If something doesn’t feel right – it probably isn’t. Trust your instincts and share your concerns.

The following recommendations regarding emergency evacuation from the Office of Campus Safety and Security, 512-471-5767, http://www.utexas.edu/safety/

Occupants of buildings on The University of Texas at Austin campus are required to evacuate buildings when a fire alarm is activated. Alarm activation or announcement requires exiting and assembling outside.

- Familiarize yourself with all exit doors of each classroom and building you may occupy. Remember that the nearest exit door may not be the one you used when entering the building.
- Students requiring assistance in evacuation shall inform their instructor in writing during the first week of class.
• In the event of an evacuation, follow the instruction of faculty or class instructors. Do not re-enter a building unless given instructions by the following: Austin Fire Department, The University of Texas at Austin Police Department, or Fire Prevention Services office.
• Link to information regarding emergency evacuation routes and emergency procedures can be found at: [www.utexas.edu/emergency](http://www.utexas.edu/emergency)

**Evacuation Information**

The following recommendations regarding emergency evacuation from the Office of Campus Safety and Security, 512-471-5767, [http://www.utexas.edu/safety/](http://www.utexas.edu/safety/)

**Other resources:**
- [https://protect.utexas.edu/students-families/](https://protect.utexas.edu/students-families/)

**Title IX Reporting**

Title IX is a federal law that protects against sex and gender-based discrimination, sexual harassment, sexual assault, unprofessional or inappropriate conduct of a sexual nature, dating/domestic violence and stalking at federally funded educational institutions. UT Austin is committed to fostering a learning and working environment free from discrimination in all its forms. When unprofessional or inappropriate conduct of a sexual nature occurs in our community, the university can:

1. Intervene to prevent harmful behavior from continuing or escalating.
2. Provide support and remedies to students and employees who have experienced harm or have become involved in a Title IX investigation.
3. Investigate and discipline violations of the university’s [relevant policies](http://www.titleix.utexas.edu/).

Beginning January 1, 2020, Texas Senate Bill 212 requires all employees of Texas universities, including faculty, report any information to the Title IX Office regarding sexual harassment, sexual assault, dating violence and stalking that is disclosed to them. Texas law requires that all employees who witness or receive any information of this type (including, but not limited to, writing assignments, class discussions, or one-on-one conversations) must be reported. I am a Responsible Employee and must report any Title IX related incidents that are disclosed in writing, discussion, or one-on-one. Before talking with me, or with any faculty or staff member about a Title IX related incident, be sure to ask whether they are a responsible employee. If you would like to speak with someone who can provide support or remedies without making an official report to the university, please email [advocate@austin.utexas.edu](mailto:advocate@austin.utexas.edu). For more information about reporting options and resources, visit [http://www.titleix.utexas.edu/](http://www.titleix.utexas.edu/), contact the Title IX Office via email at [titleix@austin.utexas.edu](mailto:titleix@austin.utexas.edu), or call 512-471-0419.

Although graduate teaching and research assistants are not subject to Texas Senate Bill 212, they are still mandatory reporters under Federal Title IX laws and are required to report a wide range of behaviors we refer to as unprofessional or inappropriate conduct of a sexual nature, including the types of conduct covered under Texas Senate Bill 212. The Title IX office has developed supportive ways to respond to a survivor and compiled campus resources to support survivors.
Student Emergency Services
http://deanofstudents.utexas.edu/emergency/

ITS
Need help with technology? http://www.utexas.edu/its/

Libraries
Need help searching for information? http://www.lib.utexas.edu/

Canvas
Canvas help is available 24/7 at https://utexas.instructure.com/courses/633028/pages/student-tutorials