Welcome to NURS 5324 - Health Care Informatics!

Welcome to Health Care Informatics! Did you know that informatics has been around since in the 1800’s? This is a true fact; Florence Nightingale, frequently termed and widely regarded as the “Mother of Modern Nursing,” was one of the first informatics nurses. She was always seeking better patient data to guide her work. And, data collection is the building block of informatics. The science and practice of nursing informatics integrates nursing with information and communication technologies to promote the health of people, families, and communities worldwide. In this course, you will learn various ways that informatics and technology supports health care professionals. Additionally, we will learn both the theoretical and practical issues, and, through discussion board postings, we will learn from each other as every nurse is an informaticist. The exciting part to me is that the contributions of health informatics are bountiful. Health care informatics has the potential to reduce duplication, costs, and errors while improving communication between providers, integration of services, and patient safety.

The structure of this course has been arranged in eight Modules, located in the “Course Modules” tab in Blackboard. Module 1 provides a foundation of health care informatics, examining the role of the health care professional as well as the historical perspective, and components of hardware and software. In Module 2, we will review the theoretical issues in health care informatics. Module 3 will consist of two parts in which we will explore the Internet. In part I, will we review the history

Table of Contents

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welcome</td>
<td>1</td>
<td>Course Schedule</td>
<td>4</td>
</tr>
<tr>
<td>Introduction</td>
<td>2</td>
<td>Grades and Grading</td>
<td>4</td>
</tr>
<tr>
<td>Your Faculty</td>
<td>2</td>
<td>Assignments</td>
<td>5</td>
</tr>
<tr>
<td>Course Description</td>
<td>2</td>
<td>Email</td>
<td>5</td>
</tr>
<tr>
<td>Prerequisites</td>
<td>3</td>
<td>Technical Information and Support</td>
<td>6</td>
</tr>
<tr>
<td>Student Learning Outcomes</td>
<td>3</td>
<td>Netiquette</td>
<td>7</td>
</tr>
<tr>
<td>Course Topics</td>
<td>3</td>
<td>University Course Policies</td>
<td>7-8</td>
</tr>
<tr>
<td>Textbook</td>
<td>4</td>
<td>Course Evaluation and Course Schedule</td>
<td>9</td>
</tr>
</tbody>
</table>
and structure and in part 2, we will review the services and issues. **Module 4**, also has two parts, in both parts we will focus on informatics in health care education. In **Module 5**, we will review informatics in patient care settings. **Module 6** will seek to understand telemedicine and other health care applications. **Module 7** will focus on informatics and health care administration. Finally, in **Module 8**, we examine informatics and health care research.

**Introduction**

Dr. Hermanns is a committed educator and researcher. Her research has focused on understanding the illness experience of persons with Parkinson’s disease and their carepartners. Her program of research is expanding to include interventions to promote health in persons with chronic illness with emphasis on those with Parkinson’s disease. She also has additional research interests in informatics as well as implementation of innovative teachings strategies. Dr. Hermanns (aka: Melinda Lacquey) has collaborated with one of her colleagues on a research project involving Second Life. Second Life was used to deliver a clinical conference. Dr. Hermanns is excited to teach Health Care Informatics. She shares, there are so many novel ways we can use to educate and keep our patients informed and safe. With continual changes and emerging technologies, I look forward to the future advancements in Nursing. Stay tuned!

**Your Faculty**

Melinda Hermanns, PhD, RN, BC, CNE, PN/FCN  
**Office:** BRB 2125  
**Office hours:** Wednesdays 12 noon – 3 p.m. or by appointment  
**Phone:** 903-566-7094  
**E-mail:** mhermanns@uttyler.edu

---

**COURSE SYLLABUS**

**NURS 5324 Health Care Informatics**

**Course Description**

This course prepares the student to utilize informatics and health care technologies in the management of individuals, groups and organizations for the improvement of patient outcomes

**Fee:** Extended computer access fee required. **Prerequisites:** Proficiency in computer skills, admission as a UT Tyler graduate student or consent of instructor.

**Course Credit and Clock Hours:** 3 credit hours (3 clock hours per week)

**Class Time:** Internet class with no scheduled class meetings
Placement in Curriculum: Elective

Student Learning Outcomes

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

1. Analyze current and emerging technologies to optimize safety, cost effectiveness and health outcomes.
2. Utilize select theories that guide the application of informatics in health care and health education.
3. Promote policies that incorporate ethical principles and legal standards in the use of health and information technologies

Course Topics

- I. Introduction to Informatics
  - Role of the health care worker
  - Impact of informatics on professional practice
  - Components of hardware and software
- II. Theoretical Issues for Health Care Informatics
  - Theories
  - Standardized languages
- III. The Internet
  - Description
  - Structure
  - Portals
  - Security
  - Legal & ethical issues for health care professionals
- IV. Informatics in Health Care Education
  - QSEN competencies
  - TIGER initiative
  - Online instruction
  - Social networking
  - Simulation
  - Student counseling
- V. Informatics in Patient Care Settings
  - The EMR and the EHR
  - HHS meaningful use criteria
  - Next generation nursing systems
  - Health data storage and exchange
  - Telemedicine
  - Clinical imaging
  - Automated staffing and workload systems
  - Quality assurance
  - Social, ethical and legal Issues
VI. Informatics in Health Care Research
   - Data collection
     - 1. Qualitative: data bases
     - 2. Quantitative: lotus, spreadsheets
   - Data analysis--qualitative and quantitative
   - Data Presentation
   - Social, ethical and legal Issues
   - Trends and directions for the future

Textbook


This book is available in hardcopy or as an e-textbook rental. The e-textbook can be obtained at http://www.coursesmart.com/nursing-informatics-and-the-foundation-of/dee-mcgonigle-editor-in-chief-online-journal/dp/9781449642471

Course Schedule

The course schedule, including assignment due dates and examination date, and last day to withdraw without penalty may be found in the course schedule link under the “Course Information” tab in Blackboard.

Teaching Strategies

Presentations of course content available at this website, assignments to enhance skills in using software applications to enhance productivity, faculty and student communication via email, online asynchronous, discussions, student presentations. Students are encouraged to explore how computers and software are used at healthcare and educational institutions in their area and to share their findings with other class participants.

Grades and Grading

Specific guidelines and grading criteria are located in the respective modules. Final grades for the course will be determined based upon the following point assignments:

- A - 90-100
- B - 80-89
- C - 70-79
- D - 60-69
- F - Below 60
Criteria for Evaluation:

5 exams (15% each) 75%

Class Assignments 20% (10% each)

- EMR 10%
- Telemedicine 10%

Participation in Online Discussions 5%

Total: 100%

Assignments

Academic Integrity: Students are expected to assume full responsibility for the content and integrity of all academic work submitted. Refer to the Guide for Nursing Students for policies regarding conduct and discipline.

Assignments: Assignments are a major part of the course work and should receive appropriate attention. The final presentation must meet the standards for graduate level work (spelling, punctuation, syntax, grammar, and content). It is expected that all assignments will be completed in a timely manner. Five (5) points will be deducted for each day an assignment is late.

All submitted written material (papers, assignments, examinations, etc.) are the property of the College of Nursing and will be maintained in an archived file at UT Tyler.

Five exams will be given. An announcement and link will be placed on the class website. Each student will be given one access to each examination and 60 minutes in which to complete and submit the quiz. Please set aside 60 minutes of uninterrupted time and do not use any reference materials while taking the exams. Questions are in multiple choice or matching format. No copies may be made of the exams.

Discussion Area: Students are expected to monitor discussions at least once per week. Grading will be based upon the submission of contributions to at least 5 discussions during the course. In order to count, a response must contribute a new idea, new information or a new question to the discussion.

You may check your grades at any time on the Blackboard website. Feedback on assignments will be provided via the gradebook.

Email

All students are required to use their student email accounts for all correspondence (Approved FO: 2/03). To communicate by email within the course with other participants or all participants, click the Tools link on the left side of the Blackboard frame. Click Send E-mail to send a message. You are able to send messages to All Users or Select Users in the course, including the instructor.
Your instructor’s email is: mhermanns@uttyler.edu

Questions or problems other than technical problems may be submitted to the email address above. For technical issues, please refer to the Technical Information/Technical Support in this Syllabus.

I will make every effort to respond quickly to your emails. Generally speaking, I check email twice a day during the work week. I generally do not respond to weekend emails until Monday morning. Please note, there is on caveat: Technical problems in email systems may slow down responses. My priority is communicating with you, so if there are any problems, I will work to solve them.

Technical Information

The following information should be included in your syllabus to give direction to the students on how to obtain technical support should problems arise with Blackboard. Also included is a short list of browser plug-ins and other suggested applications that students should make sure they have installed and/or updated.

Technical Support

If you experience technical problems or have a technical question about this course, you can obtain assistance by emailing itsupport@patriots.uttyler.edu

When you email IT Support, be sure to include a complete description of your question or problem including:

- The title and number of the course
- The page in question
- If you get an error message, a description and message number
- What you were doing at the time you got the error message
- You may also visit the Help Tab in Blackboard for helpful information.

Plug-ins and Helper Applications

UT Tyler online courses use Java, JavaScript, browser plug-ins, helper application and cookies. It is essential that you have these elements installed and enabled in your web browser for optimal viewing of the content and functions of your online course.

- Adobe Flash Player allows you to view content created with Flash such as interactive web applications and animations.
  http://get.adobe.com/flashplayer/

- QuickTime allows users to play back audio and video files.

- Windows Media Player allows you to view, listen and download streaming video and audio.

- RealPlayer allows you to view and listen to streaming video and audio.
  http://www.real.com/

Netiquette Guide

"Netiquette" is network etiquette, the do's and don'ts of online communication. Netiquette covers both common courtesy online and informal "rules of the road" of cyberspace. Review and familiarize yourself with the guidelines provided.

UT Tyler Course Policies

The following course policies may be found at the website listed below: absence for religious observance, absence for university-supported trips, services to students with disabilities, grade replacement, state-mandated course drop policy, and Social Security and privacy

http://www.uttyler.edu/academicaffairs/syllabuspolicies.pdf

University Policies

Students Rights and Responsibilities
To know and understand the policies that affect your rights and responsibilities as a student at UT Tyler, please follow this link: http://www2.uttyler.edu/wellness/rightsresponsibilities.php

Grade Replacement/Forgiveness and Census Date Policies
Students repeating a course for grade forgiveness (grade replacement) must file a Grade Replacement Contract with the Enrollment Services Center (ADM 230) on or before the Census Date of the semester in which the course will be repeated. Grade Replacement Contracts are available in the Enrollment Services Center or at http://www.uttyler.edu/registrar. Each semester’s Census Date can be found on the Contract itself, on the Academic Calendar, or in the information pamphlets published each semester by the Office of the Registrar. Failure to file a Grade Replacement Contract will result in both the original and repeated grade being used to calculate your overall grade point average. Undergraduates are eligible to exercise grade
replacement for only three course repeats during their career at UT Tyler; graduates are eligible for two grade replacements. Full policy details are printed on each Grade Replacement Contract.

The Census Date is the deadline for many forms and enrollment actions that students need to be aware of. These include:

- Submitting Grade Replacement Contracts, Transient Forms, requests to withhold directory information, approvals for taking courses as Audit, Pass/Fail or Credit/No Credit.
- Receiving 100% refunds for partial withdrawals. (There is no refund for these after the Census Date)
- Schedule adjustments (section changes, adding a new class, dropping without a “W” grade)
- Being reinstated or re-enrolled in classes after being dropped for non-payment
- Completing the process for tuition exemptions or waivers through Financial Aid

**State-Mandated Course Drop Policy**
Texas law prohibits a student who began college for the first time in Fall 2007 or thereafter from dropping more than six courses during their entire undergraduate career. This includes courses dropped at another 2-year or 4-year Texas public college or university. For purposes of this rule, a dropped course is any course that is dropped after the census date (See Academic Calendar for the specific date).

Exceptions to the 6-drop rule may be found in the catalog. Petitions for exemptions must be submitted to the Enrollment Services Center and must be accompanied by documentation of the extenuating circumstance. Please contact the Enrollment Services Center if you have any questions.

**Disability Services**
In accordance with Section 504 of the Rehabilitation Act, Americans with Disabilities Act (ADA) and the ADA Amendments Act (ADAAA) the University offers accommodations to students with learning, physical and/or psychiatric disabilities. If you have a disability, including non-visible disabilities such as chronic diseases, learning disabilities, head injury, PTSD or ADHD, or you have a history of modifications or accommodations in a previous educational environment you are encouraged to contact the Student Accessibility and Resources office and schedule an interview with the Accessibility Case Manager/ADA Coordinator, Cynthia Lowery Staples. If you are unsure if the above criteria applies to you, but have questions or concerns please contact the SAR office. For more information or to set up an appointment please visit the SAR office located in the University Center, Room 3150 or call 903.566.7079. You may also send an email to cstaples@uttyler.edu

**Student Absence due to Religious Observance**
Students who anticipate being absent from class due to a religious observance are requested to inform the instructor of such absences by the second class meeting of the semester.

**Student Absence for University-Sponsored Events and Activities**
If you intend to be absent for a university-sponsored event or activity, you (or the event sponsor) must notify the instructor at least two weeks prior to the date of the planned absence. At that time the instructor will set a date and time when make-up assignments will be completed.
Social Security and FERPA Statement:
It is the policy of The University of Texas at Tyler to protect the confidential nature of social security numbers. The University has changed its computer programming so that all students have an identification number. The electronic transmission of grades (e.g., via e-mail) risks violation of the Family Educational Rights and Privacy Act; grades will not be transmitted electronically.

Emergency Exits and Evacuation:
Everyone is required to exit the building when a fire alarm goes off. Follow your instructor’s directions regarding the appropriate exit. If you require assistance during an evacuation, inform your instructor in the first week of class. Do not re-enter the building unless given permission by University Police, Fire department, or Fire Prevention Services.

Course Evaluation

UT Tyler may ask you to complete a voluntary evaluation to help them make improvements and adjustments in their overall online learning forums.

Also, an end of semester evaluation specifically for this course will be made available for you to complete in the last week of instruction. Your comments and recommendations will be considered seriously as the course is updated. Your input throughout the semester contributes to our commitment to improve continually the quality and relevance of this course.

Course Schedule

<table>
<thead>
<tr>
<th>Dates</th>
<th>Topics</th>
<th>Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug. 29 - 30</td>
<td>Overview of the Course</td>
<td></td>
</tr>
<tr>
<td>Sept. 2 - 5</td>
<td>Theoretical Issues Nursing Informatics</td>
<td>Exam 1</td>
</tr>
<tr>
<td>Sept. 8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sept. 9</td>
<td>Census date</td>
<td></td>
</tr>
<tr>
<td>Sept. 8 - 12</td>
<td>The Internet, Part 1</td>
<td></td>
</tr>
<tr>
<td>Sept. 15 - 19</td>
<td>The Internet, Part 2</td>
<td></td>
</tr>
<tr>
<td>Sept. 23</td>
<td></td>
<td>Exam 2</td>
</tr>
<tr>
<td>Sept. 22 - 26</td>
<td>Informatics in Health Care Education, Part 1</td>
<td></td>
</tr>
<tr>
<td>Oct. 27</td>
<td>Last Day to Withdraw</td>
<td></td>
</tr>
<tr>
<td>Sept. 29 - Oct. 3</td>
<td>Informatics in Health Care Education, Part 2</td>
<td>Exam 3</td>
</tr>
<tr>
<td>Oct. 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oct. 13 - 17</td>
<td>Informatics in Patient Care Settings</td>
<td></td>
</tr>
<tr>
<td>Oct. 24</td>
<td></td>
<td>EMR Assignment due</td>
</tr>
<tr>
<td>Date</td>
<td>Topic</td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>--------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Oct. 27-31</td>
<td>Telemedicine and Other Applications</td>
<td></td>
</tr>
<tr>
<td>Nov. 4</td>
<td>Exam 4</td>
<td></td>
</tr>
<tr>
<td>Nov. 7</td>
<td>Telemedicine Assignment due</td>
<td></td>
</tr>
<tr>
<td>Nov. 10-14</td>
<td>Informatics and Health Care Administration</td>
<td></td>
</tr>
<tr>
<td>Nov. 17-21</td>
<td>Informatics and Health Care Research</td>
<td></td>
</tr>
<tr>
<td>Nov. 24-28</td>
<td>Happy Thanksgiving!</td>
<td></td>
</tr>
<tr>
<td>Dec. 2</td>
<td>Exam 5</td>
<td></td>
</tr>
</tbody>
</table>

*The content of this syllabus or web-based course is subject to change at the discretion of the faculty according to current learning needs.*