Texas A&M University-Corpus Christi
College of Nursing and Health Sciences

NURS. 5331.W01, Nursing Informatics
Syllabus
Summer, 2014

Course Faculty: Kathleen R. Crane, MSN, RN
Office: Island Hall 335
Telephone: 361.825.2162
E-mail: Blackboard mail
Office Hours: Faculty will check Blackboard e-mail (Bb mail) and
discussions at least every 48 hours, unless otherwise
advised. Face-to-face meetings by appointment.

This course is web based and the principles of asynchronous distance learning apply to both the
course and laboratory. The online weekly schedule begins on Monday and ends on Sunday.
Discussion topics will start on Monday of the week assigned; and will close 10 days later at midnight.
You must have access to the Internet to successfully communicate with the faculty
and students enrolled in this course. Web-based courses do not reduce the amount of time you
are likely to spend completing course requirements. Rather, the time spent in the course is set
by your personal learning style, not a lecture schedule. Those of you with limited experience in
web-based learning should inform Professor Crane immediately.

Credits: 3 credits (2 lecture, 1 lab)
Prerequisites: Computer literacy

Course Description: An introduction to the application of computers in nursing. Focuses on
concepts and terminology related to computer technology, information management and their
use in nursing administration, nursing education, nursing practice, and nursing research. This
course is designed for graduate students.

COURSE OBJECTIVES
Upon completion of the course, the student will be able to:

1. Understand and articulate the relationship of nursing theories to nursing informatics.
   1.1. Define nursing informatics
   1.2. Analyze concepts related to the use of computers in nursing practice (nursing
        informatics, health informatics, and medical informatics).
   1.3. Compare conceptual frameworks/models that organize the knowledge and practice
        of nursing informatics.
   1.4. Evaluate the outcomes of the practice of nursing informatics.

2. Understand and analyze hospital information systems and patient information systems.
   2.1. Explain the nurse manager’s role in the acquisition, implementation, and
        maintenance of information systems in health care settings.
   2.2. Summarize the attributes of various information systems and delineate their current
        use in the delivery of nursing care across health care settings.
   2.3. Analyze the information needs related to delivery of nursing care specific to various
        health care settings.

3. Evaluate the impact of nursing informatics upon nursing practice, education and research.
   3.1. Differentiate between information management and computer applications.
   3.2. Characterize the impact of information technology on educational needs of RNs.
   4.1. Define Internet, URL, e-mail, World Wide Web
   4.2. Identify the impact of the Internet on the patient-health care professional relationship.
   4.3. Identify the impact email on patient-healthcare professional e-mail use
   4.4. Outline the security issues associated with e-mail use
5. Understand and articulate the ethical and legal issues associated with health informatics.
   5.1. Compare the terms privacy, confidentiality, and security as they relate to health informatics
   5.2. Outline the types of breaches of confidentiality
   5.3. Apply the concepts: authentication, authorization, access control, data integrity, accountability, availability, data storage, data transmission to client information management.
   5.4. Discuss Public Key Infrastructure
   5.5. Summarize the relationship between HIPAA and clinical information management in nursing care delivery systems.
6. Articulate the possible impact and future of nursing informatics.

LEARNING EXPERIENCES AND TEACHING METHODS

A variety of distance learning strategies are used in this Web-based course. Guided independent reading assignments, discussion, written exercises, and self-assessment quizzes are incorporated into the Blackboard courseware package. Students should be guided in the identification of personal learning needs by the course objectives and lessons. Students should exhibit self-direction and demonstrate that learning has occurred by the successful completion of coursework. Group work is also expected in this course. Each student will be assigned to a group to complete a project/Powere Point. The groups will be assigned the first week of the course, as soon as the roster is finalized.

Required texts


Rules and Regulations of the Texas Nurse Practice Act – website www.bne.state.tx.us/

Optional texts


Students are expected to supplement their texts with readings from relevant journals.
GUIDELINES FOR FORM AND STYLE OF WRITTEN ASSIGNMENTS

Students are expected to follow instructions associated with the assignments for this course. If you are confused about an assignment, you should contact Professor Crane prior to completing the assignment and prevent delays in your successful performance. Assignments are due on the scheduled date indicated. Unless otherwise instructed, you should use the APA Publication Manual, 6th Edition as a reference for formatting and organizing written assignments. Assume all required papers are scholarly products and, as such, should adhere to APA scholarly report guidelines.

Plagiarism: The highest standards of academic honesty are expected from the student. Faculty adheres to the University policy regarding academic honesty as published in the University Catalog. Refer to APA Manual for the proper way to use and cite quoted material.

Plagiarism means to steal and pass off the work of another as one’s own work. It usually results from bad paraphrasing or improper referencing. The substitution of a few changes from those of the original author and forgetting to use quotation marks, and reference citation are technically considered plagiarism. The only safe way to paraphrase is to read the original over several times and then write your conception of what you have read without looking at the original. In other words, when paraphrasing, keep the source book closed! (Wilson, p. 523)


COURSE REQUIREMENTS

1. Students are expected to have access to a computer that can support Blackboard applications.
2. Email communication should occur through the Blackboard structure. Students should review email and discussion board at least every 48 hours.
3. All assignments are due on the scheduled date. Students should review the syllabus and course schedule throughout the semester to insure that class assignments are completed correctly and by the due date. Any variations from this schedule should be discussed with the faculty member prior to the due date for consideration.
4. Students are expected to complete a course evaluation at the end of the course.

COURSE GRADE COMPONENTS
The grading scale for the course is as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A</td>
<td>90 - 100</td>
</tr>
<tr>
<td>B</td>
<td>83 - 89</td>
</tr>
<tr>
<td>C</td>
<td>75 - 82</td>
</tr>
<tr>
<td>D</td>
<td>67 - 74</td>
</tr>
<tr>
<td>F</td>
<td>below 67</td>
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</tbody>
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Course Assignments (All assignments can be found under Assignments in Blackboard)

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Project/Power Point</td>
<td>35%</td>
</tr>
<tr>
<td>Discussion</td>
<td>25%</td>
</tr>
<tr>
<td>Laboratory Assignments</td>
<td>40%</td>
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</tbody>
</table>

Class Schedule
Although you will not meet together as a class, the schedule organizes the course work to ensure you meet the course objectives in the course timeframe. Assignments are due on the dates indicated in the calendar but you should be aware that the syllabus and dates identified in the Class Schedule are subject to change. You will be notified of changes in a timely manner through Blackboard discussions and email. You should monitor both regularly. You will find a copy of the course schedule under Syllabus and Schedule in Blackboard.

**COURSE WORK GUIDELINES AND GRADING CRITERIA**

Each of the required assignments is discussed generally in the syllabus. For details and helpful hints to complete the assignment, refer to each assignment description filed in the assignment section of the Blackboard course shell.

**Group contract**

Each student will be assigned to a group during the first week of the course, for the purposes of completing the Project/PowerPoint assignment. Course faculty will determine the number of students in each group; there will be 3 – 4 students in each group, depending on class size. Groups will complete a group contract and submit via Assignments by the date noted there. Each group member will submit the contract; this signifies agreement with contract details. There is no grade for this assignment.

**Guidelines for On-Line Discussions**

Electronic communication is different from face-to-face communication because the sender and receiver of a message must rely totally on written words to convey any message. No body language, tone of voice, or contextual cue is available to help interpret the actual meaning of the words. To improve accuracy in communication, certain conventions have evolved to provide users of electronic communication technologies with a shared framework for interpreting the meaning of messages. Electronic communication conventions serve as guidelines for appropriate behavior in discussions. Discussions in this course will adhere to these conventions.

**Expected Student Behaviors:**

- You should use the Blackboard Discussion Tool for class discussion. Do not submit responses as attachments.
- You should submit contributions to the posted discussion topic during the week discussions are scheduled.
- When you respond to other student comments, you should include a short quote from the initial message(s) as introduction to your own new contribution on the subject. This process will help keep the discussion thread clear.
- Citations and references for resources used to generate your response should be included in the text of a message to credit authorities on a topic.
- You should demonstrate ethical computer use.
- You should adhere to conventions of Netiquette.

**Unacceptable Discussion Behaviors:**

- You should not use the course discussion topics to submit personal communications to students.
- You should not flame others.
- You cannot change the discussion topic. You can ask a question to redirect the discussion.
• You should not respond to a discussion topic after the discussion deadline.
• You should not SHOUT at others through the discussion.

The Blackboard course Discussion Tool can be used for two types of discussion. One discussion thread will be used for a formal thoughtful exchange of ideas among students and faculty about a topic related to the course. An informal thread will be used to allow students to discuss their thoughts about the course and content covered without an evaluation component.

You must remember that the discussion tool is designed to allow an individual to send message to a group of people simultaneously. That means questions about personal matters that you have for other students or for the teacher should not be sent to the discussion board. Your response to the discussion topic should not be sent via email. The teacher will not accept any comments meant for the discussion board through email.

To participate in the formal weekly discussion, students should read the topic of the week posted by the teacher. The student should:
1. Make a unique contribution that demonstrates understanding the content; consider the other person's position about the topic; stimulate further discussion.
2. Identify the point made in a previous comment by a statement containing part of the comment or using quotes to demonstrate the idea that triggered a response.
3. Cite the article/researcher/author of the literature that provides the basis of the thoughts.
4. Extend discussion into another relevant area whenever possible.

Grading Criteria for On-Line Formal Discussions

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Possible Points</th>
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<tbody>
<tr>
<td>Message contains evidence that student understands lesson content</td>
<td>2</td>
</tr>
<tr>
<td>Message demonstrates student’s unique ideas about content</td>
<td>3</td>
</tr>
<tr>
<td>Message builds on discussion thread</td>
<td>2</td>
</tr>
<tr>
<td>Message includes citations &amp; references to resources used to construct contribution.</td>
<td>2</td>
</tr>
<tr>
<td>Message adheres to Netiquette conventions.</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>10</strong></td>
</tr>
</tbody>
</table>

NOTE: You will receive a zero for discussion if you do not participate during the week that a discussion topic is assigned. The total points added into your final grade will be the average of your discussion grades earned over the required discussions.

Guidelines for Laboratory Assignments

The purpose of the course laboratory is to provide students with an opportunity to use software applications essential to the practice of nursing. Students use basic software applications and apply them to clinical, research, education, or administration situations. The situations should directly relate to concepts covered in the course. Laboratory assignments one, two and three are completed independently. Laboratory 4 is done in conjunction with a partner(s). The faculty member is available to assist the student as needed. Assignments are posted on Blackboard.

Grading Criteria for Laboratory Assignments

The grading criteria for each laboratory assignment will be posted with the assignment. Students complete the laboratory for this course and submit for review by the instructor through Blackboard.
courseware. Be sure to read the instructions for submitting the assignment for evaluation. An assignment cannot be graded if the teacher cannot open it because of transmission problems or because the file is not compatible with the software applications supported in College of Nursing and Health Sciences. All assignments should be submitted via Assignments.

**Laboratory Assignment 1:**

- Conduct a literature search, using the Cumulative Index of Nursing and Allied Health Literature (CINAHL), ERIC, and/or other databases, on the topic of Nursing informatics related to advanced nursing roles, specifically your chosen role e.g., leadership, nurse practitioner, educator.
- Essay: The benefits and challenges of electronic information management for . . . (my chosen role).

Students should write a short essay (no more than 5 pages, excluding title page and references) discussing the role of computer technology in information management for their chosen role. The discussion should include reference to the information from the literature search. Formal papers are written in third person; however, you may include first-hand/personal observations that are relevant to the discussion.

The purpose of this assignment is to provide you practice in doing a literature search, and in word processing. You must use the various features to correctly format your final document. I will be able to see your formatting to grade the paper. The format requirements for the essay are:

<table>
<thead>
<tr>
<th>Font type</th>
<th>Arial</th>
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</thead>
<tbody>
<tr>
<td>Font size</td>
<td>12</td>
</tr>
<tr>
<td>Line spacing</td>
<td>Double space</td>
</tr>
<tr>
<td>Margins</td>
<td>1 inch all around</td>
</tr>
<tr>
<td>Cover Sheet</td>
<td>Student name; course title and course number; and date centered on page.</td>
</tr>
<tr>
<td>Page numbers</td>
<td>Bottom of page, centered</td>
</tr>
<tr>
<td>Headers</td>
<td>As noted in APA 6th ed. – running head</td>
</tr>
<tr>
<td>Footers</td>
<td>All pages: file name and path at left margin</td>
</tr>
<tr>
<td>Paragraph Indents</td>
<td>Use tabs for indenting if auto-format is not engaged. DO NOT USE SPACE BAR TO FORMAT PARAGRAPHS.</td>
</tr>
<tr>
<td>File Name</td>
<td>Save file as a Word document. Use your first initial and last name in the file name. e.g., kcrane_lab1.doc or .docx</td>
</tr>
</tbody>
</table>

Text citations and a reference list should be included with the essay, in APA format. Submit assignment for review via Assignments.

**Laboratory Assignment 2:** Bibliographic Databases and Internet Search

This assignment has 3 parts.

1. Complete a bibliographic search via Bell Library on the broad topic: computerized medical record. You should narrow/modify the topic to something meaningful to you. Search CINAHL and at least one other bibliographic database. From the articles identified through your search, select three articles that you consider useful to your understanding about the issues associated with the computerized medical record. Record your search process. Include the keywords you used and any processes followed to narrow your search to find the three articles you selected.
2. After you have searched the scientific literature, complete an Internet search using any search engine and/or metasearch engine, (e.g., Alta Vista, Google, Yahoo, Dogpile, Ask, etc.) you prefer. Narrow your search to match the topic you selected for the bibliographic search. Record your search process. You can save the process directly from your search or you can write it in a format of your choice. If you are not familiar with metasearch engines check this website for information on popular metasearch engines: Metacrawlers and Metasearch Engines http://searchenginewatch.com/article/2066974/Metacrawlers-and-Metasearch-Engines

3. Finally, discuss/compare the findings you obtained from the scientific searches with the public access data. Include discussion about the types of information available, the credibility of the information, the format, and the audience likely to read the information. Note the similarities and differences. Then create a table to display your summary. The table should contain a column or a row for each of the items above – type of information, credibility, format, audience.

Note: The assignment is about your search process. Do not provide a narrative review of the articles in this paper.

Your assignment should be organized so that the teacher can identify the sections of the assignment. You should include an introductory statement to each section. The assignment should include a conclusion paragraph. Your work should be saved as a Word document. Name the file with your first initial, last name, and lab assignment number. Submit your laboratory assignment for evaluation via Assignments.

Laboratory Assignment 3

The assignment will vary depending on your area of interest and focus of study. The grading criteria will be the same across students.

Create a simple database represented in a spreadsheet that is relevant to your work. A spreadsheet simulates a worksheet and organizes data into columns and rows. The purpose of a spreadsheet is to organize and analyze data. When data are represented by numbers, the numbers can be manipulated to explain the information they represent. Calculations can be performed across cells contained in the table. Although there are many excellent spreadsheet programs, you should complete this assignment in Excel. Information about Excel is readily available on the Web. You can use any resource you find. Please include the name of any resources on your laboratory assignment.

Possible spreadsheets

Educators may chose to create a spreadsheet they can use to manage students. Administrators can create a spreadsheet to guide personnel or financial decisions. Clinicians can create a spreadsheet to manage patient care.

(Note: If you are taking another course this summer with an assignment requiring a spreadsheet or with data that could be used in a spreadsheet, please discuss with me the suitability of using the data as a basis for this assignment.)

The spreadsheet should allow the student to manage numerical information. It should not simply be a mailing list or a table of alphabetical data. Students should manipulate data using a mathematical function. Numbers should be displayed to the 2 decimal points. A column for dates should also be used in your database, if appropriate. Students should create a chart or graph to meaningfully depict the information contained in the spreadsheet.
Format requirements
Remember that the teacher will be able to read the contents, formulae, and functions entered into a cell if you use Excel. The spreadsheet should include a header and footer as a label for the content. Columns should be adjusted so that all data stored in a cell is visible. The spreadsheet should be formatted as landscape and should only be one page in length. You can use the freeze option to ensure your data fits on one page.

Gridlines should be visible if printed. Row and column headings should be bolded. The headings should be self-explanatory. Please use 11 or 12 font.

Laboratory Assignment 4: this assignment is the final project which you will do with partner(s).

Create a PowerPoint
The purpose of this exercise is to create a presentation that can be used as media support in the presentation of your ideas for the group project. You should create a logical presentation of your ideas to teach about (or “sell”) your topic. Cite and reference any sources used to develop your project.

Numerous aids available specify the ideal PowerPoint presentation. These resources discuss preferred font-size, color, background, and volume of text on slides. You can find many of these resources on the web. Please note citations/references to any Power Point sources you use to complete this assignment.

In your PowerPoint presentation, you should:
1. Limit your presentation to no more than 20 slides.
2. Select your own color scheme or template for background. (Do not use plain white.).
3. Insert an object in at least one slide.
4. Create a chart or table in at least one slide.
5. Use an appropriate font style and size.
6. Include a title slide.
7. Use the notes function to provide detail necessary for complete understanding of your ideas.
8. Submit the Power Point file for evaluation. Power Point will save as a .ppt or pptx file. Post your Power Point presentation on the discussion board on the topic Power Point presentations for other students to view and critique.

Name the file with your first initial, last name, and lab number.

Project/laboratory 4
Topics and additional details for the project and Power Point will be posted on Blackboard.