UNIVERSITY OF FLORIDA

COLLEGE OF NURSING

COURSE SYLLABUS

SPRING 2012

COURSE NUMBER: NGR 7871

COURSE TITLE: Nursing Informatics and Data Management

CREDITS: 3

PLACEMENT: DNP Program

PREREQUISITES: NGR 6101 Theory and Research

# FACULTY Holly Farish-Hunt, EdS, MS, ARNP

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COURSE DESCRIPTION: This course provides a systematic application of information and computer science and technology to related nursing practice. Emphasis is on integrating nursing practice systems and informatics technology. Focus is on identifying clinical data sets, methods of multilevel data retrieval, and the decision making processes guiding action in the face of uncertainty.

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

1. Identify terminology, concepts, technology and systems in context of informatics.
2. Develop cogent solutions to selected complex problems in nursing practice using

informatics.

1. Conduct independent searches of multilevel databases pertinent to selected

Practice and practice management issues.

COURSE OBJECTIVES: (continued)

1. Apply the tools of informatics in the cost effective solutions of clinical problems

 for individuals and aggregates.

1. Estimate the likelihood that practice solutions derived from information

technology will improve care.

1. Analyze data sets accrued from organizational sources that are relevant to public

health problems.

1. Evaluate the strengths and weaknesses of medical and nursing informatics as

 applied to aggregates.

COURSE SCHEDULE

Section Day Time Room

2478 Web-based

Final Presentations via *Blackboard Collaborate - LIVE* – See course calendar

*eLearning (Sakai)* is the course management system that you will use for this course. eLearning is accessed by using your Gatorlink account name and password at <http://lss.at.ufl.edu>. There are several tutorials and student help links on the e-Learning login site. If you have technical questions call the UF Computer Help Desk at (352) 392-HELP or send email to helpdesk@ufl.edu.

Synchronous lectures will be held online via Blackboard Collaborate, accessed through Sakai.

It is important that you *regularly check* your Gatorlink account email for College and University wide information and the course eLearning site for announcements and notifications.

Course websites are generally made available on the Friday before the first day of classes.

ATTENDANCE

Students may be expected to attend on-campus or synchronous classes periodically. Students are expected to participate in the activities and discussions as listed in the course syllabus and on the course website. Timeframes for the posting and receiving of materials are listed in the course materials on the course website. Make-up exams may not be available in all courses.

ACCOMMODATIONS DUE TO DISABILITY

Each semester, students are responsible for requesting a memorandum from the Disability Resource Center to notify faculty of their requested individual accommodations. This should be done at the start of the semester.

STUDENT HANDBOOK

Students are to refer to the College of Nursing Student Handbook for information

about College of Nursing policies, honor code, and professional behavior.

TOPICAL OUTLINE

1. Terminology and concepts used in informatics
2. Theories and general methods of informatics
3. Selection of complex health care practice problems congruent with the application of informatics
4. Interrelationships between and among bioinformatics, clinical informatics, and population informatics
5. Use of informatics in clinical decision making
6. Analysis of selected data sets
7. Current issues evolving in the field of nursing informatics including capabilities and limitations
8. Use of informatics in practice management
9. Legal and ethical issues

TEACHING METHODS

Web-delivery, synchronous and asynchronous lectures, podcasts, wikis, BLOGS, readings, audiovisuals, case studies and exposure to experts.

LEARNING ACTIVITIES

Class participation, asynchronous wikis/BLOGs, written assignments/individual tasks, final project/presentation.

Learning activities for the course are divided into six units on eLearning (Sakai). Each unit will address several topics that combine conceptually to form the basis for answering questions and performing individual related skills. Assignments will be posted; they will have either an individual (skills-related) tasks - OR - a group discussion activity.

EVALUATION METHODS/COURSE GRADE CALCULATION

*Assignments 60%*

*Technology/Application Assessment* 15%

*Course Project Assignment 25%*

(The project will be submitted (20%) and presented as a group (5%))

 Total 100%

\*Written assignments will usually be returned within 14 days of submission.

GRADING SCALE/QUALITY POINTS

 A 95-100 (4.0) C 74-79\* (2.0)

 A- 93-94 (3.67) C- 72-73 (1.67)

B+ 91- 92 (3.33) D+ 70-71 (1.33)

 B 84-90 (3.0) D 64-69 (1.0)

 B- 82-83 (2.67) D- 62-63 (0.67)

 C+ 80-81 (2.33) E 61 or below (0.0)

\* 74 is the minimal passing grade

## REQUIRED TEXTS:

Saba, V.K. and McCormick, K.A. (Fifth Edition, 2011) *Essentials of nursing informatics* McGraw-Hill Companies, Inc., USA. ISBN: 978-0-07-174371-6

**RECOMMENDED TEXTS:**

Einbinder, L., Lorenzi, N.M., Ash, J.S., Gadd, C.S., Einbinder, J. (Eds.) (2010) Transforming health care through information: Case studies (3rd ed.). New York: Springer-Verlag. ISBN: 978-1-4419-0268-9

(NOTE: Publication date is 27Dec09 with 2010 copyright. Do NOT purchase the 2nd ed.)

## Weaver,C.A., Delaney,C.W., Weber, P., Carr, R. (Eds) (2010) *Informat*ics for the 21st century: An international look at practice, education and EHR trends.(2nd ed.) Chicago: HIMSS. ISBN: 978-0-9821070-4-1

Miller, H.D., Yasnoff, W.A., Burde, H.A. (2010) ***Personal health records: The essential missing element in 21st century healthcare.* Chicago: HIMSS.** ISBN: 978-0-9800697-6-1

Tapscott, D. (2009) ***Grown up digital.* New York:** McGraw-Hill. ISBN: 978-0-07-150863-6

 Palfrey, J., Gasser, U (2008) ***Born digital: Understanding the first generation of digital***

 ***natives,* New York: Basic Books.**ISBN: 978-0-465-00515-4

WEEKLY CLASS SCHEDULE

| **DATE** | **TOPIC/EVALUATION** | **ASSIGNMENTS/READINGS** | **DUE DATE** |
| --- | --- | --- | --- |
| Week 1 & 2 09 -21Jan11 | **Getting Organized:**Class introductionsOverview & historical perspectives of informaticsIT, HIT, computer hardware, software applications & systemsWireless technologiesCurrent innovations in advanced nursing practice and the near futureCase studies\*Instructor Feedback | eLearning ContentRequired Readings\*eLearning discussion | \*Sunday 1/22 @ midnight. |
| Weeks 3 & 4 22Jan – 04Feb11 | **Unit 1: Terminology, metastructures, concepts and tools of nursing informatics**Concepts and tools from information and computer scienceThe presence or absence of nursingUbiquitous technologies | eLearning ContentRequired Readings\*eLearning discussion | \*Sunday, 2/05@ midnight. |
| Weeks 5 & 6 05 – 18Feb11 | **Unit 2: Technology’s role in revolutionizing nursing**Informatics and the future of advanced practice nursingThe foundation for nursing leadershipConsumer health informaticsInternational emergence of nursing informaticsCase studies | eLearning ContentRequired Readings\*eLearning discussion | \*Sunday,02/19@ midnight.  |
| Weeks 7 & 8 19Feb – 02Mar11 | **Unit 3: New roles and leadership opportunities**Clinical transformationWhat CNOs need to knowNursing CIOsThe Clinical IT StrategistNurses within Wall StreetCase management & project managementCase studies | eLearning ContentRequired Readings\*eLearning discussion | \*Sunday, 03/03@ midnight  |
| ***Spring Term Break*** ***03 – 11Mar11***Weeks 10 & 11 12 -24Mar11 | **Unit 4: Nursing education & information technology**Bridging technology into the classroomTransforming nursing curriculumInformatics competenciesLeveraging government and corporate partnershipsCase studies**Technology Application Assessment** | eLearning ContentRequired Readings\*eLearning discussion | \*Sunday, 03/25@ midnight **\*Sunday, 03/25@midnight** |
| Weeks 12 & 13: 25Mar – 07Apr11 | **Unit 5: Innovation Applied Through Informatics**The DRG imperativeWorkflows, outcomes and patient safetyWhere’s the data & is it information?Translating knowledgeEvidence based practice implications Standardized nursing language – its place in advanced practiceOrganizational analysisCase studies | eLearning ContentRequired Readings\*eLearning discussion | \*Sunday, 04/08@ midnight  |
| Weeks 14 & 15:08– 21Apr11 | **Unit 6:Electronic Health Record Initiatives Across the Globe**Current politics and healthcare policy development Economics & impact of technology on healthcare & practiceLegal/ethical aspects of EHRsCase Studies | eLearning ContentRequired Readings\*eLearning discussioneLearning ContentRequired Readings\*eLearning discussion | \*Sunday, 04/22@ midnight |
| Week 16:22 – 25Apr11 | **Futures Project Submission****Group Presentations** | Futures ProjectGroup Evaluation**Group Presentations** via *Blackboard Collaborate* *LIVE*  | **\*Wednesday, 04/25@midnight****TBA** |

**Teacher evaluation will be done on-line**

Approved: Academic Affairs Committee: 02/05; 03/05; 05/07

Reviewed: Leadership: 06/07

Approved: Faculty: 03/05; 06/07

Approved: UF Curriculum Committee: 02/0