



## **ATTACHMENT 5.**

### **T6. COURSE SPECIFICATIONS (Information Technology in Nursing 484 Nur)**

## Course Specifications

|   |                    |
|---|--------------------|
| Institution: Shaqra University                                      | Date: 1/ 6 / 1440  |
| College/Department : Al-Dawadmi college of Applied Medical Sciences | Nursing Department |

### A. Course Identification and General Information

|   |                                     |                  |                          |
|---|-------------------------------------|------------------|--------------------------|
| 1. Course title and code: <b>Information Technology in Nursing ( NUR 484 )</b>  |                                     |                  |                          |
| 2. Credit hours: 3 Hours  |                                     |                  |                          |
| 3. Program(s) in which the course is offered.<br>(If general elective available in many programs indicate this rather than list programs) |                                     |                  |                          |
| 4. Name of faculty member responsible for the course:   |                                     |                  |                          |
| 5. Level/year at which this course is offered: Level 8  |                                     |                  |                          |
| 6. Pre-requisites for this course (if any):   |                                     |                  |                          |
| 7. Co-requisites for this course (if any):  |                                     |                  |                          |
| 8. Location if not on main campus: Al-Dawadmi college of Applied Medical Sciences   |                                     |                  |                          |
| 9. Mode of Instruction (mark all that apply):   |                                     |                  |                          |
| a. traditional classroom  | <input type="checkbox"/>            | What percentage? | <input type="checkbox"/> |
| b. blended (traditional and online)   | <input checked="" type="checkbox"/> | What percentage? | 70                       |
| c. e-learning   | <input checked="" type="checkbox"/> | What percentage? | 20                       |
| d. correspondence   | <input type="checkbox"/>            | What percentage? | <input type="checkbox"/> |
| f. other  | <input checked="" type="checkbox"/> | What percentage? | 10                       |
| Comments:   |                                     |                  |                          |

## B Objectives

1. What is the main purpose for this course?

This course provides an overview of nursing informatics for the advanced practice nurse. Focus is on developing an understanding of concepts relevant to health care informatics. Current trends and issues in using, designing, and managing health care information systems will be examined. Students, applying knowledge from assigned readings, will analyze the design and implementation of health care information systems. The course includes email, electronic discussion forums, computer applications, worldwide web, and internet assignments.

2. Briefly describe any plans for developing and improving the course that are being implemented. (e.g. increased use of IT or web based reference material, changes in content as a result of new research in the field) **With the help of web based reference material, we updated the matter for better understanding.**

## C. Course Description (Note: General description in the form used in Bulletin or handbook)

Course Description: This course focuses in the importance of utilization of computer in health care, education, research, practice, and administration with specific emphasis on nursing applications. The course place emphasis on the clinical information system, the internet, word processing and data bases.

### 1. Topics to be Covered

| List of Topics   | No. of Weeks | Contact hours |
|--|--------------|---------------|
| <b>1. Introduction of computer:-</b> <ul style="list-style-type: none"> <li>- Definition.</li> <li>- Components.</li> <li>- Operating system characteristics.</li> <li>- Input devices.</li> <li>- Output Devices.</li> </ul>                            | 1            | 3             |
| <b>2. Introduction of nursing informatics:-</b> <ul style="list-style-type: none"> <li>- What is information.</li> <li>- Five rights of information.</li> <li>- Definitions of health care informatics.</li> <li>- Importance of information.</li> </ul> | 1            | 3             |

|  |   |    |
|--|---|----|
| <b>3. Nursing Informatics:-</b> <ul style="list-style-type: none"> <li>- Definitions.</li> <li>- Components of information technology.</li> <li>- The goal of information technology.</li> <li>- Elements &amp; Structures of information technology.</li> <li>- Knowledge based services.</li> <li>- Benefits of health information technology for nurse practitioners.</li> <li>- Meaningful use.</li> </ul>   | 3 | 9  |
| <b>4. Nursing Informatics Competencies:</b> <ul style="list-style-type: none"> <li>- Categories of Competencies.</li> <li>- Competencies of Nursing Informatics.</li> <li>- Competency: Basic Computer Skills</li> <li>- Competency: Information Management.</li> <li>- Competency-levels of practical nurses.</li> <li>- Responsibilities within Nursing Informatics.</li> <li>- Nursing Informatics Roles.</li> <li>- Application of nursing informatics.</li> </ul> | 4 | 12 |
| <b>5. Technology in Health Education.</b>  | 1 | 3  |
| <b>6. Developments in Nursing Practice by using informatics.</b> <ul style="list-style-type: none"> <li>- Telehealth.</li> <li>- Telenursing.</li> <li>- eHealth.</li> <li>- Electronic medical records.</li> <li>- Telemedicine.</li> <li>- Evidence Based Medicine.</li> <li>- Mobile Technologies In Healthcare.</li> </ul>   | 4 | 12 |
| <b>7. Revision</b>   | 1 | 3  |

|   |         |          |                       |           |        |       |
|---|---------|----------|-----------------------|-----------|--------|-------|
| 2. Course components (total contact hours and credits per semester): 45 hours |         |          |                       |           |        |       |
|   | Lecture | Tutorial | Laboratory/<br>Studio | Practical | Other: | Total |
| Contact<br>Hours  | Planned | 45       |                       |           |        | 45    |
|   | Actual  | 45       |                       |           |        | 45    |
| Credit  | Planned | 3        |                       |           |        | 3     |
|   | Actual  | 3        |                       |           |        | 3     |

3. Additional private study/learning hours expected for students per week.

2 hours

4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategy

**On the table below are the five NQF Learning Domains, numbered in the left column.**

**First**, insert the suitable and measurable course learning outcomes required in the appropriate learning domains (see suggestions below the table). **Second**, insert supporting teaching strategies that fit and align with the assessment methods and intended learning outcomes. **Third**, insert appropriate assessment methods that accurately measure and evaluate the learning outcome. Each course learning outcomes, assessment method, and teaching strategy ought to reasonably fit and flow together as an integrated learning and teaching process. (Courses are not required to include learning outcomes from each domain.)

| Code #     | NQF Learning Domains And Course Learning Outcomes   | Course Teaching Strategies                                       | Course Assessment Methods  |
|------------|---|--|--|
| <b>1.0</b> | <b>Knowledge</b>  |  |  |
| 1.1        | 1. Description of the knowledge to be acquired.<br>2. Recognize knowledge about the software and their applications in Nursing. | Interactive Lecture<br>Power point/Multimedia<br>Presentation    | Quiz and examinations related to Information Technology.               |
| 1.2        | 1. Memorize teaching strategies to be used to develop that knowledge.   | Large Group Discussion<br>Reading                                | Multiple choice questions  |
| <b>2.0</b> | <b>Cognitive Skills</b>   |  |  |
| 2.1        | Interpret software and their applications in nursing department or hospitals.   | Randomize crossover study of Information technology in hospitals | Demonstration  |
| 2.2        | Interpret teaching strategies to be used to develop these cognitive skills  |  |  |
| <b>3.0</b> | <b>Interpersonal Skills &amp; Responsibility</b>  |  |  |
| 3.1        | Show the interpersonal skills and capacity to carry responsibility to be developed: Active listening and tone of voice.         | Daily routine examples   | By putting the question during the class                               |
| <b>4.0</b> | <b>Communication, Information Technology, Numerical</b>   |  |  |
| 4.2        | Demonstrate information technology and numerical skills are satisfactory.   | Using  | English speaking environment should be in class as well as in college. |
| <b>5.0</b> | <b>Psychomotor</b>  |  |  |
| 5.1        | Perform and recalling, the information about information technology in nursing practice.  | Group discussion   | Class tests, Quiz, Demonstration                                       |

### 5. Schedule of Assessment Tasks for Students During the Semester

|   | Assessment task (i.e., essay, test, quizzes, group project, examination, speech, oral presentation, etc.) | Week Due                      | Proportion of Total Assessment |
|---|---|-------------------------------|--------------------------------|
| 1 | <b>Quizzes</b>  | <b>Through out</b>            | <b>5 %</b>                     |
| 2 | <b>First monthly test.</b>  | <b>Week 5</b>                 | <b>10%</b>                     |
| 3 | <b>Oral presentations</b>   | <b>At the end of semester</b> | <b>5%</b>                      |
| 4 | <b>Participation and class behavior</b>   | <b>At the end of semester</b> | <b>5 %</b>                     |
| 5 | <b>Second monthly test.</b>   | <b>Week 9</b>                 | <b>10 %</b>                    |
| 7 | <b>Third monthly test.</b>  | <b>Week 13</b>                | <b>15 %</b>                    |
| 9 | <b>Final written examination</b>  | <b>At the end of semester</b> | <b>50 %</b>                    |

#### D. Student Academic Counseling and Support

1. Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice. (include amount of time teaching staff are expected to be available each week)

**For student consultation 2 hours per week.**

#### E Learning Resources

1. List Required Textbooks

American Nurses Association (ANA). (2008). Nursing informatics: Scope and standards of practice. Silver Spring, MD: Nursebooks.org.

- American Nurses Association (ANA). (2010). Recognition of a nursing specialty, approval of a specialty nursing scope of practice statement, and acknowledgment of specialty nursing standards of practice. Retrieved February 24, 2013 from

<http://www.nursingworld.org/MainMenuCategories/ThePracticeofProfessionalNursing/NursingStandards/3-SBooklet.aspx>

- American Nurses Credentialing Center. (2012). Informatics nursing certification. Retrieved February 13, 2013 from [www.nursecredentialing.org/NurseSpecialties/Informatics.aspx](http://www.nursecredentialing.org/NurseSpecialties/Informatics.aspx)

- American Medical Informatics Association. (2009). Nursing informatics. Retrieved February 25, 2013 from

<http://www.amia.org/programs/working-groups/nursing-informatics>

- Baker, J. (2012). Nursing informatics. Perioperative Nursing Clinics, 7, 151-160.

- Centers for Medicare and Medicaid Services. (2010). Medicare and Medicaid EHR incentive program. Retrieved February 23, 2013 from

[http://www.cms.gov/RegulationsandGuidance/Legislation/EHRIncentivePrograms/Downloads/MU\\_Stage1\\_ReqOver\\_view.pdf](http://www.cms.gov/RegulationsandGuidance/Legislation/EHRIncentivePrograms/Downloads/MU_Stage1_ReqOver_view.pdf)

- Centers for Medicare and Medicaid Services. (2012). Stage 2 eligible and critical access hospital (CAH) meaningful use core and menu objectives. Retrieved February 23, 2013 from

[http://www.cms.gov/RegulationsandGuidance/Legislation/EHRIncentivePrograms/Downloads/Stage2\\_MeaningfulUseSpecSheet\\_TableContents\\_EligibleHospitals\\_CAHS.pdf](http://www.cms.gov/RegulationsandGuidance/Legislation/EHRIncentivePrograms/Downloads/Stage2_MeaningfulUseSpecSheet_TableContents_EligibleHospitals_CAHS.pdf) Material protected

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- Cipriano, P. (2011). The future of nursing and health IT: The quality elixir. Nursing Economics, 29(5), 286-290.
  - Healthcare Information and Management Systems Society. (2011). HIMSS nursing informatics position statement. Retrieved February 13, 2013 from <http://www.himss.org/handouts/HIMSSNIPositionStatementMonographReport.pdf>
  - Healthcare Information and Management Systems Society. (2012). Nursing informatics 101. Retrieved February 13, 2013 from [www.himss.org](http://www.himss.org)
  - Institute of Medicine. (2001). Crossing the quality chasm: A new health system for the 21st century. Washington, DC: National Academies Press.
  - National League of Nursing. (2008). Headlines from the NLN: Informatics in the nursing curriculum: a national survey of nursing informatics requirements in nursing curricula. Nursing Education Perspectives, 29(5), 312-317.
  - Murphy, J. (2010). Nursing informatics: The intersection of nursing, computer, and information sciences. Nursing Economics, 28(3), 204-207.
  - Technology Informatics Guiding Education Reform. (2010). The TIGER initiative: Informatics competencies for every practicing nurse: Recommendations from the TIGER collaborative. Retrieved February 15, 2013 from.
- Bastable, S. (2014): Nurse As Educator: Principles of Teaching and Learning For Nursing Practice. 3<sup>rd</sup> ed Jones and Bartlett Publishers, Sudbury.

3. List Essential References Materials (Journals, Reports, etc.)

- CRITICAL REVIEWS IN MEDICAL INFORMATICS
- HEALTH COMMUNICATIONS AND INFORMATICS
- HEALTHCARE INFORMATICS
- INTERNATIONAL JOURNAL OF MEDICAL INFORMATICS
- JOURNAL OF THE AMERICAN MEDICAL INFORMATICS ASSOCIATION
- MEDICAL INFORMATICS
- MEDICAL INFORMATICS AND THE INTERNET IN MEDICINE
- STUDIES IN HEALTH TECHNOLOGY AND INFORMATICS



- BIOINFORMATICS
- COMPUTERS AND BIOMEDICAL RESEARCH
- COMPUTERS IN BIOLOGY AND MEDICINE
- COMPUTERS IN HEALTHCARE
- COMPUTERS IN HOSPITALS
- COMPUTERS IN NURSING

3. List Electronic Materials, Web Sites, Facebook, Twitter, etc.

- National Institutes of Health

<http://www.nih.gov>

- National Library of Medicine (Medline)-

<http://igm.nlm.nih.gov/>

- American Medical Informatics Association-

<http://www.amia.org/>

- The international Society for computer aided surgery.

<http://igs.slu.edu/>

- The health level 7 committee:

<http://www.hl7.org>

- The European Committee for Standardization

Technical Committee for Health Informatics

<http://www.cen251.org/>

- BioInformatics resources on the WEB

<http://www.niehs.nih.gov/science/bioinfo.htm>

- Tools for DNA gene and protein sequencing.

<http://www.ncbi.nlm.nih.gov/Tools/index.html>

4. Other learning material such as computer-based programs/CD, professional standards or regulations and software.

## F. Facilities Required

|   |
|---|
| Indicate requirements for the course including size of classrooms and laboratories (i.e. number of seats in classrooms and laboratories, extent of computer access, etc.) |
| 1. Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)<br>Classrooms   |
| 2. Technology resources (AV, data show, Smart Board, software, etc.)<br>Data show<br>Software   |
| 3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list)   |

## G Course Evaluation and Improvement Processes

|   |
|---|
| 1. Strategies for Obtaining Student Feedback on Effectiveness of Teaching<br><br>Quizzes, Midterm exam, oral presentation.  |
| 2. Other Strategies for Evaluation of Teaching by the Instructor or by the Department.  |
| 4. Processes for Improvement of Teaching<br>Application of a new trend in nursing practice as clinical pathway to improve nursing management and patients outcomes.   |
| 4. Processes for Verifying Standards of Student Achievement (e.g. check marking by an independent member teaching staff of a sample of student work, periodic exchange and remarking of tests or a sample of assignments with staff at another institution) |
| 5. Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement.   |

Name of Course Instructor: \_Dr / Walaa ahmed Eisa

Signature: \_\_\_\_\_ Date Specification Completed: 1 / 6 / 1440

Program Coordinator: \_\_\_\_\_

Signature: \_\_\_\_\_

Date Received: \_\_\_\_\_