University of Maribor

Faculty of Electrical Engineering and Computer Science

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Implementing IT knowledge to a postgraduate health care and nurse studying program

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Introduction

- NICE curriculum
  - EU Thempus project
- Nursing informatics in NICE
  - Obtained Knowledge
  - Part time study
  - Three modules
  - Teaching materials
- IT lectures and Experiences
  - Databases
- Conclusion
- References and contact details

NICE Curriculum

- EU Thempus project
  - Develop and introduce new short cycle degree courses from nursing informatics at the university colleges.
  - Project partners from Slovenia, Austria, France, Greece and Italy.
- Nursing informatics definition for needs of NICE

Nursing informatics in NICE

- **Obtained knowledge**
  - Basics of computer technology,
  - Medical/Nursing informatics,
  - Computer-aided patient care,
  - Computer networks,
  - Information retrieval,
  - Computer-assisted learning tools,
  - E-learning.

Nursing informatics in NICE

- **Part time study**
  - 1,5 year or 3 semesters:
  - 2 teaching semesters (18 exams)
  - 1 semester to prepare the thesis
- **Three modules**
  - Nursing informatics,
  - Informatics in health care and
  - Search for information in computer networks
- **Theacing materials**
  - Books
  - PowerPoint presentations

IT Lectures

- Databases
  - Lecture structure
    - Lectures
    - Practice – developing databse
  - Student obtain basic knowledge about:
    - information system, processes, activities and importance of data and database
  - Student must develop a database from their domain

IT Lectures

- Database Lecture: The content
  - Introduction
  - Database Design
    - Conceptual
    - Logical
    - Physical
  - Relational database
  - Database in the future
  - Summary

IT Lectures

- **Database Lecture: The content**
  - Conceptual database design
    - Entity-Relationship model
      - Basic technique – it importance
      - Elements (Entity, Relation, Atribute)
      - Advices for development
      - Exampels
      - Literature
      - Others

Experiences

- **Assessment**
  - Systematic process about students achievements
    - Feedback to students
    - Educational decisions
    - Decisions about lecture, program, lecturer
- **Databases**
  - Formative assessment
    - Informal discussion with students
  - Summative assessment
    - Collecting data for longer period – valid data according to the number of matriculated student

Experiences

- Results
  - First: students are motivated to reject the lecture
    - “We are not abel to do this!”
  - Later: interest because of the known domain
    - “What can I do better?”
    - “What is important for nurses?”
  - Raising awareness
    - “We are/should be member of a development team”
  - Playing active role

Conclusion

- **Knowledge of IT is inportant**
  - Part of every day life all over
- **NICE curriculun is successful**
  - Since 2001 regular matriculation
  - Small groups
- **Experiences**
  - Students previous (working) experiences
  - Teachers experiences
  - Students (new) IT experiences
    - Formative assessment
    - Sumative assessment (up to four generations)

References and Contact details

- **References (selection)**
  - Kokol P. et all (1998): New Nursing Informatics Curriculum – an Outcome from the Nice Project, Proceedings of HTE 98, University of Athens, Athens, Greece.
  - Welzer T. Et all (2006): Teaching IT in the postgraduate health care and nursing program, Proceedings of 11th iSHIMR 2006, Dalhousie University, Halifax, Canada
  - Dark M.J. (2004): Assessing Students Performance Outcomes in an Information Security Risk Assessment, Service Learning Course, Proceedings of SIGITE'2004
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