

COURSE DESCRIPTION FORM

Academic Unit: Department of Informatics

Department: Choose

Laboratory/Reading-Room/Clinic: Choose

Course Title: Knowledge Management

Course Code: IM204

Type of the Course: Optional (Specialization)

Background / General Knowledge

Scientific Area

Skills Development (i.e. laboratory, new technologies)

Lectures Total Hours

Seminars 3

Laboratory Work

Fieldwork

Project (ie bibliographical case study)

Tutorial

Internship

Clinical Practice

Cycle / Level of the Course: 2nd / Postgraduate

Study Year: 1o

Study Semester: 2o

Credits (ECTS): 6

Course Leader: Nick Bassiliades

Teaching Staff: Nick Bassiliades

Teaching Assistants:

Course Objectives and Outcomes:

a. Describe course objectives / outcomes and competences (knowledge & skills): Knowledge: Familiarization with principles and practices of Knowledge Management, Familiarization with principles and technologies of Knowledge Management Systems, Training on Protégé Ontology Editor.

Skills: Analyzing Knowledge Management Projects, Designing Knowledge Management Systems, Developing ontologies with Protégé.

b. **Categorize course objectives** (select if applicable):

Cognitive Domain:

- Remembering
- Understanding
- Applying
- Analysing
- Evaluating
- Creating

Affective Domain:

- Reception
- Response
- Valuing
- Organization
- Characterization (internalizing values)

Psychomotor Domain (Skills):

- Imitation
- Manipulation
- Precision
- Articulation
- Naturalization

Prerequisites: Basic knowledge of Computer Science and Information Systems, Basic knowledge of management.

Course Content: Introductory concepts of Knowledge and Knowledge Management and their role in an organization. Architecture and Life Cycle of Knowledge Management Systems; Knowledge creation; Techniques for Knowledge capture; Knowledge representation and reasoning: Basic concepts, Frames, Deductive Rules, Production Rules, and Case-based reasoning. Testing and deployment of Knowledge Management Systems; Knowledge transfer and sharing; Knowledge Management Tools; Knowledge Portals.

Recommended Reading:

a. Recommended bibliography & material

- Elias M Awad, Hassan M. Ghaziri, "Knowledge Management", Prentice Hall, 2004.
- I. Vlahavas , P. Kefalas , N. Bassiliades , F. Kokkoras, I. Sakellariou. Artificial Intelligence - 3rd Edition, ISBN: 978-960-8396-64-7, University of Macedonia Press / Greece, 2006/2011.

b. Additional bibliography:

- I. Becerra-Fernandez, A. Gonzalez, R. Sabherwal, "Knowledge Management and KM Software Package", Prentice Hall, 2004.
- P. F. Drucker, L. Dorothy, S. Susan, J. S. Brown, D. A. Garvin, D. Leonard, "Harvard Business Review on Knowledge Management", Harvard Business School Press, 1998.
- A. Tiwana, "Knowledge Management Toolkit, The: Orchestrating IT, Strategy, and Knowledge Platforms", 2nd edition, Prentice Hall, 2003.
- B. Garvey, B. Williamson, "Beyond Knowledge Management: Dialogue, Creativity and the Corporate Curriculum", Financial Times - Prentice Hall, 2002.
- G. Schreiber, H. Akkermans, A. Anjewierden, R. de Hoog, N. Shadbolt, W. Van de Velde and B. Wielinga, "Knowledge Engineering and Management: The CommonKADS Methodology", MIT Press, 1999.

Teaching Methods:

- | | | | |
|--------------------------|-------------------------------------|-----------------------------------|-------------------------------------|
| | <input checked="" type="checkbox"/> | Attending lectures | Individual |
| | <input type="checkbox"/> | Practising laboratory skills | Choose |
| | <input checked="" type="checkbox"/> | Demonstration (i.e.for fieldwork) | Guided |
| | <input checked="" type="checkbox"/> | Writing papers | |
| Collaborative (Teamwork) | | | |
| | <input checked="" type="checkbox"/> | Study for a project | |
| Collaborative (Teamwork) | | | <input checked="" type="checkbox"/> |
| Reading books and papers | | Collaborative (Teamwork) | |
| | <input type="checkbox"/> | Critisizing/analyzing others'work | Choose |
| | <input type="checkbox"/> | Clinical Pracice | Choose |
| | <input type="checkbox"/> | | Choose |

Assessment:

a. Description of the procedure: Written exams (75%), Modelling knowledge domains and Bibliographic Projects (25%)
 (i.e. what is consider as important and its weighting. Are there explicitly defined criteria and what are they or where could be found).

b. Assessment methods:

- | | | | |
|-------------------------|-------------------------------------|------------------------|--------------------------|
| For grading (Summative) | <input checked="" type="checkbox"/> | Multiple Choice Test | |
| For grading (Summative) | <input checked="" type="checkbox"/> | Written Exams | |
| Formative Summative | <input checked="" type="checkbox"/> | Written Assignment | <input type="checkbox"/> |
| Report for a Laboratory | Choose | | |
| | <input type="checkbox"/> | Report for a Fieldwork | Choose |
| | <input type="checkbox"/> | Oral Exams | Choose |
| | <input checked="" type="checkbox"/> | Oral Presentation | |
| Formative Summative | <input type="checkbox"/> | Proodos | Choose |
| | <input type="checkbox"/> | Continuous Evaluation | Choose |

- Computer Assisted Assessment Choose
- Clinical Examination of Patient Choose
- Choose

Use of ICT in Course Teaching:
Management software

- Powerpoint slides, Demonstration of Knowledge

Digital Course Content:

- Blackboard Hyperlink:
- eClass Hyperlink:
- Sakai Hyperlink:
- Independent web site Hyperlink:
<http://lpis.csd.auth.gr/mtpx/km>

Language of Instruction:

- Greek
- English
- French
- German
- Italian
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General Competences

The course students, additional to basic general knowledge in the field of study, are educated to:

- Apply knowledge in practice.
- Retrieve, analyse and synthesise data and information, with the use of necessary technologies.
- Adapt to new situations.
- Make decisions.
- Work autonomously.
- Work in teams.
- Work in an international context.
- Work in an interdisciplinary team.

- Generate new research ideas.
- Design and manage projects.
- Appreciate diversity and multiculturality.
- Respect natural environment.
- Demonstrate social, professional and ethical commitment and sensitivity to gender issues.
- Be critical and self-critical.
- Advance free, creative and causative thinking.

National Qualifications Framework

Select the levels of learning outcomes that are fulfilled by this course, according to the classification of NQF.

Knowledge

- Level 8
- Level 7
- Level 6
- Level 5
- Level 4
- Level 3
- Level 2
- Level 1

Competence

- Level 8
- Level 7
- Level 6
- Level 5
- Level 4
- Level 3
- Level 2
- Level 1

Skills

- Level 8
- Level 7
- Level 6
- Level 5
- Level 4
- Level 3
- Level 2
- Level 1