COURSE PROFILE

| Course Name | Code | Semester | Term | Theory+PS+Lab (hour/week) | Local Credits | ECTS |
|---------------------------------|--------|----------|------|------------------------------|------------------|------|
| Business Process Engineering | MIS334 | Spring | 6 | 3 + 0 + 0 | 3 | 6 |

| Prerequisites | None |
|---------------|------|
|---------------|------|

| Course Language | English | | |
|-----------------------------|--|--|--|
| Course Type | Elective | | |
| Course Lecturer | Assoc. Prof. Dr. Vedat Coskun | | |
| Course Assistant | Büsra Özdenizci | | |
| Course Objectives | This course examines analysis, design and implementation issues of Business Process in managerial and modelling contexts. A managerial context provides students with knowledge on business transformation, process reengineering, organizational restructuring, business and IT alignment. Modelling context refers to methods, tools and techniques for business process engineering. Further emphasis will be on aligning business process management with enterprise architecture. Learning mechanism includes directed readings along with several case studies and hands-on modelling exercises. | | |
| Course Learning Outcomes | Upon successful completion of the course, students will: be able to use information technology (IT) for redesigning business processes and organizations be able to address problems and possible solutions in the planning and implementation of business process related change be able to evaluate a variety of approaches to using IT to improve organizations be able to use methods, tools and techniques for modelling business processes be able to evaluate business process modelling languages and standards be able to relate business process management with enterprise architecture, workflow management systems gain skills about redesigning business processes using case | | |

| | projects. |
|----------------|---|
| Course Content | Analysis, design, and implementation issues of Business Processes in managerial and modelling contexts. Business transformation, business and IT alignment. Methods, tools and techniques for BPE. Modelling languages and standards for BPE. Relating Enterprise information architecture to BP. |

| Week | Subjects | Related |
|------|---------------------------------------|---------|
| 1 | An Overview of BPE | |
| 2 | Innovation and Management Perspective | |
| 3 | Innovation and Management Perspective | |
| 4 | Analysis Perspective and Modeling | |
| 5 | Analysis Perspective and Modeling | |
| 6 | Analysis Perspective and Modeling | |
| 7 | Redesign Perspective and Modelling | |
| 8 | Redesign Perspective and Modelling | |
| 9 | Redesign Perspective and Modelling | |
| 10 | Migration and Evaluation Perspective | |
| 11 | Migration and Evaluation Perspective | |
| 12 | Emerging BPE applications | |
| 13 | Emerging BPE applications | |
| 14 | Project Presentation, Review | |

COURSE CONTENT

| Course Textbook | Business Information Systems – A process approach, Warboys et al.1999, McGrawHill | |
|---------------------------|---|--|
| Recommended References | Michael Hammer. Reengineering work: Don't automate, obliterate. Harvard Business Review, pages 104-112, July 1990. | |
| | G. Decker et al. (2008) Oryx – An Open Modeling Platform for the BPM Community, BPM 2008, LNCS 5240, pp. 382– 385, 2008 | |
| | Venkatraman, N. (1994), 'IT-Enabled Business Transformation: From Automation to Business Scope Redefinition', Sloan Management Review, Winter: 73-87. | |

| P. O. Luttighuis et al. (2001) Visualising business processes, Computer Language 27, 39-59. |
|--|
| E. Wiersta (2000) Systematic analysis of business processes, Journal of Knowledge and Process Management, 7(2) 87-96. |
| Thomas H. Davenport and Donna B. Stoddard (1994) Reengineering: Business Change of Mythic Proportions? MIS Quarterly, Vol. 18, No. 2 (Jun., 1994), pp. 121-127 |
| J. Racker et al. (2009) Business Process Modeling- A Comparative Analysis, Journal of AIS, Volume 10, Issue 4, pp. 333-363, April 2009 |
| P. Baloh et al. (2008) A Business Process Oriented Method of KM Solution Design: The Case of Samsung Electronics Anycall Gumi, AMCIS 2008, Toronto, Canada |
| M. Dimitrov et al (2007) A BPMO Based Semantic Business Process Modelling Environment, SBPM 2007. |

| Semester Requirements | Number | Percentage of Grade |
|--|--------|---------------------|
| Attendance/Participation | | |
| Laboratory | | |
| Application | | |
| Special Course Internship (Work Placement) | | |
| Quizzes/Studio Critics | | |
| Homework Assignments | | |
| Presentation | | |
| Project | 1 | 40 |
| Seminar/Workshop | | |
| Midterms/Oral Exams | 1 | 30 |
| Final/Resit Exam | 1 | 30 |
| Total | | 100 |

| PERCENTAGE OF SEMESTER WORK | 70 |
|-----------------------------|-----|
| PERCENTAGE OF FINAL WORK | 30 |
| Total | 100 |

| | Core Courses | |
|-----------------|-------------------------------------|---|
| | Major Area Courses | X |
| Course Category | Supportive Courses | |
| | Media and Management Skills Courses | |
| | Transferable Skill Courses | |

COURSE'S CONTRIBUTION TO PROGRAM

| # | Program Qualifications / Outcomes | * Level of Contribution | | | | |
|---|---|----------------------------|---|---|---|---|
| | | | 2 | 3 | 4 | 5 |
| 1 | A foundation in mathematics and basic sciences and ability to apply acquired knowledge as they relate to the study and practice of information technology | х | | | | |
| 2 | An ability to analyze a problem, identify and define the computing requirements appropriate to its solution, to understand, select and use appropriate technology, tools, standards, protocols, building blocks, and components to solve the problem | | | | | x |
| 3 | An ability to propose, analyze, design, develop, test and maintain an information technology system including software solutions, security model, computer and network infrastructure, information systems etc. to solve information technology problems | | | | | x |
| 4 | An ability to analyze local and global impact of computing on individuals, organizations and society; and the ability to apply information technology techniques, skills, and tools for regular computing practices as well as to improve effectiveness of current methodologies | | | | | x |
| 5 | An ability to effectively communicate in oral and written media with all kinds of related audiences; and prepare documentation for this purpose as required | | | | | x |
| 6 | An understanding of professional, ethical, legal, and social issues and responsibilities of information technology profession | | | | | х |
| 7 | A taste and breadth of knowledge across several social topics outside the immediate requirements of the information technology profession, and the ability to work within heterogeneous teams to accomplish a common goal including people from the information technology area as well as other disciplines | | | | | x |
| 8 | An ability to engage in life-long learning and professional development for personal improvement to follow contemporary information technology issues | x | | | | |

*1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

ECTS ALLOCATED BASED ON STUDENT WORKLOAD BY THE COURSE DESCRIPTION

| Activities | Number | Duration | Total Workload |
|---------------------------------|--------|----------------|----------------|
| Course Hours (Including Exams) | 14 | 3 | 42 |
| Tutorials | | | |
| Laboratory | | | |
| Application | | | |
| Special Course Internship (Work | | | |
| Field Work | | | |
| Study Hours Out of Class | 14 | 4 | 56 |
| Presentations / Seminar | | | |
| Project | | | |
| Preparatory reading | 14 | 4 | 56 |
| Homework Assignments | | | |
| Quizzes | | | |
| Midterm Exams | 1 | 2 | 2 |
| Final / Resit Exam | 1 | 2 | 2 |
| | | Total Workload | 158 |

| ISCED GENERAL AREA CODES | GENERAL AREAS | ISCED BASIC AREA CODES | BASIC EDUCATIONAL AREAS | |
|-----------------------------------|---|---------------------------------|--|----|
| 1 | Education | 14 | Teacher Training and Educational Sciences | 0 |
| 2 | Humanities and Art | 21 | Art | 0 |
| 2 | Humanities and Art | 22 | Humanities | 0 |
| 3 | Social Sciences, Management and Law | 31 | Social and Behavioural Sciences | 50 |
| 3 | Social Sciences, Management and Law | 32 | Journalism and Informatics | 0 |
| 3 | Social Sciences, Management and Law | 38 | Law | 0 |
| 4 | Science | 42 | Life Sciences | 0 |
| 4 | Science | 44 | Natural Sciences | 0 |
| 4 | Science | 46 | Mathematics and Statistics | 0 |
| 4 | Science | 48 | Computer | 50 |
| 5 | Engineering, Manufacturing and Civil | 52 | Engineering | 0 |
| 5 | Engineering, Manufacturing and Civil | 54 | Manufacturing and Processing | 0 |
| 5 | Engineering, Manufacturing and Civil | 58 | Architecture and Structure | 0 |
| 6 | Agriculture | 62 | Agriculture, Forestry, Livestock, Fishery | 0 |
| 6 | Agriculture | 64 | Veterinary | 0 |
| 7 | Medicine and Welfare | 72 | Medical | 0 |
| 7 | Medicine and Welfare | 76 | Social Services | 0 |
| 8 | Service | 81 | Personal Services | 0 |
| 8 | Service | 84 | Transport Services | 0 |
| 8 | Service | 85 | Environment Protection | 0 |
| 8 | Service | 86 | Security Services | 0 |