

**INFORMATION SYSTEMS in CONSTRUCTION PROJECTS
MANAGEMENT**

CRS 22388 – YAB 618E
2005-2006 SYLLABUS

Credit/Hours	: 3 (3,0)
Prerequisite	: None
C/E	: Elective
Day & Hours	: Wednesday, 14:00-17:00
Class	: BIM-4
Instructor	: Prof.Dr. Alaattin KANOGLU

1. THE AIM OF THE COURSE

The course aims the students:

- to learn about the use of contemporary tools and approaches for information handling in construction industry,
- to be able to analyze and evaluate the information requirements of any type of organization in construction industry,
- to learn basic terms, tools and processes in developing an information system to cooperate with IT professionals,
- to understand analyzing, designing, developing and implementing processes of an information system required by construction organizations.

2. CONTENT OF THE COURSE

The outline of the course is given below:

- Basic concepts, components of IS/IT; Development process of IS/IT by eras and their characteristics,
- Contemporary architectures for software development: Centralized, two-tiered and Web-based, three-tiered software architectures,
- The concept of System Modeling, Modeling languages for information systems: UML, EXPRESS, EXPRESS-G, IDEF0, etc.; Types of models: Product models, Process Models, Project Models – Reference models, Application models
- Efforts for the standardization of the information in Project and Construction Management area (ISO-STEP, AIA)
- Information requirements of construction professionals and current level of IS/IT support worldwide, Web-based information systems in construction project management
- Integrated Information Systems in construction industry, Reference and Application Models developed for construction industry: COMBINE, COMMIT, ICON, SPACE, OSCON, IRMA, etc.,
- Components of an Information System: Data Processing Systems DPS, Management Information Systems MIS, Office Automation Systems OAS, Expert Systems ES, Decision Support Systems DSS.
- Databases: Architectures of Database, Relational Database, Components of relational database.
- System Analysis and Model Development: Definition of the content of term projects, system analysis and model development.

3. REQUIREMENTS FOR FINAL EXAM

- minimum 80% attendance to class,
- submission of all assignments at a certain maturity level,
- submission of term project at a certain maturity level.

4. SUCCESS

CC or over is required for final grade that is the average of assignments and term project for success.

5. CALCULATION OF FINAL GRADE

- Assignment ----- 20%
- Term project----- 50%
- Final exam----- 30%