# Course Specifications

| | |
|---|---|
| **Course Title:** | **Project In Information Technology(1)** |
| **Course Code:** | **IT 410** |
| **Program:** | **Computer Science and Information Program** |
| **Department:** | **Department of Computer Science and Information** |
| **College:** | **College of Science at Azzulfi** |
| **Institution:** | **Majmaah University** |

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## A. Course Identification

| |
|---|
| **1. Credit hours: 3** |
| **2. Course type**<br>**a.** University ☐ College ☐ Department ☐ Others ☐<br>**b.** Required ☐ Elective ☐ |
| **3. Level/year at which this course is offered: 7TH Level** |
| **4. Pre-requisites for this course** (if any)**:**<br><br>IT 312 and at least 80 credit hours |
| **5. Co-requisites for this course** (if any)**:** |

**6. Mode of Instruction** (mark all that apply)

| No | Mode of Instruction | Contact Hours | Percentage |
|---|---|---|---|
| 1 | **Traditional classroom** | | |
| 2 | **Blended** | | |
| 3 | **E-learning** | | |
| 4 | **Correspondence** | | |
| 5 | **Other** | | |

**7. Actual Learning Hours** (based on academic semester)

| No | Activity | Learning Hours |
|---|---|---|
| **Contact Hours** | | |
| 1 | **Lecture** | |
| 2 | **Laboratory/Studio** | |
| 3 | **Tutorial** | |
| 4 | **Others** (specify) | |
| | **Total** | |
| **Other Learning Hours*** | | |
| 1 | **Study** | |
| 2 | **Assignments** | |
| 3 | **Library** | |
| 4 | **Projects/Research Essays/Theses** | |
| 5 | **Others** (specify) | |
| | **Total** | |

* The length of time that a learner takes to complete learning activities that lead to achievement of course learning outcomes, such as study time, homework assignments, projects, preparing presentations, library times

## B. Course Objectives and Learning Outcomes

**1. Course Description**

This course is a real-life like experience where students team up to solve a real-world systems related problem by applying their concepts and software engineering approaches.

**2. Course Main Objective**

This course is the first of a two-course sequence in which the students will develop a complete software system. Students will work in groups of up to four students, each group will have a supervisor to guide them through the system development process using a specific methodology.

In this first part, each group must identify a problem domain, define the problem, identify and specify the requirements, document the current system, analyze it, propose alternative systems, and design a solution. The design must include the definitions of all the required system models, such as the data model and the functional model. At the end of the course, each group must submit a formal report documenting the complete process.

**3. Course Learning Outcomes**

| CLOs | | Aligned PLOs |
|---|---|---|
| 1 | **Knowledge:** | |
| 1.1 | Knowledge of basic science to understand the principles of scientific analysis . | |
| **2** | **Skills :** | |
| 2.1 | Learn the skilled needed by a System Analyst to be affective, professional and a successful individual | |
| **3** | **Competence:** | |
| 3.1 | Ability to plan the research project and start its implementation | |

## C. Course Content

| No | List of Topics | Contact Hours |
|---|---|---|
| 1 | each group must identify a problem domain, define the problem, identify and specify the requirements, | 9 |
| 2 | document the current system, analyze it, propose alternative systems, and design a solution. | 9 |
| 3 | The design must include the definitions of all the required system models, such as the data model and the functional model. | 9 |
| 4 | At the end of the course, each group must submit a formal report documenting the complete process. | 9 |
| 5 | Showing initial outputs of the project | 3 |
| 6 | Final presentation of the project | 3 |
| 7 | Presentation to the projects committee for arbitration | 3 |
| **Total** | | |

## D. Teaching and Assessment

### 1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

| Code | Course Learning Outcomes | Teaching Strategies | Assessment Methods |
|---|---|---|---|
| **1.0** | **Knowledge** | | |
| 1.1 | Knowledge of basic science to understand the principles of scientific analysis . | Provide theoretical lectures on the concept of graduation project How to write a graduation project proposal. Course References | Degree for writing the graduation project proposal The attendance of introductory lectures for the project |
| **2.0** | **Skills** | | |
| 2.1 | Learn the skilled needed by a System Analyst to be affective, professional and a successful individual | Practical applications. Group discussions. Lectures and definition of the graduation project | Student attendance for course introductory lectures-- Provide periodic reports on what has been achieved during those periods. |
| **3.0** | **Competence** | | |
| 3.1 | Ability to plan the research project and start its implementation | Group discussions. Presentations. Make as a proposal for graduation projects. Visit the institutions and companies related to the project Graduation. | Communication skills through the presentation using computers and through advanced projects |

### 2. Assessment Tasks for Students

| # | Assessment task* | Week Due | Percentage of Total Assessment Score |
|---|---|---|---|
| **1** | Discussion of project's title and ideas | 2 | 5% |
| **2** | Discussion of literature review | 4 | 10% |
| **3** | Discussion the proposed methodology | 6 | 10% |
| **4** | Evaluating the prototype of the proposed system analysis and design | 10 | 10% |
| **5** | Presentations and progress reports | After each phase | 10% |
| **6** | Poster submission | 13 | 15% |
| **7** | Project final discussion | 14 | 40% |
| **8** | Total | --- | 100% |

***Assessment task** (i.e., written test, oral test, oral presentation, group project, essay, etc.)

## E. Student Academic Counseling and Support

**Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice :**

**1**. A total of 6 office hours per week in the lecturer schedule in order to facilitate the student.
**2**. Contacting students using e-mail , mobile, office telephone and website.

## F. Learning Resources and Facilities

### 1.Learning Resources

| | |
|---|---|
| **Required Textbooks** | |
| **Essential References Materials** | Systems Analysis and Design, Shelly and Rosenblatt, Delmar Learning, 2013 |
| **Electronic Materials** | Determines as the course is going on. |
| **Other Learning Materials** | Videos and presentations are available with the instructor |

### 2. Facilities Required

| Item | Resources |
|---|---|
| **Accommodation** (Classrooms, laboratories, demonstration rooms/labs, etc.) | Classrooms and, Library, as those are available at the college of science at Azzulfi |
| **Technology Resources** (AV, data show, Smart Board, software, etc.) | Smart Board |
| **Other Resources** (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list) | None |

## G. Course Quality Evaluation

| Evaluation Areas/Issues | Evaluators | Evaluation Methods |
|---|---|---|
| Effectiveness of Teaching | Students | • Analysis of students' results. Observation during class work.<br>• Students' evaluations.<br>• Colleagues' evaluations.<br>• Evaluation questionnaire filled by the students.<br>Interview a sample of students enrolled in the course to take their opinions |
| Evaluation of Teaching | Program leaders | • Self-assessment.<br>• External evaluation.<br>Periodic review of course (the |

| Evaluation Areas/Issues | Evaluators | Evaluation Methods |
|---|---|---|
| | | Commission of study plans) |

**Evaluation areas** (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)
**Evaluators** (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)
**Assessment Methods** (Direct, Indirect)

## H. Specification Approval Data

| | |
|---|---|
| **Council / Committee** | |
| **Reference No.** | |
| **Date** | |