# Course Specifications

| | |
|---|---|
| **Course Title:** | Graduation Project 1 |
| **Course Code:** | 571CIS-2 |
| **Program:** | Bachelor of Information Systems |
| **Department:** | Information Systems |
| **College:** | Computer Science and Information Systems |
| **Institution:** | Najran University |

## Table of Contents

**A. Course Identification ..... 3**

6. Mode of Instruction (mark all that apply) ..... 3

**B. Course Objectives and Learning Outcomes ..... 4**

1. Course Description ..... 4

2. Course Main Objective ..... 4

3. Course Learning Outcomes ..... 4

**C. Course Content ..... 4**

**D. Teaching and Assessment ..... 5**

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods ..... 5

2. Assessment Tasks for Students ..... 6

**E. Student Academic Counseling and Support ..... 6**

**F. Learning Resources and Facilities ..... 6**

1.Learning Resources ..... 6

2. Facilities Required ..... 7

**G. Course Quality Evaluation ..... 7**

**H. Specification Approval Data ..... 7**

## A. Course Identification

| |
|---|
| **1. Credit hours: 2(0,4,0)** |
| **2. Course type**<br>**a.** University [ ] College [ ] Department [√] Others [ ]<br>**b.** Required [√] Elective [ ] |
| **3. Level/year at which this course is offered: Level 9 / Year 5** |
| **4. Pre-requisites for this course** (if any)**: 452CIS-3** |
| **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** | 60 | 100% |
| 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** | 60 |
| 3 | **Tutorial** | |
| 4 | **Others** (specify) | |
| | **Total** | 60 |
| **Other Learning Hours*** | | |
| 1 | **Study** | 5 |
| 2 | **Assignments** | |
| 3 | **Library** | 5 |
| 4 | **Projects/Research Essays/Theses** | 10 |
| 5 | **Others** (specify) | |
| | **Total** | 20 |

## B. Course Objectives and Learning Outcomes

### 1. Course Description

Graduation project-1 will guide students to conduct a critical background study on their chosen topic. It will assist them on requirements gathering including analysis and synthesizes of gathered data and will aid students to perform feasibility study and functional and non-functional requirements to accumulate problems respective to their topic/environment. It will facilitate them to identify and apply appropriate methods/design to overcome those problems, identify the scope of their project in real world, will support students to critically evaluate proposed design using suitable methods and techniques. Student will develop communication skills through presentation and able to work individually as well as in a team. Students will be guided to maintain ethical issues, documentation formats, use of references and checking plagiarism. And finally students will produce a formal report describing their findings, contributions, and future development/implementation.

### 2. Course Main Objective

Student will demonstrate his ability to design computer system based on his learning during the previous levels and write proper report.

### 3. Course Learning Outcomes

| | CLOs | Aligned PLOs |
|---|---|---|
| 1 | **Knowledge:** | |
| 1.1 | Classify various information system related problems and project live cycle activities such as selecting, planning, analysis, design, implementation, testing, deployment, and maintenance | K1, K3, k3 |
| 2 | **Skills :** | |
| 2.1 | Conduct (Survey) an effective background study and be able to contrast and critique related work. | S4 |
| 2.2 | Generate functional and non-functional requirements. | S1 |
| 2.3 | Analyze the problem and develop an initial solution. | S3, S1 |
| 2.4 | Apply a multi-disciplinary approach to designing the project. | S2 |
| 3 | **Competence:** | |
| 3.1 | Demonstrate the ability to work independently and in a team. | C1,C3 |
| 3.2 | Demonstrate the ability to communicate effectively. | C1 |
| 3.3 | Prepare report for the project | C2 |

## C. Course Content ( Please Add general topics )

| No | List of Topics | Contact Hours |
|---|---|---|
| 1 | List of Topics | 1 |
| 2 | Class1: Review of graduation policy | 1 |
| 3 | Class 2: Project Proposal (Vision document/feature list) | 1 |
| 4 | Class 3: Basics of project management (Tasks, plan, scope) | 1 |
| 5 | Class 4: Presentation tools and techniques | 2 |
| | Class5: Requirements / Requirements Validation / Functional Specification Document | 2 |
| ... | Class 6: Use case Diagram, Use Case Description / Activity Diagram / Sequence Diagram | 2 |

| | | |
|---|---|---|
| | Class 7: Data Flow Diagram , System Architecture | 2 |
| | Class 8: Database/ ER Diagram | 1 |
| | Class 8: UML | 1 |
| | INTRODUCTION<br>Introduction; Problem Statement.; Purpose of this Document; Project Structure; Modules (users, database, ...); Scope; System Limitations; Objectives; | 6 |
| | BACKGROUND STUDY | 7 |
| | METHOD OF INVESTEGATION AND ANALYSIS<br>Functional and nonfunctional Requirements; Project Methodology | 10 |
| | SYSTEM DESIGN<br><br>Use case Diagram; Activity Diagram; Sequence Diagrams; Database Entity Relationship Diagram; Class Diagram; database Tables Structure | 20 |
| | CONCLUSION AND FUTURE WORK | 3 |
| **Total** | | 60 |

## 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** | | |
| **2.0** | **Skills** | | |
| 2.1 | Classify various information system related problems and project live cycle activities such as selecting, planning, analysis, design, implementation, testing, deployment, and maintenance | Class lectures , working with the team, reading about topic | Presentations, Reports |
| 2.2 | Conduct (Survey) an effective background study and be able to contrast and critique related work. | Class lectures , working with the team, reading about topic | Presentations, Reports |
| 2.3 | Generate functional and non-functional requirements. | Class lectures , working with the team, reading about topic | Presentations, Reports |
| 2.4 | Analyze the problem and develop an initial solution. | Class lectures , working with the team, reading about topic | Presentations, Reports |
| 2.5 | Apply a multi-disciplinary approach to designing the project. | Class lectures , working with the team, reading about topic | Presentations, Reports |
| **3.0** | **Competence** | | |
| 3.1 | Demonstrate the ability to work independently and in a team | Class lectures , working with the | Presentations, Reports |

| Code | Course Learning Outcomes | Teaching Strategies | Assessment Methods |
|---|---|---|---|
| | | team, reading about topic | |
| 3.2 | Demonstrate the ability to communicate effectively. | Class lectures , working with the team, reading about topic | Presentations, Reports |
| 3.3 | Prepare report for the project | Class lectures , working with the team, reading about topic, writing the report | Presentations, Reports |

**2. Assessment Tasks for Students**

| # | Assessment task* | Week Due | Percentage of Total Assessment Score |
|---|---|---|---|
| 1 | Presentation 1(By supervisor) | 9 | 12 |
| 2 | Presentation 2(By supervisor) | 12 | 12 |
| 3 | Final Presentation (By Examiners) | 14 | 25 |
| 4 | Final Report (By Examiners) | 14 | 25 |
| 5 | Task assignments (By supervisor) | all | 26 |
| 6 | 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 :**

Office hours or instructors. Also, every student has an academic advisor for counseling.

## F. Learning Resources and Facilities

**1.Learning Resources**

| | |
|---|---|
| **Required Textbooks** | Towards a process management life-cycle model for graduation projects in computer engineering Murat YilmazID1, Faris Serdar Tasel1, Ulas Gulec1, Ugur Sopaoglu2,3.<br>Available at University electronic library |
| **Essential References Materials** | To be determined by the instructor |
| **Electronic Materials** | To be determined by the instructor |
| **Other Learning Materials** | To be determined by the instructor |

### 2. Facilities Required

| Item | Resources |
|---|---|
| **Accommodation** (Classrooms, laboratories, demonstration rooms/labs, etc.) | Classroom, and the instructor may ask for laboratory if needed. |
| **Technology Resources** (AV, data show, Smart Board, software, etc.) | Data show, and the instructor may ask for software if needed. |
| **Other Resources** (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list) | Depends on the project requirements |

## G. Course Quality Evaluation

| Evaluation Areas/Issues | Evaluators | Evaluation Methods |
|---|---|---|
| Effectiveness of teaching and assessment | Students | Indirect |
| Extent of achievement of course learning outcomes | Students | Indirect |
| Extent of achievement of course learning outcomes | Instructor, Examiners | Direct |
| The topics covered | Course Coordinator | direct |

## H. Specification Approval Data

| | |
|---|---|
| **Council / Committee** | Department Council |
| **Reference No.** | Session No. 10 (441-38-43300) |
| **Date** | 17/02/2020 |