# Course Specifications

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|---|---|
| **Course Title:** | Graduation Project 2 |
| **Course Code:** | **572CIS-3** |
| **Program:** | **Bachelor of Information Systems** |
| **Department:** | **Information Systems** |
| **College:** | **Computer Science and Information Systems** |
| **Institution:** | **Najran University** |

## Table of Contents

## A. Course Identification

| | |
|---|---|
| **1. Credit hours:** | **3(0,6,0)** |
| **2. Course type** | |
| **a.** | University [ ] College [ ] Department [√] Others [ ] |
| **b.** | Required [√] Elective [ ] |
| **3. Level/year at which this course is offered:** | **Level 10 / Year 5** |
| **4. Pre-requisites for this course** (if any)**:** | **571CIS-2** |
| **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** | 90 | 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** | 90 |
| 3 | **Tutorial** | |
| 4 | **Others** (specify) | |
| | **Total** | 90 |
| **Other Learning Hours*** | | |
| 1 | **Study** | 10 |
| 2 | **Assignments** | |
| 3 | **Library** | 10 |
| 4 | **Projects/Research Essays/Theses** | 10 |
| 5 | **Others** (specify) | 0 |
| | **Total** | 30 |

* 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

Graduation project-2 will allow the students to use their acquired knowledge throughout the program to implement the design that proposed in graduation project-1. It will also assist students to perform testing, to apply appropriate error detection and corrections techniques and help students to evaluate their system/software. Students will be able to work individually as well as in a team. Students will be guided to maintain ethical issues, documentation formats, develop presentation and communication skills, use of references and checking plagiarism. Finally students will produce a runnable software/developed system in real time along with the final version of project report.

### 2. Course Main Objective

Student will demonstrate his ability to implement computer system designed in project 1 based on his learning during the previous levels and write proper report.

### 3. Course Learning Outcomes

| CLOs | | Aligned PLOs |
|---|---|---|
| 1 | **Knowledge:** | |
| 1.1 | Apply core knowledge areas of computer science and information systems to implement the project | K1 |
| 2 | **Skills :** | |
| 2.1 | Use modern tools and technologies to implement the project | S2 |
| 2.2 | Evaluate the system using testing concepts and techniques | S4 |
| 3 | **Competence:** | |
| 3.1 | Plan the development, testing and maintenance activities | C3 |
| 3.2 | Demonstrate the ability to work independently and in a team | C1 |
| 3.3 | Demonstrate the ability to communicate effectively | C2 |
| 3.4 | Produce a complete report of the project work. | C2 |
| 3.5 | Commit to professional, ethical, legal, security and social issues and responsibilities | C1 |

## C. Course Content

| No | List of Topics | Contact Hours |
|---|---|---|
| 1 | Review of Project 1 design; Review P2 sample work | 1 |
| 2 | Project 2 planning and schedule (break down work, phases, time table, etc..) | 2 |
| 3 | Programming language review, UI coding review | 5 |
| 4 | Coding (implementation) best practices (Database, middle tier, UI, etc..) | 5 |
| 5 | **INTRODUCTION**<br>Introduction; P2 planning, link to P1 design; documentation | 5 |
| | **IMPLEMENTATION**<br>Back end implementation; Testing; documentation | 20 |
| | **IMPLEMENTATION** | 15 |

| | | |
|---|---|---|
| | Front end implementation; Testing ; documentation | |
| | **IMPLEMENTATION**<br>Middle tier implementation; Testing ; documentation | 20 |
| | **CHAPTER TWO: Testing**<br>Function and system testing; documentation | 10 |
| | **CONCLUSION AND FUTURE WORK** | 2 |
| | **Prepare final report**<br>**(Including Graduation Project 1)** | 5 |
| **Total** | | 90 |

## D. Teaching and Assessment

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

| Code | Course Learning Outcomes | TeachingStrategies | AssessmentMethods |
|---|---|---|---|
| **1.0** | **Knowledge** | | |
| **2.0** | **Skills** | | |
| 2.1 | Apply core knowledge areas of computer science and information systems to implement the project | Class Lectures, working with the team, reading about topic | Presentations, Reports |
| 2.2 | Use modern tools and technologies to implement the project | Class Lectures, working with the team, reading about topic | Presentations, Reports |
| 2.3 | Evaluate the system using testing concepts and techniques | Class Lectures, working with the team, reading about topic | Presentations, Reports |
| **3.0** | **Competence** | | |
| 3.1 | Plan the development, testing and maintenance activities | Class Lectures, working with the team, reading about topic | Presentations, Reports |
| 3.2 | Demonstrate his/her ability to work independently and in a team | Class Lectures, working with the team, reading about topic | Presentations, Reports |
| 3.3 | Demonstrate his/her ability to communicate effectively | Class Lectures, working with the team, reading about topic | Presentations, Reports |
| 3.4 | Produce a complete report of the project work. | Reviews, Feedback | Final Report |
| 3.5 | Commit to professional, ethical, legal, security and social issues and responsibilities | Class Lectures, working with the team, reading about topic | 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 |

## E. Student Academic Counseling and Support

Office hours of 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**<br>(Classrooms, laboratories, demonstration rooms/labs, etc.) | Classroom, and the instructor may ask for laboratory if needed. |
| **Technology Resources**<br>(AV, data show, Smart Board, software, etc.) | Data show, and the instructor may ask for software if needed. |
| **Other Resources**<br>(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 |
| Focus group discussion with small groups of students. | Instructor | Direct |
| Extent of achievement of course learning outcomes | Instructor, Examiners | Direct |
| Extent of achievement of course learning outcomes | Students | Indirect |
| The topics covered | Instructor, Examiners | Direct |
| The free approach the of the course | Instructor, Examiners, Program leader, and department council | Direct |

## H. Specification Approval Data

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