



T404
2022

Course Specification



| | |
|---------------------|--|
| Course Title: | Final Year Project I |
| Course Code: | 191MMET |
| Program: | MMET |
| Department: | Mechanical Engineering Technology |
| College: | College of Applied Industrial Technology |
| Institution: | Jazan University |
| Version: | V2022 |
| Last Revision Date: | 1 st of January 2023 |



Table of Contents:

| Content | Page |
|---|------|
| A. General Information about the course | 3 |
| 1. Teaching mode 2. Contact Hours | 4 |
| B. Course Learning Outcomes, Teaching Strategies and Assessment Methods | 5 |
| C. Course Content | 5 |
| D. Student Assessment Activities | 6 |
| E. Learning Resources and Facilities | 7 |
| 1. References and Learning Resources | 7 |
| 2. Required Facilities and Equipment | 7 |
| F. Assessment of Course Quality | 7 |
| G. Specification Approval Data | 7 |

A. General information about the course:

Course Identification

1. Credit hours: 1 hours

2. Course type

a. University ☐ College ☐ Department ☒ Track ☐ Others ☐

b. Required ☒ Elective ☐

3. Level/year at which this course is offered: Sixth Level / Second Year

4. Course general Description

Final Year Project I (FYP-I) is a **capstone** compulsory final year course which students of CAIT must take at the end of their academic Program to complete the requirements of their Associate Diploma. The concept of FYP-I emphasizes practical work more than theoretical studies, it helps the students to understand the theory of operation of an application and disassemble it and identify the names and functions of its main components. FYP-I is an opportunity for final year technical students to demonstrate their capabilities in applying the knowledge acquired during their academic program. It enables the students to experience the main components of a real application.

FYP-I course is a 1-credit unit course and is taken by the students who are about to graduate (during the 3rd Semester). Students who undergo FYP-I course must have completed at least 20 credit units and passed Industrial Safety and Environment (111CBS), they spend the whole semester (~10 weeks) in the workshop to fulfill practically the proposal provided by their instructor/s. The practical work should be in their relevant field of specialization. At least one instructor should be assigned for every five students; here the instructor/s orients the students through their practical work in the workshop.

At the end of FYP-I, students are required to submit a final report and give a presentation about their experience and knowledge gained. The presentation is equivalent to oral exam and is held on front of a committee consisting of three evaluators.

5. Pre-requirements for this course (if any):

20 credit units

6. Co- requirements for this course (if any):

None

7. Course Main Objective(s)

The main purpose of the course is applying all basic principles of mechanical maintenance engineering technology while students disassemble a real product and identify the names and functions of its main components. Students learn to work in groups, select suitable engineering application, plan activities, and write about the project with presentation.

1. Teaching mode (mark all that apply)

| No | Mode of Instruction | Contact Hours | Percentage |
|----|--|---------------|------------|
| 1. | Traditional classroom | -- | -- |
| 2. | E-learning | -- | -- |
| 3. | Hybrid <ul style="list-style-type: none"> Traditional classroom E-learning | 24 | 100 |
| 4. | Distance learning | -- | -- |

2. Contact Hours (based on the academic semester)

| No | Activity | Contact Hours |
|----|-------------------|---------------|
| 1. | Lectures | |
| 2. | Laboratory/Studio | 24 |
| 3. | Field | -- |
| 4. | Tutorial | -- |
| 5. | Others (specify) | -- |
| | Total | 24 |

B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

| Code | Course Learning Outcomes | Code of CLOs aligned with program | Teaching Strategies | Assessment Methods |
|------|---|-----------------------------------|---------------------|---|
| 1.0 | Knowledge and understanding | | | |
| 1.1 | Recognize different engineering systems/components with definition and function | K1 (2) | Active learning | Report |
| 2.0 | Skills | | | |
| 2.1 | Interpret engineering systems and processes through performing standard tests to collect data | S1(2), S4(3) | Active learning | Hands-on activities in the workshop and lab |
| 2.2 | Apply common sense judgments to evaluate system performance | S2(3) | Active learning | Hands-on activities in the workshop and lab |
| 2.3 | Communicate effectively both orally, and editorially, within engineering community and society at large | S3(1) | Active learning | Comprehensive Report |
| 3.0 | Values, autonomy, and responsibility | | | |
| 3.1 | Capture essential information with execution in timeliness | V1(3), V2(2) | Active learning | Group Discussion |

C. Course Content

| No | List of Topics | Contact Hours |
|----|--|---------------|
| 1 | Literature review and free readings about topics to select suitable application | 4 |
| 2 | Discussing all the ideas with the supervisors, and writing the time line according to the application selected | 2 |



| | | |
|-------|---|----|
| 3 | Health and safety, and Tools and equipment | 2 |
| 4 | Disassembling/assembling/maintaining the selected applications with report writing step by step | 12 |
| 5 | Finalizing the report writing of the FYP and preparing Power Point Presentation | 2 |
| 6 | Revision through presentation trial | 2 |
| Total | | 24 |

D. Students Assessment Activities

| No | Assessment Activities * | Assessment timing (in week no) | Percentage of Total Assessment Score |
|----|---|--------------------------------|--------------------------------------|
| 1. | Weekly Report (average 3.5 marks each) | Week 2 till Week 10 | 20 |
| 2. | Hands on Activities in the Lab | Week 4 till Week 10 | 40 |
| 3. | Final Report | As scheduled | 25 |
| 4. | Final Presentation | As scheduled | 15 |

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.)

E. Learning Resources and Facilities

1. References and Learning Resources

| | |
|--------------------------|----------------|
| Essential References | • Not utilized |
| Supportive References | • Lab Policy |
| Electronic Materials | • Not utilized |
| Other Learning Materials | • Not utilized |

2. Required Facilities and equipment

| Items | Resources |
|--|--|
| facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.) | Labs and workshops equipped with necessary equipment for practical work with <ul style="list-style-type: none"> • Necessary tools • Internet, WIFI |
| Technology equipment (projector, smart board, software) | <ul style="list-style-type: none"> • Computer with data show. |
| Other equipment (depending on the nature of the specialty) | Not utilized |

F. Assessment of Course Quality

| Assessment Areas/Issues | Assessor | Assessment Methods |
|---|-------------------|--|
| Effectiveness of teaching | Students | CES (Indirect) |
| Effectiveness of students assessment | QAU/HoD | Direct |
| Quality of learning resources | Course Instructor | Indirect |
| The extent to which CLOs have been achieved | QAU/HoD | Random re-checking of evaluated answer sheets (Direct) |
| Other | | |

Assessor: (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods: (Direct, Indirect)

G. Specification Approval Data

| | |
|--------------------|--|
| COUNCIL /COMMITTEE | |
| REFERENCE NO. | |
| DATE | |