**Ministry of Higher Education and Scientific Research**

**Supervision and Scientific Evaluation Body**

**Quality Assurance and Academic Accreditation Office**

**Course Description Sample**

**Subject:Electrical Machines**

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| This course description provides a concise summary of the main features of the course and the learning outcomes expected of the student, demonstrating whether the student has made the most of the learning opportunities available. It must be linked to the programme description. |

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| 1. Educational Institution | Shatt Al Arab University |
| 2. Department / Center | Power Mechanics Techniques Engineering |
| 3. Course Title /Code | MIET 2103 |
| 4. Lecturer Name | **Assistant Lecturer Aya Abdul Hussein** |
| 5. Type of Teaching | Theory – Lab – Tutorial |
| 6. Academic Year /Term | 2024/2025 |
| 7. Total No. of Teaching Hours | 150 |
| 8. Date f Preparing this Course Description |  |

9. **Course Objectives**

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| • 1. This course aims to introduce students to engineering drawing tools and materials and their uses, while training them to perform manual exercises to draw lines, curves, and two- and three-dimensional shapes. This contributes to developing their skills to understand and apply the basics of engineering drawing, including reading, analyzing, and assembling geometric shapes through drawing, projection, and section techniques, in addition to learning how to draw mechanical engineering diagrams that clearly express design ideas. |
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| • 2. The student also learns the basic principles and theories of engineering drawing, and acquires skills to implement diagrams using specialized computer programs such as (AutoCAD). |
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10. **Course Output, Methodology and Evaluation**

1. Knowing the tools used in engineering drawing and how to use them correctly.

2. The student's ability to understand and apply the basics of engineering.

3. Reading, disassembling and assembling geometric shapes through drawing.

4. Developing the student's skill in using tools in drawing geometric shapes.

5. Developing the student's engineering imagination by deducing the projections and sections of each geometric object and realizing its dimensions.

6. Developing the student's skills using the AutoCAD drawing program.

7. Conducting auxiliary exercises to apply it correctly to increase his ability to absorb the material.

8. Communicating with the most important ideas presented in the article through the Internet.

9. Developing the student's skills using the AutoCAD drawing program.

10. Moving towards implementing an engineering design with all its requirements known in the field of work that reflect skills through designing engineering plans that meet the details and dimensions that can be implemented.

11. Applications on various engineering processes.

12. Auxiliary exercises provided by the student through their application and presentation

as a collaborative work to increase his ability to absorb the material

(A) **Cognitive Objectives**

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| . Identify and understand engineering drawing tools and materials: Students will learn about the different tools and materials used in engineering drawing.  2. Understand the principles of drawing lines, curves and shapes: Students will be able to understand how to create two-dimensional and three-dimensional geometric shapes using manual methods.  3. Know the basics of engineering drawing: Students will be able to understand the basic concepts related to reading, decomposing and assembling geometric shapes.  4. Understand drawing, projection and sectioning techniques: Students will learn how to visualize and represent geometric shapes through different artistic methods.  5. Familiarity with engineering mechanical drawings: Students will be able to develop an understanding of how to draw mechanical drawings that clearly express design ideas.  6. Understand the basic principles and theories of engineering drawing: Students will gain basic knowledge of the theories behind engineering drawing.  7. Knowledge of computer-aided design (CAD) tools: Students will learn how to use software such as AutoCAD to create engineering drawings. |

(B) **Skill Objectives Related to the Program**:

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| 1. Performing Manual Exercises: Students will develop the skill of using engineering drawing tools and performing manual exercises.  2. Drawing Lines, Curves, and 2D/3D Shapes: Students will enhance their ability to accurately draw lines, curves, and 2D/3D shapes.  3. Applying Drawing, Projection, and Sectioning Techniques: Students will practice applying various drawing techniques to disassemble and assemble engineering shapes.  4. Creating Mechanical Engineering Drawings: Students will be able to draw detailed mechanical drawings that convey design concepts.  5. Implementing Drawings Using Computer Software: Students will develop skills in using AutoCAD and other CAD tools to produce engineering drawings. |

**Methods of Teaching and Learning**

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| 1-Lecturers.  2-Class discussion.  3-Lab Experiments.  4-Researchs.  5-Homework. |

**Methods of Evaluation**

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| **Number calendar element degree**  1-Examinations.  2-Lab Experiments.  3-Quizz.  4-Oral Exam.  5-Researchs. |

(C) **Sentimental and Value Objectives**

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**Methods of Teaching and Learning**

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**Methods of Evaluation**

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D) **General and Qualitative Skills (other skills related to the ability of employment and personal development)**

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11. **Course Structure**

**(In the table of course weekly outline)**

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| **Week** | **No of Hours** | **Required Learning Output** | **Title of Subject** | **Teaching Method** | **Evaluation** |
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| 2 |  |  |  |  |  |
| 3 |  |  |  |  |  |
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12.**Infrastructure**

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| a. Textbooks | Electrical Technology B.L Theraja |
| b. References | [2] Beginning Auto CAD, by Bob McFarlane, Elseveir, 2007 |
| c. Recommended books and periodicals (journals, reports, etc.) | Engineering drawing Abdul Rasool Abdul Hussein Al-Khaffaf |
| d. Electronic references, internet websites, etc | https://www.youtube.com/watch?v=yhRDjplrl1U, https://www.youtube.com/watch?v=fQNwVo2hWU4 https://www.youtube.com/watch?v=K8fQsse68Sc |

13. **The Plan of Improving the Course**

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| 1. Rewrite the vocabulary. 2. Focus on 3D drawing. |