

## Course Description Form of Engineering Drawing

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| <b>1. Course Name:</b>  |  |
| Engineering Drawing   |  |
| <b>2. Course Code:</b>  |  |
| HOD-1109  |  |
| <b>3. Semester / Year:</b>  |  |
| first semester/ 2024-2025   |  |
| <b>4. Description Preparation Date:</b>   |  |
| 15/1/2025   |  |
| <b>5. Available Attendance Forms:</b>   |  |
| Attending   |  |
| <b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>  |  |
| 175 hours / 7 units   |  |
| <b>7. Course Administrator's Name (Mention All, If More Than One Name)</b>  |  |
| <b>Name: Dr. Mohammed Mezher Hasan</b><br>Email: <a href="mailto:mohammedmezher@uodivala.edu.iq">mohammedmezher@uodivala.edu.iq</a> |  |
| <b>8. Course Objectives</b>   |  |
| Course Objectives:<br>Graduating students who are able to:  | 1-getting to know the concept of engineering drawing<br>2-identification of the tools used in engineering drawing<br>3-the student should recognize the drawing scale<br>4-the student should be able to draw<br>5-the student should be able to imagine the drawing |
| <b>9. Teaching and Learning Strategies</b>  |  |
| Strategy  | - Giving lectures.<br>- Using the method of dialogue and discussion with students to convey Theoretical information to the student.<br>- In-person lectures for 15 weeks, including two monthly exams, daily exams, and scientific reports                           |

| <b>10. Course Structure</b> |                                     |  |                                  |                               |   |
|-----------------------------|-------------------------------------|--|----------------------------------|-------------------------------|---|
| <b>Theoretical part</b>     |                                     |  |                                  |                               |   |
| <b>Week</b>                 | <b>Hours</b>                        | <b>Required learning outcomes</b>  | <b>Unit or Subject Name</b>      | <b>Learning Method</b>        | <b>Evaluation Method</b>                            |
| 1                           | 2                                   | General definitions and basic concepts in engineering drawing - its importance - getting to know engineering drawing tools                   | Introduction engineering drawing | Lecture, discussion, reports, | Quick and monthly exams, class activity and reports |
| 2                           | 2                                   | Types of lines - their use - methods of signing dimensions   | Introduction engineering drawing | Lecture, discussion, reports, | Quick and monthly exams, class activity and reports |
| 3                           | 2                                   | Drawing tangent lines, arcs and curves.  | Drawing shapes                   | Lecture, discussion, reports, | Quick and monthly exams, class activity and reports |
| 4                           | 2                                   | Drawing ellipses   | Drawing ellipses                 | Lecture, discussion, reports, | Quick and monthly exams, class activity and reports |
| 5                           | 2                                   | The three projection levels (vertical - horizontal - lateral) - Projection of simple geometric shapes such as triangles, squares and circles | The three projection levels      | Lecture, discussion, reports, | Quick and monthly exams, class activity and reports |
| 6                           | <b>Semester 1<sup>st</sup> exam</b> |  |                                  |                               |   |
| 7                           | 2                                   | Dividing the board and choosing the appropriate scale  | Dividing the board               | Lecture, discussion, reports  | Daily, monthly and final exams and daily reports    |
| 8                           | 2                                   | Finding the three projections - How to write dimensions  | How to write dimensions          | Lecture, discussion, reports  | Daily, monthly and final exams and daily reports    |
| 9                           | 2                                   | Writing dimensions on the drawing - and common mistakes  | How to write dimensions          | Lecture, discussion, reports  | Daily, monthly and final exams and daily reports    |
| 10                          | 2                                   | Drawing the three projections of the cylinder  | Drawing the three projections    | Lecture, discussion, reports  | Daily, monthly and final exams and daily reports    |
| 11                          | 2                                   | How to draw solids - Angles of drawing solids  | Drawing solids                   | Lecture, discussion, reports, | Daily, monthly and final exams and daily reports    |
| 12                          | <b>Semester 2<sup>nd</sup> exam</b> |  |                                  |                               |   |
| 13                          | 2                                   | Drawing the cylinder in the solid shape  | Drawing solids                   | Lecture, discussion, reports, | Daily, monthly and final exams and daily reports    |
| 14                          | 2                                   | Derive the third projection - Drawing the solid an idea about the importance of sectors  | Derive the third projection      | Lecture, discussion, reports, | Daily, monthly and final exams and daily reports    |

| <b>Practical part</b> |                                     |  |                                  |                                      |  |
|-----------------------|-------------------------------------|--|----------------------------------|--------------------------------------|--|
| <b>Week</b>           | <b>Hours</b>                        | <b>Required learning outcomes</b>  | <b>Unit or Subject Name</b>      | <b>Learning Method</b>               | <b>Evaluation Method</b>                         |
| 1                     | 3                                   | General definitions and basic concepts in engineering drawing - its importance - getting to know engineering drawing tools                   | Introduction engineering drawing | Observation<br>Dialogue & discussion | Daily, monthly and final exams and daily reports |
| 2                     | 3                                   | Types of lines - their use - methods of signing dimensions   | Introduction engineering drawing | Observation<br>Dialogue & discussion | Daily, monthly and final exams and daily reports |
| 3                     | 3                                   | Drawing tangent lines, arcs and curves.  | Drawing shapes                   | Observation<br>Dialogue & discussion | Daily, monthly and final exams and daily reports |
| 4                     | 3                                   | Drawing ellipses   | Drawing ellipses                 | Observation<br>Dialogue & discussion | Daily, monthly and final exams and daily reports |
| 5                     | 3                                   | The three projection levels (vertical - horizontal - lateral) - Projection of simple geometric shapes such as triangles, squares and circles | The three projection levels      | Observation<br>Dialogue & discussion | Daily, monthly and final exams and daily reports |
| 6                     | <b>Semester 1<sup>st</sup> exam</b> |  |                                  |                                      |  |
| 7                     | 3                                   | Dividing the board and choosing the appropriate scale  | Dividing the board               | Observation<br>Dialogue & discussion | Daily, monthly and final exams and daily reports |
| 8                     | 3                                   | Finding the three projections - How to write dimensions  | How to write dimensions          | Observation<br>Dialogue & discussion | Daily, monthly and final exams and daily reports |
| 9                     | 3                                   | Writing dimensions on the drawing - and common mistakes  | How to write dimensions          | Observation<br>Dialogue & discussion | Daily, monthly and final exams and daily reports |
| 10                    | 3                                   | Drawing the three projections of the cylinder  | Drawing the three projections    | Observation<br>Dialogue & discussion | Daily, monthly and final exams and daily reports |
| 11                    | 3                                   | How to draw solids - Angles of drawing solids  | Drawing solids                   | Observation<br>Dialogue & discussion | Daily, monthly and final exams and daily reports |
| 12                    | <b>Semester 2<sup>nd</sup> exam</b> |  |                                  |                                      |  |
| 13                    | 3                                   | Drawing the cylinder in the solid shape  | Drawing solids                   | Observation<br>Dialogue & discussion | Daily, monthly and final exams and daily reports |

|    |   |   |                             |   |  |
|----|---|---|-----------------------------|---|--|
| 14 | 3 | Derive the third projection - Drawing the solid an idea about the importance of sectors | Derive the third projection | Observation<br>Dialogue &<br>discussion | Daily, monthly and final exams and daily reports |
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### 11. Course Evaluation

Assigning students to homework.  
Daily rapid exams  
- Monthly exams (two or more).  
- Evaluating students' classroom activity.  
- Evaluations on homework.

### 12. Learning and Teaching Sources

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| Required Textbooks (Curricular Books, If Any)                      | Engineering Drawing for the 1st year By R.B. Gupta Natic Sabri, 1995 engineering drawing for students of the Faculty of Agriculture, University of Mosul   |
| Main References (Sources)  | Engineering Drawing for the 1st year By R.B. Gupta Natic Sabri, 1995 engineering drawing for students of the Faculty of Agriculture, University of Mosul ‘ |
| Recommended Books and References (Scientific Journals, Reports...) |  |
| Electronic References, Websites                                    |  |