

Course Description Form of Surveying and Engineering Drawing

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| 1. Course Name: | |
| Surveying and Engineering Drawing | |
| 2. Course Code: | |
| SSD-1101 | |
| 3. Semester / Year: | |
| First semester/ 2024-2025 | |
| 4. Description Preparation Date: | |
| 15/1/2025 | |
| 5. Available Attendance Forms: | |
| Full time (theoretical lecture and practical lecture) weekly | |
| 6. Number of Credit Hours (Total) / Number of Units (Total) | |
| 5 hours (2 hours theoretical and 3 hours practical per week) for 14 weeks, number of units 3.5 units | |
| 7. Course Administrator's Name (Mention All, If More Than One Name) | |
| Name: Aidel Kadum Jassim Al-shamary Email: adelkadumalshamary@uodiyala.edu.iq | |
| 8. Course Objectives | |
| Course Objectives: Graduating students who are able to: | The student gets to know the tools used in engineering drawing. The student gets to know the scale of drawing. The student will be able to draw, able to imagine drawing, and the student to recognize the types of lines when drawing The student will be familiar with the tools used in surveying, measuring length, and drawing a linear map |
| 9. Teaching and Learning Strategies | |

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| Strategy | In-person lectures for 14 weeks, including two monthly exams, daily exams, and scientific reports |
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10. Course Structure

Theoretical part

| Week | Hours | Required learning outcomes | Unit or Subject | Learning Method | Evaluation Method |
|------|-------|-------------------------------------|-----------------------------------|---|--|
| 1 | 2 | Definition of Plan surveying | Surveying and Engineering Drawing | Lecture Dialogue & discussion Brainstorming | Daily, monthly and final exams and daily reports |
| 2 | 2 | and its importance | Surveying and Engineering Drawing | Lecture Dialogue & discussion Brainstorming | Daily, monthly and final exams and daily reports |
| 3 | 2 | Survey methods | Surveying and Engineering Drawing | Lecture Dialogue & discussion Brainstorming | Daily, monthly and final exams and daily reports |
| 4 | 2 | Types of space | Surveying and Engineering Drawing | Lecture Dialogue & discussion Brainstorming | Daily, monthly and final exams and daily reports |
| 5 | 2 | Measurement units | Surveying and Engineering Drawing | Lecture Dialogue & discussion Brainstorming | Daily, monthly and final exams and daily reports |
| 6 | 2 | The English system of grandmothers | Surveying and Engineering Drawing | Lecture Dialogue & discussion Brainstorming | Daily, monthly and final exams and daily reports |
| 7 | 2 | The metric system of units | Surveying and Engineering Drawing | Lecture Dialogue & discussion Brainstorming | Daily, monthly and final exams and daily reports |
| 8 | 2 | Revision | Surveying and Engineering Drawing | Lecture Dialogue & discussion Brainstorming | Daily, monthly and final exams and daily reports |
| 9 | 2 | Measuring distances on flat terrain | Surveying and Engineering Drawing | Lecture Dialogue & discussion Brainstorming | Daily, monthly and final exams and daily reports |
| 10 | 2 | Measuring distances on flat terrain | Surveying and | Lecture Dialogue & discussion Brainstorming | Daily, monthly and final exams and daily reports |

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| | | | Engineering Drawing | | |
| 11 | 2 | Measuring horizontal distances | Surveying and Engineering Drawing | Lecture Dialogue & discussion Brainstorming | Daily, monthly and final exams and daily reports |
| 12 | 2 | On accounts sloping terrain | Surveying and Engineering Drawing | Lecture Dialogue & discussion Brainstorming | Daily, monthly and final exams and daily reports |
| 13 | 2 | Columns to measure areas | Surveying and Engineering Drawing | Lecture Dialogue & discussion Brainstorming | Daily, monthly and final exams and daily reports |
| 14 | 2 | Obstacles and their types | Surveying and Engineering Drawing | Lecture Dialogue & discussion Brainstorming | Daily, monthly and final exams and daily reports |
| 15 | 2 | Areas and volumes | Surveying and Engineering Drawing | Lecture Dialogue & discussion Brainstorming | Daily, monthly and final exams and daily reports |

Practical part

| Week | Hours | Required learning outcomes | Unit or Subject Name | Learning Method | Evaluation Method |
|-------------|--------------|--|--|--|--|
| 1 | 3 | Measure distances in steps | Surveying and Engineering Drawing | Observation Dialogue & discussion | Daily, monthly and final exams and daily reports |
| 2 | 3 | Learn about engineering drawing tools | Surveying and Engineering Drawing | Observation Dialogue & discussion | Daily, monthly and final exams and daily reports |
| 3 | 3 | Measuring with tape and orienting with signs | Surveying and Engineering Drawing | Observation Dialogue & discussion | Daily, monthly and final exams and daily reports |
| 4 | 3 | Types of engineering drawing lines | Surveying and Engineering Drawing | Observation Dialogue & discussion | Daily, monthly and final exams and daily reports |
| 5 | 3 | Column drop experiment | Surveying and Engineering Drawing | Observation Dialogue & discussion | Daily, monthly and final exams and daily reports |
| 6 | 3 | Dimensions and how to sign them | Surveying and | Observation Dialogue & discussion | Daily, monthly and final exams and daily reports |

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| | | | Engineering Drawing | | |
| 7 | 3 | Column erection experience | Surveying and Engineering Drawing | Observation Dialogue & discussion | Daily, monthly and final exams and daily reports |
| 8 | 3 | Performing some simple engineering operations | Surveying and Engineering Drawing | Observation Dialogue & discussion | Daily, monthly and final exams and daily reports |
| 9 | 3 | Experiment with obstacle distances | Surveying and Engineering Drawing | Observation Dialogue & discussion | Daily, monthly and final exams and daily reports |
| 10 | 3 | Arcs, curves and tangents | Surveying and Engineering Drawing | Observation Dialogue & discussion | Daily, monthly and final exams and daily reports |
| 11 | 3 | Experience obstacles | Surveying and Engineering Drawing | Observation Dialogue & discussion | Daily, monthly and final exams and daily reports |
| 12 | 3 | Projection and explanation of the three projections | Surveying and Engineering Drawing | Observation Dialogue & discussion | Daily, monthly and final exams and daily reports |
| 13 | 3 | Leveling device experience | Surveying and Engineering Drawing | Observation Dialogue & discussion | Daily, monthly and final exams and daily reports |
| 14 | 3 | First Mid Exam | Surveying and Engineering Drawing | Observation Dialogue & discussion | Daily, monthly and final exams and daily reports |

11. Course Evaluation

Examination Monthly & daily exams with discussion questions inside the lecture.
The degree of participation in the questions related to the subject.

12. Learning and Teaching Sources

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| Required Textbooks (Curricular Books, If Any) | Iraqi academic scientific journals Flat area. Fawzi Al-Khalisi. College of Engineering - University of Baghdad. |
| Main References (Sources) | Engineering and cadastral surveying. Ziad Abdul Jabbar Al-Bakr |
| Recommended Books and References (Scientific Journals, Reports...) | Iraqi academic Journal |
| Electronic References, Websites | Soil Science Society of America Library Genesis |