

College of Micronesia – FSM
P.O. Box 159
Kolonia, Pohnpei

Course Outline Cover Page

Engineering Drawing II
 Course Title

ME 230
 Department and Number

Course Description: This course will provide the student with the knowledge and skills to interpret and produce engineering drawings relevant to the safe operation of vessels.

Prepared by: Brent Villiers

State: FSM-FMI

Credits	Hours per Week	No. Of Weeks	Total Hours	Semester
Lecture	3/6/12/24	16/8/4/2	48	3
Total Semester Credits:				3

Purpose of Course

Degree Requirement	_____XX_____
Degree Elective	_____
Advanced Certificate	_____
Certificate	_____
Remedial	_____
Other (Workshop)	_____

Prerequisite Course(s): ME 223 Engineering Drawing I

 Signature, Chairman, Curriculum Committee

 Date Approved by Committee

 Signature, President, COM-FSM

 Date Approved by the President

General Objective: To provide the learner with the knowledge and skills to interpret and produce engineering drawings relevant to the safe operation of vessels.

Learning Outcomes: On successful completion of this course the student will be able to:

1. Interpret engineering drawings and the relevant terminology.
2. Construct basic engineering drawings and interpret engineering drawings encountered on vessels.

STUDENTS SHOULD BE MADE AWARE OF OCCUPATIONAL HEALTH AND SAFETY ISSUES IN ALL SITUATIONS AND BE EXPECTED TO DEMONSTRATE SAFE WORKING PRACTICES AT ALL TIMES.

Outline of Content: This course contains:

1. Technical Literature
 - Terminology
 - Engineering drawing terms and symbols
 - Layouts of drawing paper
 - Border lines and title block
 - Material/parts list and revision table
2. Drawing
 - Drawing to scale and dimensioning
 - 3rd angle orthographic projections
 - Elevation and sectional views
 - Pictorial, isometric, and oblique sketches
 - Working drawings
 - Component drawings
 - Assembly drawings

Learning Outcomes: On completion of this course the learner will be able to:

Learning Outcome 1 **Interpret engineering drawings and the relevant terminology.**

Assessment criteria

- 1.1 Terms, symbols, sections, and surface finishes are explained.
- 1.2 The use of sheet frames, title blocks, material/parts lists, and revision tables are described.

Conditions and Method of assessment	<p>As specified in the Assessment Strategy listed at the end of this outline and by a combination of:</p> <ul style="list-style-type: none"> • Written assessment • Assignments • Oral assessment • Practical drawing assessment
Learning Outcome 2	Construct basic engineering drawings and interpret engineering drawings encountered on vessels.
Assessment criteria	<p>2.1 Scaled and dimensioned engineering drawings to standards are constructed.</p> <p>2.2 Basic elevation and sectional views of engineering components in 3rd angle are drawn.</p> <p>2.3 Pictorial, isometric, or oblique drawings from 3 (sufficient) views are constructed.</p> <p>2.4 Assembly and component drawings are correctly read and interpreted.</p> <p>2.5 From component drawings, basic engineering assembly drawings are constructed.</p>
Conditions and Method of assessment	<p>As specified in the Assessment Strategy listed at the end of this outline and by a combination of:</p> <ul style="list-style-type: none"> • Written assessment • Assignments • Oral assessment • Practical drawing assessment
<u>Delivery strategy</u>	<p>The course provides for delivery by on-the-job and off-the-job training and assessment.</p> <p>Some areas of content may be common to more than one learning outcome, and therefore integration of training and assessment may be appropriate.</p> <p>Methods of instruction includes:</p> <ol style="list-style-type: none"> 1. Classroom lectures with handouts, course notes, overhead transparencies (or equivalent), slide presentations, video material, and whiteboard notes; 2. Calculation via examples and tutorials; and 3. Practical demonstrations 4. Practical drawing tutorials

Resource requirements

Delivery of the training will require:

- Classroom
- Whiteboard
- Overhead projector (or equivalent)
- Video player
- Drawing board and instruments

Assessment Strategy

Assessment Method

Knowledge based criteria will be satisfied through a combination of calculations, written and oral assessments. Skill based criteria will be satisfied through practical exercises.

Condition of Assessment

This course may be assessed on and off the job. Competence may be assessed in the following situations: classroom; laboratories; and appropriate vessels.

Evaluation:

Final Grade for this course will be based on meeting the course requirements at the following percentage rates:

96% - 100%	A – Superior
90% - 95%	B – Above Average
80% - 89%	C – Average
69% - 79%	D – Below Average
0 % - 69%	F – Failure

Attendance:

The COM-FSM attendance policy will apply.