

# **Course Specifications**

Course Title:	Field Training
Course Code:	490EE-0
Program:	Electrical Engineering
Department:	Electrical Engineering Department
College:	College of Engineering
Institution:	Najran University







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# A. Course Identification

1. Credit hours: 0		
2. Course type		
<b>a.</b> University College Department $$ Others		
<b>b.</b> Required $$ Elective		
<b>3. Level/year at which this course is offered:</b> 16 <sup>th</sup> Level/ 5 <sup>th</sup> Year		
4. Pre-requisites for this course (if any):		
After completion of 12 <sup>th</sup> Level (90 credit hours)		
5. Co-requisites for this course (if any):		
None		

#### **6. Mode of Instruction** (mark all that apply)

No	Mode of Instruction	<b>Contact Hours</b>	Percentage
1	Traditional classroom		NA
2	Blended		
3	E-learning		
4	Distance learning		
5	Other		

#### 7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	-
2	Laboratory/Studio	240
3	Tutorial	-
4	Others (specify)	-
	Total	240

# **B.** Course Objectives and Learning Outcomes

# 1. Course Description

This field training is intended to provide students with an opportunity to use the knowledge and skills learned in the program in an actual work setting. Also, it is intended to be both practical and educational and should include teamwork activities.

## 2. Course Main Objective

The course allows students to integrate knowledge and skills gained during their study in the program and apply it in the field. In addition, students will be exposed to actual work environment and real time problems where they should apply critical thinking techniques to identify problems, discover possible solutions, as well as consult with supervisors. Describe the major student activities taking place during the field experience.

## **3.** Course Learning Outcomes

	CLOs	
1	Knowledge and Understanding:	
2	Skills:	
2.1	Apply design concepts and skills learned from previous courses in the fieldwork to solve problems related to Electrical Engineering.	2
2.2	Analyze and interpret the machine drawings and its operations.	6
2.3		
3	Values:	
3.1	Deliver and present the work field reports effectively through written and oral communication.	3
3.2	Communicate effectively within the working environment in a teamwork.	5
3.3	Follow safety regulations and professional responsibility in the fieldwork and office work to make proper judgements.	4

# **C. Course Content**

No	List of Topics	Contact Hours	
	The listed topics are generally covered in the field but the		
	exact course or program a student will be assigned is based		
	on the requirements of the training organization.		
1	Electrical Power Systems	24	
2	Electrical Installations and Maintenance	24	
3	Electrical Drawings and Control Circuits	24	
4	Transformer Operational Principles, Selection and	24	
4	Troubleshooting		
5	Transmission and Distribution Operation	24	
6	Start-up, Commissioning and Testing of Electrical Systems	24	
7	Power System Blackouts and Preventive Measures	24	
8	High Voltage Switching Safety, Operations and Maintenance	24	
9	Electrical Protection	24	
10	Electrical Equipment and Control Systems	24	
	Total 240		

# **D.** Teaching and Assessment

# **1.** Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	<b>Teaching Strategies</b>	Assessment Methods
1.0	Knowledge and Understanding:		
1.1			
2.0	Skills:		
2.1	Apply design concepts and skills learned from previous courses in the fieldwork to solve problems related to Electrical Engineering.	• Independent learning	• Evaluation of field training reports

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
2.2	Analyze and interpret the machine drawings and its operations.	Cooperative learning	• Oral examination
3.0	Values:		
3.1	Deliver and present the work field reports effectively through written and oral communication.		
3.2	Communicate effectively within the working environment in a teamwork.	<ul> <li>Independent learning</li> <li>Cooperative</li> </ul>	Oral examination
3.3	Follow safety regulations and professional responsibility in the fieldwork and office work to make proper judgements.	Cooperative learning	

#### 2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Final training report	8 <sup>th</sup> week	20%
2	Defense of training	8 <sup>th</sup> week	20%
3	Supervisor of training	Weekly	20%
4	Training Evolution (Form No. 4)	8 <sup>th</sup> week	20%
5	Logbook	Weekly	20%

\*Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

#### E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice:

- The field trainee students can meet their academic supervisor during the official working hours to submit the weekly report and to explain the work carried out in the company and difficulties if any.
- Trainees can also communicate with academic supervisor outside the official working hours by email.
- The academic supervisor should visit the trainee students in the field training at least one time per period of training.

# **F. Learning Resources and Facilities**

Indear ming Resources	
Required Textbooks	NA
Essential References/ Materials	Depends on the instructions from the company's supervisors based on the related task in the company.
Electronic Materials	NA

#### **1.Learning Resources**

Other Learning Materials	NA
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#### 2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	NA
<b>Technology Resources</b> (AV, data show, Smart Board, software, etc.)	NA
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	NA

# **G.** Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Effectiveness of training and assessment	<ul> <li>Students</li> <li>company's supervisors</li> </ul>	<ul> <li>A questionnaire is administered upon completing the course.</li> <li>Open discussion for the students during the semester to recognize their weak points in the course</li> </ul>
Extent of students' achievement of course learning outcomes	Academic supervisor	CLOSO program
Improvement of field training	<ul> <li>Students</li> <li>company's supervisors</li> </ul>	<ul> <li>Learning from students' feedback</li> <li>Learning from company's supervisors' feedback</li> </ul>
Quality of learning resources	Students	Questionnaire is administered by the end of every semester
Verifying standards of student achievement	<ul> <li>Program leader</li> <li>Academic supervisor</li> </ul>	Check student's marks by the program leader of a sample of student work.

**Evaluation areas** (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)

**Evaluators** (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify) Assessment Methods (Direct, Indirect)

#### **H.** Specification Approval Data

Council / Committee	Electrical Engineering Department Council	
Reference No.	14431106-0026-00007	
Date	07/11/1443H - 06/06/2022G	