



## Course Specifications

<b>Course Title:</b>	Field Training
<b>Course Code:</b>	CE 491
<b>Program:</b>	B.Sc. in Civil Engineering
<b>Department:</b>	Civil Engineering
<b>College:</b>	Jubail University College
<b>Institution:</b>	Jubail University College

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## A. Course Identification

<b>1. Credit hours:</b> 6
<b>2. Course type</b>
a. University <input type="checkbox"/> College <input checked="" type="checkbox"/> Department <input type="checkbox"/> Others <input type="checkbox"/>
b. Required <input checked="" type="checkbox"/> Elective <input type="checkbox"/>
<b>3. Level/year at which this course is offered:</b> Level 8, Fourth Year
<b>4. Pre-requisites for this course (if any):</b> Senior Standing
<b>5. Co-requisites for this course (if any):</b> None

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

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom		N/A
2	Blended		
3	E-learning		
4	Correspondence		
5	Other		

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

No	Activity	Contact Hours
<b>Contact Hours</b>		
1	Lecture	
2	Laboratory/Studio	600
3	Tutorial	
4	Others (specify)	
	<b>Total</b>	<b>600</b>

## B. Course Objectives and Learning Outcomes

<p><b>1. Course Description</b>  <b>CE 491 Field Training (0-40-6)</b> <span style="float: right;"><b>Pre-requisite: Senior Standing</b></span>            A continuous period of full semester is spent in a selected work place relating to the field of study. This field internship is intended to provide students with an opportunity to use the knowledge and skills learned in college in an actual work setting. It is intended to be both practical and educational and should include teamwork activities. A final report will be required at the conclusion of the internship.</p>
<p><b>2. Course Main Objective</b></p> <p>The course allows students to integrate all knowledge and skills acquired during their study and apply it in the field. Students will be exposed to actual work environment and real time problems where they should implement the critical thinking techniques to diagnose problems, identify possible solutions, consult with supervisors, implement solutions and assess the outcome of implemented practices.</p>

### 3. Course Learning Outcomes

CLOs		Aligned PLOs
1	<b>Knowledge and Understanding</b>	
2	<b>Skills</b>	
2.1	Explain Civil engineering concepts and skills to solve problems related to Civil Engineering.	1
2.2	Discuss effectively the ideas and work results	3
2.3	Show the reports professionally and present it to demonstrate the professional development.	3
2.4	Use software for preparing reports and presentations	7
3	<b>Values</b>	
3.1	Follow safety regulations, ethical and professional responsibility in the fieldwork and office work to make proper judgements.	4
3.2	Express the personal skills to gain practical experience from co-workers.	5
3.3	Share the Leadership quality and responsibilities to gain from the Field training experience.	5

### C. Course Content

No	List of Topics(Training Topics)	Contact Hours
1	<b>Group I: Structural Engineering</b> Structural analysis, Reinforced concrete design, Steel design	
2	<b>Group II: Construction material</b> Properties of cement, concrete and steel, Concrete production, Usage of other construction materials	
3	<b>Group III: Transportation Engineering</b> Transport planning, Design of highways/ railways/airways etc., Construction of road, Traffic planning and signals	
4	<b>Group IV: Geotechnical Engineering</b> Soil sampling, testing and Site investigation, Foundation design, Soil stabilization/geotextiles, Earth structures, Retaining structures, Land reclamation	
5	<b>Group V: Water resources Engineering</b> Distribution of water; design of piping system, pumps and pumping systems Reservoir planning; measurement of hydrologic parameters, estimation of runoff , Watershed management	
6	<b>Group VI: Environmental Engineering</b> Water treatment, Wastewater treatment, Pollution control, Desalination, Industrial waste management	
7	<b>Group VII: Land Surveying</b> Construction layout, Preparation of map, Use of latest tools and techniques in land surveying (remote sensing, GPS etc.)	
8	<b>Group VIII: Construction Technology and Management</b> Construction contract procurement, Quantity estimation, Construction Cost control, Planning and scheduling of construction projects, Quality control, Fabrication and erection structural frames, Health and safety at construction.	
<b>Total</b>		

## D. Teaching and Assessment

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

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	<b>Knowledge and Understanding</b>		
2.0	<b>Skills</b>		
2.1	Explain Civil engineering concepts and skills to solve problems related to Civil Engineering.	<ul style="list-style-type: none"> <li>• Co-operative learning</li> <li>• Independent learning</li> </ul>	Evaluation of field training reports Oral examination
2.2	Discuss effectively the ideas and work results		Oral examination
2.3	Show the reports professionally and present it to demonstrate the professional development.		Oral examination
2.4	Use software for preparing reports and presentations		Evaluation of field training reports Oral examination
3.0	<b>Values</b>		
3.1	Follow safety regulations, ethical and professional responsibility in the fieldwork and office work to make proper judgements.	<ul style="list-style-type: none"> <li>• Co-operative learning</li> <li>• Independent learning</li> </ul>	Oral examination
3.2	Express the personal skills to gain practical experience from co-workers.		Oral examination

### 2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Company evaluation based on 15 weeks training - 40 hours/week	15 <sup>th</sup>	50 %
2	Submission of weekly reports, final report and oral presentation	16 <sup>h</sup>	50 %

\*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 :**

- Office hours 0.5 hr/week; Field trainee students can go in times of office hours for the teacher (academic supervisor) to submit the weekly report and also to explain the work carrying out in the company, difficulties if any etc.
- Trainees can communicate with academic supervisor outside the official working hours by email.

## F. Learning Resources and Facilities

### 1. Learning Resources

<b>Required Textbooks</b>	N/A
<b>Essential References Materials</b>	Based on the directions from the company supervisors which is related to type of project in the company.
<b>Electronic Materials</b>	N/A
<b>Other Learning Materials</b>	N/A

### 2. Facilities Required

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

## G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Effectiveness of teaching and assessment as per QMS-Policy-006 Feedback Survey, QMS-QAP-116 Monitoring Students' Satisfaction	Students	Indirect: Analyzing the results of the following surveys Course Evaluation Survey (CES), Program Evaluation Survey (PES), Student Experience Survey (SES)
Quality of Exam papers and Verifying Standards of Student Achievement as per QMS-Policy-004 Policy for Examinations and Marking, QMS-ACP-102 Procedure for Marking Examinations	Examination Committee	Direct: Peer review of examination papers and review or double check a minimum of three or 10% of answer papers. Verifying the entries in the Activity Mark Sheet.
Achievement of learning outcomes as per QMS-Policy-001 Course Review, QMS-CDP-106, QMS-CDP-112	Faculty	Direct: Course Report (Section B-3)

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Curriculum Review		
Implementation of the action plans based on previous semester as per QMS-Policy-001 Course Review, QMS-CDP-106 Procedure for Course Review, QMS-CDP-112 Procedure for Curriculum Review	Faculty	Direct and Indirect: Course report (Section G-1, G-2)
Monitoring Teaching and Learning as per QMS-Policy-005 Monitoring of Teaching and Learning	Chairperson/Program Director/Course Director	Indirect: Feedback by Chairperson/Program director/Course director. Program Delivery Record.
Effectiveness of planned Teaching Strategies QMS-Policy-001 Course Review	Faculty	Indirect: Course Report (Section B-4)
Course effectiveness and planning for improvement as per QMS-Policy-001 Course Review, QMS-CDP-106 Procedure for Course Review, QMS- CDP-112 Procedure for Curriculum Review	Faculty	Direct and Indirect: Course report (Section G-3)
Verifying Standards of Student Achievement and Quality of Exam papers as per QMS-ACP-119 External Assessment Review	Assessment External Reviewer	Direct: Report of assessment external reviewer. Review of sample of ten or 10% of student's assessments and coursework scripts.

**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

<b>Council / Committee</b>	Civil Engineering Department Council
<b>Reference No.</b>	REG MIN-CED-10
<b>Date</b>	27-04-2020

### Appendix A Revision Details

Revision no.	DESCRIPTION	Reference MoMs			
		DC		CDC	
		Sem	#	Sem	#
1	Revision of Course Teaching Strategies and action verbs based on the comments of NCAAA reviewer	392	4	392	4
2	Course Specification Template 2018	402			