CE 592

CONSTRUCTION INDUSTRY INSTITUTE BEST PRACTICES COURSE

FALL 2024

INSTRUCTOR: Dr. Edward J. Jaselskis, P.E., Ph.D.
Professor, Department of Civil, Construction & Environmental Engineering
3229 Fitts_Woolard Hall
Phone: (919) 515-1158
Email: ejjasels@ncsu.edu

MEETINGS: Fridays 1:00 – 4:00 pm

PRESENTER SLIDES: After receiving the final presentation for each class, CII will post the PDF of the slides in the learning portal (under Resources) the morning of each class.

CLASS RECORDINGS: CII will strive to have each 4-hr recording uploaded into the learning portal within 24 hours after class (available from Dashboard).

LOCATION: 2213 EB3 (Centennial Campus)

CII Lecture ZOOM Room: https://utexas.zoom.us/j/94102226053

Class Recordings: **First Lecture and Last Lecture:** https://ncsu.hosted.panopto.com/Panopto/Pages/Sessions/List.aspx?folderID=d6ccde76-c367-46f6-b692-aee801485c83

CII lectures: https://utengr.mediasite.com/Mediasite/Channel/-cii-best-practices

OFFICE HOURS: Friday from 11:30-12:30 PM (set up appointment)

TEACHING ASSISTANT: None

WEB PAGE: This class will have a web-site managed by CII and NC STATE College of Engineering Distance Education.
NC State: Moodle (CE 592 CII Best Practices Course)
CII: https://ciibpc.learnupon.com

COURSE CATALOG DESCRIPTION: Current issues in the construction industry, including best practices developed at the Construction Industry Institute (CII) and critical issues facing the construction industry. Guest lecturers may include CII staff and visiting industry leaders.

PREREQUISITE: Graduate student standing required unless otherwise agreed upon by instructor.

COURSE OBJECTIVES: This course discusses current issues in the design and construction industry and introduces the best practices defined and developed by CII over the last thirty plus years. To address these subjects, the course covers a substantial amount of material. No textbooks will be used. Preparatory readings will be available via a web link. Students are expected to have read this material ahead of the class. Post-class readings and on-line quizzes will be arranged via CII's website.

By taking this class you will be able to:
  (1) Understand the critical issues in the construction industry
  (2) Gain the knowledge of CII Best Practices
  (3) Apply the CII Best Practices to improve project performance

Class Schedule (3 hours per lecture except for Lecture 1 which will be ~one hour)

Class	Topic	Date	Instructor(s)	Readings	Assessments	HWs
1	Course Overview	Friday, Aug. 23, 2024	Ed Jaselskis, NCSTATE	**Required:** SP166-4	None	
2	Front End Planning	Friday, Sept. 6, 2024	Sandra MacGillivray, Valency	**Required:** RS113-1 RS213-1 SP268-3 **Optional:** IR113-2 IR213-3		**Homework:** HW #1
3	Zero Accident Techniques	Friday, September 13, 2024	Zero Accident Techniques, Tricia Thibodeaux, Fluor	**Required:** RS160-1 RS301-1 RS317-1 RS321-1 **Optional:** RS32-1 RS216-1 RS284-1 RS293-1	**Required:** OLE32-A OLE32-B **Optional:** OLE101 OLE284 OLE293	**Homework:** HW #2
4	Alignment, Partnering, and Team Building	Friday, Sept. 20, 2024	Dave Bullard, Oracle	**Required:** RS310-1 RS102-1 RS37-1 **Optional:** IR113-3	**Required:** OLE113 OLE102-A **Optional:** OLE102-B OLE102-C	**Homework:** HW #3

			IR102-2 IR105-2	OLE102-D	
5	Risk Assessment and Disputes Prevention & Resolution	Friday, Sept. 27, 2024	Steve Cabano, Pathfinder	**Required:** SP181-3 RS210-1 RS280-1 RS23-1 **Optional:** IR181-2 IR210-2 IR210-3 IR23-2	**Required**: OLE181	**Homework:** HW #4
6	Constructability	Friday, October 4, 2024	Michael Martinez, Bechtel	**Required:** RS34-2 **Optional:** SP34-1	**Required**: OLE34-A OLE34-B **Optional:** OLE34-C OLE34-D	**Homework:** HW #5
7	Advanced Work Packaging	Friday, October 11, 2024	Tannis Liiniuk, Trillium	**Required:** RS272-1 RS 319-1 **Optional:** IR272-2 IR319-2	**Required**: Online Quiz#1	**Homework:** HW #6
8	Planning for Startup	Friday, October 18, 2024	Matt Sikstrom, OPG; Review Term Project	**Required:** RS121-1 RS312-1 **Optional:** IR121-2 IR312-2	**Required**: OLE121-A OLE121-B	**Homework:** HW #7
9	Planning for Modularization	Friday, October 25, 2024	Mike Kluck, KBR	**Required:** RS283-1 **Optional:** IR283-2	**Required**: OLE283	**Homework:** HW #8
10	Material Management	Friday, Nov. 1, 2024	Bill Esposito, Hargrove	**Required:** RS257-1 **Optional:** IR257-2 IR 257-3	**Required**: Online Quiz# 2	**Homework:** HW #9
11	Change Management	Friday, Nov. 8, 2024	Carmel Glumac, Kiewit	**Required:** RS43-2 RS158-1 **Optional:** SP43-1	**Required**: OLE43	**Homework:** HW #10
12	Quality Mgt and Benchmarking & Metrics; Course Wrap-up	Friday, Nov. 15, 2024	Tammy Lynam, Burns & McDonnell Katy Johansson, ret. ExxonMobil	**Required**: RS254-1 RS308-1 RS320-1 PAC2016-4 PAC2018-2 **Optional:** IR254-2 IR308-2 IR320-2	**Required:** Online Quiz #3	**Homework:** HW #11

| 13 | Implementation of CII Research and Lessons Learned/Course wrap-up | Friday, Nov. 22, 2024 | Mike Pappas, Los Alamos National Laboratory | **Required:** RS246-1 RS246-1a RS246-1b RS230-1 **Optional:** IR246-2 IR166-3 IR246-3 IR230-2 | **Required**: OLE230 | Homework: HW #12; Term Project Due |
| 14 | Final Exam | Finals week: December 5-11, 2024 | | | | Final Exam |

Note: *The class schedule may be subject to change due to the availability or schedule change of industry presenters.*

GRADING:

Graded components will be weighted as follows in the computation of the final course grade:

Quizzes (Online Education Modules)	20%
Homework	20%
Term Project	35%
Final Exam	25%
Total	100%

A+ (97-100)	A (93-96.99)	A- (90-92.99)
B+ (87-89.99)	B (83-86.99)	B- (80-82.99)
C+ (77-79.99)	C (73-76.99)	C- (70-72.99)
D+ (67-69.99)	D (63-66.99)	D- (60-62.99)
F (less than 60)		

READINGS

Readings will be available through the CII Online Best Practices Course Portal: **CII:** https://ciibpc.learnupon.com. A required and optional reading folder has been created for each topic. The required reading is necessary for answering the Homework and Quiz ("OLE"--"Online Educational Module" or "Online Quiz"—see Quiz section below) questions. Optional reading is for you to obtain additional knowledge in each subject area.

ASSIGNMENTS

Homework

In order to guide you through the required reading, homework assignments will be due at the beginning of each class. Each homework assignment will consist of short answer questions from the required reading. There are 12 homework assignments throughout the semester and each must be submitted according to the dates shown in the Class Schedule. Homework assignments can be found through Moodle—login through wolfware.ncsu.edu

Term Project
For this assignment, you will work individually or in a team to develop an implementation plan for one or more CII Best Practices. Term project assignment can be found through Moodle—login through wolfware.ncsu.edu

QUIZZES

In addition to the weekly homeworks, there will be also be quizzes that are to be taken after the lecture. Quizzes are noted as either OLE (Online Learning Education module) or "Online Quiz". *Note that you will given two attempts at taking the quiz with the higher score being recorded. The Quizzes can be taken through the CII Online Education Portal at: https://ciibpc.learnupon.com.*

FINAL EXAM
In order to demonstrate mastery of the course material, there will be a cumulative Final Exam given by the instructor during finals week (see Class Schedule). More details on this exam will be forthcoming.

POLICIES AND PROCEDURES

Professionalism
Each student is expected to conduct themselves in a professional manner. This includes, but is not limited to, arriving to class on time and staying for the full duration; being respectful of the instructor and other students; participating in group activities and discussions; refraining from the use of laptop computers, cell phones, and text messages. Furthermore, oral and written communication with the instructor and other students is expected to be at a professional level.

Late Assignments
Unless agreed upon with the instructor prior to the assignment due date, late assignments will not be accepted and will result in a zero for the assignment. If it is necessary to submit a late assignment, please discuss the situation with the instructor as soon as possible; the instructor will evaluate each situation on a case-by-case basis.

Re-Grading of Assignments
If the student feels that a portion of an assignment has been unfairly graded by the instructor, the student may re-submit the assignment to be re-evaluated by the instructor within one week after it was originally returned to the student. However, the instructor reserves the right to re-grade the entire assignment and not just the portion that is in question by the student. Thus, it is possible for the student to receive a revised final grade on the assignment that is lower than the grade that was received originally.

Academic Integrity

It is the instructor's expectation that each student will neither give nor receive unauthorized aid on any assignment. Students may discuss the homework assignments if they wish but each student is expected to submit their own assignment. ***Proper citation must be given for other people's ideas and work***; ***plagiarism will not be tolerated and will result in a zero for the assignment***. Additional information regarding academic integrity may be found in the NC State University Code of Student Conduct.

Students with Disabilities

Reasonable accommodations will be made for students with verifiable disabilities. In order to take advantage of available accommodations, students must register with Disability Resource Office at 2751 Cates Avenue, Holmes Hall, Suite 304, 515-7653. For more information on NC State's policy on working with students with disabilities, please see the NC State University Academic Accommodations for Students with Disabilities Regulation (REG02.20.1).

CII Website

Your assigned CII online course materials (pre-reading materials, presentations, and quizzes) are available throught the *CII Best Practices Course Online Education Portal* at: https://ciibpc.learnupon.com. This website will be available through the end of the course when the portal will be closed.

Dedicated Zoom link for CII Portion of Class (September 2-November 18 from noon-4pm EST):

https://utexas.zoom.us/j/97891070586

***Pre-recorded lectures*:**

https://utengr.mediasite.com/Mediasite/Channel/-cii-best-practices

If you need assistance , you may email CII at Online.Education@cii.utexas.edu