

Fall 2018

CE 702-101: Quality Control in Construction

Alan Slaughter

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JOHN A. REIF, JR. DEPARTMENT OF
**CIVIL AND ENVIRONMENTAL
ENGINEERING**



CE 702- Quality Control in Construction

Fall 2018

Special Topics

Section: 101

Professor Alan Slaughter, P.E., P.P.

Course Administration and E mail: moodle2.njit.edu

Text: “Quality Management in Construction Projects”

Author: Abdul Razzak Rumane; CRC Press

ISBN: 978-1-4398-3871-6

Prerequisite: CE 610, Construction Management

Course Description: In today’s construction market, effective quality control programs are necessary to help provide the required quality of construction at the best price. The purpose of this course is to educate students in the various methods of construction quality control.

From the inclusion and approval process of quality control measures in design to the materials and methods in construction, quality control measures are a very important part of the approval and construction process. Quality Control measures are used in both design-build and design-bid-build projects.

Various types of quality control measures will be discussed including Total Quality Management, Sigma Six, and the Federal Transportation Administration’s Quality Assurance and Quality Control Guidelines among others.

Course Description

Week/Date	Topic	Chapter
1/Sept. 4	Introduction to QA/QC, History	1: Page 1 - 45
2/Sept. 11	TQM, QCS, FTA, Sigma Six	1: Page 46 - 96
3/Sept. 18	IQM & Const. Projects	2, 3: Page 97 - 148

4/Sept. 25	Quality in Construction	4: Page 149 - 197
5/ Oct. 2	Quality Elements of the FTA Program	
6/ Oct. 9	Preparing a Quality Control Plan	Appendix C
7/ Oct. 16	Quality in Detail Design and Construction	4: Page 198 - 246
8/ Oct. 23	<i>Midterm</i>	9/ Oct.
30	Documents and Document Control	4: Page 247 to 325
10/ Nov. 6	Testing and Commissioning	4: Page 326 to 338
11/ Nov. 13	Operations	5
12/Nov. 20	Quality Control & Quality Assurance Processes	
Nov. 21 – 25	Thanksgiving Holiday	
13/ Nov. 27	Assessment of Quality	6, 7
14/ Dec. 4	Case Studies; Term Project Due	
Dec. 11	<i>Final</i>	

Homework

Homework will be assigned as directed on Moodle.

All **homework** is due the week following the week it is assigned. Late homework may be subject to a reduction of points.

Grading

Attendance & Homework	15%
Midterm Exam	25%
Project	30%
Final Exam	<u>30%</u>
	100%

Term Projects

A list of suggested topics will be provided. Students must select a project either from a list provided or some other source. On Week 4 or before, students will submit a one paragraph topic description on Moodle.

The project report will be **10** pages, including text, photos, drawings and the like. The report will be prepared in an organized and professional manner. (*Neatness counts*)

Important Notes:

1. The NJIT Honor Code will be upheld in this course. Any violations will be brought to the immediate attention of the Dean of Students.
2. Any modifications or deviations to the syllabus throughout the semester will be made through consultation and agreement with the class.