Fall 2019

CET 415-001: Construction Project Management

John A. Wiggins

Department of Engineering Technology
Construction Engineering Technology Program
Course Policy – Fall 2019

Title and Course Numbers:

CET 415 Section 001 – Construction Project Management
CET 415 Section 101 – Construction Project Management

Course Location and Hours:

Section 001 will meet on Tuesdays and Fridays, 2:30 P.M. – 3:55 P.M., in Faculty Memorial Hall, Room 203.
Section 101 will meet on Tuesdays and Fridays, 2:30 P.M. – 3:55 P.M., in Faculty Memorial Hall, Room 106.

Course Description:

An introduction to construction management and administration methods and procedures including the design and construction process, project organizational structure, construction planning, contract administration, records and reports, financial management, risk analysis, manual and computerized GANTT and CPM scheduling, change orders and extra work, claims and disputes, cost accounting and document tracking.

Prerequisites/Co-Requisites:

Restriction: Senior standing in construction engineering technology or construction management technology.

Textbooks and Course Materials:

The text for the course is Project Management for Construction, by David L. Goetsch, 2015, Pearson Publishing, ISBN 0-13-280324-0.

Course Materials will be available on Moodle or by email. The student will also need to have access to the software necessary for the course (Microsoft Excel, Project, Word and PowerPoint all of which are available free of charge from the NJIT homepage).

Instructor

The instructor for this course is John A. Wiggins, P.E., J.D., F.ASCE. Professor Wiggins holds a BSCE degree (1973) from Newark College of Engineering, an MSCE degree (1981) from the New Jersey Institute of Technology and a Juris Doctor degree (1980) from the Seton Hall School of Law and is a full time member of the teaching staff at NJIT. In addition to his teaching duties, Prof. Wiggins is a practicing civil engineer. He holds Professional Engineer and

Professional Planner licenses from the State of New Jersey and a Professional Engineer's license from the Commonwealth of Pennsylvania as well as being admitted to the New Jersey State Bar. He is also a PhD candidate (ABD) in Civil Engineering at Rutgers University, New Brunswick, NJ where his principal area of study is Construction Engineering .

Office Hours

The Instructor is available in his office, GITC 2107, for consultation at the times posted on the department webpage for office hours and by appointment only. Appointments can be made on line by visiting the Instructor's advising webpage http://engineeringtech.njit.edu/academics/cet.php. Walk-ins are discouraged and will only be seen ***if time permits*** and ***after*** all those students with appointments are seen.

Concepts and Skills (Course learning Objectives)

Upon completion of the course, each student will be able to:

1. Utilize design, construction and operations documents to administer a construction contract.
2. Apply sound management and technical principles in the operation of a construction project.
3. Perform economic analyses and cost estimates related to the design, construction and maintenance of systems in the construction industry; specifically the use of estimating and scheduling software.
4. Select appropriate construction materials and practices in the management of a construction contract.
5. Apply principles of construction law and ethics in administering a construction contract.
6. Apply basic technical concepts to the solutions of construction problems involving construction scheduling and management using MS project and excel.

Attendance Policy and Student Conduct

The class will be conducted in a professional atmosphere in an effort to acquaint the students with the atmosphere of a professional environment. Therefore, laptops are not permitted in class without prior approval of the instructor as is cell phone text messaging. Similarly, food is not permitted in class. A light beverage (i.e. coffee, a bottle of water, etc.) is permitted as would be in any business meeting. Hats should not be worn during class.

It is the student's responsibility to attend class. If a class is missed, the student is responsible for all material and announcements provided during his absence. Assignments are posted on the course outline. Lecture attendance is not required but is encouraged but a portion of the student's grade will be based on group tasks and in class assignments, for which there is no "make up". Attendance will be taken at each class session via a sign-in sheet which will be circulated during the first 15 minutes of class. After that, any other students will be marked as not being in attendance and will not be permitted to add their name to the attendance list. 1`

During the conduct of the class, professional courtesy is expected. This includes arriving on time as well as leaving during class. Similarly, "private" conversations with fellow students during a class are discourteous and inconsiderate to both your Instructor as well as your fellow students. You are encouraged to ask any questions that you feel further clarifies the material being presented or that will be to the benefit of class in general. Please feel free to ask any question at any time.

Grading Criteria

A Mid-Term and a Final examination shall be administered throughout the course. The Mid-Term shall cover only the material designated by the Instructor. The Final Examination shall be a comprehensive examination of all material

covered during this course. It is mandatory that the Mid-Term and Final Examinations be taken to successfully complete course. It is strongly encouraged that all students make every effort to attend the examinations as make-up tests are strongly discouraged. In the event that a student fails to take the Mid-Term or the Final examination, a grade of "F" shall be entered for the student for this course. Unless otherwise announced by the Instructor, all test and examinations will be of the "closed notes-closed book" variety.

Homework assignments will be offered to assist and reinforce the student's understanding of the material presented. All homework will be posted and received in Moodle. As Moodle contains a time restraint, no homework will be received late, no exceptions. After the due date, homework may be covered in class upon request.

A project, or series of projects, will be assigned during the course. The format and grading rubric for those materials will be distributed in separate documents.

There will be a weekly quiz offered at the first session of the week, generally on Tuesday, excluding the first week. The quizzes will be given at 10 minutes into the class session and have a duration of 15 minutes. Each quiz will be of the "closed noted/closed book" type, be based on the assigned reading for the week and consist of 10 short answer questions. The final grade for quizzes will be based on the best 10 quiz results and there will not be a make up for any quiz offered.

Class Effort, which will consist of 5% of your grade, will be a function of both attendance and class demeanor and participation. This will include participation in lectures and class exercises. Negative behaviors, such as texting or falling asleep in class, will be detrimental to your grade in this aspect of the course.

In determining the final grade for this course, all grades shall be weighted as follows:

Final Examination	35 %
Midterm	30 %
Homework	10 %
Quizzes	10 %
Project(s)	10 %
Class Effort	5 %
Total	100 %

Grading Scale

Letter grades will be assigned based on the following scale

A	100 - 90
B	89 – 80
C	79 – 70
D	69 – 60
F	59 - 0

The grade of Incomplete will only be granted in the case of an extreme emergency on the part of the student, demonstrated by appropriate documentation. Your Instructor reserves the right to vary the above as necessary based on the results of the course.

Professional Communications
All communications between the student and Instructor (i.e., homework, reports, papers, emails, etc.) are professional communications and should be treated as such. Use of slang and computer short-hand are improper and should be avoided. Also, proper grammar and spelling should be employed at all times.

Class Topics
Topics for this course include:

PART 1 - Project Related activities
- Project Parties and participants Project Scope
- Project Estimating, Finance and Budgeting
- Project Scheduling
- Project Risk
- Project Monitoring and Closeout

PART 2 – Project Project Management Activities
- Leading [project teams
- Building Project Team, managing conflict and motivating
- Communication
- Managing Time
- Managing Change
- Managing Diversity and Adversity in Project Teams

Course Reference Materials

Project Management Body of Knowledge, ANSI, ISBN 9781933890517.

Construction Project Management Body of Knowledge, American Project Management Institute, 2012, ISBN 9781475028294.

Construction Extension for the PMBOK, Project Management Institute, ISB 97819306

Quality in the Constructed Project, American Society of Civil Engineers, 2012, ISBN: 9780784411896

Method of Construction Project Risk Assessment, D. Skorupka, Lambert Academic Publishing, 2012, ISBN 978365917422399526

Appraisal Risk and Uncertainty, N. Smith, Thomas Telford Publishing, 2003, ISBN 07277=31858

Cost Accounting for Dummies, K. Boyd, J. Wiley & Sons, 2013, ISBN 9781118453803