

# BCN 5470 Construction Methods Improvement

**Class:** Wednesday Periods 7-9 (1:55pm - 4:55pm)

**Instructor:** Dr. Aaron Costin, **email:** aaron.costin@ufl.edu, **Office Hours:** TBA

**Description:** Methods of analyzing and evaluating construction techniques to improve project time and cost control. Work sampling, productivity ratings, crew balance studies, time lapse photography, and time management.

**Objectives:** To introduce and examine the factors that impact construction productivity, including the use of management tools to develop construction productivity performing construction loss calculations and strategies for developing productivity improvement programs for the construction environment. Throughout the course, emphasis will be placed on techniques and methods that can manage and increase the efficiency of cost and schedule parameters. Innovative and technological research methods and improvements will be explored.

**Recommended textbook:** "Productivity Improvement for Construction and Engineering Implementing Programs That Save Money and Time", J. Yates, ASCE, 2014, ISBN: 9780784413463

**Optional textbook:** "Construction Productivity: Measurement and Improvement", J. Adrian, Stipes Publishing, L.L.C., 2004, ISBN: 1-58874-357-8

## Course Modules:

- Module 1: Introduction to Construction Methods Improvement
- Module 2: Productivity Improvement Programs
- Module 3: Elements of the Construction Industry
- Module 4: Human Component of Productivity Improvement
- Module 5: Engineering and Project Management Productivity and Conflict Resolution
- Module 6: Team Building
- Module 7: Preparing to Conduct Productivity Improvement Studies
- Module 8: Productivity Improvement Data Analysis Techniques
- Module 9: Technology and Computer Applications for Productivity Improvement
- Module 10: Global Productivity Issues and Sustainability

## Grading System:

Participation	= 5%
Assignments	= 30%
Quizzes	= 20%
Project	= 15%
Exams	= 30%
<b>Total</b>	<b>= 100%</b>

**A** = 93-100; **A-** = 90-92.9; **B+** = 87-89.9; **B** = 83-86.9; **B-** = 80-82.9; **C+** = 77-79.9; **C** = 73-76.9; **C-** = 70-72.9; **D+** = 67-69.9; **D** = 63-66.9; **D-** = 60-62.9; **E**<60.

**Attendance and Make-ups:** Attendance to this course is mandatory and will be graded as part of participation. Requirements for class attendance, make-up exams, assignments, and other work in this course are consistent with university policies that can be found at <<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>>. Late assignments may not be accepted at the discretion of the instructor.

**Class Demeanor:** Students are expected to log in to class 5 minutes prior to the start time. Students must behave in a manner that is respectful to the instructor and to fellow students. Please mute yourself all times, unless asking a question, to avoid unnecessary interruptions. Opinions held by other students should be respected in discussion, and conversations that do not contribute to the discussion should be held at minimum, if at all. Rude and disrespectful behavior will not be tolerated, and the instructor holds the right to kick out someone from the virtual meeting if deemed acting inappropriate. Conduct that is deemed to be in violation with University rules and regulations or the Code of Student Conduct will result in a report to the Director of Student Conduct and Conflict Resolution for a conduct code infraction.

**Accommodations:** Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, [www.dso.ufl.edu/drc/](http://www.dso.ufl.edu/drc/)) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

**Online Course Evaluations:** “Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.”

**Honor Code:** All students in this course are subject to the requirements of the University of Florida’s Honor Code <<https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>>. Cheating will not be tolerated. Although joint work on assignments may be acceptable in some cases, duplication of an assignment either manually or electronically will be dealt with as an act of academic dishonesty. “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.”

**Reservations and Remedies:** The instructor reserves the right to modify the course schedule and modules as deemed fit. If any questions, issues, or concerns about the course (assessment, policies, schedule, etc.), please contact the instructor to remedy any issue.