

# **BCN 5470 Construction Methods Improvement Fall 2016, Section 9502**

**Time:** Tuesday Periods 6-7 (12:50 PM - 2:45 PM)  
Thursday Period 10 (5:10 PM - 6:00 PM)

**Location:** RNK 0225

**Instructor:** Dr. Aaron Costin, RNK 344, Tel: 352-273-2121, email TBD

**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.

**Textbook:** None required.

**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

Module 2: Productivity Improvement Plans

Module 3: Elements of the Construction Industry

Module 4: Human Component of Productivity Improvement

Module 5: Preparing to conduct productivity improvement data analysis techniques

Module 6: Productivity Improvement Data Analysis Techniques

Module 7: Evaluating Productivity Improvement Alternatives: Case Studies

Module 8: Engineering and Project Management Productivity

Module 9: Computer applications in Productivity Improvement

Module 10: Computer Simulation Models

Module 11: Global Productivity Issues

Module 12: Sustainability

**Grading System:**

Participation = 5%

Homework = 15%

Midterm = 20%

Project = 40 %

Final Exam = 20%

**Total = 100%**

**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 not mandatory, although it is highly recommended for 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 arrive to class on time and behave in a manner that is respectful to the instructor and to fellow students. Please avoid the use of cell phones and restrict eating to outside of the classroom. 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.

**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 feedback on the quality of instruction in this course by completing online evaluations at <<https://evaluations.ufl.edu>>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open.

**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.