

M.E. Rinker, Sr.
School of Construction Management
University of Florida
Semester Course Outline

BCN 3027C: Introduction to Construction Management (3 Credits)
Fall 2015

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| Honor Code: | Students are expected to comply with the spirit and intent of the University of Florida Honor Code, which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.” Students are required to bring a photo ID to all tests to be presented to the proctor upon completion of the exam. |
| Instructor: | Bryan Franz, Ph.D., bfranz@ufl.edu |
| Office Location: | 309 Rinker Hall |
| Class Meetings: | M, W Period 2-3 (8:30 AM - 10:25 AM)* RNK 140 <i>*Times/days may change due to guest lecture requests</i> |
| Prerequisites: | Acceptance in UF BCN program. |
| Course Learning Objectives (CLO): | <ul style="list-style-type: none">• Recognize the nature of the building process, risk, project life cycle, the construction industry and its professional organizations• Describe the roles of the professional constructor, owner, developer, architects, engineer, construction manager, general contractor, subcontractor, and suppliers• Demonstrate the administration of a commercial construction project including the basic jobs and roles on a construction site.• Recognize the skills and awareness necessary to maximize the effectiveness of their internship• Prepare the students with an understanding and awareness of construction ethical issues• Compose and present on topics related to construction industry and professionalism.• Recognize the importance of conflict resolution and negotiations. |
| Description: | This course gives students an overview of construction industry, project delivery methods, project participants and their roles, industry organizations and contract documentations. The course also requires students to make presentations in class with the objective to enhance public speaking and presentation skills. The course will also have several guest speakers from industry to give students a good understanding of current status of industry and how to prepare for a career in construction. |

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- Method: Two, two-hour lecture and discussion periods per week with corresponding reading assignments from the text. Text assignments should be done before the class in which they are discussed. Students are responsible for the content of all reading materials whether or not the material is covered in class. We will also discuss current issues, and articles may be posted to the class website for review. Presentations and case studies will be key components of the course deliverables and outcomes. Should public speaking be a concern, please contact the instructor as early as possible.
- Text Required: *Construction Project Management: A Complete Introduction* / Alison Dykstra AIA, CSI Copyright 2011. ISBN -13: 978-0-9827034-9-6, Kirshner Publishing Company.
- RS Means Cost Data* (Current Edition). ISBN 9781118335901.
- Harvard Business Review's (HBR's) 10 must reads on managing people.* Copyright 2011. ISBN 978-1-4221-5801-2
- AIC Test Prep: PDF to be posted on class site
- Extra Credit Book(s): *Getting to Yes: Negotiating Agreement without Giving In* / Roger Fisher, William Ury, and Bruce Patton. Copyright 1991. ISBN 0-14-01.5735-2. "It is to change the way we deal with our differences—from destructive, adversarial battling to hard-headed, side-by-side problem-solving."
- The Death of Common Sense* / Philip K. Howard. Copyright 1996. ISBN 0-446-67228-9. "But law cannot save us from ourselves. Waking up every morning, we have to go out and try to accomplish our goals and resolve disagreements by doing what we think is right."
- Tests: Two midterm exams will be given during the semester. The format may include short answer, essay, multiple choice, and/or sketches. Make-up tests must occur within three days of previous exam. Only one make-up exam allowed per semester.
- Final Exam: Final exam will be given during finals week as scheduled by the BCN office. **Note: The final exam does NOT match the University schedule.** The final exam will be comprehensive.
- Attendance: Attendance is required. You are allowed three personal drops throughout the semester for any reason, with no documentation required. Regardless of circumstance, the fourth missed class will result in a 25% reduction, the fifth missed class will result in a 50% reduction, and a sixth missed class will result in a 100% reduction of attendance points. Being late for class counts as an absence at the discretion of the instructor.

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- Grade Breakdown: Final grades will be calculated based on the following weighting, conditional on work covered during the semester:
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|--------------------------------------|-----|
| Two midterm exam grades @ 100 points | 200 |
| Final exam | 100 |
| Attendance | 50 |
| Company presentations (4-minute) | 50 |
| HBR reading presentation (6-minute) | 50 |
| HBR quizzes | 50 |
| In-class assignments/ homework | 50 |
| Ethics paper | 100 |
- Grade Scale: Grades will be assigned according to the following scale. Divide the total points you earn by the total possible points. **Decimal points will not be rounded.**
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|----|--------------|
| A | 93.0-100 |
| A- | 90.0-92.99 |
| B+ | 87.0-89.99 |
| B | 83.0-86.99 |
| B- | 80.0-82.99 |
| C+ | 77.0-79.99 |
| C | 73.0-76.99 |
| C- | 70.0-72.99 |
| D+ | 67.0-69.99 |
| D | 63.0-66.99 |
| D- | 60.0-62.99 |
| F | Less than 60 |
- Extra Credit: An optional, written reflection on *Getting to Yes* or *Death of Common Sense* is worth 15 bonus points and is due on October 21st. Reflections should be a maximum of four pages, single spaced and should cover how your personality, values, and approach to conflict are similar or dissimilar to those of the authors. How do you resolve conflict?
- Class Website: e-Learning in Canvas: lss.at.ufl.edu
- Quality: It is expected that everything submitted for a grade will be professional with correct spelling and grammar. With regard to homework and quizzes: 10 points are awarded for going above what is asked, 8-9 points for meeting the minimum of what is expected, and 5-7 points for quality work that may not be correct in scope. When available, use software to produce your work. The goal is for all work to represent what you would submit to your immediate boss in a job scenario. There is no credit for submitting late work. The lowest score for each type of assignment will be dropped (i.e., quizzes, homework)
- Communication: **No work will be accepted via an e-mail submission.** All assignments should be uploaded to the appropriate drop box on the course's e-Learning website. *Please try to communicate with me during office hours or*

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before/after class periods. You are important to me as a student—I am simply overwhelmed with electronic communication. Please feel free to keep me in the loop with regard to your situation, but I am limited to respond. I will respond to e-mails or texts at my discretion. You are responsible for addressing grades within one week of the grade being posted on the course's e-Learning website. After one week, the grade stands for the class regardless of cause or circumstance.

Cell Phones:

Cell phone use is not allowed in classrooms/Perry Yard. Use of a cell phone during class will discount attendance. Use of cell phones during an exam will result in failing the exam.

Late Work:

Late Work will be accepted at 50% of potential points, no later than the start of the next scheduled class. Any missed exams must have documentation regarding cause and must be taken prior to the start of the second scheduled class from the time of the missed exam.

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Course Learning Objectives will be evaluated in the following assignments:

| Course Learning Objectives (CLO) | Assignment(s) | Student Learning Outcome (SLO) | | Percent students passing with a 70% or higher |
|---|-----------------------|--------------------------------|------------|---|
| | | SACS | ACCE | |
| 1. Recognize nature of building process | Midterm 1 | 4 | SLO 16 | 70% |
| 2. Describe roles on projects | Midterm 1 | 4 | SLO 9 | 70% |
| 3. Demonstrate administration | Midterm 2 | 1 | SLO 7, 19 | 70% |
| 4. Recognize internship skills | Company presentations | 5 | SLO 1, 2 | 70% |
| 5. Prepare for ethical issues | Course paper | 4 | SLO 6 | 70% |
| 6. Compose and present | HBR presentations | 1 | SLO 1, 2 | 70% |
| 7. Recognize importance of negotiation | Test 2 and final exam | 4 | SLO 12, 13 | 70% |

SACS = Southern Association of Colleges and Schools

ACCE = American Council for Construction Education

Upon graduation from an accredited ACCE 4-year program a graduate shall be able to:

- SLO 1. Create written communications appropriate to the construction discipline.
- SLO 2. Create oral presentations appropriate to the construction discipline.
- SLO 3. Create a construction project safety plan.
- SLO 4. Create construction project cost estimates.
- SLO 5. Create construction project schedules.
- SLO 6. Analyze professional decisions based on ethical principles.
- SLO 7. Analyze construction documents for planning and management of construction processes.
- SLO 8. Analyze methods, materials, and equipment used to construct projects.
- SLO 9. Apply construction management skills as an effective member of a multi-disciplinary team.
- SLO 10. Apply electronic-based technology to manage the construction process.
- SLO 11. Apply basic surveying techniques for construction layout and control.
- SLO 12. Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.
- SLO 13. Understand construction risk management.
- SLO 14. Understand construction accounting and cost control.
- SLO 15. Understand construction quality assurance and control.
- SLO 16. Understand construction project control processes.
- SLO 17. Understand the legal implications of contract, common, and regulatory law to manage a construction project.
- SLO 18. Understand the basic principles of sustainable construction.
- SLO 19. Understand the basic principles of structural behavior.
- SLO 20. Understand the basic principles of mechanical, electrical and plumbing systems

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AIC Exam referenced topics in this course:

III. Management Concepts

- Contract types
- Business ethics

VII. Planning, Scheduling, and Control

- Logical sequence of design, procurement, and construction.

VIII. Construction Safety

- Tool box talks covering all topics

X. Project Administration

- Procurement of resources
- Duties/responsibilities
- Organizational chart
- Design, procurement, and construction team

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Course Schedule

| Week | Date | Topic | Reading/Assignment* |
|------|-----------|---|---|
| 1 | 8/24 (M) | Introduction: The construction industry | |
| | 8/26 (W) | Resume lab | |
| 2 | 8/31 (M) | Lecture 1: Project players | Dykstra: Ch. 1, 3 HBR: "The Discipline of Teams" Canvas Quiz #1 |
| | 9/2 (W) | Lecture 2: Sustainability in construction | Dykstra: Ch. 2 |
| 3 | 9/7 (M) | Holiday (No class) | |
| | 9/9 (W) | Lecture 3: Stages of a project | Dykstra: Ch. 4 Canvas Quiz #2 |
| 4 | 9/14 (M) | Lecture 4: Risk management | HBR: "Leadership That Gets Results" |
| | 9/16 (W) | Lecture 5: Feasibility, programming and design | Dykstra: Ch. 5, 7 HBR: "One More Time..." |
| 5 | 9/21 (M) | Lecture 6: Bidding and award | Dykstra: Ch. 8, 9 HBR: "What Great Managers Do" Canvas Quiz #3 |
| | 9/23 (W) | Lecture 7: Project delivery | Dykstra: Ch. 6 Canvas Quiz #4 |
| 6 | 9/28 (M) | Guest lecture (TBD) | HBR: "How (Un)ethical Are You" |
| | 9/30 (W) | Lecture 8: Estimating, Part 1 Lecture 8A: Estimating, Part 2 | Dykstra: Ch. 10, 11 |
| 7 | 10/5 (M) | Midterm exam review | |
| | 10/7 (W) | Midterm exam #1 | Covers Dykstra Ch. 1-11 |
| 8 | 10/12 (M) | Lecture 9: Construction contracts | Dykstra: Ch. 12, 13 HBR: "The Set Up to Fail Syndrome" |
| | 10/4 (W) | Lecture 10: Contract documents | Dykstra: Ch. 14, 15, 16 |
| 9 | 10/19 (M) | Lecture 11: Precon, mobilization and construction | Dykstra: Ch. 17, 18 HBR: "Managing Your Boss" |
| | 10/21 (W) | Lecture 12: Creating and using schedules | Dykstra: Ch. 19, 20 Canvas Quiz #5 Ethics paper due Extra credit paper due |
| 10 | 10/26 (M) | Lecture 13: Buying out the job | Dykstra: Ch. 21 HBR: "Teaching Smart People How to Learn" |
| | 10/28 (W) | <i>Career fair company presentations</i> | |
| 11 | 11/2 (M) | Lecture 14: Changes in the work | Dykstra: Ch. 22 HBR: "Fair Process..." |
| | 11/4 (W) | Lecture 15: Jobsite administration | HBR: "Saving Your Rookie Managers From Themselves" |
| 12 | 11/9 (M) | Midterm exam review | |
| | 11/11 (W) | Midterm exam #2 | Covers Dykstra Ch. 12-22 |
| 13 | 11/16 (M) | Holiday (No class) | |
| | 11/18 (W) | <i>HBR Presentations</i> | |
| 14 | 11/23 (M) | <i>HBR presentations</i> | |
| | 11/25 (W) | Lecture 16: Getting paid | Dykstra: Ch. 23 |
| 15 | 11/30 (M) | Holiday (No class) | |
| | 12/2 (W) | Lecture 17: Close-out and occupancy | Dykstra: Ch. 25 |
| 16 | 12/7 (M) | Lecture 18: Claims and disputes | Dykstra: Ch. 24 |
| | 12/9 (W) | Final exam review | |

* Due at the start of class. Schedule is subject to change.