

Construction State University
Department of Technology
College of Science, Technology, and Health

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ITC-341 Construction Documents 1
Fall 2014 – CRN# 20442
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COURSE SYLLABUS

Course Description

This course will present the value and importance of how construction documents define the rights of, responsibilities of and relationships among all the parties that are necessary for the successful completion of any project. The architect/engineer (A/E), the contractor(s) and all the other project participants must work within guidelines for a successful project conception through design and construction to facility management. Investigation into various documents, agreements and conditions of contracts will be addressed. The importance of standardized document format will be emphasized

The Construction Documents Technology (CDT) Program provides a comprehensive overview for anyone who writes, interprets, enforces, or manages construction documents. Project architects, contractors, contract administrators, material suppliers, and manufacturers' representatives are all realizing the advantages of being Construction Documents Technologists.

By being able to understand and interpret written construction documents, CDTs perform their jobs more effectively. By understanding the roles and relationships of all participants, CDTs improve communication among all members of the construction team.

Objectives

Students successfully completing this course will be competent in their knowledge and understanding of the following areas:

- The construction process
 - Construction contract types
 - Modifications and substitution procedures
- Contractual relationships
 - Rights, duties, and responsibilities
 - Contract provisions
 - Relationship and organization of construction documents
- Use of construction documents
 - Organizational formats
 - Interpreting construction documents

Course Content and CDT subject matter area breakdown with exam weighting.

- **Area 1 – Fundamentals 12%**
 - Concepts applicable to the basic understanding of the construction documentation process. This includes participants, relationships, formats, facility and project life-cycles, and document types.
- **Area 2 – Project Concept and Delivery 10%**
 - Project Conception: Prerequisites to the design process including budgeting, scheduling, programming, and site investigation.
 - Project Delivery: Decisions and factors affecting services and documentation required including contract types, delivery methods, team selection, and commissioning.
- **Area 3 - Design Process 12%**
 - Schematic Design and Design Development: Activities associated with Schematic Design and Design Development:
- **Area 4- Construction Documents 28%**
 - Elements of the construction documents, the project manual concept and structure, the uses and characteristics of different types of drawings, and the importance of the proper methods for coordinating drawings and specifications.
- **Area 5 - Procurement 10%**
 - The process of bidding, negotiating, and contracting to purchase the Work.
- **Area 6- Preconstruction 6%**
 - Activities and procedures related to preconstruction, and the importance of preconstruction submittals.
- **Area 7 - Construction 16%**
 - Activities and procedures related to the administration of the contract.
- **Area 8 – Life Cycle Activities 6%**
 - Activities and document reacted to transition from construction to ongoing facility management.

Text and resource material:

- **Project Delivery Practice Guide - Construction Specifications**
 - *MasterFormat*
 - *SectionFormat/PageFormat*
 - *UniFormat*
 - *GreenFormat*
- **General Conditions of the Contract and Contract Form**
 - AIA A201 - General Conditions of the Contract for Construction
- **Sustainability/Green Building**
 - *U.S. Environmental Protection Agency (EPA)*
 - <http://www.epa.gov/greenbuilding/pubs/about.htm>
 - *GreenFormat:*
 - www.greenformat.com/about

- The exam tests the basic, *general* material available at these web pages and in the PDPG.

COURSE REQUIREMENTS:

- A. Read text, resource materials before coming to class.
- B. Submission of all assignments including quizzes on time and in accordance with program standards.
- C. Communications:
 - 1. Oral.
 - Students are required to demonstrate understanding of the material by engaging in oral discussion and debate as part of the class participation
 - 2. Written.
 - Tests, quizzes and in class exercises require students to communicate the intent of the material
 - 3. Graphically.
 - An integral part of construction communications is the ability to communicate through graphical interpretation, to this end students must graphically depict construction practices and procedures
- C. Use of outside resources to augment class material:
 - 1. To be able to use; internet base on-line WEB enabled content, library resources and print media to fully research and further develop and understanding of construction documents and role they play in Construction Industry

Course Evaluation and Grading:

Final grade will be based on the policies and requirements stated in the current course catalog and this syllabus as summarized below:

The relative weight of the requirements in the final grade will be:

- ✓ Quizzes 30%, it is anticipated that 9 quizzes will be given.
- ✓ Class participation, attendance, and in class activities 20%
- ✓ 2 Tests 50% (25% each)

Grade Scale: Your final course grade will be based on the objectives, requirements, expectations, and policies of this course as stated in this syllabus. Your final course grade will be based on the following scale:

100 - 94%	A
93 - 90%	A-
89 - 87%	B+
86 - 84%	B
83 - 80%	B-
79 - 77%	C+
76 - 74%	C
73 - 70%	C-
69 - 67%	D+
66 - 64%	D
63 - 60%	D-
59 - 0%	F

- A Outstanding Work.** Work is at a professional level in all aspects (i.e., correctness, professional appearance/presentation, on-time submission, significant depth of analysis, exceeds assignment requirements and expectations) and stands above the norm of the class.
- B Good Work.** Work is at a professional level in all aspects (i.e., correctness, professional appearance/presentation, on-time submission, significant depth of analysis).
- C Satisfactory Work.** Work satisfies the requirements of the course at an acceptable level (i.e., few and minor mistakes, reasonable effort at professional appearance/presentation, on-time submission).
- D Marginal Work.** Work satisfies the requirements of the course at a marginally acceptable level (i.e., multiple conceptual errors, unprofessional appearance/presentation, on-time submission).
- F Unacceptable Work.** Work does not satisfy the requirements of the course (i.e., fundamental lack of understanding of key concepts, failure to submit or participate in any major assignment, failure to work as a team member, failure to submit homework, and/or excessive absence).

Quizzes:

Short exams (quizzes) will be given to assess the understanding of concepts and techniques discussed in class. Quizzes and tests will routinely be announced before the class in which they are given, and will follow lectures, activities and demonstrations applicable to the examination. Quizzes missed because students are not in class cannot be taken at a later time except in exceptional situations as determined by the professor.

NOTE: If all requirements are not completed, a course grade of D or F may be assigned regardless of the overall grade average. If a student(s) cheat on course assignments, actions taken may include a failing assignment grade, a failing course grade, or a failing course grade with additional University action.

Intellectual property, privacy laws, and plagiarism:

Students are required to follow the law and avoid plagiarism throughout the entire course. The basic rules that must be followed include:

- Written permission must be obtained to use any material created by someone else before it can be used by students unless it is clearly in the public domain. You must assume that unless you clearly know otherwise, ALL material created by others is protected by intellectual property law and written permission is required. If you are unsure about using any material, check with the professor.
- All material used by students that was not created by the student must be appropriately documented.

ITC 341 Construction Documents 1 - TENTATIVE SCHEDULE				
	Week	Topic	Reading (PDPG)	Hand Outs (Blackboard)
Sept. 5	1	Introductions, course overview, syllabus, text, blackboard, reading expectations, CDT Exam Course Introduction, Stakeholders and Participants Session 1 Fundamentals PowerPoint Introduction to Project Delivery	Chapters 1 & 2 Introduction to PDPG Stakeholders and Participants	Definitions Quiz 1
Sept. 12	2	Costello Site Tour, Pine Point Scarborough NO FORMAL CLASS MEETING	Directions on Blackboard	
Sept. 19	3	Facility Life Cycle Codes, Regulations, and Standards Contracts and Legal Issues Session 1 Fundamentals , continued Introduction to Project Delivery Guest Speaker: Valerie Paquin-Gould, AC, CCCA, LEED AP+ Project Estimator, Great Falls Construction	Chapters 3,4,5 Facility Life Cycle Codes, Regulations, and Standards Contracts and Legal Issues	
Sept. 26	4	Project Planning Session 2 Planning & Pre-Design PowerPoint Project Conception	Chapter 6 Project Planning	Quiz 2
Oct. 3	5	Project Delivery Session 3 Design PowerPoint	Chapter 7 Project Delivery	Quiz 3
Oct. 10	6	Design & Design Documents	Chapters 8 & 9 Design & Design Documents	Mid Term Exam 1
Oct. 17	7	Product Selection and Evaluation Session 4 Construction Documents –Part 1 PowerPoint	Chapter 10 Product Selection & Evaluation	CDT EXAM APPLICATION & FEE DUE Quiz 4
Oct. 24	8	Construction Documents Session 5 Construction Documents – Part 2 PowerPoint	Chapter 11 Construction Documents	Quiz 5
Oct. 31	9	Construction Documents Session 6 Construction Documents – Part 3 PowerPoint	Chapter 11 Construction Documents	Quiz 6
Nov. 7	10	Procurement Session 7 PowerPoint	Chapter 12 Procurement	Quiz 7
Nov. 14	11	Construction Session 8 Construction - Part 1 PowerPoint	Chapter 13 Construction	Quiz 8

	Week	Topic	Reading (PDPG)	Hand Outs (Blackboard)
Nov. 21	12	Construction, continued Session 9 Construction - Part 2 PowerPoint Facility Management Session 10 PowerPoint Post Construction	Chapter 14 Facility Management	Quiz 9
Nov. 28		No Class, Thanksgiving		
Dec. 5	13	AIA A-201 Session 11 PowerPoint	AIA201: Articles 1 thru 15	Exam 2
Dec. 12	14	Review and Practice CDT Exam		
Dec. 16-27	15	Final / Prometric CDT Exam		

ACRONYMS

- A. A201: AIA Document A201-General Conditions of the Contract for Construction
- B. BIM: U.S. GSA Building Information Modeling Guide
- C. C-700: Standard General Conditions of the Construction Contract (EJCDC C-700)
- D. EPA: U.S. Environmental Protection Agency (EPA)
- E. GF: GreenFormat™
- F. IPD: AIA IPD Guide, Integrated Project Delivery
- G. MF: MasterFormat™
- H. PF: PageFormat™
- I. PDPG: Project delivery Practice Guide (CSI)
- J. SF: SectionFormat™ (2007 Edition CSI)
- K. UF: UniFormat™