

<p>Kingdom of Saudi Arabia Ministry of Higher Education Qassim University College of Engineering</p>		<p>المملكة العربية السعودية وزارة التعليم العالي جامعة القصيم كلية الهندسة</p>
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CE 622 Legal Aspects of Engineering and Construction

College: Engineering

Department: Civil

First: Course Definition

1- Course Code: CE 622

2- Units: 3

3- Semester:

4- Prerequisite:

5- Co-requisite:

6- Location (if not on main Campus):

Second: Course Objectives

1. Analyzing the legal system's role in the design and construction process.
2. Analyzing the principles of contract and tort law.
3. Apply the application of legal principles to performance issues, and other legal principles.

.1- Topics to be covered		
Subject	No of Weeks	Units
Introduction. General principles of tort and contract law	1	3
Tort system and negligence; contract formation. Basic contract principles(interpretation, breach and damages), contract types	1	3
Changes and constructive changes, bidding	1	3
Inspection and rejection, defective work, warranties, differing site conditions, pre-bid investigations	2	6
Delay, disruption and acceleration, and schedule analysis	1	3
Termination, claim avoidance	1	3

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Bankruptcy of contractors and subcontractors insurance , bonds and indemnification	1	3
Architect/engineers contracts, design/build contracting issues	2	6
Litigation, arbitration and other alternative dispute procedures	1	3
Damages and pricing of claims	1	3
Environmental issues, doing business internationally	1	3
Case studies	1	3

2- Course components (Total hrs in semester): 42

Lecture	Exercise	Other
42	-	0

3- Intended Learning Outcomes of the Course (ILO's)

a. Knowledge

i) Description of the knowledge to be acquired:

- The standard construction contract concepts and terminologies with emphasis upon use and application of industry standard documents.
- The respective roles of design professionals, owners/developers and prime contractors in the design and construction process.
- The legal and economic implication of construction schedules and the impacts of changes and change orders thereon.
- Proper utilization of contractual provisions and legal theories to recognize, respond and adjust claims.
- Description of specific real estate interests, zoning concepts, and practices , land transfer and leasing and the general legal requirements of land development.

ii) Teaching strategies to be used to develop that knowledge

- Class lectures.
- Term projects.
- Student's presentations.
- Group discussion

iii) Methods of assessment of knowledge acquired

- Exams.
- Quizzes.

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- Homework assignments.
- Term projects.

b- Cognitive (Intellectual) Skills

i) Cognitive skills to be developed

- The ability to use critical thinking in the context of construction through readings, case studies and discussions emphasizing the duties, rights , best practices and liabilities of stakeholders in construction projects.
- The ability to identify construction management/contract administration best practices based upon construction law.
- The ability to research and develop on legal topics for speaking and writing assignments while presenting ideas in an organized, logical and coherent form.
- The ability to use standard English grammar, punctuation, spelling and usage.
- The ability to recognize and analyze potential areas of problems in terms of contract, liability, and ethical issues of engineering and apply theory to set case situations.

ii) Teaching strategies to be used to develop these cognitive skills

- Case studies analysis.
- Class lectures.
- Term projects.

iii) Methods of assessment of students' cognitive skills

- Students' seminars and presentations.
- Term projects.
- Written reports.

c. Interpersonal Skills and Responsibility

i) Description of the interpersonal skills and capacity to carry responsibility to be developed

- Communication skills.
- Decision making based on engineering analysis.
- Team work.

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- ii) Teaching strategies to be used to develop these skills**
- Case studies analysis.
 - Class lectures.
 - Term projects.

- iii) Methods of assessment of students' interpersonal skills and capacity to carry responsibility**
- Term project.
 - Students' seminars and presentations.
 - Written reports.

d. Communication, Information Technology and Numerical Skills

- i) Description of the skills to be developed in this domain**
- Literature research.
 - Problems modeling.
 - Utilization of computer applications in Legal Aspects of Engineering and Construction .

- ii) Teaching strategies to be used to develop these skills**
- Class lectures.
 - Case studies analysis.
 - Computer lab sessions.
 - Term projects.

- iii) Methods of assessment of students numerical and communication skills**
- Term projects.
 - Written reports.
 - Students' seminars and presentations.

e. Psychomotor (if applicable) & Other Non-cognitive Skills

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i) Description of the psychomotor or other skills to be developed and the level of performance required

- NA
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ii) Teaching strategies to be used to develop these skills-

- NA
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iii) Methods of assessment of student's psychomotor skills

- NA
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4- Student Assessment Schedule

<i>Serial</i>	<i>Assessment tool (test, group project, examination etc.)</i>	<i>Week due</i>	<i>Weight</i>
1	Term Project – 1	3 rd	15 %
2	Mid Term Exam -1	7 th	15 %
3	Term Project – 2	10 th	15 %
4	Term Project – 3	13 th	15 %
5	Final Exam	16 th	40 %

5- Student Support

- Providing electronic library of textbooks and scientific periodicals.
- Providing the necessary computer applications for the course.

6- Learning Resources

i) Essential Books (References)

- Sweet, J. M.M. & Schneier, M.M. "Legal Aspects of Architecture, Engineering and the Construction Process", CL Engineering, 9th Edition, 2012. ISBN-10: 1111578710 ,ISBN-13: 9781111578718
- Thomas, H.R. & Ellis, R.D. "Interpreting Construction Contracts: Fundamental Principles for Contractors, Managers and Contract Administrators". ASCE, 2007. ISBN-10: 0784409218 , ISBN-13: 978-0784409213.

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ii) Course Notes

- NA
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iii) Recommended Books

- Atman, R. J. "Construction Law". American Bar Association, 2009.
- Bockrath, J. "Contracts and the Legal Environment for Engineers & Architects", McGraw-Hill, 6th Edition, 2010.
- Gibbs, K & Hunt, G. "California Construction Law", Aspen Publisher, 16th Edition, 1999.
- Kelleher Jr. T.J. , Currie & Hancock. "Common Sense Construction Law : A Practical Guide for the Construction Professional", John Wiley & Sons, 4th Edition, 2009.
- Samuels, B.M. (1995). "Construction Law ", Prentice Hall, 1st Edition, 1995.

iv) Electronic Books & Web Sites:

- Scientific journals and forums.
- Instructor's instruction.

v) Periodicals

- ASCE *Journal of Construction Engineering and Management*
- International Journal of Construction Management
- Journal of Cost Analysis and Management.

7- Course Evaluation and Improvement Processes

i) Strategies for Obtaining Student Feedback on Effectiveness of Teaching

- Students' questioners.
- Students' evaluation of course and instructor.

ii) Other Strategies for Evaluation of Teaching by the Instructor or by the Department

- Public faculty seminars.
- Assessment by external evaluators of students achievements.

iii) Processes for Improvement of Teaching

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- Assessment of students' work by external examiners.
- Analysis of students' evaluation of course and instructor.
- Seminars by industry professionals.

- iv) Processes for verifying standards of student achievement**
- Check marking by an independent faculty member of a sample of student work.
 - Periodic exchange and remarking of a sample of assignments/exams with a external evaluator.

- v) Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement.**
- Assessment and evaluation of the level of achieving the course outcomes through a continuous improvement process (part of a quality assurance system established by the university),
 - Consequently, actions are to be taken to improve the course delivery when necessary.
 - Review of the course objectives, outcomes and curriculum every 2 years.