

UNIVERSITY OF BRITISH COLUMBIA
CIVIL ENGINEERING 402 – COURSE OUTLINE

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1. The law and why it is important to the design professions.
2. APEBC and professional reputation concerns.
3. The concept of negligence – what is it?
4. Review of the basic relationships in the construction process.
5. Professional liability – what is it?
6. The concept of the reasonable engineer.
7. The duty of care – owed to whom?
8. The concept of foreseeability.
9. The concept of vicarious liability.
10. The concept of damages (direct v. consequential).
11. Economic loss v. physical damage.
12. Tort v. contract liability.
13. Gratuitous advice and its consequences.
14. Prime consultant-subconsultant liability.
15. Building Inspector's liability.
16. CP Program – City of Vancouver and letters of assurance.
17. The concept of contributory negligence.
18. Liability for over-certifications or negligent certifications.
19. Type of professional certifications and liability implications.
20. Tripartite role of the design professional – conflict of interest.

21. Agency of the design professional.
22. Acting in a quasi-judicial capacity and immunity from suit.
23. Engineer as expert witness.
24. The concept of field services and their relation to certifications on a construction project.
25. The definition of “field services.”
26. Contractors’ means, methods, techniques, sequences and procedures of construction and safety measures and their relationship to the design professional.
27. Qualified certificates.
28. The danger in taking over a project from a previous design professional.
29. “Review” of shop drawings.
30. Product liability.
31. The parties who may suffer injury as a result of incorrect certificates.
32. Meaning and significance of certificates of substantial and total performance, payment applications, mortgage and surety company enquiries.
33. Effect of the above certificates.
34. Qualified certificates.
35. Builders liens.
36. What are builders liens?
37. Basic right to file builders liens by design professionals.
38. Contracting out of the *Builders Lien Act*.
39. Certificate of substantial performance and its effect on builders liens.
40. Performance bonds, labour and material payment bonds and bid bonds.
41. What is a contract?
42. The power of a contract.
43. The five “I”s of contract.
44. The law applicable to building contracts.

45. The basic requirements of a contract.
46. Parties to a contract.
47. Engineers as owner's agent during design and tendering.
48. Tendering errors.
49. Irrevocable tenders.
50. Lump sum, unit price and cost plus contracts.
51. Design/build (turnkey) and fast-track contracts.
52. *Quantum meruit* claims.
53. Review of ACEC client/engineer agreements.
54. Review of CCDC agreements between owner and contractor.
55. Professional liability insurance – what is it?
56. What does the errors and omissions insurance cover?
57. Exclusions from coverage.
58. Review of loss control bulletins.
59. Subconsultants' professional liability insurance.
60. Dedicated project insurance.
61. Limitation statutes and their effect on design and supervision.
62. Position of the individual design professional employed by a firm.
63. Employer v. employee suit.
64. Design professionals employed by a general contractor.
65. Owner lawsuit v. firm and its employee, engineer.
66. Retirement and professional liability insurance.
67. Design professionals acting as lawyers in drafting contract documents.
68. Arbitration/litigation/mediation/negotiation.
69. Labour and employment law principles.

70. Occupational health and safety.
71. Administration of the engineering profession.
72. Ethical considerations in the practice of engineering.
73. Business organizations.
74. Environmental law concepts.
75. Copyright.

Required text: Practical Law of Architecture, Engineering, and Geoscience, by Brian M. Samuels and Doug R. Sanders (2007: Pearson/Prentice Hall)