

CVEG 5333 – Concrete Materials, Fall 2016

Instructor: W. Micah Hale, PhD, PE
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Office Hours: TR 9:30 – 10:30

Text: Concrete, Microstructure, Properties, and Materials, 3rd Edition (Mehta and Monteiro)

Grading System:	Exams (1)	30 %
	Lab Reports	20 %
	Project	20 %
	<u>Final Exam</u>	<u>30 %</u>
	Total	100 %

Course Topics:	Microstructure of Concrete	Chapter 2
	Strength	Chapter 3
	Dimensional Stability	Chapter 4
	Admixtures	Chapter 8
	Mixture Proportioning	Chapter 9
	Concrete at Early Age	Chapter 10
	Progress in Concrete Technology	Chapter 12

Labs: The laboratory assignments will be composed of the topics shown below. The students will work individually and provide a 1 page summary of the each topic shown below. Each summary should include at three references from either journal articles or research reports.

Lab Topics: There will be 6 laboratory assignments. The laboratory topics are shown below:

1. Effect of water content on the fresh & hardened concrete properties
2. Effects of curing on the hardened concrete properties
3. Effects of entrained air on the fresh and hardened properties of concrete
4. Effect of Class C fly ash on fresh and hardened concrete properties
5. Properties of lightweight concrete
6. Properties of concrete cast with calcium aluminate cement

Project: Each student will deliver a 15 minute presentation and write a paper on some type of specialty concrete. More information on the project is provided in Module 8.

Final Exam: **To be announced**

Letter Grades: Letter grades will be assigned within the following guidelines.

A	90 – 100 %
B	80 – 89 %
C	70 – 79 %
D	60 – 69 %
F	0 – 59 %