

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

In the name of Allah, Most Gracious, Most Merciful
King Fahd University of Petroleum & Minerals
Civil Engineering Department

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CE 353_092

Homework #03

Hard copy - Due March 03 (Wednesday), 2010

1. Derive the following Equations: Draw and Use the phase diagram in all of these equations

a. $G_s \gamma_w = e W_s$

b. $\gamma_d = \frac{G_s \gamma_w}{1+e}$

c. $n = \frac{e}{1+e}$

d. $e = \frac{n}{1-n}$

e. $W_s = \gamma_s (1-n)$

f. $W_s = G_s \gamma_w (1-n)$

g.

h.

Always Give the Professional Look of an Engineer