MSE 324 "Casting and Solidification"
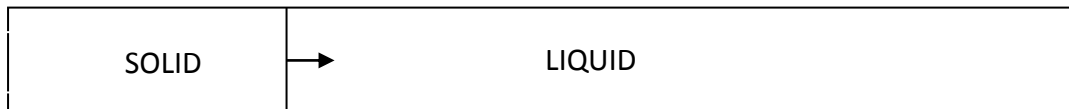## 2016 Spring

DUE DATE: MARCH 26th 2016

i. Draw the C_s/C_0 vs fraction solid curve (f_s) assuming k values of 0.03, 0.1, 0.2, 0.3, 0.4, 0.5, 0.6 and 0.9. Show them on the same graph.

ii. Draw the C_s/C_0 vs fraction solid curve (f_s) assuming k values of 1.05, 2, 3, 4, 5, 6, 7 and 10. Show them on the same graph.

iii. Assume a 100 microns long Al-2.5at%Cu bar solidifying from one end. Draw the solid concentration versus distance along bar graph for equilibrium and Scheil conditions.

Distance along bar

OPTIONAL:

iv. Repeat question (iii) using Thermo-calc software and compare your results with Thermo-Calc outputs. Clearly explain your Thermo-calc procedure, attach relevant diagrams and screenshots.