

九十六學年度第一學期課程內容大綱

課程名稱：高等化工動力學

開課系所：化工系

課號：524 M1120

學分：3

開課教授：萬本儒

開授年級：研究所

I. Course Outlines :

1. Review on Reaction Thermodynamics, Kinetics and Ideal Reactor Design
2. Non-Ideal Reactors
3. Kinetics of Heterogeneous Catalytic Reactions
4. Catalytic Gas-Solid Reactions
5. Catalyst Deactivation
6. Non-Catalytic Gas-Solid Reactions
7. Gas-Liquid Reactions
8. Multiphase Flow Reactors

II. Textbook :

H. S. Fogler , “Elements of Chemical Reaction Engineering “ , 4th edition , Prentice-Hall

III. Grading

Two exam.: 30% each (Nov. 1th and Dec. 20th); homework: 20%; report and presentation: 20%.

IV. References

G. F. Froment and K. B. Bischoff , “Chemical Reactors Analysis and Design”, John Wiley & Sons

J. M. Smith, “Chemical Engineering Kinetics”, 3rd edition.