

Ch 144a – Fall 2007

Advanced Organic Chemistry – Structure and Reactivity

Dennis A. Dougherty; 359 Crellin; dadougherty@caltech.edu

MWF 10 AM; 153 Noyes [eventually]

TAs

Arielle Hanek 254 Crellin; arielle@caltech.edu Office Hours: Mon, 2-4 PM

Katie McMenimen 254 Crellin; kathryn@caltech.edu Office Hours: Tues, 4-6 PM
office hours also available by appointment

GRADING

Quizzes [in class] 40% Midterm 30% Final 30%

SCHEDULE

Friday Oct. 12	Quiz 1
Friday Oct. 26	Quiz 2
Wednesday, Oct. 31	Midterm out
Monday, Nov. 5	Midterm due – 4PM
Monday, Nov. 19	Quiz 3
Wednesday, Dec. 5	Quiz 4
Friday, Dec. 7	Final out
Thursday, Dec. 13	Final due – 4PM

TEXT

Modern Physical Organic Chemistry (MPOC), Anslyn & Dougherty

Optional: *Student Solutions Manual for MPOC*, Sponsler, Anslyn, & Dougherty

Course Outline – subject to change

Part I – Molecular & Electronic Structure	
QMOT model of bonding	Chapter 1
Thermochemistry, strain, conformational analysis	Chapter 2
Part II – Tools of Physical Organic Chemistry	
Energy Surfaces	Chapter 7
Isotope Effects, Linear Free Energy Relationships	Chapter 8
Part III – Selected Topics	
Mechanistic Studies: applying the tools of physical organic chemistry	<i>Selections from Chapter 10, 11</i>