CHEM 230

Physical Chemistry

Syllabus

Topics to be Covered		
List of Topics	No. of Weeks	Contact hours
Reviewing Ideal Gas Laws	1	3
Molecular kinetic theory of gases	2	6
First law of thermodynamics	2	6
Thermochemistry	2	6
Second law of thermodynamics	2	6
Third law of thermodynamics	2	6
Free energies	2	6
Chemical equilibrium	2	6

Schedule of Assessment Tasks for Students During the Semester			
	Assessment task	Week Due	Proportion of Total Assessment
1	5 homework (open for one week, online on LMS)	One homework/quiz every two weeks	10 %
2	2 quizzes (15 to 20 min test, online on LMS)		10 %
3	2 Midterm exams (in class)	Around 5^{th} and 11^{th} weeks	40 %
4	Final exam (in class)	End of semester	40 %

Learning Resources
Required Textbook *9th Edition of "Physical Chemistry" book, by P.W. ATKINS*
Recommended Textbooks and Reference Material *Student's Solutions Manual to Accompany Atkins' Physical Chemistry*

Electronic Materials
• *E-content on LMS (Blackboard).*
  ○ *PowerPoint presentations*
  ○ *Handout notes*
  ○ *Homework*
  ○ *Old exams*
  ○ *Blogs for collaborative discussion*
• *Web Sites:*
  ○ *http://chemwiki.ucdavis.edu/Physical_Chemistry/Thermodynamics*
  ○ *http://www.thebigger.com/section/chemistry/thermodynamics*
  ○ http://chemistry.about.com/od/physicalchemistrythermo
  ○ *http://academic.pgcc.edu/~ssinex/excelets/chem_excelets.htm*

Other learning material such as computer-based programs/CD, professional standards or regulations and software. • Microsoft Excel