

FLORIDA INTERNATIONAL UNIVERSITY  
DEPARTMENT OF CHEMISTRY AND BIOCHEMISTRY  
**CHM 3120: Introduction to Analytical Chemistry**  
**Summer 2009**

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**Office Hours/Location:** Tu and Th 2:00-3:00 PM in CP-328 ONLY

**Textbook:** \**Quantitative Chemical Analysis*, 7th Edition, Daniel C. Harris (ISBN# 0-7167-4464-3)  
*Solutions Manual for Quantitative Chemical Analysis*, 7th Edition, Daniel C. Harris (ISBN# 0-7167-4984-X)  
**\*Required reading**

**Pre-Requisite:** CHM 1046/1046L

**Class Time/Room:** Tu Th 12:30 – 1:45PM Paul Cejas Architecture building (PCA180)

**Grading:** Grading in the course will be based on two (2) exams worth 25% each, and a final comprehensive exam worth 40% of your grade.

In addition, three (3) short quizzes will be given during the semester; these exams will be given at the beginning of lectures, will last 15 minutes and are based on the “Problems” associated with the reading assignment for that lecture and/or the preceding one. One of them may be an Excel based report that you will have to e-mail back. These exams will be worth an additional 10% of the grade.

Grading will be largely based on a standard grading scale as follows:  
A (100-90%), A- (89-88%), B+ (87-85%), B (84-80%), B- (79-78%), C+ (77-75%), C (74-70%), C- (69-68%), D+ (67-65%), D (64-60%), D- (59-58%), F (<58%)

**Attendance Policy:** Attendance of lectures is required – both attendance and keeping-up with reading are essential to success in the course. Tardiness is very disruptive; avoid showing up late for lectures. I reserve the right to deny class access if you are late.

**Classroom Policy:** All pagers and cell phones **MUST** be off or in “vibration or silent mode” before you enter the classroom. Disruptive behavior that

infringes on others to learn during lectures will **NOT** be tolerated and you will be asked to leave. ELECTRONIC DEVICES WILL NOT BE ALLOWED DURING EXAMS.

**Exam Policy:** There will be **NO MAKE-UP EXAMS**. All requests for missing assignments or test will be considered only if they are based on a VALID excuse as defined by FIU policy and properly documented. Students will be expected to follow the academic code of honor established by the University. Cheating during an exam is the easiest way to be dismissed from the university! **Please bring pencils (#2), and calculators with two variable statistics and log function, to exams.**

**CHM 3120: Introduction to Analytical Chemistry  
Tentative Class Schedule for Summer 2009**

	<b>Date</b>	<b>Chapter</b>	<b>Topic</b>
<b>Week 1</b>	May 5	0, 1	Introduction to Analytical Chemistry and Measurements
	May 7	2	Basic Tools of Analytical Chemistry
<b>Week 2</b>	May 12	3	Experimental Error in Analytical Chemistry
	May 14	4-1 to 4-6	Statistics in Analytical Chemistry
<b>Week 3</b>	May 19	4-7 to 4-9	Least Squares and Calibration <b>QUIZ 1</b>
	May 22	5	Quality Assurance
<b>Week 4</b>	May 26		Quality Assurance (cont.)
	May 28		<b>EXAM 1</b>
<b>Week 5</b>	June 2	6	Chemical Equilibrium
	June 4	7	Chemical Equilibrium (cont.); Titration
<b>Week 6</b>	June 9		Titration (cont.)
	June 11	8	Activity and Chemical Equilibrium
<b>Week 7</b>	June 16	9-1 to 9-4	Monoprotic Acids
	June 18	9-5	Buffers <b>QUIZ 2</b>
<b>Week 8</b>	June 23	10	Polyprotic Acids
	June 25	11	Acid-Base Titrations
<b>Week 9</b>	June 30	12	Compleximetric Reactions/EDTA Titrations
	July 2		EDTA Titrations (cont.)
<b>Week 10</b>	July 7		<b>EXAM 2</b>
	July 9	14, 15	Introduction to Electrochemistry, Electrodes
<b>Week 11</b>	July 14	16	Redox Titrations
	July 16	18-20	Spectrophotometry
<b>Week 12</b>	July 21	21,22	Atomic Spectroscopy, Mass Spectrometry
	July 23	23,27	Introduction to Analytical Separations <b>QUIZ 3</b>
<b>Week 13</b>	July 28	26	Chromatography
	July 30	24	Gas Chromatography
<b>Week 14</b>	August 4	25	Liquid Chromatography
	August 6	28	Extraction; Sample Preparation
<b>T.B.A.</b>			<b>FINAL EXAM</b>

\*Readings from indicated chapter(s)/section(s) in the textbook (*Quantitative Chemical Analysis*, 7<sup>th</sup> Edition, Daniel C. Harris), unless otherwise noted.

**Notes:** May 11<sup>th</sup> Last day to drop course without financial liability.  
 June 1<sup>st</sup> Last day to drop course with 25% tuition refund.  
 June 23<sup>rd</sup> Last day to drop with a DR grade.  
 August 8<sup>th</sup> Classes End.