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Spring 2020

CHEM 301-102: Chemical Technology

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Chemical Technology - Lecture/Lab

Chem301 sections 002, 102

Spring 2020 Course Syllabus

NJIT Academic Integrity Code: All Students should be aware that the Department of Chemistry & Environmental Science (CES) takes the University Code on Academic Integrity at NJIT very seriously and enforces it strictly. This means that there must not be any forms of plagiarism, i.e., copying of homework, class projects, or lab assignments, or any form of cheating in quizzes and exams. Under the University Code on Academic Integrity, students are obligated to report any such activities to the Instructor.

COURSE INFORMATION

Course Description: Introduction to chemistry geared for students in Engineering Technology. *No prior knowledge of chemistry is assumed.*

Attendance is MANDATORY: One or two absences due to illness or emergency and verified by the Dean's Office will not count against you but missing three classes for any reason will result in a failing grade.

Number of Credits: 3

Prerequisites: none

Course-Section and Instructors

Course-Section	Day & Time	Instructor
chem301 002	Thursday 10:00A – 2:20P; FMH 209, T204	Dr. Miriam Gulotta (gulotta@njit.edu)
chem301 102	Thursday 6:00P – 9:45P; T111, T204	

Office Hours: also by appointment

M	T	W	R	F
	10:00A – 12:00P			X
2:30P – 4:00P		2:30P – 4:00P	2:30P – 4:00P	
			5:00P – 5:30P	

Required Textbook:

Title	Chemistry for Engineering Students
Author	Brown & Holme
Edition	3 rd or 4 th
Year	2015 on
Publisher	Cengage
ISBN #	

Required Lab manual: May be purchased from the bookstore. Posted.

Also Required:

- Scientific calculator: capable of handling logs & exponentials. No cell phone, programmable or any other multi-tasking calculator will be permitted on exams.
- Personal Protective Equipment (PPE) – ALL Required:
 - Goggles: A small number are available on a first come first serve basis but comfort, quality, and cleanliness are questionable. It is *strongly recommended* that you purchase a pair of goggles.
 - Lab coat
 - Gloves: Nitrile (not latex). A box of gloves is good for 5 people so consider a group purchase. If nitrile gloves are not what is required, I will provide the appropriate substitute.

University-wide Withdrawal Date: The last day to withdraw with a **W** is Monday April 6, 2020. It will be strictly enforced.

POLICIES

All CES students must familiarize themselves with, and adhere to, all official university-wide student policies. CES takes these policies very seriously and enforces them strictly.

Grading Policy: The final grade in this course will be determined as follows:

You must pass BOTH the lecture and the lab portions of the course to be eligible to pass the entire course

LECTURE (75%):

Homework & Quizzes collectively = 1 exam grade	} Top 3 scores = 80%
Exam I (tentatively R 2/20)	
Exam II (tentatively R 4/2)	
Exam III (T 12/10, R 4/30; the last day of class)	
Class participation (answering & asking questions)	20%
<i>Note: In case of snow days, the 3rd exam will be held during the final exam period</i>	

- 1 exam score must be at least 60.
- The only exam extra credit is on the exams.
- Homework is due at the *beginning* of lecture & is gone over in class; NO late homework is accepted but the lowest score is dropped.

Makeup Exam Policy: Since 1 exam may be dropped, there will normally be **NO MAKE-UP QUIZZES OR EXAMS** during the semester. In the event that a student has a legitimate reason for missing a quiz or exam, the student should contact the Dean of Students office and present written verifiable proof of the reason for missing the exam, e.g., a doctor’s note, police report, court notice, etc. clearly stating the date AND time of the problem. The student must also notify the CES Department Office/Instructor that the exam will be missed. If the missed exam will result in failure, a cumulative make up exam will be given at the end of the semester.

LAB (25%):

Results & Interpretation	85%
Lab Technique & Behavior (safety, proper care of materials)	15%

- Students perform experiments in lab groups. Unless stated otherwise, each group hands in one lab report or worksheet. **A lab group consists of no more than 3 people** who share an experimental set up as well as data. Groups of 4 or more will be penalized. Multiple groups working together and sharing results are cheating. The minimum penalty for cheating in lab is a zero for the lab as well as a zero for attendance. Grades due to cheating cannot be dropped.
- You cannot submit data you did not acquire yourself. Putting your name on a lab you were absent for will result in a penalty to your total lab score as well as a penalty to others in the group.
- Labs are due during the next lab period unless otherwise instructed. Late labs will be penalized but the lowest score will drop.

Your final letter grade in this course will be based on the following tentative curve:

A	100-90	C	77.5-70
B+	89-87.5	D	69-65
B	87.5-80	F	64 and below
C+	79-77.5		

Cellular Phones: All cellular phones and other electronic devices must be switched off during all class times. During lab students can take brief calls by stepping out of the lab room. Habitual or lengthy will result in penalties. Such devices must be stowed in bags during exams or quizzes.

ADDITIONAL RESOURCES

Chemistry Tutoring Center: Located in the Central King Building, Lower Level, Rm. G12. Hours of operation are Monday – Friday 10:00 am - 6:00 pm. For further information please click [here](#).

Good on-line general textbook sources:

1. Chem1 virtual chemistry textbook: <http://www.chem1.com/acad/webtext/virtualtextbook.html>
2. chemMystery is actually geared for high school but a lot of it applies here too. <http://library.thinkquest.org/3659/>

Accommodation of Disabilities: Office of Accessibility Resources and Services (*formerly known as Disability Support Services*) offers long term and temporary accommodations for undergraduate, graduate and visiting students at NJIT.

If you are in need of accommodations due to a disability please contact Chantonette Lyles, Associate Director at the Office of Accessibility Resources and Services at 973-596-5417 or via email at lyles@njit.edu. The office is located in Fenster Hall Room 260. A Letter of Accommodation Eligibility from the Office of Accessibility Resources Services office authorizing your accommodations will be required.

For further information regarding self-identification, the submission of medical documentation and additional support services provided please visit the Accessibility Resources and Services (OARS) website at:

<http://www5.njit.edu/studentuccess/disability-support-services/>

LAB SCHEDULE:

Class	Date	Lab
1	23-Jan	Lab 01: Measurement and Density
2	30-Jan	Lab 02: Mass of a penny
3	6-Feb	Lab 03: Making Soap
4	13-Feb	Lab 04: Determination of a Chemical Formula
5	20-Feb	Exam 1
6	27-Feb	Lab 05: Synthesis of zinc iodide
7	5-Mar	Lab 06: Using Chemical Reactions
8	12-Mar	Lab 07: Acid-Base Titrations
9	19-Mar	Spring Break
10	26-Mar	Lab 08: Gases
11	2-Apr	Exam 2
12	9-Apr	Lab 09: calorimetry
13	16-Apr	Lab 10: galvanic cells
14	23-Apr	Lab 11: electrolysis
15	30-Apr	Exam 3

Important Dates (See: [Spring 2020 Academic Calendar](#))

Date	Day	Event
January 21, 2020	T	First Day of Classes
January 31, 2020	F	Last Day to Add/Drop Classes
March 15 - 22, 2020	Su – Su	Spring Break
April 6, 2020	M	Last Day to Withdraw
April 10, 2020	F	Good Friday, University is closed
May 5, 2020	T	Friday classes meet
May 5, 2020	T	Last Day of Classes
May 6 and 7, 2020	W-R	Reading Days
May 8 – 14, 2020	F – R	Final Exam Period