

## Chemical Engineering Laboratory II

ChE496

3 credits

Pre-requisite Courses: ChE 349, 360, 380, 396, Chem 339, Math 225A

Co-requisite Courses: ChE 460, 489

Mondays 2:30 pm – 5:35 pm

Thursdays 10:00 am – 12:50 pm

Tiernan Hall: Labs B7, 206, 311

### **Instructor: Dr. Irina Molodetsky**

Room 350 Tiernan Hall

Office hours: Monday, 1:00 pm-5:00pm;

Please, contact by email for additional meeting

Email: [Irina.Molodetsky@njit.edu](mailto:Irina.Molodetsky@njit.edu)

### **TA: Siva Valluri**

Email: [sv476@njit.edu](mailto:sv476@njit.edu)

### **Course overview**

This course gives you unique opportunities to apply your knowledge gained from the theoretical courses to solving real-life open-ended problems.

- Laboratory experiments are completed in teams.
- Each team will conduct four experiments. Each experiment requires Pre-Experiment Plan and Risk Assessment
  - Three laboratory experiments require a written report (scholarly paper format)
  - One laboratory experiment will be presented to your peers (team presentation);
- The laboratory experiments include modeling and prediction components. Completion of these components requires a math software package (for example, Polymath, which is available on all ChE computers).
- This course will use the NJIT Moodle site accessed by <http://moodle.njit.edu> for all communications regarding changes in the schedule, status of the experiments, score rubrics, files and documents.
- The manuals for laboratory experiments will be uploaded to Moodle site.
  - These manuals reflect a sustaining, multiyear effort of Prof.R.Barat to develop an experimental course for chemical engineers. The manuals are updated continuously. The last version is always posted on Moodle site.

## Grading Policy

- Each laboratory experiment is graded separately
- Each team performs 4 experiments
- Each of you has a chance to be a Team Leader
  - Team Leader gets 40% of the final grade from the experiment, while other team members have 20% to the final grade.
  - The final grade is compiled as 40% + 3x20%
  - If there are only 3 members in a team, each member receives 20% of the final grade for a presentation to peers
- Note: individual grade can be adjusted based on the input from your peers on the individual performance.
  - Anonymous peers-evaluation forms are returned together with the final report for each laboratory experiment
  - Peers-evaluation form is uploaded to Moodle
- RUBRICS for grading (either paper and ppt) are in “Introduction”, on Moodle
- For the 1<sup>st</sup> laboratory experiment you submit a draft report. I will review it, grade it, and return to you, so you can re-work the report if you want to improve the grade. I will use RUBRICS shown in the “Introduction”.
- Pre-experiment plan and Risk Assessment are due on the 1<sup>st</sup> day of experiment
- Extra credit (see “Introduction”) for constructive feedback on the peer-groups presentation
- Numerical to letter grades conversion

Above 90	A
Above 85	B+
Above 80	B
Above 75	C+
Above 70	C
Above 65	D
Below 65	F

## Professional behavior

- You are expected to follow the laboratory safety standards.
  - General guidelines are discussed at length in the Lab Manual – Introduction.
  - Every laboratory experiment includes specific safety guidelines.
  - Every team will be required to complete a risks assessment prior to running a specific laboratory experiment.

- Participation of each member of the team is critical and will be evaluated by the team members, as well as by the instructor. These evaluations will affect the final grade.

### **Policy on Academic Integrity**

Academic Integrity is the cornerstone of higher education and is central to the ideals of this course and the university. Cheating is strictly prohibited and devalues the degree that you are working on. As a member of the NJIT community, it is your responsibility to protect your educational investment by knowing and following the academic code of integrity policy that is found at:

<http://www5.njit.edu/policies/sites/policies/files/academic-integrity-code.pdf>.

Please note that it is my professional obligation and responsibility to report any academic misconduct to the Dean of Students Office. ***Any student found in violation of the code by cheating, plagiarizing or using any online software inappropriately will result in disciplinary action. This may include a failing grade of F, and/or suspension or dismissal from the university.*** If you have any questions about the code of Academic Integrity, please contact the Dean of Students Office at [dos@njit.edu](mailto:dos@njit.edu)

### **Accommodations due to a disability**

If you need accommodations due to a disability please contact Chantonette Lyles, Associate Director of Disability Support Services, Fenster Hall Room 260 to discuss your specific needs. A Letter of Accommodation Eligibility from the Disability Support Services office authorizing your accommodations will be required.