

Spring 2023 Updates for CBE Undergraduate Students

Graduate School

Seniors, are you thinking about applying for a **PhD degree**? Did you know that you can still apply at Rutgers CBE until **January 15th, 2023**? The PhD degree in engineering is different from your undergraduate studies in that the department pays your tuition and provides a stipend, so it is like paid employment rather than you and your family paying the tuition. If you like research, you may want to apply!

Find out more here: <https://cbe.rutgers.edu/graduate-program>

There is also the **Combined BS/Masters program**.

Are you interested in earning a MS or ME degree in CBE in a shorter time frame?

Find out more here: <https://cbe.rutgers.edu/bsmasters-chemical-and-biochemical-engineering>

For any questions, please contact Dr. Celik, fuat.celik@rutgers.edu

Separations and Computational Methods Conflict

Unfortunately, due to difficulties with the new scheduling system, Separations (14:155:324) and Computational Methods (14:155:307) were scheduled at the same time for Spring 2023. If you need to take both of these courses, I recommend that you take Separations for Spring 2023 and Computational Methods in Fall 2023, in order to stay on track as much as possible. Please contact me and I can approve your registration.

Undergraduate Research

Would you like to gain individual, hands-on research experience under the guidance of a CBE faculty adviser in a specific area of chemical or biochemical engineering? Find out more here: <https://cbe.rutgers.edu/research-opportunities>

Internships/Co-ops

Are you seeking employment in industry over the summer or during the semester? Please find out more here: <https://cbe.rutgers.edu/internship-program-real-world-experience>

For questions about internships or co-ops, please contact Dr. Zhang, the CBE internship coordinator, haoran.zhang@rutgers.edu

Technical Tracks

We offer the **Advanced and Nano Materials Track** and the **Energy and Sustainability Track**.

Find out more here: <https://cbe.rutgers.edu/current-undergraduate-student-resources>

Curriculum change

There has been a change to our curriculum for the Class of 2025 and beyond. We believe that this change will add flexibility and allow students to explore chemical science topics that are not covered by the current curriculum.

We have replaced the requirement to take Organic Chemistry II (01:160:308) with a new Chemical Science Elective (one out of a list of 6 courses) requirement.

Each student selects one out of a list of 6 courses:

01:160:308 (4 cr) Organic Chemistry II

[Prerequisites: 01:160:307 Organic Chemistry I or 01:160:315 Honors Org Chem I]

01:160:351 (3 cr) Inorganic Chemistry I

[Prerequisites: 01:160:307 Organic Chemistry I and 01:640:152 Calculus II]

16:155:541 (3 cr) Pharmaceutical Materials Engineering

[With permission from graduate program director]

16:155:571 (3 cr) Sustainable, Renewable, Clean Energy

[With permission from graduate program director]

14:635:205 (3 cr) Crystal Chemistry and Structure of Materials

[Co-requisite: 01:160:160 Gen Chem for Eng II]

14:635:440 (3 cr) Electrochemical Materials and Devices

[Juniors and seniors only]

Seniors:

The Senior class advisor is Dr. Celik, fuat.celik@rutgers.edu

Typical courses you will be registered for Spring 2023 are:

Process Engineering Lab II (14:155:416)

Chemical Engineering Design (14:155:428)

Biochemical Engineering (14:155:411)

Juniors:

The Junior class advisor is Dr. Ramachandran, rohitr@soe.rutgers.edu

Typical courses you will be registered for Spring 2023 are:

Transport Phenomena II (14:155:304)

Separation Processes (14:155:324)

Chemical Engineering Kinetics (14:155:341)

Mechanical Properties of Materials (14:635:407)

Computational Methods (14:155:307) (conflicts with Separations)

Sophomores:

The Sophomore class advisor is Dr. Bertuccio, ajb399@soe.rutgers.edu

Typical courses you will be registered for Spring 2023 are:

Chemical Engineering Thermodynamics I (14:155:208)

Biological Foundations in Chemical Engineering (14:155:210)

Chemical Science Elective (choose 1 out of 6 courses, see above)

Differential Equations (01:640:244)

Engineering Economics (14:540:343)

If you have any further questions about any of these topics, please feel free to contact Dr. Shapley, CBE Undergraduate program director, at nshapley@soe.rutgers.edu .