OTTO H. YORK DEPARTMENT OF CHEMICAL AND MATERIALS ENGINEERING
UNDERGRADUATE ELECTIVE COURSE

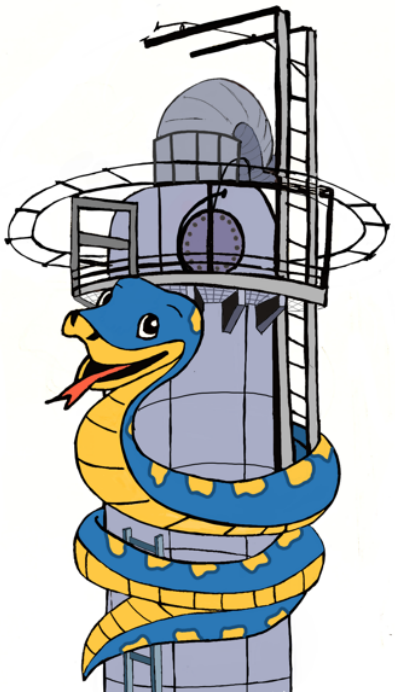
ChE 490: "Python for Chemical Engineering Calculations"

When: SPRING 2021
MW 11:00 AM – 12:20 PM
Where: Synchronous Online

Summary: Modern engineering calculations are hard to imagine without a flexible and efficient programming language. Python is such a language. Python is open source, free, easy to learn, and simple to use. These factors make Python one of the most popular programming languages in the world, highly demanded by employers. The goal of this course is to introduce undergraduate ChemE students to Python, (including NumPy and SciPy) and demonstrate how it can be used for solving a spectrum of chemical engineering problems.

More about the course:

- 3-credit technical elective
- For ChemE undergraduates only
- No formal pre-requisites
- No prior programming experience needed
- Solid knowledge of ChemE fundamentals is required
- Solid knowledge of calculus and differential equations is required
- Recommended for juniors and seniors
- Regular and **honors section** of the course are offered



Taking this course, **a motivated student will learn** how to utilize Python for:

- Solving problems in ChE curriculum
- In experimental and modeling research
- In selected industry jobs

Instructor: Prof. Gennady Gor
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Faculty profile: https://people.njit.edu/faculty/gor
More about the course: http://porousmaterials.net/teaching.html
Draft syllabus: http://porousmaterials.net/Gor-ChE490-draft.pdf