ECM 1, The Design of Coffee

Frequently Asked Questions

Will I really get to roast and brew coffee in this class?

Yes! The core component of this class is a weekly 2-hour lab session, where you will do experiments involving coffee. Examples include taking apart a Mr. Coffee brewer to analyze how it works, measuring the pH of coffee versus brew time, and examining the energy usage of different roasting profiles. In every lab session you will get to taste the resulting coffee, working with your group to ultimately make your unique design for the best-tasting cup of coffee.

I don't drink coffee. Does this class require me to drink it anyway?

No, you can take the entire course without tasting any of the coffee, and doing only visual and olfactory (smelling) sensory analyses. However, one of the things you will learn in this class is that properly prepared, fresh roasted coffee can taste nothing like the bitter stuff you might have tasted before. Some coffees even taste sweet without adding sugar. Moreover, a fun part of the class is the blind taste test at the end of the quarter, where you get to complete with your classmates Iron Chef style.

I only drink decaffeinated coffee. Is decaf available?

Yes. For students who cannot or choose not to consume caffeine, decaffeinated green coffee beans are available for both roasting and brewing.

I've heard engineering courses are difficult. Is this class going to destroy my GPA?

No! This class is designed as a general education course for students who are *not* majoring in engineering. All grades will be based on a curve using standards appropriate for a non-quantitative, freshmen level class.

Will I get GE credit for this course?

Yes, this class counts as 3 units of Science and Engineering credit for GE. The course also satisfies 3 units of both Scientific Literacy and Visual Literacy.

Why is this class in the department of chemical engineering? Are we going to be adding weird chemicals to the coffee?

Absolutely not! During the entire course we will use only green coffee beans and water. As we will discuss in the class, chemical engineers apply quantitative reasoning to a tremendously wide variety of industrial applications. Quite a lot of our graduates are actually hired by the food and beverage industries. But the main goal here is to introduce students to how chemical engineers analyze things, using coffee as a fun (and delicious!) example.