

Activity Information

This information will be shared on the MechE Summer X 2020 website

Title: Intro to Sourdough

Instructor name: Elizabeth Brownell

Instructor email: ebrownll@mit.edu

Brief bio of instructor(s) (optional): Elizabeth is a staff engineer in GEAR Lab at MIT, and an avid amateur baker. They have been baking sourdough with the same starter (lovingly named LanDough CalRisen) on-and-off since 2017.

Description of the activity (up to 250 words): Learn how to start, keep, and bake with a sourdough starter. We'll start by catching a starter from wild yeast and learn to maintain it. Once it's matured, we'll learn how to bake fresh sourdough bread, as well as how to adjust the starter and dough to tweak the flavor and texture of your loaf. No baking experience necessary!

Sourdough baking is a wonderful blend of science and art - You can approach it from a very analytical perspective if you want to, but people have been baking bread with wild yeast for millennia. We'll work on building your baker's intuition, paying attention to the starter and dough to see what it needs.

Participant preparation: No baking experience necessary.

Materials, tools, or other requirements: You can join to just learn and watch the process, but if you want to bake along, you'll need a supply of flour (any is fine, but whole-wheat works best; adding some rye is good too), salt, a refrigerator, and an oven. Some other kitchenware such as a kitchen scale, a heavy covered oven-safe crock (like a Dutch Oven), a heavy linen cloth for proofing, and a bench scraper will help, but aren't required. No yeast needed; this bread can be fully leavened from the wild-caught starter.

Specific safety considerations: Properly prepared starters are safe because they become acidic due to the fermentation action of lactic acid-forming bacteria present in the mixture. These bacteria and the acid environment formed inhibit the growth of other bacteria. While it is possible for a sourdough starter to go 'off', this is generally noticeable, and we will discuss how to assess the health of a starter in the class.

Enrollment limitations: None. If there is substantial interest, a second session may be scheduled as well.

Activity schedule: The first class we'll meet to learn about what sourdough is and how to take care of it, and for those baking along, we'll start our starter culture. We'll follow up briefly midweek, and again the next Sunday to check on the starter's progress. After 2 weeks, hopefully everyone is ready to bake, so we can meet briefly on Friday to start the dough, then a few times throughout the day on Saturday to tend to the dough, and again on Sunday for baking and further discussion/wrap-up. If folks are still interested, we can also meet the next weekend to do another bake together.

Session No.	Topic	Date	Start time	Duration
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MechE Summer X 2020

Session 1 (Day 1)	Learn about what sourdough is, and how to catch a wild starter, how to influence your starter's growth and flavor	Sunday June 28, 2020	3:00 pm	1:00 h
Session 2 (Day 4)	Quick check-in to see how your starter is progressing. If this time doesn't work, I can schedule mini-sessions with participants over the week.	Wednesday July 1, 2020	3:00 pm	0:30 h
Session 3 (Day 8)	Quick check-in to see how your starter is progressing, talk about what to do with your sourdough discard and discuss other bread recipes like yeasted breads, pita, sandwich bread, and soda breads.	Sunday July 5, 2020	3:00 pm	1:00 h
Session 4 (Day 13)	Starters should be ready; start the leaven for baking.	Friday July 10, 2020	3:00 pm	0:30 h
Session 5.1 (Day 14)	We start our dough together in the morning, and talk through the mixing and baking process.	Saturday July 11, 2020	9:00 am	1:00 h
Session 5.2 (Day 14)	We meet a bit later to continue the mixing process, periodically stretching & folding the dough and mixing in additional water.	Saturday July 11, 2020	11:00 am	0:30 h
Session 5.3 (Day 14)	In the afternoon, we'll shape our loaves and let them proof in the refrigerator overnight.	Saturday July 11, 2020	4:00 pm	0:30 h
Session 6.1 (Day 15)	Our loaves are ready to score and bake! We'll talk about how to tell when your dough is fully proofed, and how to prepare it for baking.	Sunday July 12, 2020	2:00 pm	0:30 h
Session 6.2 (Day 15)	Meet up and see how our loaves turned out! Discussion troubleshooting, variations, and ways to continue your sourdough journey!	Sunday July 12, 2020	5:00 pm	0:30 h