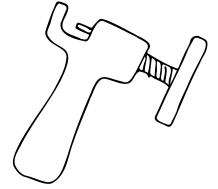


Mechanics Fundamentals Course

Lefty Loosey Bike Collective



Teaching Philosophy - we aim to be *inviting* and *rigorous*

- we recognize that we have been separated from knowledge along gender, class, and racial lines
- we emphasize the importance of consent
- we have both technical and relational goals

Teaching Practices

- principles, not just processes
- attention to how we use our bodies
- productive vs unproductive frustration (aka "zone of proximal development")
- structure and exploration
- "never a failure, always a lesson"

Course Schedule

- Week 1: Teaching and Learning, Mechanical Principles, Wheels Part 1: Tubes and Tires
 - threads, fasteners, bearings, cables, leverage, torque
 - diagnosing, repairing, and replacing tubes and tires
- Week 2: Wheels Part 2: Hubs
 - overhauling and adjusting cup-and-cone front and rear hubs
 - *[we are not covering replacing sealed bearings]*
- Week 3: Bottom Brackets; Drivetrain
 - removing and installing cranks
 - adjusting cup-and-cone bottom brackets
 - removing and installing cartridge bottom brackets
 - removing and installing freewheels and cassettes
 - chain stretch, cog and chainring wear
 - drivetrain cleaning and maintenance
- Week 4: Wheel Part 3: Truing; Headsets
 - truing wheels, spoke replacement
 - adjusting threaded and threadless headsets
- Week 5: Brakes
 - adjusting common rim brakes (v-brakes, side-pull caliper brakes, centerpull brakes, cantilever brakes) and mechanical disc brakes
 - *[we are not covering hydraulic disc brakes, drum brakes, coaster brakes]*
- Week 6: Shifting
 - adjusting front derailleurs and shifters
 - adjusting rear derailleurs and shifting
 - different types of cables and housing
 - *[we are not covering internally-geared hubs]*

