

Berrien Springs Partnership Syllabus and Instructor Qualifications

Class Bike Repair 2

GRADE OR AGE LEVELS: Ages 12 and up

START DATE: Sept 13, 2023

END DATE: Oct, 28, 2023

WEEKS TOTAL: 8

WEEKS OFF: 0

DAY/TIME REQUIRED: Wed, 2:00 - 4:00

ADD'L DAYS/WK AVAILABLE:

HOURS (REQUIRED): 16

HOURS (POSSIBLE):16

TOTAL SEMESTER HOURS POSSIBLE: 16

LOCATION/ADDRESS: DIRECTIONS TO LOCATION (if needed):

Cycle Re Cycle, 159 Napier, Benton Harbor, MI 49022

MAIN INSTRUCTOR: Tom Hurst

ADDITIONAL PRIMARY INSTRUCTORS (background check

CONTACT INFORMATION: phone:269-930-4704 email:Loonling.lc@gmail.com

website: loonling.lc@gmail.com

ADDITIONAL REGISTRATION AT SITE REQUIRED? YES

IF YES, INSTRUCTIONS FOR REGISTRATION: Parents to complete Cycle Re Cycle Learn a Bike Waiver and photo release at first class.

MAIN INSTRUCTOR QUALIFICATIONS: Tom has been an instructor of Agriculture and Industrial education for 36 years. Currently holds Michigan Teaching Certificates in Agriscience and Natural Resources k-12 and Industrial Education k-12

COURSE DESCRIPTION (complete overview shown on website): A program of Cycle Re Cycle.

A non profit dedicated to improving the lives of Southwest Michigan residents by promoting

bicycles and cycling throughout the community.

L'earn-A-Bike students spend time in the shop learning to rehabilitate bicycles and do basic repairs. As the class progresses, students will have the opportunity to select a bicycle to rehabilitate as their own at no cost. Yes, you get a bicycle.

Skills covered will include: Repairing and replacing tires, tubes and wheels, Brake maintenance, Drivetrain repairs and tuning, Adjusting proper fit, replacing and adjusting cables, replacing safety and comfort items, lubrication and bearing maintenance. At the conclusion of the class students should have the skills needed to maintain their own bicycle and assist others.

SYLLABUS/OUTLINE: WEEKLY BREAKDOWN OF PROJECT-BASED LEARNING ACTIVITY

Week 1: Introduction to shop, Safety, general operating procedures. Topic 1. Removing a wheel and repairing a flat tire.

Week 2: Tires and wheels. Wheel bearings, tire selection. Using manual pumps and air compressors, Repacking hubs. Truing wheels on the stand.

Week 3: Brakes. Brake cables and levers, Calipers, Shoes, return springs, Coaster brakes. Adjusting brakes, replacing cables and housings, using barrel adjusters,

Week 4: Shifters. Grip, lever and click shifters, Derailers, front and rear, adjusting, matching to chainrings and cassettes, Cables and housings, proper use and common misuse, Ordering replacement shifters. Lubricating and replacing drive chains.

Week 5: Frames and Headsets. Frame types, Bottom Brackets, Headsets, Setting handlebars, Checking frame alignment,

Week 6: Derailers, Front types, Rear 5 - 9 speed, Adjusting and tuning.

Week 7, 8 Students work on their selected project Bicycle. Determine needed repair/part replacement. Clean, lubricate, adjust as needed, Needed parts will be supplied by Cycle Re Cycle. Test rides, Bicycles released to students at conclusion of class.

Describe activities that will reinforce the lesson. Include any work and time to be required outside of class. List here or (circle) SEE ATTACHMENT.

Students are encouraged to apply developed skills to bicycles at home or within their community.

COURSE OBJECTIVES AND APPROXIMATE TARGET DATES:

Steps to check for student understanding, along with dates or # of weeks into class:

Week 2: Students will be able to repair a flat tire by patching a tube or replace tubes and or tires. Manage correct tire inflation.

Week 4: Students are able to make basic field repairs of brake and shifter systems using common hand tools.

Week 6: Students have a basic understanding of bicycle systems. They can competently make basic repairs to their own bicycles such as chain repairs, adjusting brakes and shifters, properly adjusting seats and handlebars.

Week 8: Students have developed the skills to maintain and repair their own bicycles and assist and teach others.

STUDENT ASSESSMENT - what will be used to evaluate student progress and/or end of semester pass/fail status?

All classes abide by the following:

- 1) Student agrees to attend at least 80% of class sessions/lessons offered. Attendance is kept online and tracked by Partnership staff. Failure to meet 80% or be on track to meet 80% may result in program discontinuation.
- 2) The Partnership Student Assessment or Performance Form is filled out by the teacher and turned in to Partnership staff. The link to this form is found on the web page for this class. Failing marks for lack of participation, behavior issues, practice time, etc. may result in program discontinuation.
- 3) Students agrees, with parental assistance, to manage their own behavior, to work as a team and to share in responsibilities as assigned by instructors.
- 4) Student arrive at class on time and stays to participate in clean up activities.
- 5) Student participates to the best of their age appropriate ability in all class activities.

Class-specific assessment: Teacher will use these Criteria from the partnership approved evaluation system to assess students' performance. Score will be based as follows.

Code: 4=Always, 3=Usually, 2=Sometimes, 1=Rarely

Prepared for class	Listens, follows instructions	Asks questions	On time, advance notice for absences	Age appropriate for class	Respectful to others, teacher and rules	Accepts critique without resistance	On task during class	Best Effort put forth in class and on projects
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ADDITIONAL RESOURCES: (online, books, video, etc.):

Park Tool Bicycle repair manual
 Cycle Re Cycle bike repair curriculum
 Other web resources to be shared in class.

CLASS POLICIES: ATTENDANCE, BEHAVIOR, WEATHER, ETC.

Attendance: Students are expected to attend all class sessions. If sick or away advance notice is requested.

Behavior: Students must function as multi age team members. They are not to be self centered, and uncooperative with others. They must follow instructions and respect the guidance of all adults working with the program.

Weather: Class activities may be rearranged due to weather, If class must be canceled due to weather a make up class will be added.

Other: Student Dress. Students must dress appropriately for class. Generally dressed for work in temperature and weather appropriate clothes that may get dirty, closed toe shoes that secure to the foot, long hair tied back, Helmets must be worn when test riding bicycles.