**ORGANIC WASTE RECYCLING**

**有機廢棄物回收**

**SYLLABUS**

**Basic Information**

Have you ever wondered where the trash goes and how we can recycle the trash such as organic waste to reduce pollution? For example, the wasted food in the United States — on average, 400 pounds per person each year, contributes significantly to methane emissions, greenhouse gas emissions, accelerating climate change. Composting organic waste reduces the amount of waste that is taken to landfills. “Organic waste” includes food, green material, landscape and pruning waste, organic textiles and carpets, lumber, wood, paper products, printing and writing paper, manure, biosolids, digestate, and sludges.

If everyone in the United States composted their food waste, the impact would be equivalent to removing 7.8 million cars from the road. The State of California has established statewide targets to reduce the amount of organic waste disposal in landfills (50% reduction by 2020 and 75% by 2025). It also sets a goal to recover at least 20% of edible food that is thrown away by 2025 by donating it to people in need.

In this summer camp, students will learn concepts of organic waste recycling, observe how earthworms transform the veggie and fruit scraps into rich soil (garden gold) through their poop (also called worm castings), attend field trips to farms, and have hands-on activities on exploring invertebrate animals (worms), gardening, and composting.

**Goals**

The course is designed for students to learn the process of organic waste recycling and fundamentals of composting and vermicomposting.

**Instructor's name**: Kenny Wang and Guest Speakers

**Course Locations**: Field Trips and Tzu Chi Education Campus (or Zoom Meeting)

**Course Hours**: 10:00 am - 12:00 am Saturday

**Date:** June 18, June 25, July 9, July 16, and July 23

**Field Trip Locations:**

 June 18: Little Parrot Farm (2126 Desire Ave, Rowland Heights, CA 91748)

 June 25: Tzu Chi Education Campus (1920 S. Brea Canyon Cut Off Rd, Walnut, CA 91789)

Note: Enter from Gate 1 Parking Lot near Colima Road

July 9: Little Parrot Farm (2126 Desire Ave, Rowland Heights, CA 91748)

**Final Presentation:** July 26, Tuesday, 7:00 – 8:00 PM

**Course Fees:** $268 plus $80 for farm tours and composting/vermicomposting materials

**Course Objectives**

This project-based learning course will have students form teams in self-directed research and learn how to compost with earthworms in appropriate conditions. The students require to do research on organic waste recycling and raise earthworms to convert organic waste into fertilizer (vermicomposting).

Students will learn concepts of organic waste recycling, observe how earthworms grow and change during their life, and transform the veggie and fruit scraps into rich soil (garden gold) through their poop (also called worm castings). In addition, student will attend field trips to farms and have hands-on activities on exploring invertebrate animals (worms), gardening, and composting.

Each team or person will give a final presentation related organic waste recycling and explain why vermicomposting and composting are beneficial to environment at the end of the summer camp on July 26, 2022.

**Required Student Resources**

* Presentation software
* Transportation to field trip location
* Webinars are delivered through Zoom, so students don't need to download any additional software to attend - just click the link before the meeting is due to start and it will open in your web browser.

**Course Schedule/Outline/Calendar of Events**

Provide students with a tentative projected outline of significant events that occur throughout the session, including assignments, projects, field trips, etc.

| **Week** | **Topic** | **Reading /Assignment** |
| --- | --- | --- |
| 1(06/18) | * Self-Introduction/Forming Groups
* Introduction of Vermicomposting
* Field Trip to Little Parrot Farm
 | Be prepared to introduce yourself in a style/format of your own choice – interests, skills, strengths, personal goals of the camp/course.Make your own earthworm bin. |
| 2(06/25) | * Introduction of Backyard Composting
* Field Trip to Tzu Chi Education Garden
 | Observe your earthworm bin.Bring your ***veggie*** organic waste into compost.  |
| 3(07/09) | * Introduction of Gardening
* Plant your own Vegetable Garden
* Field Trip to Little Parrot Farm
 | Observe your earthworm bin.Observe and monitor compost piles.Observe plants in the garden. |
| 4(07/16) | * Group Presentation: Topic/Project Selection
 | Observe your earthworm bin.Observe and monitor compost piles.Observe plants in the garden. |
| 5(07/23) | * Earthworms Competition
* Q&A Session
 | Bring your earthworm bin for final competition.Prepare final organic waste recycling project presentation. |
| 6(07/26) | * Final Group Presentation Competition
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**Approved Academic Honesty Statement**

The following statement must appear on all syllabi: “The academic community is operated on the basis of honesty, integrity, and fair play. Academic Responsibility and Conduct applies to cases in which cheating, plagiarism, or other academic misconduct have occurred in an instructional context. Students found guilty of academic misconduct are subject to penalties, up to and possibly including suspension and/or expulsion. Student academic misconduct records are maintained by the ENVIRONMENT SUMMER CAMP.