

**Upward Bound STEAM ED Community Service-learning Project
Summer 2023
Upward Bound/A Special Place Steam Academy Collaborative
Thursdays 12p.m.-2 p.m.**

Instructor: Cierra Wourman
Counselor
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Office Location: SIUE East St. Louis
Availability: 8am-2:30pm, but best to schedule an appointment via email

Course Description:

The STEAM Academic collaborative teaches adolescents and young scholars how to effectively process information – think of it as learning how to learn! STEAM learning activities promote the development of observational skills, the identification of patterns, the analysis of results, and the forecasting of outcomes using engaging project-based experiments. The service-learning component of the SIUE TRIO Upward Bound program is a teaching and learning strategy that links academic curriculum to community problem-solving.

Course Objectives: Service Learning

Service-learning can promote a sense of connectedness to the school and the community.

A sense of connectedness includes:

- Feeling valued by community members
- Feeling responsible for the welfare of the community
- Having pride in one's community; and high tendency to take action for the benefit of the community.

Service-learning can promote social-emotional skills.

Researchers have found a statistically significant impact of service-learning programs on multiple outcomes, including:

- Improved social skills.
- Better cooperation skills in the classroom
- Improved psychological well-being; and a better ability to set goals and adjust behavior to reach these goals.

Benefits for Service Recipients, Communities, and Society

Beyond the young people the organizations directly involve, community-based service-learning benefits the people served, their communities, and, ultimately, society:

- It meets real needs and priorities for individuals and communities, as young people bring new energy, capacity, and creative ideas.
- Community residents have opportunities to build positive relationships with young people.
- Communities see youth in a different way—as resources, not problems.
- A new generation of caring and experienced citizens, activists, and volunteers is cultivated.

STEAM Project

Students will use problem-solving strategies to investigate and understand increasingly complex content and be able to:

- Formulate and solve multi-step problems from everyday situations.
- Solve problems using a variety of strategies (Verify and interpret results with respect to the original problem.
- Determine if the solution of a problem is reasonable.
- Demonstrate that a problem may be solved in more than one way.
- Exhibit confidence in their ability to solve problems independently and in groups.
- Display increasing perseverance, and persistence in problem solving.

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Tentative Community Service Schedule- May be subject to change.

This schedule is subject to change based on the needs of the class and/or at the instructor's discretion.

Class Date	Topics & Discussion Points	Assignments Due & Reminders
6/22	Introductions, Student led Icebreaker, Course Goals, Expectations and Activity Review	
6/29	STEAM Project Based Experiment Various Bridge Designs	
7/6	STEAM Project Bases Experiment Various Bridge Design	
7/13	London Bridge: Final TEST Student Feedback and Party	