

Summer Paid Research Opportunity for SVSU Undergraduate Students

Dow Science & Sustainability Education Center

Consider applying to be a paid summer intern for the Dow Science and Sustainability Education Center (DSSEC). Middle and high school STEM teachers, high school students, and SVSU undergraduate students are welcome to apply for an opportunity to participate in scientific research during the summer with SVSU faculty. SVSU faculty will be directing projects in the areas of biochemistry, biology, chemistry, and geography; however, each project is closely aligned with the Saginaw Bay Environmental Science Institute (SBESI). Funding is available for undergraduate student internship positions for up to 8 weeks (20-30 hrs./wk.).

The Summer Paid Research Internship includes two preparation weeks (**June 14 – June 25**) up to 15 hours per week) and the actual 6-week Summer Internship (**June 28 – August 5, 2021**, Monday through Thursday at 20 – 30 hours per week).

Due to the evolving nature of the Covid-19 pandemic, these plans and programs are subject to change or cancellation at any time to reflect public health guidance and current conditions. Participants will be notified of any changes as soon as possible.

Dow SSEC timing:

- Undergraduate student intern applications are **due April 30**.
- Anticipated undergraduate intern selections will be made by **May 21**.
- Summer internship program orientation day – **June 28**.
- Dow SSEC Poster Symposium – **August 5**.
- Dow SSEC project reflection paper/report due – **August 5, 2021**.

Undergraduate Student Eligibility, Function, and Compensation:

Eligibility

- Students must be enrolled at SVSU full time for Fall 2021. All STEM (Science, Technology, Engineering, Math) majors are particularly encouraged to apply. Other majors are also welcome to apply.
- Must be legally able to work in the United States.

Functions

- Work in the research groups along with the middle and high school teachers and high school students on research related to the Saginaw Bay Watershed.
- Serve as near-peer mentors for the high school students
- Contribute to long term data collection for ecological state of the Sag. Bay Watershed
- Assist the high school students in composing final project posters and attend the poster symposium on August 5.
- Complete a survey about the program
- Write a final, 3-page reflection paper

Compensation

- \$12.00 per hr. for up to 8 weeks (20-30 hrs./wk.). Please note that the first two weeks (June 14 – June 25) will be up to 15 hours each to allow for preparation of summer materials. The other six weeks are June 28 – August 5 and are Monday – Thursday.

Application procedure:

SVSU undergraduate students should provide a cover letter, resume, unofficial transcripts (“issued to student” or a clear screenshot of Cardinal Direct is acceptable), and a letter of recommendation from a

professor to the advertised student job posting # 4691709 on Handshake (<https://www.svsu.edu/careerservices/handshake-onlinejobdatabase/students/>) no later than **April 30**. In the cover letter, briefly introduce yourself, outline your level of interest in this project, discuss if you were a previous intern in the Dow SSEC and if so, in which research group you participated. Also, **comment on your availability** (i.e. will you be unavailable a certain week due to vacation, or if you will be available for the entire program, please state that). You are strongly encouraged to be available for the majority of the 6-week program, June 28 – August 5. Any questions can be directed to Dr. Jennifer Chaytor at jchaytor@svsu.edu.

Background for the Dow Science and Sustainability Education Center:

The Dow Science & Sustainability Education Center (DSSEC) was funded by The Dow Chemical Company Foundation in December 2013 for the purpose of enhancing STEM education in the region at all levels. The DSSEC will have natural connections to the Saginaw Bay Environmental Science Institute (SBESI), and each program would benefit from the existence of the other. The SBESI will be focused on undergraduate research, often funded through external grants and motivated by needs within the community/region. The Dow Science & Sustainability Education Center will focus on broader educational outreach, focusing not just on college students, but also on high school students and teachers, through the summer internship program. The broader community will be engaged via the mobile science lab, through which citizens will have opportunities to participate in scientific studies, not only of the Saginaw Bay Watershed, but also other opportunities such as green chemistry, biodiversity and alternate energy.

Summer research:

The summer research experience will involve two components:

1) Hypothesis based projects as part of your existing research program – this is the main experience. The summer internship program will be strongly tied to SBESI research and other environmental and/or sustainability related projects fitting within the intent of the DSSEC. Each research group will consist of faculty intern directors, high school and / or middle school teachers, undergraduate interns, and high school interns. Each student will have a hypothesis-based project that is directly tied to faculty research.

2) Sustained and organized sample and data collection around the Saginaw Bay Watershed – where possible within research group structures and activities

While each research project may be unique depending on the faculty director, the watershed sampling will connect students from all research groups and years as they construct a sustainable watershed database. At sites around the watershed, students will obtain water quality parameters, benthic species indices, algal growth, muck distribution, and invasive species distribution using widely accepted methods and metrics. A database has been developed that will expand each year with input from the participants. A subset of collection sites will remain fixed in order to enable the development of a long-term record of Saginaw Bay ecosystem conditions.

Research group structure:

Research groups will consist of one faculty internship director, two high school and/or middle school teachers, two undergraduate students, and four high school students.

Research group assignments are made by the coordinator and the faculty intern directors.

Project Report:

Each student intern is required to submit a three-page final paper consisting of three sections: one page description of the project, one page reflection on the summer experience, and one page description of how the summer internship affected your interest and direction toward a STEM career. A general format will

be given before the end of the summer internship. These reports will be used for internal evaluation of the program and your participation.