

# Making STEM Connections to Ignite Student Interests

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## Abstract

Outreach efforts to youth in inspiring interest in and exploration of numerous fields of science and science related careers has been on the agenda of programming for UWSP Continuing Education for numerous years. Capitalizing on the resources of the University including the faculty, facilities and opportunities for study at the University of Wisconsin – Stevens Point, two annual events have served hundreds of young people from around the state of Wisconsin.

UWSP STEM Career Day is a fall event that is designed for 9<sup>th</sup> through 12<sup>th</sup> grade boys and girls. The purpose of this event is to expose students to the UWSP environment, provide an opportunity for the students to participate in hands on workshops lead by faculty, staff and UWSP students, showcase the various science departments and programs available beyond high school, and make connections with students and presenters.

Women & Science Day is an event catered to girls in grades 7 and 8. The purpose of this event is to provide young women an opportunity to participate and explore a variety of career options available in numerous fields of science and technology. All sessions are taught by UWSP faculty and students as well as many professional women from throughout Wisconsin.

Both events are held on the UWSP campus and offer fun, hands-on workshops to inspire interest in the sciences. Innovation, collaboration, partnerships, networking and the philosophy that “people support what they help create”, have been the building blocks that these program stand on. These educational venues have provided faculty, staff and students an opportunity to share research. School districts throughout the state have sent over 1500 students to these events in the last 2 years. Both events have received exceptional evaluations from students, teachers and presenters and have served as a recruitment tool for UWSP.

## Introduction

UWSP has a lengthy history of providing exceptional educational opportunities for middle school and high school students through two very popular and well attended annual events – UWSP STEM Career Day ([www.uwsp.edu/conted/stem](http://www.uwsp.edu/conted/stem)) and Women & Science Day ([www.uwsp.edu/conted/women\\_science](http://www.uwsp.edu/conted/women_science)). These events were developed through the Office of Continuing Education as part of their outreach efforts, but have been strongly supported by the College of Letters and Science, and have become a cornerstone of efforts at “Inclusive Excellence” on the UWSP campus. Involvement of the College and university administration at

all levels has kept these events at the forefront of university visibility in the STEM area, and involves faculty, staff, students, chairs and administration at all levels.

### **Women & Science Day/STEM Career Day**

The original inception for these programs came from years of research suggesting that there was a shortage of females in science career fields and that female students needed to be introduced and exposed to science opportunities (Rule,1965; Dawkins,2011) . In addition, studies showed that the confidence level of young women in science courses was significantly less than young men of the same age (Etzkowitz et al., 1994).

The response to this data provided an educational outreach opportunity for Central and Northern Wisconsin. Over the past two years, the numbers have become more comparable which prompted the transitions from a fall Women & Science Day for 9<sup>th</sup> and 10<sup>th</sup> grade girls to a UWSP STEM Career Day for 9<sup>th</sup> through 12<sup>th</sup> grade boys and girls.

The framework for both events was set on a weekday so that schools, who were the focus of the marketing efforts, could participate. The schedule was set with an opening keynote address followed by breakout sessions where the students could pre-select topics of interest. All breakout sessions included some type of hands-on activity.

Faculty in the science disciplines of the University as well as professional women in Central Wisconsin who were in science related career fields were invited to present at Women & Science Day. Minimum stipends were offered to each presenter or they could opt to have stipend donated to a scholarship fund for student requests.

Marketing was done through postcards to schools and more recently, through electronic messaging, emails and the website. The schedule of breakout sessions is made available prior to registration so that the students can make selections. Sessions fill on a first come first serve basis.

UWSP Admissions Office and the academic departments provide information about the programs of study available at UWSP as well as admission requirements. This is done through displays and information tables available during the registration time and lunch time.

Logistics including facility arrangements, fiscal management, presenter correspondence, registration, session materials, marketing, evaluation, and overall coordination, is handled by the campus Continuing Education Office.

Evaluations are completed by the attendees, the chaperones, and the presenters at the conclusion of the event. Feedback obtained is incorporated into the planning process for continuous

improvement of the program. Program responses have been very positive and gracious to have this opportunity available to the students.

Research was conducted by a UWSP Psychology faculty member on young women attending the Women & Science Day (Weisgram 2010). The data showed an increased interest in science fields after attending the daylong event. The methodology used for this study was a pre and post test administered to the participants the day of the program and at the conclusion of the event. The test was administered by UWSP Psychology students and supervised by the attending school teachers/chaperones.

## REFERENCES

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## Author Information

Julie M. Hellweg has worked in Continuing Education since 1991 serving in several leadership roles. She currently works with University credit courses in the College of Letters and Science as well as a variety of noncredit programs offered for professional development and/or personal enrichment, to a variety of audiences. She has attended the Chabot Space & Science Center Techbridge Institute for Women and Science and serves as a member of the UW System Women and Science Advisory Board. Julie has a B.S. in psychology and sociology, an M.S.ED in College Student Personnel with an emphasis in Counseling and Whole Person Development, and is a graduate of the Management of Lifelong Education program at Harvard Graduate School of Education.

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