

ISTAR@NU 2017 WORKSHOPS

Math and STEAM

Date: July 26 (full day) || Audience: Middle School

Use visual art and dance to connect math practice standards and content standards to the creative process. CPS Math Educator and Golden Apple Winner, Luke Albrecht, uses art as a means to broaden our understanding of mathematics concepts, and in turn, the teaching and learning of mathematics. Learn to work with math as a literacy instead of a collection of content. Participants will spend the morning reflecting on Math CCSS through visual art and creating dance based on math concepts in the afternoon. Learn how to teach math as a verb in this hands-on workshop.

Novel Engineering For Middle School

Date: August 16 (full day) || Audience: Middle School

Novel engineering is an innovative approach to integrate engineering and literacy in elementary and middle school. Students use classroom literature (stories, novels, expository texts, etc.) as a basis for engineering design challenges to: identify engineering problems; impose constraints by using details from the text; design functional, realistic solutions for characters; and engage in the engineering design process while reinforcing literacy skills. Visual and spatial artifacts join writing and inquiry in this multi-modal project. This workshop is facilitated by FUSE and OSEP's Senior Designer, Anne Stevens.

STEM Student Research Facilitation

Date: June 26, 27, 28 (2 and a half days) || Audience: High School

This workshop is aimed at STEM teachers for the purposes of those teachers developing research opportunities and programs for their students. Participants will develop the foundations of a student research program for their school, including mission, vision, goals, and syllabus. Activities and curricular materials will be designed and developed for implementation with students. Participants will also explore mechanisms to advance their programs through student sharing and competitions and finding program resources. Workshop is 2.5 days and facilitated by teacher leader, Jacki Naughton, who has developed and facilitated student research programs for over 25 years.

Design Thinking in STEM

Date: July 17, 18, 19 (3 full days) || Audience: Middle & High School

This 3-day workshop will have teachers working through several design projects on interdisciplinary teams. Through the leadership of Northwestern's Segal Design Institute faculty, in partnership with OSEP staff and STEAM teacher Sachin Jhunjhunwalas from Evanston Township High School, teachers will learn the process of design thinking used at universities, industries, and schools at the cutting edge of ideation and innovation. Facilitators will assist teachers in mapping design thinking problems, skills, and processes to their curriculum so that teachers feel inspired and confident in integrating design projects in their classrooms. Discussions will include how design thinking aligns with various disciplines and education standards such as NGSS and CCSS.