

STEM Workshop

EXPLORING THE
INTERSECTION OF THE
ARTS, SCIENCES AND
HUMANITIES



STEM TRANSFORMER WORKSHOP SERIES

Interface has designed this unique opportunity to help STEM students improve their chances of getting into top colleges.

Having an outstanding Science, Technology, Engineering and Math (STEM) resume – very high grades, very high-test scores, and the “usual” STEM activities, such as doing research or taking advanced math classes – is **not** enough to get students into the top U.S. colleges. This is especially true for boys.

Colleges want students who set themselves apart from the typical STEM candidate.

Colleges are also looking for STEM students with strong communication skills, as the ability to write and speak persuasively -- whether for grant proposals or in presenting research findings -- is critical to being successful in STEM.

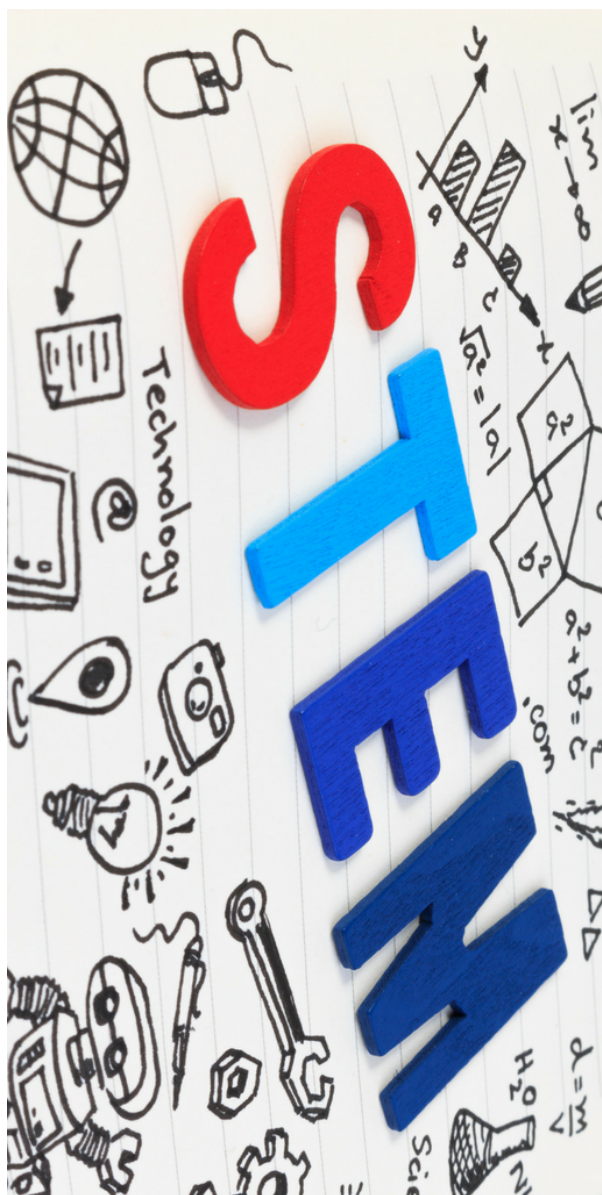
In the program’s 8 sessions, led by published authors and experienced public speakers, students will develop these critical reading, writing and speaking skills through analyzing and discussing the use of science in genres including short stories and films, completing writing assignments that include drafting a science fiction short story (over the course of the program with step-by-step guidance by the instructor), and giving an oral presentation.

Students’ participation will help transform them from the typical STEM student into applicants who stand out through their exploration of both STEM and the humanities, and through the skills they’ve learned in the process.

Program Overview

WHAT YOU GET

- Workshop is limited to 8 students
- Each workshop will include 8 sessions of 75 minutes each
- Students will discuss science fiction short stories and movies, and will receive step-by-step guidance on writing a science fiction short story
- The author leading the class will help students create characters and the plot, and will guide them through writing the story
- Students will receive in-class and written feedback on their writing through each step of the story-writing process
- Students will receive instruction on public speaking
- Students will receive instruction about out-of-the-box ways to build their STEM resumes to help them stand out in the college application process
- Students will receive instruction about how to avoid the mistakes STEM students often make when building their college resume
- Students will be given a list of publications that publish teen writing on science
- Students will be given a list of publications that publish teen short stories, including science fiction
- Students will be given instruction on how to submit work to publications



OPTIONAL

Students can attend an extra session in which they can practice their speaking skills by presenting a three-minute talk on a science topic of their choice

All students will be given a list of science competitions that involve presenting a talk on a science topic, and interested students can use the extra session to practice their talk before submitting it to a competition

Interested students can lead a discussion of Interface's International Young Science Discussion group on a science topic of their choice, which will further enhance their resume

Students are invited to join an international science fiction book club for teens, which will be a fun way for them to continue to build their STEM/humanities resume



CLASS BREAKDOWN

Session 1: Led by Mark Williams. Mark and students will discuss the use of science concepts and analyze the writing in science fiction short stories, novels, films, and other media. For example, how does a writer make time travel or zombie plagues plausible within a story? Relatedly, how does a writer strike the balance of "real" science and storycraft?

Session 2 and 3: Led by Mark Williams. Mark and students will discuss chapters from a science fiction novel. Students will be assigned the chapters prior to Session 1, so that they have time to read them before these sessions. After Session 2, students will be assigned the task of writing a science fiction short story. In the following weeks, Mark will guide students through the steps of writing the story, and the students' writing will be discussed in each of Mark's sessions.

Session 4 and 5: Led by Mark Williams. Mark and students will discuss chapters from a science fiction novel, as well as the students' writing.

Session 6: Led by Susan Goodkin. This session will cover non-fiction STEM writing and public speaking. Susan will discuss writing non-fiction STEM-related pieces, including personal essays and opinion pieces, and blogging about STEM. Susan will also discuss how students can get their science-related writing (fiction and non-fiction) published.

We will also discuss other creative ways students can highlight their STEM skills for colleges. As an example, we will watch a science video created by a high school student.

Additionally, Susan will discuss the common mistakes STEM students make in the college planning process, including in extracurriculars, summer activities, and on the application. We'll discuss how to avoid these mistakes, what summer opportunities and extracurriculars will help STEM students strengthen their resumes in the right ways, and tips for creating a strong STEM college application.

Finally, we will discuss tips for public speaking, particularly about STEM.

Session 7: Led by Mark Williams. Mark will lead a discussion on the art and science of science fiction films. Students will be given the name of the film to be discussed before session 3, so they will have time to watch it before this session.

Session 8: Led by Mark Williams. Mark and students will discuss science fiction stories, including science fiction written by women. The class will also discuss the students' science fiction short stories and the writing process.

At the conclusion of the class, the students' stories will be posted on the blog created for this group. Students will also be encouraged to submit their stories for publication.



STEM Science, Technology,
Engineering, Mathematics



MARK LONDON WILLIAMS - INSTRUCTOR



Mr. Williams is the acclaimed author of the young teen time-travel series, *Danger Boy*, and more recently, the first book in his new *Max Random* series, as well as a playwright whose plays have been produced from California to London. He also writes about film for numerous publications including the *Los Angeles Times*, and *Variety*, one of America's premier sources for news about film, and is currently a Hollywood columnist for a British film publication. Additionally, he has taught writing at Disney's Creative Academy and at the prestigious Sewanee Young Writers Conference.

SUSAN GOODKIN – INSTRUCTOR



Ms. Goodkin is a graduate of Harvard College, Harvard Law School and Oxford University, where she studied on a Rhodes Scholarship, the world's most prestigious academic scholarship. Ms. Goodkin is a writer and college consultant whose articles have been published in magazines and leading newspapers throughout the United States. As a consultant, she specializes in helping students improve their resumes for college; she has helped many of her college advisees create blogs and publish their fiction and non-fiction work, which over the past few years alone has helped her students get into colleges including Stanford, Harvard, Yale, Caltech, MIT, Princeton, and U.Penn. A former courtroom attorney, Susan's presentation skills have made her a sought-after speaker, both nationally and internationally, on topics including how to get into top colleges in the United States.