



Pittsburgh Science & Technology Academy
Executive Experience Project
Mentor Guide
2014-2015



What are the mentor requirements throughout the Executive Experience?

Executive Experience (XE) Mentors develop and help manage Executive Projects. They are responsible for submitting a Project Proposal, serve as an advisor to the student(s), monitor project progress, and submit a bi-weekly checklist of tasks or goals keeping the SciTech coordinating teacher informed of essential next steps. The student project team alone, and to a lesser extent their XE teacher, are accountable for project results. Mentors play an advisor role with students.

The fieldwork phase of the project(s) is conducted at the mentor's workplace, lab, or outdoor field site. Students may work onsite up to five days a week, from 1-3 hours per site visit. All of the academic work and some of the project work will happen in school with the XE teacher at SciTech.

Mentors help evaluate student performance at project sites. Students check in with their mentors at least once a week. Checkpoints can take place in person, via email, or teleconference. Additional checkpoints may be arranged, depending on students' needs and mentors' availability.

Clearances: Mentors must complete the Act 34 (Criminal Record) and Act 151 (Child Abuse) clearances in order to work with minors before the start of the project. The Pittsburgh Promise will cover the cost and process all of the paperwork.

NEXT STEPS/KEY DATES

Step 1: Formulate Project

- Begin developing a real-world project, or projects, to be addressed by SciTech students.
- Example Project Proposals are available upon request.

Step 2: Submit Project Proposal for Review by Friday, April 18th

- Follow the "Project Proposal Guideline" on page 2 to submit a proposal using our template.
- Submit any questions to Afiya Bey at afiya@pittsburghpromise.org or 412-745-2224.
- Meet with coordinating teacher to discuss project, either in person or by phone.

Step 3: Project Acceptances will be sent to Mentors by Monday, May 5th

- Upon project acceptance mentors have several months to compile project information packet and finalize project details before the start of school in the fall.

Step 4: Attend Executive Experience Kick-Off "Meet and Greet" Event on Tuesday, June 3rd

Step 5: Project Duration (September to December, February to May, or September to May)

- Hold initial meeting with student(s) in September. Provide background information on the organization and project, context of the project, any supplemental resources needed to begin. Continue helping project team connect to Subject Matter Experts or data as needed.
- Meet with student(s) and XE teacher at least once during the project (in person or virtually).
- Complete Student Evaluation/Feedback form each quarter.

Step 6: Project Completion/Post-Project Phase

- Continue helping project team connect to Subject Matter Experts or data as needed.
- Review and comment on Final Report and/or attend final presentation.

Executive Project Proposal Guidelines:

The Executive Projects allow students to address *real* challenges that affect *real* organizations in the fields of science, technology, engineering or math, where:

- The problem itself may not be obvious from the outset
- The particular approach to its solution is undefined
- The resources and information needed to solve the problem must be identified

Community members and individuals representing organizations in the public, private and non-profit sectors, in addition to research and university institutions, that are interested in submitting an Executive Experience project should follow the guidelines below. **Project Proposals should be submitted to Afiya Bey at afiya@pittsburghpromise.org by April 18th, 2014.**

Students will have one academic semester in which to complete the project from implementation to delivery; either semester one (September – December) or Semester two (February – May). The final weeks of each semester will be dedicated to writing their final research paper, creating their poster, and preparing for the final poster presentation. This requires projects to have a clear focus and narrow scope of activity from the outset. There is also the option to extend a semester project to a yearlong project (September-May).

Project Proposal Format

Project Title	• The title should help others immediately understand the nature of the project and the partner organization it serves.
Partner	• List the organization for which the project will be conducted. Describe the organization’s mission, programs, size and sector. Ensure that the partner is interested in the project and committed to facilitating its execution. Include the name, position and contact information of one employee who can serve as the official point person for the project.
Issue Definition	• Describe the problem, issue or opportunity that the project will address. Provide background information that conveys the impact of this issue on your organization, community or field of work.
Scope of Work	• Describe the work this project requires. Define the project’s major activities so that individual students or groups of students can tackle them independently. What specific tasks are required of the student(s) in order to complete their Executive Experience project? What data is needed and how can it be accessed? What is the minimum number of hours a student will need to dedicate to being onsite to their project per week/month? Will the project take place during semester one, two, or both?
Expected Deliverables	• Describe your desired final result. What new product, process, etc. will result from the project?
Skills Required	• What specific skills will the SciTech student(s) need to be proficient in?
Students Required	• Indicate the number of students required or requested from each of the following concentration areas to successfully execute the project: Body & Behavior (Life Science), Computers & Connections (Computer Science), Environment & Energy (Environmental Science), Form & Function (Engineering) Note: Limit 1-5 students total per project.
Advisory Board	• List the names of individual stakeholders and relevant organizations that can provide guidance, information and feedback to students.

Frequently Asked Questions

1. How do I know if my organization has the capacity to host a project?

If your organization or institution has a clear deliverable that can be achieved by one to five high school students over the course of 5 months, or if you have on-going work that can be challenging and interesting for high school students in the STEM fields, you should submit a Project Proposal. Your main contact should be available to help create bi-weekly checklists for students and be relied upon for content knowledge on the project. In some cases, your organization may also need to be available to host students for the project work.

2. How difficult should projects be?

Projects should be challenging but achievable. Teachers, mentors, and other identified content-experts will provide guidance as students' complete projects.

3. What makes a good project?

Projects should be a real challenge that affects real organizations in the fields of science, technology, engineering, or math. The problem itself may not be obvious from the outset or a particular approach to its solution is undefined. However, the resources and information needed to solve the problem must be identified.

4. What skills/training/relevant coursework will students have under their belt?

Course lists and descriptions are available upon request.

5. What is student availability?

Students are able to complete the fieldwork phase of their project Monday-Friday from 1:30-3:00PM. However, it is important to note that students are traveling to their site from SciTech when considering meeting times. Students have the option to spend more time onsite based on project need and student availability. It is important that mentors make their own availability clear when drafting Project Proposals to assist us in appropriately linking students with projects.

6. What should students learn from projects?

Students should learn real-world skills necessary to succeed in a postsecondary professional or academic environment, scientific research skills, time management skills, technology skills in their concentration area, scientific analysis skills, presentation, public speaking skills, and professional soft skills.

7. My organization would like to host a project, what are my next steps?

The next step is to submit a Project Proposal. Each step of the process is highlighted on pages 1-2. If you need assistance with a particular step, send questions to Afiya Bey at The Pittsburgh Promise, afiya@pittsburghpromise.org or at 412-745-2224.

8. The work within my organization is confidential, but I'd like to host a project.

Both SciTech and the mentor can complete a Memorandum of Understanding (MOU) that will be clear in terms of the limitations and boundaries of the project.

9. I think the work we perform in my organization is too difficult for high school students.

This is an opportunity for our students to challenge themselves. We believe all projects possess elements our students can help solve. The best advice is to make sure the project has a clear definition and a defined scope of work. If it is imperative that students have a certain skill, state that. If the skill is attainable, ask if the skill can be learned on the job or in preparation for the project.