**PolarTREC Education Strategy Template**

**Purpose:** The Education Strategy focuses on integrating the PolarTREC experience with your primary audience at your institution. Answering these questions will define your audience, goals, assessment, institutional support, and sustainability as the building blocks to create a product for use with your primary audience.

**Process:** Keep open communication with PolarTREC managers about your product ideas in the early stages. They can connect you with program mentors and additional resources. Create a short document (~1-2 pages) with the intention of revisions pre- and post- expedition. Share your Education Plan in writing with your research team and PolarTREC managers. It is advised that you also share your plan with appropriate stakeholders such administrators, supervisors, funders, peers, your audience’s parents, PolarTREC peers and mentors, etc.

**Education Plan Components:**

* Describe your primary education audience.

My primary audience is K-12 students in an informal educational setting. Through my various outreach events and the educational products I produce, I am hoping to encourage learning outside of the typical classroom setting. This could be through events, activities, or exhibits at the Rutgers University Geology Museum (or other museums), libraries, Boy and Girl Scout outings/meetings, and classroom visits. All educational products will be meant to enhance their normal classroom learning experiences and create deeper connections to the topics by exposing students to the cutting edge technology and research that supports these topics.

* What do you want the audience to learn?

I have three content and learning areas that I am focusing on in my education and outreach efforts.

1. Polar Science Basics- Introducing students and audiences to general information about Antarctica and the Arctic, the type of life in each location, and some of the major issues facing each of these areas.
2. Climate Change and Ice Sheet/Glacier Recession- Will cover basics of climate change science and illustrate the effects on the environment through visualization of the amount of glacier recession in the Swiss Alps.
3. Technology- Focus on the advanced technology and methods that are used with this research project and others like it, especially the use of drones in environmental research and the construction of 3D models.
* Describe the inquiry-based model you will use with your audience.

Educational activities will be a combination of guided and structured inquiry. The final educational products will contain activities that pose questions or scenarios to the students where they are either given the tools and steps or must come up with these on their own to solve a problem or come to some conclusion.

* What assessment tools and/or metrics will you use to meet your institutions standards for successful educational experiences?

Since I do not teach in a formal educational setting, I do not plan to create any rubrics which would provide students with a final grade upon completing the assignment or activity. Rather students would be asked to solve a problem or complete a task to demonstrate knowledge of the subject. Exit interviews, where students or participants are asked about their thoughts or experience with the activities, could easily be incorporated into the activity plans when they are run at the Rutgers University Geology Museum. Official research into the effectiveness of the activities could be included through the Aresty Undergraduate Research program at Rutgers University at a later date.

* What must be in place to ensure your institution’s support to achieve these goals?

I am extremely lucky that my job as the Director of the Rutgers University Geology Museum allows me to easily incorporate my PolarTREC education and outreach plan into our current programing. Since the missions of PolarTREC and the museum already align, there are no major changes that need to be made to put this plan in place.

* What components of the product are transferable to other education scenarios?

Provide opportunities or alternatives for both formal and informal educators to utilize your product.

Since the final educational products of this expedition are not decided on yet, I cannot elaborate much on this issue yet. However, I do not plan on creating a full K-12 lesson plan that would incorporate all the necessary materials to fully cover any of these topics. Rather, I envision myself creating short activities that could be completed by a variety of ages in a 15 to 30 minute period that could be used in museums, libraries, etc., as well as in the classroom as demonstrations.