STAR Project Statement Guidelines: Life and Physical Sciences

Upload a project statement that meets the space limitations on the STAR program guidelines and has the elements listed below. Your goal is to convince the faculty committee that your project can reasonably succeed in one summer and that you will make significant contributions to the research. Please write for a general but scientifically literate audience since your readers are likely not experts in your field. Even faculty from your own department may not know much about your topic. You should consult your mentor thoroughly in this process. However, your statement must be in your own words with no substantial writing by your mentor beyond reasonable advice for revisions. Your statement must have the following *distinct* sections, labeled with the headers listed (recommended length in parenthesis):

1) Introduction (~ ½ page)
This section introduces your topic and overall research question, and gives a sense of how your work will contribute to the field and (if applicable) fit into a larger long-term research agenda. This is also the place to discuss if and how previous work (by you or others in the field) motivates your proposed investigation. Again keep in mind to write for a broad scientifically literate audience. This means there is no need to strive to "sound like an expert", and in particular please refrain from including excessive technical details and jargon unless you feel there is no way to get your point across otherwise. Remember if a reader cannot understand what you wrote, you are unlikely to earn a high score for this section.

2) Aims, Goals and Research Questions (⅓ to ½ page)
This section outlines the research goals or questions that together contribute to your overarching scientific objective. These aims can be deliverables but should not duplicate the broad purpose discussed in your introduction. For example, your higher level intention may be to better understand the feeding behavior of a certain species, while one (of the perhaps several) specific aim is to measure feeding rates under certain conditions in comparison to some control trials (or for example, if framed as a questions: How do feeding rates at low temperatures conditions compare to measurements under control conditions?).

3) Approach (~ ½ to 1 page)
This section outlines your approach, study design, or study plan, and is where you should discuss methodology concerning each specific aim/research goal/research question. However, this is not a lab report and hence there is no need to give excessive details such as how many milliliters of a solution you will use or the mathematical exposition of your numerical algorithms. There are of course exceptions where some detail may be crucially important to your overall approach, in which case your mentor should advise you on how much to write without impeding the readability of your statement. On the other hand, simply stating "I will run this code" or 'I will perform this reaction' is insufficient. In these examples, you should also briefly describe how you will analyze simulation results (such as compute certain physical quantities) or experimental data (such as comparing to some models), respectively.

<u>Additional item to complete:</u>
With your faculty mentor, complete the STARBURST timeline form to estimate the amount of time that will be spent on each activity over the course of the summer. Also, provide a short

description of the roles and activities of both the student and mentor. The goals should be reasonable for a summer project, and should demonstrate that the student will contribute substantially in ways that promote their professional growth and research capabilities. Both the student and faculty mentor should have an agreed upon understanding of each other's roles. **DO NOT include Timeline and Roles in your project statement - your mentor will submit the timeline in the faculty mentor reference form.**