



ATE PROJECT DESCRIPTION

PRIOR NSF SUPPORT

XXX College has received no prior NSF grant funding. **If the college has already had NSF support in other areas, you can write the statement as:**

XXX College has no prior NSF Support in the ATE Program. The College is participating in the Mentor-Connect project.

INTRODUCTION

In this section, you want a paragraph or so about what you plan to do. This is just to get the readers ready to learn what you plan to do. About one large paragraph should do it.

MOTIVATING RATIONALE

Current Situation

In this subsection, you want to start to make your case of the need for this project. This subsection explains to the reader the landscape of what is currently going on at the college about the situation you plan to address. You want to mention the gap between what is currently done and what you plan to do.

Local Industry Context (or your collaborations with local industry/technician employers)

In this subsection, you want to describe your previous and current work with local, regional and other industries so the readers understand how the college and industry are already –and will be- on board to address this situation.

The Problem Being Addressed

This subsection discusses how you will address the problem you have described or close/minimize the gap that you discussed in the motivating rationale. State actions as what you will do, not what you will try to do, anticipate doing, or plan to do.

GOALS, OBJECTIVES, AND EXPECTED OUTCOMES

In this section, you can start with your goal or goals in a short paragraph or as bullets. One option is to use a table to connect the goal, objectives, and expected outcomes. Some proposals use a table (see below) and others use a bullet-type format (see below) – either works! Either the Objectives and/or the Outcomes should be represented in measurable terms. Accompany any percentages with actual numbers you will directly impact by this project. The Outcomes can be reported for each year and then summarized as a total for the entire project. The Project Data Form (one of the forms that will be completed) asks for the number of participants (students) directly impacted by the project and the outcomes can easily provide that number.



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The goal of the proposed project is to increase..... This project has five (or whatever number works for your project) objectives and associated expected outcomes.

Objectives	Outcomes
<u>Objective #1:</u>	➤
<u>Objective #2:</u>	➤
<u>Objective #3:</u>	➤
<u>Objective #4:</u>	➤
<u>Objective #5:</u>	➤

For the objectives and/or outcomes, state the things you want to happen to your students or program. And if you can write them in measureable terms, this will really help when you or an evaluator write the evaluation plan. A sample approach follows. Objectives should focus on your students and programs rather than on everything you will be doing. More information can be provided when you discuss the activities.

Objective #1: *There will be 20% increase in the successful completion rate of students enrolled in the XXXX program.*

Expected Outcome for Objective #1: *Year One – 25 students will complete the XXXX program; Year Two – 30 students will complete the XXXX program; Year Three – 35 students will complete the XXXX program. Ninety college students will be directly impacted by the XXXX program during its three years.*

DELIVERABLES

Write this section only if you are going to produce documents, activities, handbooks, curriculum and other tangibles. It is acceptable to exclude this section if it doesn't fit. Also, some writers include the Deliverables in the previous section with the Goals, Objectives, Expected Outcomes, and Deliverables. Either way works!

TARGET AUDIENCE AND RECRUITMENT

Target Audience

This is where you describe exactly how many students will be participants and where they come from. This might be a short subsection.

Recruitment

A description of how you will get students to sign up for the program goes here. If there are any particular strategies that will be used to recruit under-represented students (minorities, women, vets, military) then you can describe that here. The recruitment strategies should give the reader evidence about how you will publicize and get the participants listed in the Target Audience Subsection. Note: If recruitment is an important element of your project, you should also consider and include activities that address how students will be retained once recruited.

ACTIVITIES



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This is a lengthy section where you describe what you will do and how you will get it done. If you can list the activities and then describe each, that helps the reader keep things straight. An example might read as follows:

During the XXXX project, there are four activities that will be developed and implemented to reach our goals and objectives. They are: (1) Curriculum Development; (2) Professional Development; (3) XXXX; and (4) XXXX.

Curriculum Development

A description of this activity goes here.

Professional Development

A description of this activity goes here. And so on....

PROJECT TIMELINE

Many proposal writers use a table here to show what will take place and when. Don't make the table too big or lengthy but just a quick summary of what will take place when and by whom. This should be about 1/3 to 1/2 page max.

EVALUATION PLAN

This should be a substantial part of the proposal since NSF likes to make sure that projects are properly evaluated and that there is a feedback loop in place that will guide the PI and help improve project outcomes. I think an external evaluator (person or company) that has evaluated NSF projects is wise. One with ATE Program experience is even better. Mentor-Connect can suggest some external evaluators and so can the folks at the ATE Centers. Once the project goals and objectives are clear, this is a good time to contact an external evaluator (if you haven't already) and request help in crafting the evaluation plan with all the required components and language.

DISSEMINATION PLAN

There are several ways to write this section. One effective strategy is to include subheadings to show reviewers that you have thought about how you will share this project with others. A few subheadings might be:

Dissemination to a Local Audience

This could describe sharing this project within the college and local partners or educators if that makes sense.

Dissemination to a Regional Audience

This could describe sharing this project with a bit wider audience such as a state-wide association or regional meeting of a national organization in the discipline if applicable.

Dissemination to a National Audience



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You will share your work at NSF-ATE-PI meetings and can also use the ATE Centers (whichever ones that are appropriate) to share this work nationally. Making presentations at appropriate national conferences like the High Impact Technology Exchange Conference (HI-TEC) is another way to help ensure a national impact from your work. Conferences such as the American Society for Engineering Education (ASEE) also make it possible to publish a paper about your work in the proceedings of the conference.

CAPACITY OF THE COLLEGE AND MANAGEMENT PLAN

This is a place where the college can be described along with the institution's resources, personnel, and support that will be applied to successfully implement this project. However, most details in this regard should be included in the Facilities, Equipment, and Other Resources form. The management plan is usually a paragraph or so describing who will oversee this project. A table that includes personnel names, positions/expertise, and duties related to the grant can also be effective.

PROJECT TEAM: EXPERTISE, ROLES AND RESPONSIBILITIES

Reviewers will want to know a bit about each of the senior personnel working on this project. If there are not too many people involved, paragraph form can effectively communicate this information by listing a person's name, brief credentials that are relevant to the project, and what they will personally be responsible for and contribute to the project. Here is an example:

Judy Kasabian is a professor of mathematics at El Camino College and serves as a mentor for the Mentor-Connect Project. For the proposed project, she is responsible for: (1) XXXX; (2) XXXX and so on....

Note: It is best to assign a single person to a scope of work and/or specific responsibility, even if a team or committee will assist. Do not state or imply that an organization (e.g., the college) or organizational unit (e.g., a department) will be responsible for making something happen. Individual assignment of responsibility to qualified personnel for a project is of great importance to reviewers and NSF.

SUSTAINABILITY PLAN

This is where you will indicate what components of the project your project will help institutionalize by the time the grant ends. What will continue following NSF funding? Also, if industry leaders are willing to support a component or components of this project when the grant ends, this will impress reviewers. Whatever the institution and industry commits to doing post-funding, you want to have that information included in their letter of commitment that can be uploaded in the supplementary documents.

NEXT STEPS (OR AS WE LOOK TO THE FUTURE)

This section can be included or not and either way is just fine. If you can easily see where this project goes after the 3 years, then a short description is nice to include. First grants are often the first step toward a longer vision. How will you use this project to continue advancing technician education?

INTELLECTUAL MERIT

Mentor-Connect: A Leadership Development and Outreach Initiative for ATE
DUE #1840856 Updated 3/2021



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This section is much easier to write once finished with the others. It should be a really succinct paragraph that describes the quality of the project, how it make things better in the local/regional context, and how it will contribute to the larger educational community. Reference the NSF and ATE criteria for Intellectual Merit and describe which items your project addresses. Intellectual Merit also goes in the Project Summary.

BROADER IMPACTS

This is also easier to write once finished with the other parts of the proposal. Broader Impacts are a description of the benefits to the students, college, city, local industries and others. Again, rely on NSF and ATE-specific criteria to guide you in selecting the information to include in Broader Impacts. This content also goes in the Project Summary.