

HSI STEM Hub

Preflight Certification Program 2020

Congratulations on embarking on the journey to grant writing preflight certification. This certification program is self-guided. While it has been designated as a five-day program, you may need to spend more than one day finishing the assignments for each module. The requirement for certification is submission of two deliverables: 1.) Preflight Grantsmanship Tool in the table below, 2.) A preliminary executive summary for your project. You will use the Preflight Grantsmanship Tool to write your summary.

Deliverable 1. Directions: Complete the table using information that will move your proposal writing forward. This tool will help you organize your ideas, experience, and plan for writing your first few proposals. The webinars provide insight regarding these topics. Additional resources are available and listed with every webinar. This tool will be submitted for granting your certification.	
Module/Day 1	
Identifying Fundable Ideas	
Potential grant ideas Consider your areas of expertise: pedagogical methods you use, community outreach initiatives in which you are involved or interested, other interests, post-doctoral and graduate training, etc.	
Identify your Assets What resources do you have access to for conducting research (i.e. study population, equipment)	
Intersection of Expertise and Assets What is the intersection of your expertise and your assets?	
Fundable Ideas How can the intersection of your area of expertise and assets innovate education or technology, enhance STEM education research, engage community outreach, advance interdisciplinary research, expand implementation science, etc.?	
Current Research Hint: Start with Google Scholar limited to the last few years for work done in this area.	
Resources Keep track of the sources you use. This will be useful as you write your proposal. List three resources you will use for writing your proposal here.	

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Increase Knowledge What is currently being done in your area of interest?	
Current Researchers Who is doing this research? Where is it being done? Identify current projects on the cutting edge of this work.	
Current Funders Who is funding this research? You can find this information in the funding acknowledgements of articles or author's website.	
Mentorship	
Mentoring areas Identify areas in which you would like to be mentored/ask advice.	
Potential mentors Identify potential mentors in your research area; in the literature; in your network that are a good match; from the HSI STEM Professionals Network, etc.	
Ideas for discussion with a mentor List ideas that you would like to discuss with the potential mentors you identified. Include potential mentor's name.	
Reaching out List the mentors that have agreed to assist you with your proposal ideas.	
Module/Day 2	
Finding Grant Opportunities	
Federal Grants/Cooperative Agreements Using Grants.gov find a potential grant opportunity that you would like to explore for your research area include forecasted and posted opportunities in your search. You will work on a preliminary project summary for this opportunity. Choose a grant that you plan to submit an application to.	

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Additional Information Using Grants.gov choose one grant opportunity for this exercise. List at least three resources you find useful in the additional information section of the synopsis.	
Previous Awards Using Grants.gov locate three abstracts for previous awards for this source of funding. Download those for your use. List the titles and links to these abstracts.	
Subscriptions Using Grants.gov identify at least three subscriptions that are relevant to your research area. List them here.	
Problem Statement	
Identify the Need Why is the program you are proposing needed? How does this align with funding agency priorities?	
Broader Impact Who is your target population? How will people benefit from your work?	
Supporting Data What is the data you will use to support the need for the program (i.e. demographic data; barriers to access; cultural factors; evidence from studies)?	
The Right Grant	
Identifying the Right Grant Answer the following questions: How does the grant align with consideration to your institutional mission and goals? Are resources available for implementing the program? Does your institution have the capacity to administer funds? Do you have access to the target population?	

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<p>Do you have community support for the program?</p> <p>Is the amount of the award worth the expense and time commitments involved in applying for the award?</p> <p>Do you have enough time to meet the submission deadline?</p>	
<p>Program Officers</p> <p>Who are the program officers? What is their contact information? Keep this information on record. At the end of this series, you will have a summary you can potentially share with program officers.</p>	
Module/Day 3	
The Executive Summary	
Opening Paragraph	
<p>Significance of the Work</p> <p>What is the broad context of your work?</p> <p>Write 1-2 sentences about this.</p>	
<p>Specifics of the Project</p> <p>What specific area of this broader context will your project address? Why is your specific project important to the bigger picture?</p> <p>Write 1-2 sentences about this.</p>	
<p>Knowledge Gap</p> <p>What is the complication/gap in knowledge/problem your proposal will address?</p> <p>Write 1-2 sentences about this.</p>	
<p>My Expertise/Assets</p> <p>What expertise, experience, and knowledge do you possess that are applicable to this project? What populations do you have access to for performing the work?</p> <p>Write 1-2 sentences about this.</p>	
Goals and Objectives	
<p>Align your objectives with the objectives that are outlined in the RFA. Incorporate language from the RFA to the Objectives Section. Use the references in the RFA.</p>	

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Make a Case for Your Proposal How will this work move your field forward? Write 1-2 sentences about this.	
Goals How will your project make the world a better place? Write 1-2 sentences about this.	
Process Objective/Activity for Project What will you do in your proposed program? How will you do this? Write 1-2 sentences about this.	
Outcome Objective for Project What changes do you anticipate seeing through your work? What results do you expect to see as a result of your work? What metrics will you use to do this? Write 1-2 sentences about this.	
Problem Statement	
Problem Statement What is the hypothesis or what are the research questions that you will investigate?	
Research Path	
Background What is the foundation for this work? Write 1-2 sentences about this.	
Next Logical Step Describe why your project is the next logical step for research in your field. Write 1-2 sentences about this.	
The Team	
Team Qualifications Who will join you in doing this work? What qualifies you and your team to do this work? Write a few sentences about this.	
Module/Day 4	
Budget	
Budget Restrictions Are there any budget restrictions in the RFA?	

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Cost-share Is there a cost-share requirement in the RFA?	
Salary and Fringe Do you have team identified? Will you have co-PIs and key personnel? Full-time or part-time employees? Student employees? List your positions, salary base for each position, and fringe benefits figures (from your institutional grants office) for the team's time commitment to the grant.	
Indirect costs (IDC) What is the IDC rate at your institution? This information can be accessed from your institutional grants office.	
Sub-awards and Partnerships Do you plan to have partners that need funding to complete their commitment? List them here.	
Travel Will you need to travel for implementation of the project? Will you or your team attend conferences or present at conferences?	
Equipment List the equipment you can identify today for implementing your project.	
Supplies List any supplies you can identify today for implementing your project.	
Contract Will you need funding for contracts? Include any funding needed for partners that will be involved in implementing a portion of this project. If you will hire an external grants office for IRB or grant management support, include those here. (If your institution does not have a grants office, you may want to do this). Remember to include an external	

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evaluator. List potential partners for your project.	
Other Any other costs can be included here (i.e. publication costs, subject payments, communciations)	
Participant Costs Will students do field studies that require travel? Will students attend conferences or present at conferences? Will you cover student tuition or stipends? Will you need to cover housing/boarding costs for students to attend a summer camp?	
Module/Day 5	
Prepare to Write the Grant	
Leadership Who is leading the writing team? Will you be leading this team or will someone else?	
The Team Who is on the writing team? Start with your dream team for this exercise?	
Feedback Who can read through your proposal for feedback? Engage subject matter experts and non-experts as readers and editors. Reviewers may or may not be subject matter experts depending on what/where you are submitting. List prospective readers and editors. Identify the roles you will ask them to engage.	
Gaps on the Team Identify any gaps that may exist in expertise of the team that you have in mind and the implementation requirements for the success of the project?	
External Partnerships	

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Have you identified individuals from external organizations/institutions that can help fill the gaps?	
Internal Partnerships Are there individuals at your institution that can be partners for your project? These individuals would not necessarily work on the research yet may be able to provide valuable information or access to information that you may not have otherwise.	
Useful Data	
Find your institutional strategic plan. Describe how your project aligns with this strategic plan. This will help establish that your project will have institutional support.	
Find institutional demographic data for enrollment and/or graduation rates. Describing how your project will have an impact on these data will show broader impact. You will want to include a table of relevant data in your proposal	