

Writing a Research Proposal SURF Program Guidelines

Using these guidelines effectively

These guidelines are intended to help you create an initial draft of your proposal. We encourage you write a draft as early as possible, and show it to as many people as possible to get feedback and revise accordingly.

Sections A-D of your proposal should be no more than five pages long, double spaced, using 12-point font and normal margins.

For additional help

The [Office of Undergraduate Research](http://research.berkeley.edu) (<http://research.berkeley.edu>) offers workshops and individual assistance to applicants preparing research proposals. We can also provide sample funded proposals that may be useful to you.

To obtain further information, see the [SURF web site](http://surf.berkeley.edu) (<http://surf.berkeley.edu>) especially the "resources" tab.

or stop by: 1 Durant Hall

A. Statement of Purpose

In no more than a paragraph (i.e. 175-200 words), this section asks you to capture the big picture of your project in as small a space as possible, answering the following questions:

Purpose/product: What will the final product of your research be? A senior thesis? An art project? New software? A public service project? Specify.

Question

I want to find out (what?) Remember your question should really be something you don't know yet – not a foredrawn conclusion that you want to “prove”; it should be a “how” or “why” question – not just “what happened”, but “what caused it to happen” or “what is the effect”? Art projects: what issues will you be exploring? Engineers/public service: what improvements will you make over the current solutions?

Justification

It's an important question because ...

Why have you chosen this particular case to examine? Is it an anomaly? Typical of a trend? Chosen b/c lots of previous research on it? Influential? Other reason?

What gap in the literature are you filling? Building on/departing from what other efforts?

Method

How will you narrow your topic down into a manageable “case study” or sample to focus on? Procedure/type of method used for gathering data and analyzing it Sequence of phases?

Rationale

What will be some of the larger implications of your findings?

B. Background and Justification (1 1/2-2 pages)

This section answers the **why** question. **Why** is your proposed project needed?

Justify your choice of case

Is it typical of a trend? An anomaly that violates expectations or dominant theories/trends? A good choice for some other reason/s? This part should be relatively brief.

Literature Review

Show that you are familiar with the relevant literature that addresses your question, then clearly situate your own voice in relationship to these other efforts, in order to show how you are contributing to your field(s) of specialization. What has been done already that you are building on or drawing on, i.e., from whom are you drawing your hypotheses or hunches? How are you building on it and/or departing from it? What hasn't been done yet, and how does your project fill this gap?

Hints on not feeling overwhelmed as you face writing this part:

Start by surveying books and periodicals literature by subject and title, and searching for a list of relevant titles.

Then, approach your mentor and other faculty members with similar specializations so they can help prioritize your list and find the most essential readings on the topic. You can also use resources such as [Google Scholar](http://scholar.google.com) (scholar.google.com) to see how many times particular books and articles have been cited.

Students in laboratory settings are advised to read grant proposals and publications which have come out of the lab, to see which literature is cited there.

Also be on the lookout for review articles, with titles like "Recent Research On (Your Topic)". These summarize recent writings in the field and put them in "clumps", i.e., show the relevant trends and debates within the field. They are usually found in specialized journals, e.g., if you're planning to do a high school classroom ethnography on teacher/student race dynamics, you might look for a title like "Journal of Research on Secondary Education".

Once you have a few recent, relevant readings in hand, trace the bibliographies: any works cited by all of the articles you've found, probably you should read. Also, you may want to look up these authors in the library but also on the web. Often, professors' web sites list their most recent publications.

More hints

Justification sections often use one of these **different rhetorical strategies** to explain how you came to your question and to your hypotheses or approach (or hunches about what you will find, in the case of humanities people):

1) Adding a piece to the collective puzzle: We know A, B, and C about this phenomenon, but we don't yet know D. This implies a sense of consensus and collective purpose in the field rather than a raging debate. This model is the probably most common in the sciences/engineering.

2) Debate and adjudication: Some people think A is the cause of this phenomenon; others think B is. I want to find out who's right. This is more common in social science, esp. quantitative social science.

3) Synthesis: I'm borrowing this from theory A, this other thing from theory B, and this other thing from theory C to create a new approach. Probably more common in social science and humanities.

4) Extending a theory/approach to a new case: This approach works wonderfully to explain this kind of cases – can it explain this other kind of cases, and if so, how will it need to be altered?

5) Improving upon an existing model: There is an existing technology that is useful in these ways. However, it has this drawback. With this alteration, which has worked in these other cases, we might be able to improve upon it. (This model is quite common in engineering, and also works for public service proposals if you substitute the phrase "social intervention" for technology.)

Sequence

A format often used for this section is to describe first the authors whose work is farthest from your own (but still relevant); then those closer to yours, then those closest to yours – but still not quite right; then your own hypotheses/approach and how you derived it. Science proposals often move from the macro to the micro and at the same time from the oldest findings to the latest ones.

For each approach named, say what you use from it, then why it still isn't quite right.

C. Project Plan (Aim for about 1 1/2-2 pages)

This section answers the **how** question. How you will go about answering the central question and accomplishing the goals described in your statement of purpose? Although your plan is provisional and will inevitably be revised in the course of your research or creative efforts, you should have a well-developed PLAN with as many specifics as possible.

Tips:

- Pretend that you will not be able to carry out the research directly, and that the only instructions you will ever be able to give the person who will carry it out is this document. Your description needs to be clear and specific enough for this other person to figure out what you wanted done and why.
- For research projects, give a detailed description and justification of the methodology you will use to A) collect, B) analyze and C) interpret data. Describe it chronologically, step by step, with a timeline (for Haas Scholar applicants, from March of the application

year to May of the following year) and justify your choices. See attached supplement for social science proposals. For creative projects, give a thorough narrative description of activities to be undertaken, again, making clear the sequence and timeline for tasks.

- Make sure the data you collect will really answer the question you've identified. The different pieces of your proposal need to match.

- Also bear in mind that most research projects are, at least implicitly, comparative. It can be helpful to make this comparison explicit.

- For projects involving human subjects, you will want to discuss your responsibilities to them to avoid causing them any harm; you will also want to discuss your plan and timeline for writing and submitting the protocol to [Committee for the Protection of Human Subjects](http://cphs.berkeley.edu) (<http://cphs.berkeley.edu>), and getting it approved. More information for SURF applicants whose projects involve human subjects can be found [here](http://surf.berkeley.edu/human-subjects-research) (<http://surf.berkeley.edu/human-subjects-research>).

Hints on Narrowing Your Topic into Something Manageable

Tactic 1: the most interesting "slice"

- Textual/literary analysis, philosophy, etc: Focus on a specific text or texts, usually by one or two authors, e.g. "sexuality in Virginia Woolf's *To the Lighthouse* and *Orlando*". These are often the most influential texts within a genre, or the clearest examples of a certain phenomenon.

- Comparative/Historical questions: You can narrow your topic by chronology, geography, and/or sub-theme, for example, "China's economic relations with the US" could become "Shanghai's Export-oriented Toymaking Industry in the 1990s: a case study in explosive growth and lack of regulation". You may also want to zero in on just one "causal arrow" (e.g. the effect of US removal of tariffs on the Chinese toy industry boom) within a longer chain of antecedents of the main phenomenon and implications.

Tactic 2: the slice that's most agreeable to your support network

- science/engineering/psychology: You'll need to consult closely with people in your lab to find a small project, that fits within the lab's overall agenda and can be assigned to you. The smaller, the better! Someone in the lab (usually a grad student or post-doc) will need to be assigned to be your main supervisor. Make sure you'll have some "authorship". Write a proposal for independent funding using "I", not "we".

Tactic 3: the slice with the most available data

- History, archeology: You may want to find out first what archives and archeological sites exist that are related to your general question. From there, you can work backwards to figure out what questions can be answered with this information.

- Ethnographic questions, e.g. What is the meaning of body piercing in US teens currently? Choose a particular community that exemplifies the phenomenon you want to study, and doing "participant observation" or ethnographic research. Access is crucial; think about where you have access already. Then imagine what questions could be answered by observing this community.

D. Qualifications (Aim for about 1/2 page)

This section answers the **who** question. Your task in this section is to tell the committee relevant information about why you are qualified to undertake the project described above. You should include

A) information about any relevant academic qualifications or awards, including relevant substantive, methods, and theory courses as well as previous related research undertaken.

B) describe other skills you've mastered that you'll need to undertake the research, e.g. specialized techniques, language skills, interviewing experience.

C) extracurricular activities or life experiences that indicate your special qualifications/knowledge/interest in your proposed area of research

D) your access to or familiarity with the people, tools and/or institutions necessary to successfully complete your proposed project. (Attach letters of support if possible).

E) Your access to guidance: discuss your relationship with your mentor in this section, as well as your contacts with other faculty members or academic/professional advisors, post-docs, etc. who are willing to offer you guidance or assistance. If possible, attach letters expressing willingness to help you (letters can also say you're great, but the key is that you'll get guidance if you need it).

G. Selected Bibliography

This optional section provides an opportunity to demonstrate your familiarity with the literature in your field(s). You may list books, articles and other resources that you have read or consulted in the course of preparing your project proposal. Works should be listed alphabetically by author, using the accepted manual of style in your discipline/s. Think of this appendix as a supplement to the background and justification section of the application. Select the most important, recognized, widely cited, and/or relevant works to the project you are undertaking. In general, your bibliography, if you decide to include one, should list no more than ten works.

H. Letters of Recommendation and Support

Letters of recommendation and support are crucial in establishing the credibility of both you and your project. As part of your application, you must include a letter of recommendation from your faculty mentor--the individual who will be sponsoring your research project.

If your project involves the cooperation or involvement of outside individuals or institutions, it can also be useful to include letters of support from them as part of your application. Such letters can help to establish your credibility as well as to convince the review committee of the feasibility of the project you are proposing.

Here are some [more hints](http://hsp.berkeley.edu/how-ask-letter-recommendation) (http://hsp.berkeley.edu/how-ask-letter-recommendation) on requesting letters of recommendation.

Questions to Ask Yourself

Whose cooperation do I need in order to execute the proposed project successfully? Ask them for letters of support.

What could go wrong? What are the risks involved in my plan? Have I acknowledged potential problem areas and considered alternative solutions? How will I troubleshoot or problem-solve around potential pitfalls? What will you ask readers (providers of feedback) about your proposal? What are you unsure about?

Have I talked to other people in my field (including but not limited to my faculty mentor) to determine the soundness, uniqueness and originality of my plan?

A Final Piece of Advice ...

A good proposal usually requires multiple rounds of revision and plenty of feedback from people who are experienced carrying out your type of research and others knowledgeable about writing proposals. **So as soon as possible, type up what you've done today – yes, even if it's very rough – and start showing it to potential mentors and other people who can offer guidance.** Remember – every great proposal began as a very rough draft!

Written by Cynthia Schrager, Ph.D; and subsequently revised extensively by Leah Carroll.

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