

Proposal Assignment

Introduction

The majority of technical and professional jobs require writing proposals. Proposals can evolve in a few different ways. Typically, a large group such as the government announces interest in a specific field and puts out a Research Announcement (RA) or Announcement of Opportunity (AO). For example, NASA is currently launching a massive campaign to explore the Solar System. No single organization has the staff or expertise to do something like that on their own. They need help, so they solicit other agencies for work; it's good for everyone involved.

Interested parties, be they individuals or large research groups, then respond to the RA with a proposal. Proposals are very competitive: in a way, they are a bit like a résumé. The point of a proposal is not just to “get the job” but also to provide the solicitor with a clear game plan of what you will do if you are awarded the contract. The proposal is typically legally binding (though usually still open for some negotiation along the way) and may be accepted outright, or some finagling may be required on the part of the contract agents.

Contract awards can range from as little as a few thousands to hundreds of millions of dollars. The majority of proposals are rejected outright for a variety of reasons: they may ask for too much money, they may be out-competed, the program may be canceled, or the proposal itself may be weak, incomplete, or non-compliant. You are up against some stiff competition, so it literally pays to have a technically robust and professionally written proposal.

On a final note, be aware that if you can write a proposal for this class then you are well prepared to write a “real” proposal. Although there are some significant differences in formatting between fields, the basic principles are the same. All proposals are basically rhetorical arguments: you are making a sales pitch to convince someone to fund your work.

Overview

For this assignment, you will assume the role of a professional working for a moderate sized corporation. You have been given the task of responding to a specific RA (see below). The absolute, no- ifs-and-or-buts, drop-dead and fail deadline for completion is:

Monday, March 9th, 8:30 am, in class.

Remember that there are no incompletes in 305-3 except for medical reasons.

You may work collaboratively on this assignment or you may work alone. Collaborative efforts may include no more than four people: all will receive the same amount of points for the assignment. Additionally, those people choosing to work collaboratively will be required to provide an additional confidential one-page writeup evaluating their peers' work and level of effort.

- 1) Begin by deciding if you will work alone or if you will work in a group. If you choose to work collaboratively, establish your group and discuss how you will work together. Set responsibilities, methods of communication, a group leader to function as a point of contact, and meeting times.
- 2) Next, choose one of the RA scenarios below to respond to with your proposal.

4) Begin working on your proposal. Pace yourself and expect to have difficulties: be aware that computer excuses are unacceptable. Be sure to ask for help before it is too late!

Research Announcement Scenarios

1: Project FLIPPER (The William Gibson Scenario) Proposal 97-01-PF

MAAS Biolabs of New Mexico is on the verge of a breakthrough in biological computer chips. This revolutionary new technology utilizes cloned cancerous cells from bottle-nosed dolphins: the cloned cells are “programmed” to produce tailored organic molecules which in turn form living machines, or Biochips. These Biochips are several orders of magnitude more powerful than any currently existing silicon chip, and they virtually last forever. Better still, they exhibit intuitive capabilities which may lead to the creation of the world’s first true Artificial Intelligence (AI).

But MAAS has run into a snag that they can’t solve. They need an ultra high-tech research and development team with extensive experience in biochemistry and cetology to develop a series of shielded cell incubators for the cancerous cells. MAAS has the very best cell incubators currently available, but they just aren’t good enough. Only one cancer cell in ten billion proves to be viable for the Biochips, and MAAS can’t grow enough of them to make more than the one prototype chip they currently have. Worse yet, their chip is “sick,” and if it dies before the new incubators are built then MAAS won’t be able to reproduce the technology.”

- MAAS Biolabs wants a research proposal detailing what you will do, who you will involve, how much it will cost, and where you will do it. Be sure to address specific foreseeable concerns. Plan for all contingencies.
- Your competitors include a hot research team subdivision from Mitsusvishi Corporation and a virtually unknown Australian freelance outfit called Centurion.

2: Project GREENTHUMB (The Granola Muffin Scenario) Proposal 97-02-PG

“Northstar of Washington has put out an AO soliciting a group to establish a method for safer, more efficient, and environmentally friendlier logging procedures for North America. Logging and timber companies across the nation are having to accelerate the level of tree clearing to meet financial pressures. Meanwhile, radical environmentalists are spiking trees, sabotaging equipment, and even threatening the lumber crews with violence; the situation is escalating out of control. Northstar is looking to someone to find the solution.

- Northstar wants a proposal detailing what you will do, who you will involve, how much it will cost, and where you will do it. Be sure to address specific foreseeable concerns. Plan for all contingencies.
- Your competitors include the Sunburst Concern, a group out of Idaho specializing in Forestry and Old Growth Management, and the University of Florida Research Foundation.

3: Project X (The You Make It Up Scenario) Proposal 97-03-PX

This scenario requires you to come up with your own proposal. Although this can be fictitious, at this stage in your education you should have some strong academic interests, questions you’ve always wanted to look into, or research you’d like to see done. Now is the time to take advantage of your own burning need to know. It is not uncommon for professionals with vision to come up with proposals before someone specifically asks them to.

This project will entail working more closely with me. You'll need to write up a memorandum giving me the basics of your proposal, including what question(s) or problems you are seeking to answer and of what benefit such research is to the general public.

- Once again, your solicitor wants a research proposal detailing what you will do, who you will involve, how much it will cost, and where you will do it. Be sure to address specific foreseeable concerns. Plan for all contingencies.
- I will assign competitors and help you flesh out the gruesome details as needed.

Document Specifics

All proposals must meet the following criteria. Noncompliant documents are unacceptable and will not be evaluated.

Formatting

Documents must include:

- a cover page with a descriptive title of the project, an in-house proposal, who the proposal is being submitted to, who the submission is from, and the date of submission.
- a signature page with typed names and titles of the Principal Investigator (your team leader), the Co-Investigators (if any), the Chief Contracts Manager (Stephan), and original ink signatures from all of the above. Photocopies or facsimiles are not acceptable.
- a table of contents (include a list of figures if appropriate).
- footers including the page number, document title and proposal number.
- the body of the document, appropriately organized.

Length

Research proposals may be no shorter than five and no longer than fifteen pages, not including the cover page, back page, signature page, and table of contents. Text must be single-spaced and fully justified, with a double space between paragraphs and no tabs at the beginning of paragraphs. Use either ten or twelve point font for the body of the text. Please use this document as a model for appropriate layout.

Content

The document body should include the following sections:

- **Introduction:** approximately a paragraph stating that you are responding to an RA or OA with your own proposal. Identify the names of both documents, both document numbers, and throw in some rhetoric saying how pleased you are to submit your proposal. Short and to the point.
- **Background:** approximately $\frac{3}{4}$'s of a page discussing the history of the project. Rhetoric is critical here: you need to first explain the project and then state how uniquely qualified your team is for the task at hand. The guiding rule is that you need to be able to put the document down for one year, then pick it up and have it still make sense.
- **Scope:** $\frac{1}{2}$ to 1 page discussing the purposes of your research. What do you hope to accomplish? How will this benefit the solicitor's needs and best interests? Identify short term and long term goals of the proposal. What are some potential uses of your work after the contract expires?

- **Technical Approach:** this is the nitty-gritty of your document. Here you'll need to get together with you company's employees that will be directly involved in the scenario and ask them "what are we going to do? How are we going to do it? What will we need, how will we get it, who will design it, can we make it if we can't find it, etcetera." Don't worry about real technical accuracy, as long as it doesn't get too Star Trek. I will also function as the role of a scientist/engineer/employee of your company; feel free to interview me when you have specific questions.
- **Tasks and Period of Performance:** this is the place for a work breakdown structure, a personnel chart, résumés, and possibly some supporting narrative. Assume that you have one year to get the work done. You need to show what you will do month by month, person by person.
- **Cost Proposal:** the ABSOLUTE most important part of the proposal. If this isn't backed up tight as a drum then it is game over, thank you for playing. Again, use a chart backed up by narrative. You need to basically tabulate everything and arrive at a grand sum total. You also need to provide a narrative detailing how you arrive at your figures. **I will provide a worksheet for this section.**