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Spring 2-1-2022

### ANTY 601.02: Research Design & Proposal Preparation

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# ANTY 601: SEMINAR IN PROPOSAL PREPARATION AND RESEARCH DESIGN

## 1. PROFESSOR

- Dr. Anna Marie Prentiss
- Office: Social Sciences 205
- email: [anna.prentiss@umontana.edu](mailto:anna.prentiss@umontana.edu);
- Office Hours 9-11 AM. Otherwise, please feel free to email me for an appointment (I am open to telephone, Zoom, or in-person meetings [weather permitting]).

## 2. COURSE DESCRIPTION

Anthropology 601, Seminar in Proposal Preparation and Research Design offers students direct hands-on training in the production of research proposals. The course will provide students with knowledge of the fundamentals for developing anthropological research designs and writing proposals. This knowledge will be useful in a wide range of professional environments (spanning academia to consulting and government anthropology). Students should emerge from the course with critical tools for successfully performing in the increasingly competitive world of anthropology.

## 3. PANDEMIC INFORMATION

- This course will be taught in-person face to face and hybrid. The professor reserves the right under consultation with the CH&S Dean's office to shift the class to remote pending developments with the pandemic.
- If you are sick or displaying symptoms, please contact the Curry Health Center at (406) 243-4330
- Up-to-Date COVID-19 Information from the University of Montana:
- UM Coronavirus Website: <https://www.umt.edu/coronavirus>
- UM COVID-19 website: <https://www.umt.edu/coronavirus/fall2020.php>
- Remain vigilant in mitigating the spread of COVID-19

## 4. TEXT/READINGS:

Required Text:

Howlett, Susan and Renee Bourque  
2016 *Getting Funded*, 6<sup>th</sup> Edition. Continuing Education Publications, Portland.

Additional Recommended Texts:

Archaeology:

Black, Stephen L. and Kevin Jolly  
2003 *Archaeology by Design*. Altamira Press, Walnut Creek.

Socio-Cultural Anthropology:

Bernard, H. Russell  
2006 *Research Methods in Anthropology: Qualitative and Quantitative Approaches*. Altamira Press, Lanham.

Physical Anthropology:

Lasker, Gabriel W.  
1993 *Research Strategies in Human Biology: Field and Survey Studies*.  
Cambridge University Press, New York.

## **5. SEMINAR EXPECTATIONS AND GRADE DETERMINATION:**

Well-executed research typically begins with an appropriately designed proposal. Proposal writing is described as both art and science combining both disciplinary knowledge and salesmanship! The ability to produce successful proposals can only come from practice and participation in the production of proposals. This course will strongly emphasize proposal writing via production and critique of proposals. Assignments will allow the student to progress through the proposal production process from research design to budget preparation.

Assignments will permit each student to write a complete proposal. Primary emphasis will be on developing appropriate research questions and associated research methods. Assignments will require the student to develop a proposal for research involving an anthropological research project. There are many possibilities. For example, your project could include an archaeological survey of some landscape, an ethnographic survey of a community or communities, an examination of biological samples derived from multiple contexts, a single site excavation, an ethnographic study of a specific group in a particular place, or an analysis of a single biological sample (e.g. skeleton) or population (e.g. cemetery). The key element in this process is defining one or more anthropological research questions and explicating an appropriate methodological approach to address those questions.

Grades will be based upon completion of assignments and class participation. Assignments must be well written with minimal grammatical problems, spelling issues, etc. If you have writing problems you should seriously consider visiting the university writing center for extra help. Assignments must demonstrate an attempt by you to obtain and cite the critical anthropological literature associated with your research topic. Assignments with minimal citation of the literature will be scored low (that is what will happen to you in the "real world").

Class participation will include presentation of topics and assignments in class and constructive critique of proposals produced by class members. The seminar will be divided into two groups (see final page) to facilitate discussions of theoretical and methodological issues associated with your proposals. Students will develop one or two recommended readings for each scheduled seminar discussion. These will be passed on to other seminar members one week in advance of scheduled presentations as PDFs via email or as articles in scholarly journals, accessible to all at the Mansfield Library. Presentations during "Group" weeks will be focus on current approaches to the assignment topic. During those discussions students may open wider discussions and request feedback on aspects of the research that still require work. Seminar presentations should be more refined and better constrained. Students should be prepared to defend their approach to project development and proposal design.

Grades will be determined based on total points achieved:

Assignments (see below)	600 Points
Seminar Participation	50 Points
Total	650 Points

Students with 90% (585 points) or more will receive an "A," etc. Deadlines are extended in cases of illness or an emergency. The professor retains the option to use + and – grades when final scores are close (within a point on a 0-100 scale) to an up or down transition.

## **READING LIST AND SCHEDULE**

### **JANUARY 24: INTRODUCTION AND BACKGROUND**

### **JANUARY 31 WHAT MAKES A SUCCESSFUL PROPOSAL IN ANTHROPOLOGY?**

Reading  
Hall and Howlett, Chapters 1-4  
NSF Proposals by Michelle Grocke, Ashley Hampton, Anna Prentiss, Catherine Sanders, Lisa Smith, and Ryan Schmidt (see page 14 of syllabus)

*Seminar Presentation due on Jan 25: What makes a successful proposal? Analysis of previously accepted NSF proposals.*

### **FEBRUARY 7: RESEARCH QUESTIONS**

Reading:

Black and Jolly (entire book)  
Bernard, Chapters 1 and 2  
Lasker, Chapters 1 and 2

*Assignment 1 and seminar presentation due on Feb 7: Project Research Goals (100 Points)*

**FEBRUARY 14 – MARCH 7:  
PROPOSAL INTRODUCTION: RESEARCH PROBLEM AND JUSTIFICATION**

Reading:  
Hall and Howlett, Chapters 5-11  
Black and Jolly (entire book)  
Bernard, Chapters 3-5  
Lasker, Chapters 2-7

Group #1 Discussion Feb 14  
Group #2 Discussion Feb 28  
*Assignment 2 and seminar presentation due on March 7: Research Question (100 points)*

**FEBRUARY 21 HOLIDAY**

**MARCH 14 – APRIL 4:  
HYPOTHESES AND TEST EXPECTATIONS**

Reading:  
Hall and Howlett, Chapters 5-11  
Black and Jolly (entire book)  
Bernard, Chapters 6-15  
Lasker, Chapters 2-7

Group #1 Discussion March 14  
Group #2 Discussion March 28  
*Assignment 3 and seminar presentation due on April 4: Hypotheses and Test Expectations (100 Points)*

**MARCH 21-25 SPRING BREAK**

**APRIL 11-25:  
DATA COLLECTION AND ANALYSIS**

Reading:  
Hall and Howlett, Chapters 5-11  
Black and Jolly (entire book)

Bernard, Chapters 16-21  
Lasker, Chapters 2-8

Group #1 Discussion April 11

Group #2 Discussion April 18

*Assignment 4 and seminar presentation due on April 25: Research Methods (100 Points)*

**May 2:**

**BUDGETS**

Reading:

Hall and Howlett, Chapter 12

*Assignment 5 and seminar presentation due on May 2: Cost Proposal (50 Points)*

**May 9**

**THE FINAL PROPOSAL**

*Assignment 6 and seminar presentation due on May 9: Final Proposal (150 points)*

## **Assignment #1**

### **Project Research Goals and Analysis of Funding Sources**

Throughout this semester, we will be working on the development of research designs and budgets for projects driven by explicit research questions. Once completed, your proposals should be suitable for submission to a grant-funding agency like the National Science Foundation, the National Geographic Society, and the Wenner-Gren Foundation for Anthropological Research. Your skills in the production of research proposals will be useful in your career whether you are applying for unsolicited research grants or responding to federal or private contract solicitations.

Grants are fundamental to support basic anthropological research. Research grants are offered by many organizations at federal, state, municipal and private levels. Generally, the larger the granting organization, the more they will be able to support. For example, The Wenner-Gren Foundation for Anthropological Research Inc. will not fund research grants over \$25,000 while the National Science Foundation regularly funds projects costing well over \$100,000 (though dissertation improvement grants are capped at \$20,000 plus university indirect costs). Research proposals in this framework must develop and justify a specific piece of research in light of its potential contribution to the discipline of anthropology and as a source of knowledge useful to the public. Staff of the funding entity may accomplish grant proposal review, but more typically, it is accomplished by peer-review by established experts in the field. Reviewers in this context are expecting state of the art research and can be particularly tough.

Research conducted within a government compliance framework is usually initiated by proposals responding to a Request for Proposal or RFP. This document outlines a very specific piece of research required by that entity which could be funded at levels ranging from several thousand dollars for smaller scale research to mega-projects costing millions. Responses to RFPs are designed to demonstrate how well the investigator understands the project as exemplified by his/her research plan and statement of qualifications. These proposals are generally less difficult to write since the government or private sector entity has already spelled out the goals and requirements of the project. A Technical Proposal Evaluation Committee or TPEC, made up of staffers within that agency or company, usually accomplishes review of proposals. In this context, reviewers seek to assess the degree of fit between their needs and the approach outlined in the proposal.

Our focus in the seminar will be on open grant submissions for research. However, whether your proposal is a response to a government initiative or an outline for original research you will need to be able to define and justify research questions. Consequently, this first assignment asks you to develop a research problem and consider some potential funding sources.

Assignment:

1. Develop an anthropological/archaeological research project requiring anthropological data collection. Your problem should be within a theoretical, methodological, temporal, and geographic framework that is at least somewhat familiar to you. It should also be of a scale that will be appropriate for you to envision completing within one to three years and potentially fundable through multiple sources. **Most critically, you should seek to solve, or at least significantly impact discussions of an important research problem in anthropology (e.g. developing an explanation/understanding of culture change, organization, adaptation, or some other similarly conceived problem).** Ideally, it will include field and laboratory/office data collection and analysis. I *do not* want proposals for teaching and educational assessments, National Register of Historic Places evaluations, data base compilations, consultation efforts, rehabilitation of historic places (e.g. buildings and towns), artistic projects, ARPA case evaluations, predictive modeling studies, public education projects, planning studies, needs assessments, forensic cases, or any other project that does not offer the opportunity to increase our understanding of human language, culture, or biology.
2. Find and analyze five potentially appropriate funding sources. Defend your choices by asking how each source is appropriate (consider potential budget, time frames, thematic goals, required expertise levels, and review time). Potential sources can be found in the Mansfield Library, in archaeological and anthropological society newsletters, and online.

The completed assignment will include a short introduction to the research project (one page maximum) and a review of five potential sources (two pages maximum).



## Assignment #2

### Research Question(s) and Justification

In order to be successful in the grant proposal arena you must have a clearly defined and well-justified research question. This is not as simple as it may sound. Reviewers will be looking for several things. First, they will want to see a clearly defined research question and a justification of the importance of this research. Next, they will want a demonstration that the research context is appropriate for solving the research problem. Then, they will want to know that you, the applicant, are competent in this realm of study. This is usually accomplished by a review of the relationship of the proposed research to currently active or recent research of this nature by yourself and others. Finally, they will need to know that you fully understand all of the issues associated with the research problem. This is especially important for complex research projects integrating multiple data sets. You can demonstrate this understanding in your discussion of research areas or problem domains.

The reviewer will know you are unprepared if you demonstrate a weak understanding of the problem or hypothesis, an inappropriate or shallow justification, a poor context, an insufficient review of current literature, and/or unclear or incomplete review of problem domains. Thus, it is critical for you, as the researcher proposing a new study, to carefully define your problem and place it as essential for future advancement of your discipline. Most granting agencies allow limited space to accomplish these tasks. Therefore, you must be terse in your writing style. This also means that *you must cite critical literature* in your text.

Assignment:

Outline and justify your research project in several parts:

1. Introduce the research project focusing on the question(s) to be addressed.
2. Define the cultural, temporal, and geographic context for this project.
3. Justify the research question or problem in light of current theoretical issues in your discipline. It is here that you demonstrate how this study impacts your discipline at this broader level. NSF calls this **intellectual merit**.
4. Write a short justification of how the project contributes to other societal concerns. NSF calls this **broader impacts**.

Please use *American Antiquity* or *American Anthropologist* style and do not exceed eight double spaced pages (excluding references cited). Please be prepared to present your work for seminar discussion. Expect questions on the research problem and its context, theoretical basis, potential contribution, and its domains.

## Assignment #3

### Hypotheses and Test Expectations

Once the research problem has been introduced and justified you will be required to outline precisely how you will go about completing the project. Probably the most critical part of your proposal is defining your hypotheses and test expectations. This will provide structure to the rest of your proposal.

Anthropological research projects typically start with clear research questions and NSF proposals are typically structured by hypotheses. Hypotheses are general statements (not questions) positing potential conclusions about empirical phenomena which for anthropologists might include human organization, evolution, adaptation, history, and the like. Next, good hypotheses will have clear test expectations as in “if Hypothesis A, then expect these data signatures...” This should provide you with expectations as to what you should see in your data to confirm or reject the hypothesis.

Normally, proposal reviewers will be looking for at least a primary hypothesis and a counter-hypothesis. More complex research problems may have more than two alternative hypotheses. Remember, as part of doing research you must enter the process without a clear answer. A famous scholar once said, “Begin the research process by admitting your ignorance!” Hypotheses give you potential answers that you can test for in your research.

Assignment:

Outline the hypotheses and test expectations section for your proposal. Include the following components:

1. Generate at least two alternative hypotheses about your phenomenon of interest. Argue for the importance of each hypothesis.
2. Develop a set of matching test expectations for each hypothesis. Justify these in reference to prior research.

Please use *American Antiquity* or *American Anthropologist* style and do not exceed 5 double spaced pages (excluding references cited)

## Assignment #4

### Research Methods

One of the most critical components of any proposal is the description of proposed methods to be used in accomplishing project tasks. The prospective researcher must not only offer an excellent project description and proposed theoretical basis, but he or she must also provide the link between the general theoretical problems and the proposed methods for accomplishing project objectives. In this way, the reviewers learn about the scholar's theoretical orientation, proposed field and laboratory methods, the expected project results, and the overall benefits of utilizing this approach.

Once hypotheses and test expectations (previous assignment) have been made clear then methods of data collection (including use of measuring instruments\*) should be explicated. There should be a logical flow from research problem to hypotheses and test expectations to data collection methods. All proposed methods must be justified by either new methodological research or, more typically, by citing published methodological research that offers that justification.

The methods section provides the final link between hypotheses and the development of conclusions and recommendations. Most critically, it is here that the proposal must clearly state what data are to be collected and how meaning will be assigned to the collected data. Archaeologists will need to discuss specific field techniques and laboratory analyses designed to generate data from such things as artifacts and features. Socio-cultural anthropologists are normally able to examine their field data using qualitative and/or quantitative tools.

#### Assignment:

Please write a Proposed Research Methods section. Be sure to use the project description, theoretical concepts, hypotheses, and test expectations outlined in your previous assignments as the basis for this assignment. For purposes of this assignment, methods will include **field data collection and lab/office analysis of materials and data collected in the field**. Therefore, you need to be concerned in particular with the nature of data to be collected, analytical and inferential procedures, and final reporting.

The assignment should be typed, doubled spaced, in *American Antiquity* or *American Anthropologist* style, and limited to no more than seven pages. Please be prepared to present this assignment for seminar discussion.

\*Measuring Instruments. We accomplish our field and laboratory data collection for

hypothesis testing through the development and use of instruments or techniques for measuring variability in the empirical world. Since anthropological research questions are wide-ranging, we rely upon an equally wide array of instruments for making sense of our world. Social anthropologists often depend upon questionnaires and personal interviews to assess such things as health history, beliefs, or social relationships. Archaeologists use such things as surveys, excavations, and a barrage of laboratory techniques like assignment of artifact types designed to measure aspects of past behavior. Archaeologists and physical anthropologists also rely upon actual physical instruments like calipers or scales.

Regardless of the type of instrument used in data collection, all researchers must be concerned with the data consistency or reliability and data accuracy or validity. In other words, before any meaning can be assigned to data, the researcher must know that the instrument itself is not providing spurious results. An unreliable instrument will produce data patterns that are hard to interpret due to excessive random error embedded within the measurements. In contrast, a reliable instrument will not be unduly affected by random error and will therefore have a better chance to reflect the phenomena of interest. However, a reliable instrument is still not necessarily valid. Validity can only be achieved if the instrument actually measures the phenomenon of interest in a theoretically logical way. Therefore, for example, poor performance on a math test should reflect poor knowledge of the material; or, an old radiocarbon date in an archaeological site should reflect an old human occupation.

Measuring instruments are defined and tested in methodological research. To accomplish this, we apply new instruments to well understood phenomena. If the instrument provides reliable and valid measurements from which we can draw defensible inferences then we will tend to accept that instrument. Sometimes a new research project will be predicated on trying out a new measuring system or substantially refining an older one. Part of the proposed research may include a test of the instrument itself. This is accomplished in many disciplines with a pilot study. Looking at a smaller subsample allows the researcher to test the method for reliability and validity prior to expending the larger effort. For archaeologists, methodological research may include experiments or ethnoarchaeology where new instruments are tried out under conditions whereby the researcher knows what processes led to the formation of the archaeological record.

## Assignment #5

### The Cost Proposal

The cost proposal is an integral component of any complete proposal. First, cost proposals provide prospective grantees with the opportunity to further demonstrate their knowledge and potential effectiveness in pursuit of the proposed research. Second, cost proposals provide the opportunity for researchers to cover their costs of completing project work as well as associated overhead, fringe benefits, etc.

#### Assignment:

Please complete a cost proposal utilizing project assumptions developed in your technical proposal. An NSF style budget form in Excel will be provided.

You will need to calculate:

1. Salary rates per employee class; fringe benefit (fringe can include Workman's Compensation Insurance, Health Insurance, retirement benefits, etc.) rates; indirect or overhead rate; and travel rates (per diem, lodging, vehicle mileage)
2. Expected hourly or daily time requirements by employee class (add up total costs)
3. Expected travel: Number of days/nights requiring per diem and lodging (add up total costs)
4. Expected mileage and other travel expenses
5. Consultant Costs (if necessary): radiocarbon dating, faunal analysis, historical research, etc.
6. Expected ancillary costs: supplies, communications, photocopying, etc.

Clearly, much of this information could only be derived from a cost accounting analysis of your business or institution. Therefore, for purposes of this assignment you can use UM cost factors (i.e. overhead or indirect, mileage rates, etc.). The primary purpose of this assignment is to provide you with experience in linking proposed research activities with budget parameters. Please provide your best assessment of what you think the project might actually cost (given your assumptions outlined above).

Please add all direct costs (labor, travel, lab analyses, and other expenses). Then add overhead or indirect cost by multiplying overhead or indirect percentage rate against total direct costs.

Items 1-6 can be presented the NSF table depicting complete cost breakdown for project. A budget justification should accompany the table for clarification of specific cost items and justifying any assumptions made in budget preparation.

Please be prepared to present this assignment for seminar discussion. Expect questions regarding the relationship between project research requirements, time and labor allocation and expected project costs.

## Assignment #6

### The Completed Proposal

This assignment will allow you to integrate your previous assignments in order to produce a complete proposal. The completed proposal should clearly demonstrate your ability to complete the proposed work. Excellence is critical, as the proposal may be the only exposure reviewers will have to you.

A few pointers on final proposal preparation: Appearance and organization count. Make sure that there is a clear flow from (1) Project Summary, a maximum two page (double spaced) outline of the project that must include identified paragraphs for **intellectual merit** and **broader impacts**; (2) introduction (project goals, context, and importance); (3) research design (hypotheses, test implications, field/lab methods, summary statements describing intellectual merit and broader impacts); (4) references cited; and (5) appendices (if necessary). The entire proposal **will not be longer than 22 pages double spaced** (excluding references cited, appendices, and budget).

Please include the following: (1) complete technical proposal; (2) complete cost proposal.

As always, please be prepared to present this assignment for seminar discussion. Expect questions regarding the project research requirements and budget issues.

## **ANTY 601 Week 2 (January 31) Presentations**

1=Introduction, theory, and hypotheses; intellectual merit

2=Methods and broader impacts

Grocke (socio-cultural anthropology dissertation improvement grant)

1\_\_\_\_Dean\_\_\_\_

2\_\_\_\_Hazelwood

Prentiss (archaeology [Bridge River] senior grant)

1\_\_\_\_Adams\_

2\_\_\_\_Kern\_\_\_\_

Prentiss (archaeology EAGER grant for Old Togiak project)

1\_\_\_\_McClurkin\_

2\_\_\_\_Palombo\_\_

Hampton (archaeology dissertation improvement grant)

1\_\_\_\_Shiverdecker

2\_\_\_\_West\_\_\_\_

Sanders (socio-cultural anthropology dissertation improvement grant)

1\_\_\_\_Salzman, Brown

2\_\_\_\_Omeasoo

Schmidt (biological anthropology dissertation improvement grant)

1\_\_\_\_Hofland/McDonald

2\_\_\_\_Powers

Smith (archaeology dissertation improvement grant)

1\_\_\_\_St. George

2\_\_\_\_Willsey

## **GROUP MEMBERSHIP**

Group 1: Adams, Brown, Dean, Hazelwood, Hofland, Kern, McClurkin, Omeasoo,

Group 2: McDonald, Palombo, Powers, Salzman, Shiverdecker, St. George, West, Willsey