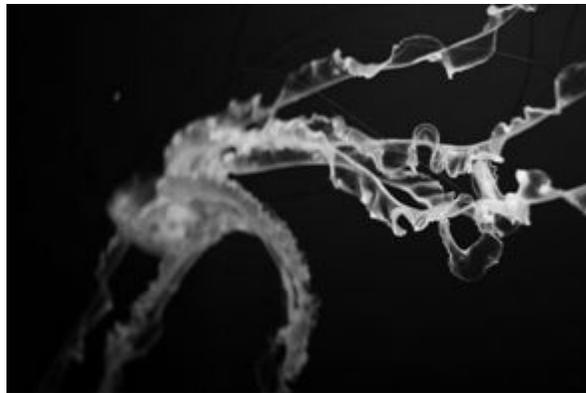**Research Administration**
College of Education

HANDBOOK FOR DEVELOPING RESEARCH PROPOSALS

Revised by
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Grant Coordinator
January 31, 2012

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ABSTRACT

The <u>Handbook for Developing Research Proposals</u> is designed to assist faculty members in OSU's College of Education (COE) in preparing and submitting research proposals. The manual sequentially describes the steps in preparing an effective proposal, lists the services of the COE Research Administration Office, and offers tips and advice on preparing proposals.

Developing a good idea into a well-developed, persuasive proposal is no small undertaking. The purpose of this manual and the COE Research Administration Office is to facilitate the proposal submittal process, simplify the tasks involved, and to enhance the faculty member's research endeavors.

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I. INTRODUCTION

Research funding is vital to Oklahoma State University's (OSU) research mission "to provide an environment in which its constituents can discover, examine critically, preserve, and transmit knowledge, wisdom, and values that will help ensure the survival of present and future generations." (OSU Policy and Procedures) Without the support of faculty in securing research funds, OSU's research mission could not be achieved. Approximately one-half of the research operating funds come from grants and contracts awarded by state and federal agencies as well as private industries. These awards are the direct results of well-planned and well-prepared proposals.

The Handbook for Developing Research Proposals is a guide to assist you in preparing and submitting research proposals through the COE Research Administration Office. The handbook is designed to give you an overview of the proposal process after the pre-proposal planning stages have been completed (e.g., developing the idea, finding a funding source, etc.). The handbook is divided into two sections: the "Pre-Award Functions of COE Research Administration" and "The Proposal Process." The first section describes the services provided by the Pre-Award Section of COE Research Administration. The second section includes instructions on (1) developing the proposal, (2) checking for common problems, (3) routing the proposal, and (4) submitting the proposal to the funding agency. Also, in this section is a checklist for your use. Included in the appendices are a sample proposal, a glossary, a list of commonly used acronyms, and suggested resources.

Hopefully, this handbook will make the complex task of preparing research proposals a little easier. For questions or concerns that are not addressed in this handbook, please contact Tim Schlais, Grant Coordinator, COE Research Administration, x8035, for further assistance.

II. PRE-AWARD FUNCTIONS OF COE RESEARCH ADMINISTRATION OFFICE

The COE Research Administration Office provides both pre- and post-award support services for grants and contracts. These services include assisting in the preparation of research proposals, soliciting financial support for research projects, financial monitoring of grants and contracts, and assisting with the promotion and publication of research activities in the COE. Listed below are the pre-award services, which include dissemination of funding information, proposal development, and other support.

A. Dissemination of Funding Information

One of the major tasks in the proposal process is identifying an appropriate funding source--one that matches the goals and objectives of the researcher and one that has the amount of funds needed to support the project. Listed below are services COE Research Administration provides to assist in locating a potential sponsor. (Also, included in Appendix E is a list of resources that may aid in the search for a sponsor.)

- Identifying research opportunities announced on the World Wide Web (WWW)
- Reviewing research publications for funding opportunities
- Retrieving guidelines and program brochures from funding sponsors
- Maintaining inventory of faculty research interests
- Routing program announcements to schools and departments
- Disseminating funding suggestions and research articles of interest
- Advertising upcoming deadlines and programs

B. Research

B-1 Mission

The office of Research assists faculty with all aspects of the grantsmanship process. This includes: prospecting for information about funding sources, preparing proposals, and administering funded projects.

B-2 Proposal Submission Protocols

Externally funded research and grant programs commit the University to fulfill a myriad of responsibilities and, as a result, faculty and staff who engage in such activities must have approval prior to applying for external funding. This approval is obtained by following the appropriate proposal routing channels.

The office of Research coordinates the proposal routing process and communicates with all appropriate offices on campus. Therefore, all requests for external funding are administered through this office.

B-3 Staffing

The office of Research is under the leadership of the Associate Dean for Graduate Studies, Research, and Outreach, who acts as the official liaison for the COE to the Vice-President for Research. A Grants Coordinator assists faculty with all activities that lead up to submitting an application for external funding budget and compliance requirements with monitoring the program once an award has been granted. Details of these activities follow:

Associate Dean.
Assists new faculty with orientation to the grantsmanship process and recruits returning faculty for voluntary participation in the grantsmanship process. Assists in proposal development for the office of Research.

Pre-Award Support. The Grants Coordinator helps faculty secure funding by coordinating research activities; maintaining a library of guidelines and applications from federal, state, and private grant programs; research, Requests for Proposals (RFPs) that match faculty research and program interests; and providing information on upcoming grant and contract opportunities and deadlines. They also review all proposals and work with faculty to develop project budgets and ensure compliance with the policies, procedures and guidelines of the University and the respective funding agencies; monitor the routing process through appropriate University channels to obtain required signatures; and prepare proposals for submission.

Post-Award Support. The Grants Coordinator provides support for sponsored activities. The emphasis of this support is primarily post-award financial and compliance management. It includes routing or establishing new awards, monitoring allowability of expenditures, approving purchases, reconciling accounts, advising principal investigators on policy and procedures relating to sponsored activities, contract/agreement preparation and negotiation, and various other functions involved with managing sponsored programs.

B-4 Proposal Submission Procedures

- Notify the Grants Coordinator of your intent to apply as soon as the decision is made to make application. Contact us for current procedures, guidelines and forms. If you have not already contacted the agency program officer, do so as soon as you have read the background materials.

- Get approval from your School Head to submit the proposal.
    - Possible issues to be discussed are academic year participation, summer salary, graduate student and staff requirements, space needed, full cost of the project versus sponsor limits, and any cost sharing on behalf of the department. Cost sharing must be approved before the budget can be finalized.
    - Determine the availability of departmental staff and graduate students to assist you with word processing, proofreading, and other proposal preparation and submission tasks.

- Inform the School Head if you plan to be out of town or otherwise unavailable during the proposal development and submission process. It may be necessary to submit the proposal ahead of the agency deadline.

- Meet with the Grants Coordinator to review your draft narrative or project plan and preliminary budget several weeks prior to the deadlines. If the prospective sponsor is a foundation or other non-governmental source, the Research office will determine whether or not the proposal needs to be processed through the OSU Foundation.
  - Staff will work with you to assure compliance with agency guidelines, state and university requirements, and cost accounting standards.
  - Staff will provide current information regarding salary, fringe benefit and F&A (indirect) cost rates. Staff will also assist you with preparing the budget narrative.
  - Adequate lead time usually five working days, must be allowed for the staff to research and get approval on special budget needs; ensure the proposal narrative correlates with the budget and budget narrative; and develop a budget format for the unique requirements of the proposal. Provide Research staff with revisions of the narrative/project plan throughout the process.
  - Staff will prepare the appropriate agency forms for signatures and submission.
  - Any human experimental use must (eventually) be cleared through the Institutional Review Board (IRB). Discuss the IRB application process with the Research staff.
- Peer review of the proposal and the appendix items such as bibliography, vitae, and supplemental information is highly recommended. The Research staff will do a final proofreading of the narrative if sufficient time is allowed.
- At least five days before the agency deadline submit a well-developed copy of the narrative and the final budget, along with the budget explanation, to the Research staff. Staff will prepare the routing form and begin circulating it with the proposal to obtain signatures from the respective PIs/Heads/Deans and forward it to University Research to obtain the approval and signatures of required OSU officials.
- The Principal Investigator is responsible for submitting the final proposal and required copies to the Research staff in both hard copy and electronic form. If necessary, the Research staff will mail the proposal.

B-5 Facilities and Administration (F&A) Costs

As mentioned above, the University has negotiated specific F&A rates (formerly known as Indirect Costs – IDC) with the federal government. F&A costs are those costs that are incurred for common or joint activities of the university and therefore cannot be identified readily and specifically with a particular sponsored project, instructional activity or any other University activity. F&A costs cannot be waived without having been approved through established University proposal routing channels.

Indirect costs typically include expenses incurred for general departmental and institutional business such as administrative and clerical salaries, related fringe benefits, office supplies, postage, telecommunications, equipment and other general costs. Other F&A costs are those

incurred for administrative and support services that benefit departmental activities, and costs incurred by separate departments and organizations established primarily to administer sponsored projects. All of these costs are considered part of the indirect cost pool and cannot be directly charged to the grant.

In instances where sponsored projects require costs typically handled as F&A costs, such costs may be charged to sponsored agreements as direct costs when ALL of the following conditions are met:

- The costs are required by the project scope due to the project's special purpose or circumstance; AND
- The costs can be readily identified specifically with the project with a high degree of accuracy: AND
- These items of costs can be separately budgeted for, with justification, and approved by the sponsoring agency.

Received F&A Distribution Program. The F&A distribution program is an incentive funding source. The University has a negotiated an F&A cost rate (depending on the type of proposal and location of project). Of the received F&A, 45% is returned to the college. Of the 45% received by the college, 30% is placed in the Dean's account, 30% is placed in a School account, 30% goes to the PI and 10% goes to the office of Research. These funds may be spent in compliance with university policy that governs the use of professional development funds

B-6 Contact Personnel

Dr. John Romans
Interim Associate Dean for Graduate Studies,
Research, and Outreach
325D Willard Hall
744-5217

April Casiano
Administrative Assistant
Graduate Studies and Research
325E Willard Hall
744-5217

Tim Schlais
Grant Coordinator
325B Willard Hall
744-8035

C.   Other Support

Other support provided by the COE Research Administration Office include the following:

- Maintains a folder of research resumes for faculty members
- Collects data and maintains database for current and pending support applicable to faculty members
- Incorporates resumes and support data in proposals as appropriate
- Updates information applicable to research centers and laboratories
- Responds to special requests for research information

III. THE PROPOSAL PROCESS

All COE proposals must be submitted through the COE Research Administration Office for processing. The proposal process begins with the PI/PD submitting the completed "COE Proposal Development Form" to the proposal development section. The steps in the process are as follows:

- Developing the proposal
- Checking for common problems
- Routing the proposal
- Submitting the proposal to the funding agency.

Each of these steps are explained in detail in the remainder of this section.

A. Developing the Proposal

The proposal is a joint effort between the COE Research Administration Office and the PI/PD. The narrative of the proposal is completed by the PI/PD. The PI/PD also furnishes the table of contents, the abstract, the budget explanation page, resume and any supporting documentation. The COE Research Administration Office prepares the cover sheet, any agency required forms, budget and budget footnotes, and current and pending support information (if required). Each section of the proposal is prepared following agency guidelines and OSU policy and procedures. The COE Research Administration routes the proposal internally and submits to the funding agency. Following are brief descriptions of the elements of an effective proposal.

1. Cover Page

The cover page is completed by the COE Research Administration Office. A standard format is used that includes the proposal title; the sponsor's name; date of submission; name, title, address, and signature of the PI/PD; name, address, and signature of the Associate Dean for Research who authorizes the submission. (See Appendix B.) Some agencies such as the National Science Foundation prescribe the format for many forms. Many agency forms are maintained in an electronic format and are available through the WWW. The COE Research Administration Office periodically retrieves and maintains the forms electronically.

2. Abstract

The abstract is a **self-contained**, 200- to 500-word summary of the proposal indicating the problem or need, objectives, methodology, evaluation process, and impact of the project. Much care should be given in writing the abstract. **The abstract may be the only section of the proposal that is read and may determine whether further consideration is given.**

3. **Table of Contents**

   The table of contents provides structure and pagination of the proposal. All proposals except short proposals (less than five pages) should include a table of contents. Major headings and subdivisions are listed in an outline form as they appear in the narrative. A well-developed outline provides ease in locating a particular topic in the proposal; therefore, it should be carefully developed.

4. **Introduction**

   The introduction addresses the significance of the proposed project and emphasizes the benefits to the reader. This section usually includes background information, scope of project, statement of need, and plan of development. Limitations such as areas not studied may also be included. An effective technique to conclude this section is to indicate the organizational pattern of the proposal.

5. **Statement of Problem and Objectives**

   This section defines the problem, need, or unique opportunity in detail; describes the expected results of the project; and indicates who will benefit (locally and/or nationally). Familiarity with pertinent literature should be demonstrated, as well as a brief history of work performed by others. The inclusion of statistical data and interpretation will give credibility and support the statement of need. Also, this section is an appropriate place to cite the researcher's experience relative to the project.

   The objectives are the expected outcomes and must directly relate to the needs. The objectives should be specific, measurable, and achievable.

6. **Proposed Approach and Work Statement**

   This section provides a work plan and describes the methods and procedures to be used. The work plan details the specific tasks to be taken to meet each stated objective. A schedule showing the starting and completion time for each task should be included; two graphical formats are the Gantt chart and the milestone chart. See figure 3.

7. **Qualifications of Project Personnel**

   Convincing the funding agency that the project leader and staff have the necessary expertise is the main goal in this segment of the proposal. This section identifies the members of the project and describes their qualifications. Robert Lefferts in his book <u>Getting a Grant in the 1990s</u> recommends that researchers without a track record can improve this section by including experienced consultants and by stressing the overall research capability of the sponsoring institution.

Detailed resumes of key personnel should be included in the appendix. The COE Research Administration Office maintains, and updates annually, resumes for the COE faculty and provides a copy for proposals. A sample of the format used can be found in Appendix B.

8. **Bibliography (or References)**

All pertinent literature should be cited. The Chicago Manual of Style illustrates several forms for the bibliography. Remember to use the style chosen consistently.

9. **Budget**

The COE Research Administration prepares the budget and any required agency forms. The information to calculate the budget is taken directly from the information provided by the PI when the proposal request is made.

Authorization for the overall budget and authorization for specific items such as cost sharing, third summer month salary, and other support is obtained during the routing process. In planning the budget, please note the following:

a. Cost Sharing or Matching

Cost sharing or matching may consist of project costs financed with cash contributed by other non-federal sponsors; in-kind contribution (i.e., project costs represented by services, equipment, and real property, or use thereof) donated by other non-federal sponsors; and charges incurred by the University as project costs.

Project costs incurred by the University consist of direct and indirect costs associated with the project. When the University waives indirect cost on a portion of the direct costs financed by the sponsor, it also becomes a part of the University's cost share.

Costs that are included in the University's indirect cost proposal cannot be used for cost share or matching. Included are such costs as operation and maintenance expense (e.g., janitorial, utilities, etc.) and use charges or depreciation for building space and equipment. Because the costs are recovered through the application of the University's indirect cost rate agreement, the inclusion of these items in cost share would represent double charging to the federal government.

The amount and source of the match are decided by the PI and his or her department head or director. However, prior approval by the Vice-President for Research must be obtained before the proposal can be submitted.

b. Indirect Costs

Effective July 1, 2010, indirect costs on campus are applied at the rate of 42.0 percent for research, 51.7 percent for instruction, and 33.0 percent for outreach. The off-campus rate is 24.2 percent for research and 26.0 percent for both instruction and outreach. (New rates will be effective July 1, 2013, please check

with the COE Research Administration Office for the new rates.) The base used in computing indirect costs is the direct costs less any tuition, stipends, alterations and renovations, equipment exceeding $5,000, and subcontracts in excess of $25,000. (The first $25,000 of a subcontract is included in the base; the amount in excess is excluded.)

As a general rule, the University does not waive indirect costs unless the funding agency requires such. Any waiver must be approved by the Vice-President for Research before the proposal can be submitted.

c. Salary Escalation

For estimating purposes, a 3 percent salary increase is included for faculty and support staff effective July 1, which has been assigned the effective date of pay raises at the beginning of the OSU fiscal year.

d. Employee Benefits

The employee benefits--FICA, Health Insurance, Unemployment Compensation, Worker's Compensation, Life Insurance, and Retirement Benefits--are a direct cost item for the University. A proportionate share of the cost, corresponding to the University employee's percentage of time on the project, will be charged to the project. The amount shown is based on a percentage of the employee's portion of proposed salary costs. Employee benefits are specifically identified to each employee and are computed individually (i.e., not as a flat rate). Fringe benefits will be charged to the award at actual rates.

10. Budget Justification

Most sponsors require a separate budget justification page that documents the need for each item listed in the budget. This page is to be completed by the PI/PD. The budget footnotes, prepared by the proposal development staff, are not "budget justification" elements. The more detail given in the justification, the better it will be. This justification will demonstrate to the funding agency that the proposer thoroughly understands the financial requirements of the project. A budget justification template is available upon request.

11. Appendices

The appendices include support information and documentation. Materials that would be appropriate in the appendices are supporting letters, resumes of key personnel, current and pending support of personnel, subcontracting data, tabular data or graphs, blue prints, maps letter of tax exempt status, and job descriptions. Before including materials in the appendices, check the agency guidelines. Some agencies have restrictions on the items that may be included.

B.   Checking for Common Problems

Listed below are some common problems reviewers cite when evaluating proposals. Many of these deficiencies can be avoided by allowing ample time for proposal preparation.

- Poorly designed technical plan

- Insufficient capability of investigators

- Unrealistic budgets, no justification or explanation provided

- Proposal does not meet agency requirements

- Lack of resources to conduct research--either in personnel or equipment

- Proposal is not clear, coherent, or complete

- Time estimate is unrealistic

- Statement of objectives are weak and undefined

- No rationale for consultants named, no evidence consultants have agreed to serve

- Overall design of the study has not been carefully thought out

- Current grants to the investigator are adequate to cover the proposed research

- Applicants are not familiar with pertinent literature

- Problems to be investigated are more complex that the applicant realizes

A summary of comments made by two senior professors regarding tips on preparing successful proposals is shown below:

- Always meet the specification regarding page limits, dollar limits, etc., contained in the program solicitation. In many instances, proposals will be disqualified summarily if they do not adhere to these guidelines.

- Provide in the proposal a concise description of the proposed work. Let the reviewer know, in a few paragraphs at most, specifically what is proposed in the work.

- Make sure the reviewer understands where successful completion of the project will lead in terms of the state of the science, especially as it pertains to the mission of the sponsoring agency.

- Provide a concise review of pertinent work in the area to demonstrate your awareness of the current state of the art.

- Give some examples of specific systems or cases or models to be studied in the work.

- For panel reviewed material, be sure to give all critical information within the proposal--don't simply cite references to your previous work in the area, since the reviewer is unlikely to take the time to investigate literature when he may have a large number of proposals to review. In no instance should important information receive only a citation in unpublished (in press or accepted) work or obscure references that cannot be quickly located.

- In program solicitations where there are sub-categories under this same solicitation, give careful thought to the relative competition that may exist in the different sub-categories. For instance, at a previous DoE meeting, some sub-categories had as few as four proposals, while others had a many as eighteen. By shifting an idea from one category to another, you may be able to substantially reduce your competition.

- Do not over-promise regarding accomplishments; more is not necessarily better. Be realistic.

- Avoid resumes given in "narrative" form. A concise resume with recent (or pertinent) references only, plus total number of publications, is preferred.

- Since panel reviewers are assigned many proposals, they may be looking for reasons to eliminate proposals. Do not give them a reason to do so. Adhere closely to the suggested format of the program solicitation. Do not be too verbose in your writing.

- Be sure to tailor your discussion to the mission of the sponsoring agency. For example, the DoE panel was for research to coal science. Some excellent proposals (in terms of scientific discovery) were eliminated because they showed no clear mid-term applicability to the engineering of coal fluid systems.

- No matter how good you are, or how well you are known, you must thoroughly justify you ideas. In the current strong competition for funding, you will not be rewarded based on your reputation alone. Outstanding people were eliminated for providing inadequate details regarding their proposed work and its relevance to the program.

- For your information, the previous DoE panel had approximately 300 proposals, with fewer than 10% to be funded.

C. Routing the Proposal

The completed proposal must be reviewed and approved by the OSU Administration before submitting to the funding agency. No proposal can be submitted without filing the said document. To facilitate the review process, the COE Research Administration initiates the routing of the proposal. The routing procedure entails the steps listed below.

1. The COE Research Administration prepares the routing sheet (Figure 4) and obtains signatures from the PIs/PDs, department heads, directors, and deans. Any comments may be added to Part 4 on the routing sheet.

2. The routing sheet and two copies of the proposal are forwarded to the Document Control Center (Office of University Research). The Document Control Center logs the routing in and submits the routing to the Grants and Contracts Financial Administration (GCFA).

3. After GCFA approves, the document is delivered to the appropriate vice-president for signature. (Optional: GCFA may submit the proposal to the OSU Legal Counsel for review.) The routing is then sent to the President (if required) and Vice-President for Research for final approval.

The flow chart at Figure 5 illustrates the routing process.

D. **Submitting the Proposal to the Funding Agency**

Before submitting the proposal to the funding agency, COE Research Administration staff check the proposal to ensure that (1) the pages are in proper order, (2) visual aids are inserted, (3) all pages requiring signatures have been signed, and (4) all required agency forms are included.

Electronic files will be submitted *via* the designated system. For hard copy submissions, a transmittal letter prepared by the COE Research Administration is attached to the proposal. The original proposal and the required copies are then mailed *via* overnight delivery service to the funding agency.

File copies are maintained by the COE Research Administration Office. A PDF copy of the of the proposal will be sent to the PI/PD and forwarded to the department head or director, if requested.

Generally, the funding agency will notify the PI/PD of the results of the review process. It is important that the PI/PD notify the COE Research Administration Office of their decision.

E. **Checklist**

A checklist is provided below to ensure that the proposal process is complete.

Proposal Development

___ Read agency guidelines and prepared proposal according to agency requirements.

___ Prepared abstract.

___ Prepared table of contents.

___ Prepared body of text and included:

    ___ Introduction

    ___ Statement of Problem and Objectives

    ___ Proposed Approach and Work Statement

    ___ Qualifications of Project Personnel

    ___ Bibliography (or References)

    ___ Budget Explanation

___ Included supporting materials in the appendices.

___ Checked proposal for any deficiencies.

Proposal Routing

___ Delivered the proposal five working days prior to the proposal deadline to the COE Research Administration Office for internal routing and submission to the sponsor.

___ Signed the routing sheet.

___ Obtained signature of school head or director.

APPENDIX A

BIBLIOGRAPHY

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    Assistance Center, 1989.

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APPENDIX B

SAMPLE OF TRANSMITTAL LETTER

August 28, 2015

Contact Name
Sponsor Agency
Sponsor Adress
City, OK 73169-6901

Re: Oklahoma State University Proposal Number **ED-15-RS-017**

Enclosed is Oklahoma State University COE Research Proposal Number **ED-15-RS-017,** entitled **Enter Title.** Please cite the assigned proposal number on any correspondence related to this proposal.

The points of contact for actions pertaining to this proposal are shown below.

- **Principal investigator**: Dr. Lowell Caneday, School of Applied Health & Educational Psychology, (405) 744-5503.

- **Proposal Submittal / Budget Inquiries:** Tim Schlais, Grant Coordinator, COE Research Administration, (405) 744-8035, tim.schlais@okstate.edu.

- **Award documentation / contract negotiation:** Award documents applicable to this proposal should be forwarded to the following address: Graduate Studies and Research Office, College of Education, Oklahoma State University, 325 Willard Hall, Stillwater, OK 74078-4034.

Sincerely,

Tim Schlais, Grant Manager
College of Education

GLOSSARY OF TERMS USED IN
PREPARING AND ADMINISTERING PROPOSALS

Accountable Equipment –For most Federal grant purposes, accountable equipment means nonexpendable personal property (tangible personal property) having an acquisition cost of $500 or more and an expected service life of two years or more. For University purposes, accountable equipment has an acquisition cost of $500 or more and a useful life of five or more years.

Allowable Costs –Those costs "allowed" under the requirements of University policy, State Law, and the terms of the granting agency.

Augmentation Application –A requirement of additional funds for a project previously awarded funds in the same funding/project period, yet the project's scope and budget remain unchanged.

Budget –The plan for expenditure of funds required for a project or activity.

Budget Period –The interval of time (usually 12 months) into which the grant period is divided for budgeting and reporting purposes. OSU's budget period is the fiscal year beginning July 1 and ending June 30.

Clearinghouse –A central agency for the collection, classification, and distribution of information.

Closeout of Grant –The process by which a federal sponsoring agency determines that all applicable administrative actions and all required work of the grant have been completed by the recipient and the sponsoring agency.

Consultant –A person, generally outside the grantee organization, employed by OSU on a service/fee basis for the purpose of obtaining professional or technical advice.

Continuation Application –A request for an extension of an additional funding/budget period for a project the agency initially agreed to fund for a definite number of years.

Contract –A legal agreement between an individual, group, or institution enforceable by law. A contract defines the terms, conditions, and period of performance in relation to a specific project and also sets forth the terms under which payment will be rendered in return for satisfactory project accomplishment. In the past, contracts were not common to the University, but today they are becoming commonplace, and several agencies use them as their preferred modus operandi. The following is a listing of common contract types:

Cost Plus Fixed Fee –Fee earned on the initial estimate of the work's scope; cost overruns are reimbursed with no additional fee.

Cost Plus Incentive Fee –Similar to a cost reimbursement contract with the fee based on estimated post-project savings to the sponsoring agency.

Cost Plus Sliding Fee –Similar to a cost reimbursement contract with the fee based on the difference between the actual and initially estimated project costs.

Cost Reimbursement –A contract based on actual costs not to exceed an upper limit. This is on a negotiated basis and subject to post-project audit; direct project expenses charged at cost.

Fixed Price –A set sum of money for a fixed scope of work, payable in installments or as a lump sum at the conclusion of a project.

Time and Material –A fixed daily or hourly rate for each staff member with direct project expenses charged at cost; periodic payments in accordance with progress.

Cost Sharing –The percentage of the total project costs that the University is required to contribute toward some research projects. The amount required varies with the agencies involved.

Direct Costs –Expenses which are directly attributable to a project or program. Direct costs typically include staff labor, travel, per diem, communication, reproduction, printing, and equipment supply items procured directly for the project.

Dissemination –The means by which the grantee distributes and makes public the results of the research effort, generally through papers, film, tapes, conferences, and project reports.

Domestic Travel –Travel performed within the United States. You must check the awarding agency's definition of foreign travel.

Encumbrances –Financial obligations incurred in the form of orders, contracts, and similar items that will become payable when goods are delivered or services rendered. This term is synonymous with commitments.

Evaluation –A process for posing value questions and collecting information of importance to decision-makers responsible for the project. The techniques are much like those employed in research, requiring a system, but the goal is specific information about the value or progress of the project. The following is a list of evaluation types:

External Evaluation –An evaluation conducted by a person or persons who are not members of the project staff and can provide an objective, outside view. In many instances, a mandatory or integral part of a funded program.

Formative Evaluation –Evaluation conducted by members of the project staff.

Summative Evaluation –A final evaluation intended to give an overall appraisal of the program or product at its conclusion.

Excess Property –Equipment and materials with a useful life, which are no longer required by the holding federal agency.

Expendable Equipment –Equipment and supplies that are not permanent in nature such as films, office, and laboratory supplies.

Expiration Date –The date specified in the grant letter after which expenditures may not be charged against the grant.

Facilities and Administration Costs –See Indirect Costs. This will be abbreviated as F&AC.

Fellowship Award –A grant made to an individual to support scholarship, research, or specific training which will enhance that individual's level of competence in a particular field of study.

Foreign Travel –Travel outside of the United States. Travel within the United States enroute to or returning from a foreign destination is considered foreign travel.

Fringe Benefits –Employee benefits such as insurance and retirement that are over and above salary and that increase the monetary value of employment.

General Purpose Equipment –All items of equipment that are usable for other than research, medical, or specialized scientific or technical activities, whether or not special modifications are needed to make them suitable for use on a project. Included are such items as office equipment and furnishings, computing and automatic data processing devices and equipment, reproduction equipment, refrigerators, portable heating and cooling units, vehicles, and cameras. General purpose equipment does not lose this characterization merely because of the scientific or technical purpose for which it is purchased or the location where it is used. All general purpose equipment on federal projects require written prior approval of awarding agency.

Grant –An agreement by an agency to award and by the grantee (or individual) to accept and use funds to support an identified activity. Ordinarily, this agreement is based upon a proposal and contains a minimum of expressed conditions binding the grantee and/or the individual. Grants are normally made for one to three year periods; quite often stipulation for an additional year is made upon the contingency of the availability of funds. Grants may be revoked, in whole or in part, at any time after consultation with the grantee and the principal investigator. A grant is a legal binding document. The following is a partial listing of current grant types:

Conference Grant –Money awarded to support the costs of a meeting for purposes clearly within the agency's interest.

Consortium Grant –A master grant to one institution in support of a project that will be carried out cooperatively with other academic institutions or profit-making organizations which are legally independent of the funded institution.

Construction Grant –Money awarded by an agency to provide support for construction of buildings and the expansion and modernization of existing facilities.

Continuing Education Grant –A grant, usually short-term, made by an agency to provide support for additional or updated training to individuals practicing or wishing to practice in a given field.

Demonstration Grant –A grant, generally of limited duration, made to establish or demonstrate the feasibility of a theory or approach.

Discretionary Grant –A grant made in support of an individual project, which permits the funding agency to exercise judgments in selecting the project, the principal investigator, and the amount of the award.

Equipment Grant –NSF or other agency awards for specialized research equipment to institutions, individual investigators within the same department, from several departments, a school, an institution, or a region.

Foreign Travel Grant –NSF award to scientific societies or other institutions in the United States for subsequent award to an individual scientist for partial travel support to attend international scientific meetings.

Formula Grant –A grant in which funds are provided to a specified grantee on the basis of a specific formula rather than on the basis of an individual project review. The formula is usually based on such factors as population, per capita income, enrollment, mortality, and the morbidity. Examples of DHHS formula grants are Biomedical Grants and other general resources support grants.

Information Science Grant –Grants awarded by NSF for investigation of both fundamental and applied problems in information science or for research on the characteristics of scientific and technical communications systems.

Opportunity Grant –Funds awarded by NSF to faculty members at an institution with limited research opportunities, so that the faculty member may arrange to work with an investigator at another institution who holds or is applying for an NSF research grant.

Planning Grant –A grant made to support planning, developing, designing, and establishing a means of performing research, delivering services, or accomplishing other approved objectives.

Research Grant –A grant made in support of investigation or experimentation aimed at the discovery and interpretation of facts, revision of accepted theories in light of new facts, or the application of such new or revised theories.

Research Initiation Grant –A grant awarded by NSF to engineering faculty members holding full-time academic appointments as assistant or associate professor.

Service Grant –A DHHS grant made to support costs for the purpose of organizing, establishing, providing, or expanding the delivery of health or mental services to a specified community or area.

Specialized Facility Grant –A grant from NSF for the acquisition of facilities of a specialized nature. Examples include nuclear accelerators, oceanographic research vessels, major controlled-environment facilities, and specialized biological or social sciences facilities.

Staffing Grant –A grant made to provide support for salaries of professional or technical personnel and their in-service training.

Training Grant –DHHS and NSF grant or agreement to support costs of training students, personnel, prospective employees in research or in the techniques or practices pertinent to the delivery of health, science, or technical services in a particular area of concern.

Grantee –The institution or individual to whom the grant is made.

Grant-related Income –All income generated by activities of the grant such as the sale of products or services, conference registration fees, etc.

Indirect Costs –Expenses of the University (University overhead) which cannot be readily charged to individual projects except through assessment on a percentage basis. These

costs typically include maintenance of physical facilities, library services, administrative services, and so forth. In general, indirect costs involve the costs necessary for the development and maintenance of an environment conducive to research.

Post-Grant Costs –Costs incurred after the expiration of the grant. Post-grant costs are unallowable as direct expenses to the grant.

Pre-Award Costs –Costs incurred prior to the effective date or beginning budget period for a grant. Pre-award costs are unallowable as direct costs without prior approval from the agency or without OPAS prior approval for NSF or NIH grants.

Preproposal –An informal document that describes a rationale for a project and explains why a proposal should be requested. The preproposal is an introduction of the idea to a prospective agency before the submission of a formal proposal.

Principal Investigator/Project Director –The individual designated by the grantee and approved by the sponsoring agency to direct the project or program being supported by the grant, contract, or other agreement.

Prior Award –Written permission from the granting agency, the contracting agency or the University in advance of certain changes or inclusions in the proposal or project.

Project Period –The total time for which support of a project has been approved. This may include more than one budget period.

Project Reports –Interim or technical reports on the progress or the achievement of the goals of a sponsored project. These are prepared and submitted to the sponsoring agency by the principal investigator.

Proposal –A formal document that describes what accomplishments the applicant promises to achieve in return for the investment of the sponsor's funds.

Renewal Application –A request for an extension of any additional funding/budget period for a project having no project completion date but for which support must be renewed each year.

Research-Specific Equipment –All items of equipment that generally are usable only for research, medical, scientific, or technical activities. Included are such items as microscopes, centrifuges, spectrophotometers, scintillation counters, etc.

APPENDIX D

ACRONYMS AND ABBREVIATIONS
from Washington

AFOSR	U.S. Air Force Office of Scientific Research
ARO	U.S. Army Research Office
COEA	Comprehensive Employment and Training Act
CFR	Code of Federal Regulations
DHHS	U.S. Department of Health and Human Services
DOD	U.S. Department of Defense
DOE	U.S. Department of Energy
DOEd	U.S. Department of Education
DOT	U.S. Department of Transportation
EPA	Environmental Protection Agency
GAO	General Accounting Office
GPO	Government Printing Office
GSA	General Services Administration
HEA	Higher Education Act
NASA	National Aeronautics and Space Administration
NDEA	National Defense Education Act
NEA	(NEFTA) National Endowment for the Arts
NEH	National Endowment for Humanities
NIH	National Institute of Health
NIMH	National Institutes of Mental Health
NSF	National Science Foundation
OE	Office of Education
OMB	Office of Management and Budget
ONR	U.S. Office of Naval Research
PHS	Public Health Service
USDA	U.S. Department of Agriculture
USGS	U.S. Geological Survey
USDI	U.S. Department of Interior

Associations

AASCU	American Association of State Colleges and Universities
AAU	Association of American Universities
ACE	American Council on Education
ACLS	American Council on Learned Societies
ACS	American Chemical Society
API	American Petroleum Institute
ASEE	American Society for Engineering Education
CGS	Council of (U.S.) Graduate Schools
GRI	Gas Research Institute
NASULGC	National Association of State Universities and Land Grant Colleges
NUEA	National University Extension Association
OkSEM	Oklahoma Society for Electron Microscopy

Information Services

ASI	American Statistics Index
CCH	Commerce Clearing House
CDA	Comprehensive Dissertation Abstracts
CIN	Chemical Industry Notes
CIS	Congressional Information Service
CRIS	Current Research Information
EIS	Economic Information Systems
ERIC	Education Resources Information Center
FAPRS	Federal Assistance Program Retrieval System
NICEM	National Information Center for Education Media
NTIS	National Technical Information Service
SSIE	Smithsonian Science Information Exchange

Publications

ARGS	Annual Register of Grant Support
CBD	Commerce Business Daily
CFEAP	Catalog of Federal Education Assistance Programs
CFDA	Catalog of Federal Domestic Assistance

EFFORT	Education Full Funding Organization Report
FCSB	Foundation Center Source Book
FMC	Federal Management Circular

from OSU

AVC	Audiovisual Center
CAS	College of Arts and Sciences Research
CBA	College of Business Administration
CEAT	College of Engineering, Architecture and Technology
CoH S	College of Human Sciences
CVM	College of Veterinary Medicine
DABS	Department of Applied Behavioral Studies
DHM	Design, Housing, and Merchandising
FPRC	Fluid Power Research Center
FRCD	Family Relations and Child Development
GCFA	Grants and Contracts Financial Administration
HPEL	Health, Physical Education, and Leisure
H&RA	Hotel and Restaurant Administration
OAES	Oklahoma Agricultural Experiment Station
OCIDM	Oklahoma Center for Integrated Design and Manufacturing
OCOL	O'Collegian
ODA	Office Data Archive
OURS	Office of University Research Services
OWRRI	Oklahoma Water Resources Research Institute
UCER	University Center for Energy Research
UCLR	University Center for Laser Research
UCWR	University Center for Water Research
URC	University Research Council
VM&S	Veterinary Medicine and Surgery

APPENDIX E

SUGGESTED RESOURCES

Listed below are some of the resources available for locating funding sources. Please check with the Edmon Lowe Library for availability.

Catalog of Federal Domestic Assistance, Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. A manual that lists federal assistance and grant programs, cross-indexed by agency and program types.

Federal Register, Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Reports guidelines for many government programs, rules, and regulations.

U.S. Government Manual, Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Government's guidebook of information about U.S. government agencies, programs, and key officials.

Commerce Business Daily, Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Provides daily listing of government procurements, potential contracts, and awards. All federally initiated request for proposals appear in this publication.

Federal Grants and Contracts Weekly, Capitol Publication, Inc., Arlington, VA 22209. Includes updated information on federal funding trends and a listing of current program announcements.

Annual Register of Grant Support, Marquis Academic Media, Chicago, IL 60611. Lists information on grants to individuals and organizations from government agencies, foundations, corporations, and other groups.

Activity	Predecessor	Time estimates			Expected time
		Opt. (*O*)	Normal (*M*)	Pess. (*P*)	
A	—	2	4	6	4.00
B	—	3	5	9	5.33
C	*A*	4	5	7	5.17
D	*A*	4	6	10	6.33
E	*B, C*	4	5	7	5.17
F	*D*	3	4	8	4.50
G	*E*	3	5	8	5.17

Once this step is complete, one can draw a Gantt chart or a network diagram.

ID	Task Name	Predecessors	Duration
1	Start		0 days
2	a	1	4 days
3	b	1	5.33 days
4	c	2	5.17 days
5	d	2	6.33 days
6	e	3,4	5.17 days
7	f	5	4.5 days
8	g	6	5.17 days
9	Finish	7,8	0 days

A Gantt chart created using Microsoft Project (MSP). Note (1) the critical path is in red, (2) the slack is the black lines connected to non-critical activities, (3) since Saturday and Sunday are not work days and are thus excluded from the schedule, some bars on the Gantt chart are longer if they cut through a weekend.

OSU Routing Flow Chart*

NOTE: This is an estimate for routings that have no problems or issues. If contacting the department or college is required, the routing could take longer.

Routings that **must** be completed in 24 hours or less should be walked through the process by the initiating college/unit.

The estimated time in each office is from the time of receipt.

Optional Routing Stop(s)

Contact the appropriate office as soon as possible when necessary to determine length of time needed for approval(s).

**OSU General Counsel
206 Whitehurst**

**Intellectual Property Management
201 Cordell North**

**International Studies & Outreach
107 WWC**

**OSU CIED
505 S Main**

**OSU Foundation
400 S. Monroe**

**Office of University Research Services (OURS)
212 Cordell North**
This is the first stop in the administrative routing flow.
Runs are generally made to Whitehurst twice a day at approximately 10:00 a.m. & 3:00 p.m.

Optional Routing Stop

**University Research Compliance
219 Cordell North**
(1 full working day minimum)

**Grants and Contracts
401 Whitehurst**
(approximately 8 working hours)

OSU Foundation
Acting as the financial office instead of G&C.
(3-4 days, items sent via campus mail)

**VP for Research and Technology Transfer
203 Whitehurst**
(1 full working day minimum)

Optional Routing Stop

**Executive Vice President
101 Whitehurst**
(1 full working day minimum)

**OURS
212 Cordell North**
Run times approximately 10:00 a.m. & 3:00 p.m.

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