

Catholic Polytechnic University

Computer Science Department

CS571 RESEARCH FUNDING AND ADMINISTRATION

General Course Information

Title: CS571 Research Funding and Administration

Semester: Fall 202X

Class Days/Time: Monday, Wednesday and Friday, 1 hr, 3 Semester units, 45 clock hours

Classroom: To Be Assigned

Course Description

University Catalog Description: This is an advanced course introducing the foundational theories supporting the conduct of research. It covers all of the major skills needed to properly conceive, a research program, seek funding for it, staff it appropriately and manage it effectively. It will identify typical legal and university policy mandates that must be followed.

Learning Objectives & Outcomes

Student Learning Outcomes

Upon successful completion of this course, students will be able to:

- SLO1 Understand the processes for administering research
- SLO2 Implement practical management techniques
- SLO3 Avoid disruptive admin errors in research
- SLO4 Effectively seek funding from sources

EQUIRED COURSE MATERIALS

Textbook

Title: Managing Scientists: Leadership Strategies in Scientific Research, Second Edition

Author: Alice M. Sapienza

ISBN: 978-0471226147

Title: The Mythical Man-Month: Essays on Software Engineering

Author: Prof Fredrick Brooks,

ISBN: 978-0201835953

Title: Hold Successful Meetings

Author: Katherine Kostoul

ISBN: 978-0241481950

CLASS SCHEDULE

Week	Monday	Wednesday	Friday
1	Introduction: to funding for research staff, course goals, required texts, identification of unique issues of interest, and grading parameters	History and basis of research funding philosophies, funders' organizations, basic accounting concepts, origin of funding types,	Trends, alternative futures, and university sponsored research organizations
2	Research funding requirements and definition of costs, basis for university accounting methods (both local and others)	Concepts of research planning, scoping the effort, elements of the budget: personnel, benefits	Travel, supplies, equipment, consultants, sub-contracts, indirect costs, cost-sharing, and other funding line items.
3	Identification of funding sources: Research and approaches - Governmental authority to fund, Commerce Business Daily, university resources	Conventions, governmental entities, foundation indices, networking with senior researchers, and	Use of consultants, Washington liaisons/lobbyists, and alumni.
4	Establishing/managing teams & collaborations, history and justification of multi-institution research, scoping the effort, analyzing proposal strengths	Coordination costs, sharing credit, management, indirect cost distribution, personality factors, and an objective view.	Exam 1
5	Identifying funders, writing a good proposal and application, conceptual approaches to funding, types of requests and announcements	Interpreting the RFP, identifying the unstated goal, anticipating the competition, logistics for proposing, site visits, and "red team" reviews.	Thinking like the funder/peer, organizing to write the proposal, aesthetics, anticipating the university

6	Sponsor relations Differing stances of foundations and sponsor representatives	The rules and traditions of relationship, emails, phone-cons, visits to the sponsor, reports,	Budget information, site visits, and handling pathological relations.
7	Government relations Constitutional foundation, government entities, the ethics of a professional relationship	Sponsor-researcher-congressional relations, professional association activities.	Ethical considerations of working with a congressional delegation.
8	Research ethics: Ethical considerations of researcher, human subjects, IRB's, controlling regulations,	Certifications required, personal responsibility, defense research, classified material, and security clearances	Exam 2
9	The law and international researchers	Basic immigration law concepts, H1b and other visas, INS,	Recruiting overseas, and avoiding trouble, export controls.
10	Intellectual property law: Foundation of IP law	, impact of IP issues, basic procedures to follow, university ownership of researchers IP,	NDA's and licensing.
11	Financial and ethical issues of corporate sponsorship: Corporate attitudes toward university research	Various entrées to corporations, equipment donations, IP issues, CREDAs, recruiting issues, consultant agreements,	using alumni, internships endowments, industrial associates, and recruiting visits, visiting professors from industry.
11	Non-profit foundations, universities, and Go's: Types of foundations, understanding foundations' goals,	Communicating with foundation officers, university clearance to solicit, and coordinating with development office.	Exam 3
12	Administration of the research project: Types of funding vehicles, relations with university contracts office	Receipt of funding, records, reporting, managing cash-flow, working with funder program manager,	Preparing for sponsor visits, and giving sponsorship credit

13	Management theory and contractual actions: Extensions, renewals, delivery orders	EVMS, option years, basic tenets of bookkeeping, utilization of budget, modifications	Allowing time for final reports, law of stop-work orders, and personnel reassignments.
14	Presentation of a proposal or a major administrative evolution such as a plan for a site visits, a multi-university collaboration, or similar.	Project presentations	Final Exam