CRA Body of Knowledge

Note: Resources listed below are provided as examples and have been obtained through topic-specific web searches. The list is not intended to be a comprehensive representation of content included on the exam and inclusion on the list doesn’t reflect RACC support of the materials or indicate verification of accuracy of the information. Links to original sources for funding sources, statutory requirements, grant regulations and common electronic proposal systems are not provided since they are easily assessable with simple web searches. Candidates for the CPRA and CFRA exams are encouraged to explore additional resources related to the exam’s content outline.

Annotated with Resources
Edition of 03/21/2018

I. PROJECT DEVELOPMENT AND ADMINISTRATION

CLASSIC RESOURCES:

- Science and the Endless Frontier: A Report to the President by Vannevar Bush (1945)

A. Collection and Dissemination of Information

- Marketing - Internal and External
- Identification of funding opportunities
  - Sample list of resources:
    - SRA's GrantsWeb/Resources
    - Sample list of resources
    - Sample list of private organizations:
      - Private Funding
    - Grant Terminology: | Grants.gov
  - NIH funding opportunities
  - Office of the Federal Register
  - Sample service provider:
    - GRANTFORWARD
    - InfoEd
    - PIVOT
  - Sample campus dissemination
  - Identification of internal capabilities
    - Sample keyword glossary
    - Sample list of faculty interests
  - Resource Documents, Application Materials and Information
    - Sample agency proposal guide:
      - National Science Foundation
      - NIH Office of Extramural Research
    - Dissemination of information/publications
  - Liaison
    - Internally
CRA Body of Knowledge

- Federal Agencies Directory
- Funding instruments
  - Grant or cooperative agreement?
  - Gift vs. grant: sample university policy
  - Grant agreement
  - Contract
- Public Relations
  - General Overview
- Agency Structure and Practice
  - NSF at a Glance
  - NSF Update
  - NSF FAQ
  - Office of Extramural Research NIH Overview
    - NIH Frequently asked questions
  - NIH Update

B. Proposal Development

1. Proposal Writing
   - Sample tips
   - Art of writing proposals
   - NSF Guide for Proposal Writing
   - Proposal writing short course
   - NIH Grant Writing Tip Sheet
   - Introduction to Proposal Writing – The Foundation Center
   - Rating Grant Applications at the NIH
   - Resources for Applicants
   - Frequently Asked Questions on Proposal Preparation (NIH)
   - Glossary of Funding & Policy Terms & Acronyms National Institute of Health

2. Budget Preparation
   - How to plan and write a budget for a research grant proposal (article)
   - Budgeting Basics

3. Documentation to Meet Sponsor Requirements
   - Sample university policy

4. Internal Proposal Processing
   - Limited Submission information from NSF

5. Negotiation Techniques

6. Contracting Basics
   - An Overview of Contracting
   - Contracts checklist
   - Indemnification clause checklist sample
     - Confidentiality sample clause
   - Nolo Legal Glossary

C. Administration of Awards

CRA Body of Knowledge

1. Monitoring Activity procedures
2. NIH Reports on Progress and Financial Status
3. NIH Continuation Funding
4. NIH Closeout
5. Changes in Project Status

D. Ethics and Professionalism

- Overview: On Being a Scientist: Responsible Conduct in Research -- National Academy Press
- Objectivity in Research
  1. Conflict of Interest
     - Overview: NIH Policy FAQ’s
     - NSF Policy
     - PHS Policy
  2. Bioethics
     - President's Council on Bioethics
     - Bioethics Resources
- Human Subjects
  - Overview
  - Underlying statute: Sec. 474a. of the National Research Act, P.L. 93-348
  - Basic Regulation
  - Federal Policy for the protection of human subjects (common rule)
  - Regulations and Policy | HHS.gov – Office of Human Research Protections
  - 45CFR Part 46
  - Exempted Research and Research That May Undergo Expedited Review
  - History: The Belmont Report -- Ethical Principals and Guidelines for the Protection of Human Subjects in Research
  - Sample policy on HIPAA Protections
  - Overview of human subject protection procedures:
  - Frequently Asked Questions about Human Services Protection (OPRR)
  - Sample professional association principles: American Psychological Association
  - Guidelines for Clinical Trials
  - Other FDA sites: Information Sheet Guidance

4. Animal Care

- Underlying statute: Health Research Extension Act of 1985
- Underlying statute: Laboratory Animal Welfare Act (7 USC Chapter 54)
- OLAW Tutorial: PHS Policy on Humane Care and Use of Laboratory Animals
- Frequently Asked Questions about the Public Health Service Policy on Humane Care and Use of Laboratory Animals
- Basic regulation:
- PHS Policy on Humane Care and Use of Laboratory Animals
- Basic Reading
CRA Body of Knowledge

- Guide for the Care and Use of Laboratory Animals
- ARENA Institutional Animal Care and Use of Laboratory Animals
- Animals-AAALAC
- Sample university policy on use of animals in research
- USDA Overview
- Use of Electronic Communications for IACUC Functions
- Office of Laboratory Animal Welfare (OLAW) - grants.nih.gov
- Frequently Asked Questions about the Public Health Service Policy on Humane Care and Use of Laboratory Animals

5. Professional
- Sample Policies on Professional Conduct in Research
- Responsible Conduct in Research
- Research Misconduct
- AAU’s Framework for Institutional Policies and Procedures to Deal With Fraud in Research
- Responsibility of PHS Awardee and Applicant Institutions for Dealing With and Reporting Possible Misconduct in Science
- NIH and Research Integrity
- Office of Research Integrity Model Policy on Research Misconduct

E. Intellectual Property
- Intellectual Property Defined
- History of Intellectual Property
- AUTM About Technology Transfer
- Intellectual Property Rights

1. Patents and Trademarks
- US Patent - Trademark Office
- Patent Law
- AUTM Guide to Bayh-Dole Act (PDF File)
- Getting Started with Patents
- General Information Regarding Patents from the U.S. Patent & Trademark Office
- Provisional Application for Patent
- Glossary of Intellectual Property Terms
- US Trademark Law

2. Copyrights
- Copyright law: Copyright Law from Cornell
- Copyright Office: Copyright Office Web Site

3. Licensing
- Overview of university licensing programs

4. Commercialization
- Overview of technology transfer

5. Data
II. LEGAL REQUIREMENTS AND SPONSOR INTERFACE

1. Regulations and Statutes
   1. Overview of Regulatory and Legislative Process
      Sample overview
   2. Governmental Relations
      Overview: Council on Governmental Relations (COGR)

B. Compliance - Federal/Sponsors and General Management Practices

1. Representations and Certifications
   a. Federal Drug Free Workplace
   b. Federal Debt Delinquency
   c. Federal Debarment / Suspension
   d. Lobbying
   e. Conflicts of Interest
   f. Scientific misconduct

2. Federal Management Requirements
   a. Federal Acquisition Regulations (FAR)
      • FAR - Frequently Asked Questions
      • Federal Acquisition Regulation Supplements
      • Listing of Department of Defense FAR Supplement (DFARS) Clauses
      • Listing of NASA FAR Supplement (NFS) Clauses
      • Listing of FAR Supplement (DEAR) Clauses
      • FAR Clauses
   b. 2 CFR (Uniform Guidance and OMB Circulars)
      • Uniform Circular
      • OMB Circular 129
      • NIH Grants Policy Statement
      • National Science Foundation Grant Policy Guide
      • Federal Demonstration Project General Terms and Conditions
      • U.S. Code (USC)

3. Institution Committees
   a. Institutional Review Board
      • 45CFR Part 46
   b. Institutional Animal Care and Use Committee
      • PHS Policy on Human Care and Use of Laboratory Animals
      • Guide for the Care and Use of Laboratory Animals
   c. Other
CRA Body of Knowledge

4. **Lobbying Disclosure Requirements**
   - Family Education Rights and Privacy Act (FERPA)

5. Institutional and Sponsor Publication Requirements
   - First amendment law materials
   - Authorship and Sample university policy
   - Federal Labor Standards
   - Fair labor standards

6. **HIPAA Health**

7. **International Traffic in Arms Control (ITAR)**
   - Export Administration Regulations (EAR)
   - Office of Foreign Asset Controls

C. **Federal/Sponsor Appeal Procedures**
   - Appeal procedures under HHS awards: DHHS Web Server
   - NIH Initial Peer Review Appeal procedures
   - Delegations of Authority sample procedures

III. FINANCIAL MANAGEMENT

A. **Budgeting/Accounting**
   1. Proposal Development
   2. Accounting Management
      - Overview of fiscal administration:
      - Determining allowability and allocability of costs: sample university policy
      - Sample university policy, PI responsibilities

   1. Accounting systems/management information systems
      1. Sponsor documents
         - NSF Grant Policy Guide
         - NSF Proposal & Award Policies & Procedures Guide
         - NASA Grant and Cooperative Agreement Handbook
         - Education Department General Administrative Regulations (EDGAR)
      2. Internal documents
         - Sample Reporting

   2. Accounting Processes
      1. Effort reporting: sample university policy
      2. Service centers: sample university policy
      3. Program income FAQ
      4. Internal Controls Sample university policy and description
         - Gifts Vs. Grants: sample university policy

   3. Cost transfers: sample university policy
   4. Rebudgeting

B. **Costs**
   1. Direct Costs
   2. Indirect Costs
CRA Body of Knowledge

- Sample university indirect cost policy
- Facilities & Administrative Costs (Indirect costs rates)

3. Indirect cost rates
   a. Development – Office of Naval Research
   b. Development – Department of Health and Human Services
   c. Negotiation

4. Cost Sharing
   - Sample university policy

A. Sponsor Financial Reporting
B. Audit
   - Overview of audits
   - Self-Assessment: sample university practices
   - OMB Circulars (2CFR)

1. Types
   - Audit requirements in 2 CFR 200

2. Internal and External Requirements
   - Best Practices – Sample university procedures

IV. GENERAL MANAGEMENT
A. Facility Management
   - Overview of property management

1. Specialized Facilities
   - Overview of Specialized and Core Facilities
   - Lab Type Definitions

2. Property Utility and Equipment Management
   a. Inventory control: sample university policy
   b. Sale/disposal of equipment and property: sample university policy
   c. Lease vs. purchase: sample university policy
   d. Capital expenditures: sample university procedures
   e. Sharing/pooling

3. Safety and Health Requirements and Procedures
   - Overview of safety and health procedures
   - Hazardous and Nonhazardous Materials: sample university policy

4. Security
   - Sample university policy

5. Renovation and Construction
6. Biohazards

B. Contracts and Purchasing
   - Overview of procurement

1. Basic Legal Concepts
   - Overview of U.S. contract law – University Sample Procedures
   - Title 41 U.S. Code, Public Contracts

2. Management of Contracts and Purchasing
   - General
CRA Body of Knowledge

- Sample university policy
- Consulting Agreements
- Sample university policy

3. Termination and Appeals
   - Discussion of contract term, termination, & extension issues
   - Appeal procedures under HHS awards
   - Appeal procedures under GSA contracts

C. Records Management
   Overview
   Sample university policy

D. Human Resource Management
   Overview
   1. Employee / Labor Relations
   2. Career Development Training
   3. Staffing Performance, Accountability and Human Resources
      - Employment discrimination law materials
      - Department of Labor affirmative act
   5. Compensation

Glossary of Research Terms and Other Helpful Resources:
- Glossary of NIH Terms
- OMB Intergovernmental Review (EO 12372)
- DHHS GrantsNet – contains several useful urls
- Grant reform OMB PL 106-107
- US Government Agencies & Organizations