



Mission: Every resident will have a publication in a peer reviewed journal at the end of their residency.

RSAP is a 3 phase curriculum aimed to improve the quality of the research projects pursued by the residents and increase the number of projects submitted for publication in peer reviewed journals. The first phase of the curriculum starts in the first year with a series of lectures to facilitate identifying mentors, preparing an IRB proposal and improving epidemiological and biostatistical knowledge. The second phase of the curriculum continues with research in progress meetings, in the second year, to assure research milestones and the quality of each project. The third phase is a formal presentation of the research methods and findings in the third year of residency.

Schedule of Lectures:

Session 1

Title: Introductory Session

Instructor: Deidre Campbell

Learning objectives:

Introduction to RSAP

Take a Research Knowledge Evaluation Pre-test

Discuss the lecture schedule

Session 2

Title: Measures of Morbidity and Study Design 1

Instructor: Dr. Leonardo Tamariz

Learning objectives:

Understand the concept and calculation of incidence and prevalence

Understand factors that affect prevalence

Understand the different forms of study design.

Discuss specific research projects

Required reading:

Schulz KF, Grimes DA. Case-control studies: research in reverse.

Lancet. 2002 Feb 2;359(9304):431-4.PMID: 11844534

Grimes DA, Schulz KF. Cohort studies: marching towards outcomes.

Lancet. 2002 Jan 26;359(9303):341-5.PMID: 11830217

Session 3

Title: Understanding Calder Library's Electronic Resources & Database Search Skills

Instructors: John Jones and Tanya Feddern-Bekcan

Learning objectives:

Find and navigate the library website

Understand requirements for remotely accessing the library

Understand the differences between a full-text resource (i.e., Micromedex or online journals), a literature database (i.e., Biosis or PubMed), a citation analysis database (i.e., Scopus) and a personal bibliographic management tool (i.e., RefWorks)

Find and use Google Documents & Spreadsheets

Create a My NCBI account

Describe and explain the concept of a controlled vocabulary

Mission: Every resident will have a publication in a peer reviewed journal at the end of their residency.

Explore and use a database's underlying record structure for searching
Explain when it might be appropriate to use the World Wide Web and understand the advanced features of searching Google Scholar

Required reading:

Jones Jr, JD. Using Research Databases: an EBM Handout
Feddern-Bekcan, T. Accessing Online Journals and Books from Home: a Library Handout (a.k.a. EZ Proxy Instructions)
Feddern-Bekcan, T, Jones Jr, JD. Synonyms Search Tips: an EBM Handout
McKibbon KA, Walker-Dilks CJ. Beyond ACP Journal Club: how to harness MEDLINE to solve clinical problems. ACP J Club. 1994 Mar-Apr;120 Suppl 2:A10-2. PMID: 8143141

Session 4

Title: Bias and Confounding

Instructor: Dr. Ana Palacio

Learning objectives:

Understand the terms internal and external validity, selection bias, and confounding.
Develop conceptual frameworks for each specific project.
Discuss specific research projects and bias for each study.

Required reading:

Grimes D. et al. Bias and causal associations in observational research. Lancet. 2002;359 (9302):248-252. PMID: 1181257

Session 5

Title: Study Design 2

Instructor: Dr. Stephen Symes

Learning objectives:

Understanding basic Epidemiologic Study designs (Descriptive vs Analytic studies)
Case-control vs cohort studies – understanding Relative Risk, Odds Ratio, Risk Difference
Getting started – the Research Hypothesis and drawing your Study Schema

Required Reading:

Manolio T Novel risk Factors and Clinical practice NEJM 349;17 1587-9
Concato et al RCT's Observational Studies and the Hierarchy of research Design NEJM 342;25 1887-92

Session 6

Title: Statistical Analysis 1

Instructor: Dr. Ana Palacio

Learning objectives:

Understand the statistics used for continuous and categorical variables.
Understand the use of means, medians, standard deviation, interquartile range and ANOVA.
Discuss specific research projects and identify statistics for each project.

Required reading:

Statistics handout



Mission: Every resident will have a publication in a peer reviewed journal at the end of their residency.

Session 7

Title: Statistical Analysis 2

Instructor: Dr. Ana Palacio

Learning objectives:

Understand the concept of regression.

Understand the different types of regression.

Discuss specific research projects and identify statistics for each project.

Required reading:

Statistics handout

Session 8

Title: Meta-Analysis

Instructor: Dr. Leonardo Tamariz

Learning objectives:

Understand the ‘file-drawer’ problem

Understand the concept of creating a formal model

Appreciate the necessity of formally structuring a question

Learn how to structure a formal question

Understand the importance of a formal search strategy

Understand the concept of a sensitivity analysis

Required reading:

Berman NG, Parker RA. Meta-analysis: Neither quick nor easy. *BMC Medical Research Methodology* 2002, 2:10.

Session 9

Title: Decision Analysis

Instructor: Dr. Leonardo Tamariz

Learning objectives:

Understand the general steps in a decision analysis problem

Understand the concept of assigning utilities to outcomes

Understand expected utility

Understand the concept of a sensitivity analysis

Required reading:

Pauker SG, Kassirer JP. Decision analysis. *N Engl J Med.* 1987 Jan 29;316(5):250-8.

Session 10

Title: Creating a Data set

Instructor: Dr. Leo Tamariz

Learning objectives:

Creating a data set that can easily be uploaded into statistical software to conduct analyses

Identifying information that should be entered into the data set (e.g., patient id, visit date, and DOB)

Formatting data (scores versus item level data)

Merging data sets



Mission: Every resident will have a publication in a peer reviewed journal at the end of their residency.

Session 11

Title: Institutional Review board (IRB)

Lecturer: Jose Casanova

Learning objectives:

Understand the requirements for research at the University and the Miami VA Hospital

Understand the different forms of IRB submissions

Become familiar with the eprost system and go through a mock submission

Required reading:

CITI and GCP course certifications

Requirements:

Complete eprost account request (hsro.miami.edu)

Informed Consent Process

Required elements for Informed consent

Requirements for FDA studies

Waivers

Session 12

Title: How to write for the medical literature: 10 rules to make your work interesting and understandable

Instructor: Dr. Erin Marcus

Learning Objectives:

Discuss how to write effectively to impress editors and explain your research project's objectives and findings

Required reading:

Welch HG, Froehlich GW. Strategies in Writing for a Physician Audience. J General Internal Med. Jan. 1996. Vol. 11, pp. 50-55.

Session 14

Title: Effective Presentation Techniques

Instructor: Dr. Mary Moore

Learning objectives:

Naming the presentation to increase attendance

Organizing the presentation so your audience can follow

Effective methods of presenting

Avoiding death by PowerPoint

Session 15

Title: Final Session

Instructor: Deidre Campbell

Learning objectives:

Evaluate the product deadlines

Gather feedback from interns

Take a Research Knowledge Post-test



Mission: Every resident will have a publication in a peer reviewed journal at the end of their residency.

Session 16

Title: One on One with Residents

Lecturers: Dr. Leonardo Tamariz/Dr. Ana Palacio/ Biostatistician/Deidre Campbell

Points of discussion:

Current research project

Mentor- Area of interest for research (Name and specialty of mentor and how will they assist with project)

Prospective need for Biostatistical help (How much time will be needed for each project)

Evaluate the product deadlines

List and evaluate topics for research paper.

Discuss Goals and obligations

Next Steps