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# Introduction to Clinical Outcomes Research Mini-Elective Spring 2019

<u>Course Dates:</u>	January 7, February 1*, 12, 19, 26 Tuesdays, 1:00-3:00 PM *Friday, February 1—10:00-Noon
<u>Maximum Students:</u>	30
<u>Class Year:</u>	MS1
<u>Course Director:</u>	Arman Kilic, M.D. Assistant Professor of Cardiothoracic Surgery
<u>Contact Information:</u>	Arman Kilic, M.D. Assistant Professor of Cardiothoracic Surgery Director, Surgical Quality and Analytics for Cardiac Surgery Co-Director, Center for Cardiovascular Outcomes and Innovation University of Pittsburgh Medical Center 200 Lothrop Street Suite C-700 Pittsburgh, PA 15213

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#### Description:

The aim of **Introduction to Clinical Outcomes Research** is to provide a "how-to" guide on how to get started in clinical outcomes research. This course will be broadly applicable to any field of study. The mini-elective will include sessions on searching for a valid research question, creating a hypothesis, biostatistical methods, how to identify available data resources both nationally and institutionally, tips on how to present talks at meetings, and how to successfully write abstracts and manuscripts. The sessions will involve didactics as well interactive components including hands-on work.

#### Course Objectives:

1. To understand how to search for a valid research question and to generate a related hypothesis.
2. To be able to conduct basic biostatistical tests as it applies to clinical outcomes research.
3. To more effectively search for sources of data and to compile databases, including both national or multicenter datasets as well as institutional datasets.
4. To improve one's ability to deliver an effective talk at meetings.
5. To improve writing quality for abstracts and for manuscripts.

#### Requirements:

Attend all sessions

#### Pre-Requisites:

None

## **COURSE OUTLINE**

### **Introduction to Clinical Outcomes Research**

Mondays 1:00PM to 3:00PM—except Friday, February 1—10:00-Noon

**Scaife Hall,**

**Lecture Room 1—February 1**

**Lecture Room 2—February 12**

**Lecture Room 3—February 19 and 26**

#### **Course Director(s):**

Arman Kilic, M.D.

Assistant Professor of Cardiothoracic Surgery

Director, Surgical Quality and Analytics for Cardiac Surgery

Co-Director, Center for Cardiovascular Outcomes and Innovation

University of Pittsburgh Medical Center

200 Lothrop Street Suite C-700

Pittsburgh, PA 15213

#### **Participating Faculty:**

Arman Kilic, M.D.

Assistant Professor of Cardiothoracic Surgery

Director, Surgical Quality and Analytics for Cardiac Surgery

Co-Director, Center for Cardiovascular Outcomes and Innovation

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Ibrahim Sultan, M.D.

Assistant Professor of Cardiothoracic Surgery

University of Pittsburgh Medical Center

Suresh Mulukutla, M.D.

Associate Professor of Medicine

Director, HVI Center for Outcomes and Innovation

University of Pittsburgh Medical Center

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- 5) To improve writing quality for abstracts and for manuscripts.

**Texts:** None

#### **SESSION I: January 7, 2019**

Asking the right research question and creating a hypothesis

Faculty: Arman Kilic, M.D.

This session will focus on how to effectively read through literature and ask the right research questions.

#### **SESSION II: Friday, February 1, 2019—10:00-Noon (LECTURE ROOM 1)**

Intro to biostatistical methods

Faculty: Suresh Mulukutla, M.D.

The second session will be a broad introduction to biostatistics as it applies to outcomes research. For instance, students will learn about t-test, chi-square test, logistic regression modeling, Cox regression analysis, and Kaplan-Meier analysis using real world examples. There will also be an introduction to different statistical software and how to access it as a student.

#### **SESSION III: February 12, 2019 (LECTURE ROOM 2)**

How to find and utilize the right databases

Faculty: Ibrahim Sultan, M.D.

**SESSION IV: February 19, 2019 (LECTURE ROOM 3)**

Improving one's ability to deliver a talk

Faculty: Arman Kilic, M.D.

This session will provide advice on how to effectively deliver a scientific talk. This will include tips on building powerpoint presentations. There will be examples of talks with the opportunity for interactive discussion and critique.

**SESSION V: February 26, 2019 (LECTURE ROOM 3)**

Improving writing quality for abstracts and manuscripts

Faculty: Arman Kilic, M.D.

The concluding session for the course will focus on improving one's ability to write abstracts and manuscripts. General templates for abstracts and manuscripts related to outcomes research will be discussed. Strategizing on where to submit abstracts and manuscripts will also be provided.