

# Introduction to Propensity Score Methods with R

Course Syllabus

2024-2025

## ONLINE COURSE

### MODULE 5

Methodology

### DATE/TIME

Thursday, April 10, 2025  
13:30 to 16:30 EDT

### LANGUAGE

English

### FREE REGISTRATION

[www.camccol.com](http://www.camccol.com)

## DESCRIPTION

This course will discuss the fundamentals for applying propensity score methods in observational research with a focus on pharmacoepidemiology. We will cover the basic principles behind causal inference concepts and motivate their use for reducing the impact of confounding due to observed covariates. The emphasis of the course will be on the practical application of these methods using examples in the R programming language and will focus specifically on matching and inverse probability of treatment weighting. Strategies to address common complications in propensity score analyses will be discussed.

## LEARNING OBJECTIVES

- Understand the principles underlying inferring causal effects in observational data
- Understand the concept of directed acyclic graphs (DAGs) and confounding
- Obtain a conceptual understanding of propensity score analysis and the circumstances under which they may be used
- Using R based examples, learn how to implement propensity score matching and inverse probability of treatment weighting
- Understand how to compute and diagnostics and interpret the findings of propensity score analyses



## PRESENTED BY

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