

DEPARTMENT OF MATHEMATICS AND STATISTICS
INDEPENDENT STUDY - STA597

Philosophy of Data Science

Agreement to supervise a directed study course.

(To be filled out by the instructor and student; original to be retained by the Department.)

Student:		CSU ID:	
Faculty Member:	Dr. Linda Quinn	Student Email address:	
Term/Year:	Fall 2021	No. of Credit Hours:	1

Pre-Requisite: None

Topic of Study: Philosophy of Data Science

How can the philosophy of science inform the practice of data science? Clarifying a few key concepts in scientific reasoning is a golden ticket to distinguish yourself as an applied data scientist. Far beyond learning fancier models or mastering complex mathematics, your grasp of a few intuitive scientific principles is your surest path to continual growth of understanding and rapidly solving complex real-world data science problems.

Data and Science with Glen Wright Colopy is a podcast covering critical scientific reasoning, particularly from a data science / machine learning / statistics perspective. Episodes typically focus on understanding of how to be better scientists and critical thinkers for the practical purpose of being a better data scientist. Colopy has a doctorate from Oxford University (DPhil) in Bayesian nonparametric modeling for time-series analysis, optimization, and anomaly/novelty detection in patient monitoring.

Readings to be covered: Weekly podcast viewings with note taking

Papers to be written: Weekly summary, End of course reflection paper

Will there be an examination? No

Approximate number of classes planned: Four one-hour discussions periods from 3-4pm on Thursdays: 8/31 (orientation), 9/28, 10/26, 11/30. Each student will be required to co-lead one of the discussions with prepared questions.

Basis for assignment of final grade:

- Discussion co-leader (30%);
 - Reflection paper (30%);
 - Participation (20%);
 - Weekly summary (20%).
- Scale: A = (96, 100] A- = (92, 96] B+ = (88, 92] B = (84, 88] B- = (80, 84] C = (76, 80] F = [0, 76]

Student



Instructor

Department Use Only:

Course Number: STA597 Section: 1 Class Number: 5933