Course Syllabus and Schedule

Instructor: Professor Gideon Nave
(215) 898-8248 (W)
749 Jon M. Huntsman Hall, 3730 Walnut Street
Philadelphia, PA 19104
email: gnav@wharton.upenn.edu

Overview

How can studying the brain improve our understanding of consumer behavior? While neuroscience made tremendous strides throughout the 20th century, rarely were meaningful applications developed outside of medicine. Recently, however, breakthroughs in measurement and computation have accelerated brain science and created an array of opportunities in business and technology. Currently, applications to marketing research and product development are experiencing explosive growth that has been met with both excitement and skepticism. This mini-course provides an overview of the neuroscience behind and the potential for these developments. Topics will range from well-known and widely used applications, such as eye-tracking measures in the lab and the field, to emerging methods and measures, such as mobile technologies, face-reading algorithms, and neural predictors of market response. The course will also discuss applications in branding and product development, including wearable physiological devices and apps, sensory branding for foods and fragrances, pharmaceuticals and medical devices, and neuroscience-based products designed to enhance cognitive functions. These applications stem from many subfields of cognitive neuroscience, including attention, emotion, memory, and decision making. This course is self-contained and has no prerequisites. However, students with some background in business, economics, psychology, and/or neuroscience are likely to find the material covered in this course complementary to their existing knowledge.

Much of the foundational work in consumer neuroscience and neuroeconomics involves laboratory experiments. Accordingly, we will read and discuss several experimental papers. So, the craft of designing an experiment will occasionally be discussed. However, we will not dedicate significant time to the methodology of experimental design and analysis.

As will become clear as the course progresses, “consumer neuroscience” can be used to study almost any aspect of consumer behavior. Students are always encouraged to share connections they discover with the class.
Objectives

By the end of this course, students should be familiar with:
1. Techniques available and their connection(s) to various aspects of consumer research.
2. Key scientific discoveries that can guide future work in research and industry.
3. Existing applications of neuroscience to consumer research.

Students will also be asked to apply their knowledge in several ways:
1. Think critically about existing uses of neuroscience in industry.
2. Identify insights and applications from the existing scientific literature.
3. Construct and test an original research question.