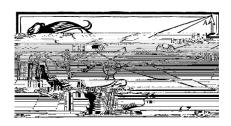
# WESTERN UNIVERSITY DEPARTMENT OF PHILOSOPHY Undergraduate Course Outline 2021-22

PHIL 2050G: Scientific Search for the Mind



Winter Term 2020-2021

Mondays 12:30-1:30 p.m. Wednesdays 11:30-1:30 p.m.

UCC-41

Instructor: Dr. Jackie Sullivan Office Number: 7170 WIRB

Office Hours: TBA

Contact info: <u>jsulli29@uwo.ca</u>
Teaching Assistants: TBA

### **DESCRIPTION**

In his treatise *Meditations on First Philosophy* (1641), the French philosopher René Descartes put forward the idea that "minds", in so far as they are *thinking* things, differ from physical bodies, which do not think. Descartes' claim that the mind and body are separate substances—a view referred to as "substance dualism"—prompted philosophers and scientists to wonder: *How can minds be studied scientifically if they are not a part of the physical world?* 

In this course, we will consider a variety of different answers to this question by critically evaluating areas of philosophy and science that have emerged historically to understand the nature of the mind and its place in the physical world. We will begin by considering Cartesian dualism and the mechanical philosophy. The sciences that will be then be the focus of our analysis include: phrenology & localization theory (e.g., Francis Gall, Pierre Flourens, Paul Broca, Carl Wernicke), early physiology (e.g., Hermann von Helmholtz), psychophysics (e.g., Gustav Fechner), experimental psychology (William Wundt), Gestalt psychology (e.g., Edward Titchener), evolutionary psychology (Charles Darwin on emotions in man and animals), William James' psychology, learning theory and behaviorism (Ivan Pavlov, John Watson and B.F. Skinner) Freudian psychoanalysis, later physiology (e.g., Karl Lashley, Wilder Penfield), developmental psychology (e.g., Alfred Binet & Jean Piaget), artificial intelligence (e.g., Alan Turing), functional neuroanatomy and cognitive neuroscience. We will begin by considering a set of conceptual tools on offer in philosophy of science and philosophy of mind and will then use

these tools to guide our analysis of each of the sciences we will consider.

This course is designed for and should be of interest to students majoring in the humanities and/or the sciences.

#### **TEXTS**

This course requires that you read primary readings written by philosophers and scientists. Primary readings for the course are available as pdfs on Owl under the "Resources" folder ("Online Readings").

It also will be helpful for you to do background reading from a secondary source book that situates the philosophical and scientific approaches to understanding and investigating the mindbrain that we will consider in a broader historical context. Thus, I am also assigning readings from the following textbook (wherever you see an F&R on the schedule, that indicates a reading from this book). This is a great book and presents the ideas of the philosophers and scientists we will consider in an engaging way:

Fancher, Raymond E. & Rutherford, Alexandra (2017). *Pioneers of Psychology*, 5<sup>th</sup> Edition. W.W. Norton & Company. \*\*Designated on schedule by F&R – this is really a text for background reading.

#### **OBJECTIVES**

Students who successfully complete this course will have developed a detailed understanding of a variety of scientific approaches to studying and understanding the mind, the ability to critically evaluate these approaches, and the capacity to formulate and defend their own positions with respect to such approaches.

#### **REQUIREMENTS**

Evaluations of performance will be based on 4 writing assignments. The directions for each assignment will be explicit and explain precisely what is required of you. A primary aim of the course is to aide you in developing and improving your writing skills. The ability to write a strong paper will depend on you having done the assigned primary readings for the course and viewing the online lectures. I will pass out questions for these essay assignments at least 3 weeks (a)-6 (p)]TJ14.

# **AUDIT**

Students wishing to audit the course should consult with the instructor prior to or during the first week of classes.

## **DEPARTMENT OF PHILOSOPHY POLICIES**

The **Department of Philosophy Policies** which govern the conduct, standards, and expectations for student participation in Philosophy courses is available in the Undergraduate section of the Department of Philosophy website at <a href="http://uwo.ca/philosophy/undergraduate/policies.html">http://uwo.ca/philosophy/undergraduate/policies.html</a>. It is your responsibility to understand the policies set out by the Senate and the Department of Philosophy, and thus ignorance of these policies cannot be used as grounds of appeal.

#### **ACCOMMODATION**

# **ACADEMIC OFFENCES**

# **Tentative Schedule of Classes**

(Subject to change during course of term)

DATE	TOPIC
Sept 8 (W)	Course Introduction & Overview
	Essay 1 topics posted online
Sept 13 (M)	Cartesian Dualism
	• Descartes, excerpts from <i>Meditations on First Philosophy</i> –
	Read only Meditation 2 (Owl)
	• F&R, pp. 59- top of p. 65; bottom of p. 68-73
Sept 15 (W)	Descartes' Mechanical Philosophy
	• Descartes, <i>Treatise on Man</i> (Owl) [read entire essay]
	• F&R, pp. 65- 68
Sept 20 (M)	Empiricism, the Scientific Revolution and Conceptual Tools for
	Understanding Inquiry in the Mind-Brain Sciences
	No readings due

Sept 22 (W)

Phrenology and Early Localization theory – Part 1 Gall & Flourens

• Gall, F, Vimont, Broussais. Excerpts from *On the Functions of the Cerebellum* (Owl) Please read XV (the word INTRODUCTION appears at the top) - XX, and XXXI-XXXIII. The main aim is to give you a flavour for the claims made by phrenologists. The pages from XX-XXX XXX XXX

# Tentative Schedule of Classes (cont'd) (Subject to change during course of term)

DATE	TOPIC
Oct 18 (M)	Hermann Helmholtz on mechanisms in psychology
	• F&R, pp. 140-145
	"Of Frogs and men" reading on Helmholtz (OWL)
Oct 20 (W)	Hermann Helmholtz on vision
****Essay 2 Due	• F&R pp. 145-151
	Gustav Fechner & Psychophysics
	• F&R, pp. 154 -161
Oct 25 (M)	Gestalt psychology
	• F&R, pp. 161-167
Oct 27 (W)	Experimental psychology – Wilhelm Wundt

- F&R, pp. 173-193
- Excerpts from