Advanced Logic

Course Prefix, Number, Section and CRN:	Credit Hours:
PHIL 390, section 1, CRN 20964	4 (4 hours in class & 8 hours out of class per week)
Semester:	**Course Location:**
Fall 2015	Animas 6101
Course Meeting Days & Times:	**Course Format:**
MWF 15:35-16:45	Lecture

Instructor Name: Dr. Justin P. McBrayer
Office Location: Noble Hall 216
Office Hours: 11-1 MW; other times by appointment
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Course Description: This course explores topics in advanced logic, starting with the history of logic and moving through various formal systems including modal logic, probability theory, and non-classical logics. The course offers a special focus on applying the methodology of advanced logics to issues in contemporary philosophy.

Course goals for the Philosophy Program:

- Knowledge of the criteria for a good argument.
- Ability to extract an argument from a text and to evaluate its validity.

Assessment: The grade for this course is determined by how much a student meets the course goals in a timely fashion. Grades are tracked on Canvas. Plus/minus grading will be used. Grades will not be curved. The grading scale is the standard scale (90's A-range, 80's B-range…59 and lower is an F). Final grades will be determined by the following weighted averages:

Exams- 60% of the final grade will be determined by three, non-cumulative exams

Homework- 30% of the final grade will be determined by almost-daily homework assignments.

Group Presentation- 10% of the final grade will be determined by a group presentation

Course Resources:

If A, then B: How the World Discovered Logic. Shenefelt & White (Columbia University Press 2013)

Introductory Modal Logic. Konyndyk (University of Notre Dame Press 1986)

An Introduction to Probability and Inductive Logic. Hacking (Cambridge University Press 2001)

Introduction to Probability with Texas Hold'em Examples. Schoenberg (Chapman & Hall 2011)

Philosophical Devices. Papineau (Oxford University Press 2012)

Possibilities and Paradox. Beall & van Fraassen (Oxford University Press 2003)

Course Expectations:

Academic Dishonesty- All work submitted for credit should be the student's own. Failure to follow this policy will result in a failing grade for the course. It is the student's responsibility to know both the standards for academic honesty and what counts as plagiarism. The full policy is available here: *http://www.fortlewis.edu/portals/12/docs/PART-III-Academic-Dishonesty.pdf*

Attendance- There is not an official attendance policy, though, as always, there will be a strong (and positive!) correlation between strong performance in the course and regular attendance. Regular attendance and participation can improve a student's final grade for the course.

Civility- Everyone is expected to be civil. At a minimum, this includes routinely entering class late or departing early; making or receiving phone calls; texting; surfing the internet; repeatedly talking in class without being recognized; talking while other are speaking, etc.

A word about texting: when you come to talk with me in my office, I pledge to entirely ignore my phone and my computer. I will give you my undivided attention. I expect you to do the same in class.

Miscellaneous-

- Missed exams may be made up with a verified medical excuse (or its equivalent) or with the prior consent of the instructor.
- Late homework assignments will not be accepted for any reason, but in the interest of fairness I will drop your lowest two grades over the course of the semester.

Disability Services: Fort Lewis College is committed to providing all students a liberal arts education through a personalized learning environment. If you think you have or you do have a documented disability which will need reasonable academic accommodations, please contact the Director of Disability Services for an appointment as soon as possible (280 Noble Hall, 970.247.7459).

Course Schedule:

History of Logic

M, Aug. 31   *If A, then B*, Introduction

W, Sept. 2   *If A, then B*, Chapters 1-3

F, Sept. 4   *If A, then B*, Chapters 4-5

M, Sept. 7   *If A, then B*, Chapters 6-7

W, Sept. 9   *If A, then B*, Chapters 9-10

Propositional Modal Logic

F, Sept. 11   *Introductory Modal Logic*, Intro-2.1.d

M, Sept. 14   *Introductory Modal Logic*, 2.1.f – 2.2.b

W, Sept. 16   *Introductory Modal Logic*, 2.2.c-2.3.f

F, Sept. 18   Problems in class [no new reading]

M, Sept. 21   *Introductory Modal Logic*, 2.3.h- 2.5.c

W, Sept. 23   *Introductory Modal Logic*, 2.6.a-2.6.c

F, Sept. 25   Exam 1

Probability

M, Sept. 28   An Introduction to Probability and Inductive Logic, Chapters 2-4
                  [Introduction to Probability with Texas Hold 'em Examples, chapters 1-2]

W, Sept. 30   An Introduction to Probability and Inductive Logic, Chapters 5-6

F, Oct. 2   An Introduction to Probability and Inductive Logic, Chapter 7
                  [Introduction to Probability with Texas Hold 'em Examples, chapter 3]

M, Oct. 5   Bayes Theorem in Contemporary Philosophy [no new reading]

W, Oct. 7   An Introduction to Probability and Inductive Logic, Chapters 8-9
                  [Introduction to Probability with Texas Hold 'em Examples, chapter 4]

F, Oct. 9   *An Introduction to Probability and Inductive Logic*, Chapter 10

M, Oct. 12   Poker [no new reading]

W, Oct. 14   Poker [no new reading]

F, Oct. 16   An Introduction to Probability and Inductive Logic, Chapters 11-12
                  [*Philosophical Devices*, chapter 7]

M, Oct. 19   An Introduction to Probability and Inductive Logic, Chapters 13-14
                  [*Philosophical Devices*, chapter 8]

W, Oct. 21   *An Introduction to Probability and Inductive Logic*, Chapter 15

F, Oct. 23   Exam 2

Philosophical Devices

M, Oct. 26   *Philosophical Devices*, chapters 1-2

W, Oct. 28   *Philosophical Devices*, chapter 3

F, Oct. 30   *Philosophical Devices*, chapter 4

M, Nov. 2   *Philosophical Devices*, chapter 5

W, Nov. 4   *Philosophical Devices*, chapter 6

F, Nov. 6   *Philosophical Devices*, chapters 10-11

M, Nov. 9   *Philosophical Devices*, chapter 12

Tableaux & Many-Valued Logic

W, Nov. 11   *Possibilities and Paradox,* chapters 1 & 3

F, Nov. 13   *Possibilities and Paradox,* chapter 4

M, Nov. 16   *Possibilities and Paradox,* chapter 7

W, Nov. 18   *Possibilities and Paradox,* chapter 8

F, Nov. 20   *Possibilities and Paradox,* chapter 9; set groups for presentations

M-F, Nov. 23-27   Thanksgiving Break

Presentations

M, Nov. 30   Groups 1 & 2

W, Dec. 2   Groups 3 & 4

F, Dec. 4   Groups 5 & 6

M, Dec. 7   Groups 7 & 8

W, Dec. 9   Groups 9 & 10

F, Dec. 11   Final review

R, Dec. 17, 9:45-11:45   Exam 3