UWG PHILOSOPHY PROGRAM

PHIL 5385
SYMBOLIC LOGIC (3 hours)
Spring Semester 2016
TR 11am-12:20pm (Pafford 109)
Prerequisites: PHIL 2020 (Critical Thinking)
Web Site: http://www.westga.edu/~rlane/symbolic
Email: *rlane@westga.edu**

Instructor: **Dr. Robert Lane**, TLC 2247
Office Hours:
T: 8:45-9:15am; 12:30-1:45pm
W: 8:30am-12pm; 1-4pm
R: 8:45-9:15am; 12:30-1:45pm
and by appointment
My office telephone: (678) 839-4745
English/Philosophy telephone: (678) 839-6512

*All email communication must be conducted from your official UWG email account. Students are obligated to check their UWG email accounts on a regular basis and to ensure that their mailboxes do not become full.

UWG Severe Weather Policy: http://www.westga.edu/police/index_2277.php

COURSE DESCRIPTION: An introduction to the application of symbolic methods to reasoning, covering sentential logic and predicate logic. Students will learn how to translate ordinary language sentences and arguments into the notation of symbolic logic, determine the truth value of compound sentences, distinguish among various valid and invalid argument forms, and demonstrate whether an argument in symbolic form is valid or invalid.

LEARNING OUTCOMES: By the end of the semester, each student will be able to:
- translate ordinary-language statements and arguments into the language of sentential logic and predicate logic, and *vice versa*;
- determine the truth-value of a compound sentence using the truth table method;
- distinguish among tautologies, contingent sentences and contradictions using the truth table method;
- distinguish between valid and invalid argument forms, using the truth table method and the proof method; and
- demonstrate that a given argument in symbolic form is deductively valid or invalid.

These course-specific learning outcomes contribute to the departmental learning outcomes of the Philosophy Program by enabling students better to
- incorporate a philosophical position in oral and written communications;
- critically outline and analyze philosophical issues;
- exhibit critical thinking skills.

TEXTS:
- **Hausman, Kahane and Tidman, *Logic and Philosophy: A Modern Introduction*, 12th ed**. (113305000X).
- **Answers to assigned exercises, posted in CourseDen.** The answers to all even-numbered problems are in the back of your textbook. I will post answers to *all* assigned problems in CourseDen so that you can check all of your answers.
- **Chapters 2, 11 and 12 of Susan Haack, *Philosophy of Logics*** (one copy available for check-out at Ingram Library).

EVALUATION:
- **Six quizzes (5% each – your lowest quiz grade will be dropped).** These are designed to test your understanding of basic concepts and ensure that you have been keeping up with the reading and homework exercises. Each quiz will occur at the beginning of class and last about 20-25 minutes, after which the rest of the class period will be like a normal class (coverage of assigned exercises and normal lecture).
- **Mid-term exam (20%) and comprehensive final examination (20%).** Each of these exams will last the full class period.
- **Three response papers (5% each) and one term paper (20%)**. Instructions to be provided separately.
- **Class participation** does not count toward your final grade in any formal way, but you have been a regular participant in class throughout the semester (answering questions, contributing to class discussions, etc.), and if you end up with a final numeric average that is very close to that of the next highest letter grade, I may "bump" you up to that next grade.

GRADING SCALE:
100 – 90.1% **A**   90.0 – 80.1% **B**   80.0 – 70.1% **C**   70.0 – 60.1% **D**   60.0 - 0% **F**

METHODS OF INSTRUCTION: This is primarily a lecture course, but each **class meeting will require student participation.** On most class days, you will be assigned both homework exercises from your textbook and a reading assignment. **In order to keep up with the class material, you MUST do the homework exercises and reading assignments when they are assigned.** The material in this class builds cumulatively, and if you fall behind it will be difficult, perhaps impossible, for you to catch up. **I will not be checking to ensure that you do this homework--you are all adults, and I expect you to behave as responsible students in this class.** At the beginning of each class, we will review some of the exercises assigned for that day. You should be prepared to participate by explaining how you answered or solved each question or problem. After this review of exercises, I will lecture on the material you've been assigned to read for that day. You should be prepared to ask any questions you have about the reading assignment. At the end of each class, I will assign new exercises and a new reading assignment for the following class.

TIME REQUIREMENTS: UWG grants one semester hour of credit for work equivalent to a minimum of (approximately) one hour (50 minutes) of in-class or other direct faculty instruction AND two hours of student work outside of class per week for approximately fifteen weeks. For this three credit-hour course, students are required to spend (approximately) three hours (160 minutes) in class each week and to conduct *at least* **an additional 6 hours of work relevant to this course outside of class each week.** You should expect to work more hours than this outside of class during periods when you are preparing for an exam.

MISSED TESTS / EXTRA CREDIT:
- If you know that you will need to miss class on a day on which a test is scheduled (for example, due to a UWG sponsored event), you must let me know about your absence as far in advance as possible so that we can schedule another day and time for you to take the test (or a make-up test). If you miss a test without receiving my explicit permission beforehand and making arrangements for a make-up test, you will be permitted to take a make-up test if and only if one of the following conditions applies: (a) Your absence was due to illness or injury serious enough to require professional medical care and which prevented you from contacting me before the test; or (b) Your absence was due to other extenuating circumstances beyond your control. I will determine on a case-by-case basis what constitutes "extenuating circumstances beyond your control." You may be required to provide documentation pertaining to your absence before you are allowed to take a make-up test. **Make-up tests will usually be longer and potentially more difficult than the original test that you missed.**
- **Extra-credit work will not be given under any circumstances. Work completed for other courses will not be accepted in this course.**

ATTENDANCE, LATE ARRIVAL, EARLY DEPARTURE
- **You may miss four class meetings (two weeks of class) with no effect on your grade.** **Beginning with your fifth absence, you will lose five points from your final average for every class meeting you miss.** This policy applies to the first week of class, even for days on which you have not yet registered for the class. I will make exceptions for absences necessitated by UWG-sponsored events or by other circumstances that were absolutely outside your control. However, I will make these exceptions *only if* ALL of your absences can be accounted for in one of these ways (e.g., if you miss five classes and you have documented, acceptable reasons for missing only four classes, then your fifth absence will still count against you). Documentation will be required in all cases in which I make an exception to this attendance policy.
- **Students who miss 8 class meetings (four weeks, or one month, worth of classes) or more will not earn a passing grade in this course.** In this case the reason for your absences is irrelevant. If you are unable to attend class for a month due to medical reasons, a family emergency, or any other reason, you should withdraw from the course; if the withdrawal date has passed, you should apply for a hardship withdrawal.
- An early departure or late arrival may be counted as an absence, depending on the circumstances. I will decide in each case whether an early departure or a late arrival counts as an absence. If you know before class that you will not be able to stay for the entire class session, please inform me of this before class and sit as close to the door as possible, so as to cause as small a distraction as possible when you leave.

From the *UWG Undergraduate Catalog:*
- "Instruction begins the first day of class. In face-to-face courses, if students fail to attend the first day and have not contacted the instructor to explain their absence, they may be dropped during the Drop/Add Period to make room for other students."
- "Class attendance policies are determined by each instructor for his or her courses and may be found in the syllabus. Since course policies differ, students are responsible for understanding attendance requirements for each course. Failure to comply with those requirements may significantly affect grades."
- "**Students are expected to attend each class meeting.** Students absent from class while officially representing the University or observing religious holidays should generally not be penalized in the calculation of final grades, as long as they provide advance notice and expeditiously make arrangements to complete any missed work.
- "University-sponsored activities include but are not limited to the following: intercollegiate athletic competitions; musical/theatrical/art performances or exhibitions associated with a degree program; debate competitions; and research conferences. Activities not considered to be university-sponsored include participation in clubs, even if they are affiliated with UWG, or events associated with social organizations such as fraternities or sororities.
- "Regardless of the reason for the absence, each student is responsible for the material covered in class, for completing any assignments, and for making specific arrangements with the instructor for any work missed. The degree to which missed work can be made up will depend upon the nature of the work and its intended purpose. Make-up is at the discretion of the instructor.
- "Any student who must be absent for more than one week of class should notify the Patient Advocates in Health Services, telephone 678-839-6452. The student should also notify the instructor or department."

COMMON COURTESY
- **You may use laptops and tablets during class only for class-related purposes, e.g., taking notes and consulting electronic versions of the course textbook. No other use of electronic devices in class is permitted. Smartphones must be turned off and put away before class begins.**
- **Do not leave the room during class unless it is absolutely essential that you do so.** Leaving the classroom while class is in session (e.g., to visit the restroom) is both disrespectful and distracting. So when you come to class, be prepared to remain in the classroom for the full duration of the class period.
- **Do not study material from other classes while this class is in session**. While you are in this class, I expect your attention to be focused on it rather than on your other courses.
- **Students may be dismissed from any class meeting at which they exhibit behavior that disrupts the learning environment of others.** Such behavior includes – but is not limited to – arriving late for class, allowing cell phones to ring, speaking disrespectfully to the instructor and/or to other students, and using personal audio or visual devices. **Each dismissal of this kind will count as an absence and will be applied toward the attendance policy above.**

Please carefully review the following information at this link: http://tinyurl.com/UWGSyllabusPolicies. It contains important material pertaining to your rights and responsibilities in this class. Because these statements are updated as federal, state, and accreditation standards change, you should review the information each semester. Topic covered include: **The Americans with Disabilities Act; UWG's Email Policy; UWG's Credit Hour Policy; and UWG's Honor Code.**

THIS SCHEDULE IS TENTATIVE AND MAY CHANGE AS THE SEMESTER PROGRESSES. THIS INCLUDES TEST DATES, WHICH ARE SUBJECT TO CHANGE. If because of an absence you miss in-class announcements about deviations from this schedule because, you are still responsible for keeping up with test dates, due dates, and reading assignments. All readings and exercises are from Hausman, Kahane, & Tidman, *Logic and Philosophy* (12th ed.)**.**

Jan.	exercises due	reading due	lecture topic	Quizzes / Papers
T 12	--	--	Introduction to arguments	
R 14	1-1	Ch.1 (all)	Deduction and induction	
T 19	1-2, 1-3	Ch.2:1-9 (pp.19-32)	Symbolizing in sentential logic	
R 21	2-1, 2-2, 2-3	Ch.2:10-14 (pp.33-47)	Symbolizing in sentential logic	
T 26	2-4, 2-5, 2-6, 2-7, 2-8	Ch.3:1-2 (pp.55-64)	Truth tables	**Response paper #1: Haack ch.2 ("Validity")**
R 28	3-1, 3-3, 3-4, 3-5	Ch.3:3-6 (pp.65-76)	Truth tables	**QUIZ #1 (on ch.2)**

Feb.	exercises due	reading due	lecture topic	Quizzes
T 2	3-6, 3-7, 3-8	Ch.4:1-6 (pp.90-105)	Proofs	
R 4	4-1, 4-2, 4-3, 4-4, 4-5	Ch.4:7-10 (pp.107-113)	Proofs	**QUIZ #2 (on ch.3)**
T 9	4-6, 4-7, 4-8	Ch.4:11-12 (pp.115-125)	Proofs	
R 11	4-9, 4-10, 4-11, 4-12	Ch.5:1-2 (pp.127-142)	Conditional & indirect proofs	
T 16	5-1, 5-3, 5-4	Ch.5:3-5 (pp.142-145); Ch.3:7-9 (pp.76-82)	Conditional & indirect proofs	**QUIZ #3 (on ch.4)**
R 18	5-5, 5-6, 5-7, 3-10, 3-11	--	Conditional & indirect proofs	
T 23	--	--	Catch-up and review	
R 25	**Mid-Term Exam**			

Mar.	exercises due	reading due	lecture topic	Quizzes
T 1	--	Ch.7:1-4 (pp.169-179)	Predicate logic symbolization	
R 3	**THIS CLASS DOES NOT MEET (Dr. Lane is attending a conference)**			
T 8	7-1, 7-2, 7-3, 7-4, 7-5	Ch.7:5-7, 9 (pp.180-184, 190-191)	Predicate logic symbolization	**Response paper #2: Haack ch.11 ("Many-valued logic")**
R 10	7-6, 7-7, 7-9, 7-10	Ch.9:1-2 (pp.204-212)	Predicate logic proofs	
T 15	**SPRING BREAK: CLASSES DO NOT MEET**			
R 17	**SPRING BREAK: CLASSES DO NOT MEET**			
T 22	9-1	Ch.9:3-5 (pp.213-223)	Predicate logic proofs	**QUIZ #4 (on ch.7)** **Response paper #3: Haack ch.12 ("Some metaphysical and epistemological questions about logic")**
R 24	9-2, 9-3	Ch.9:6 (pp.224-228)	Predicate logic proofs	
T 29	9-5 (#1-15 only)	--	Predicate logic proofs	
R 31	--	Ch.10:1-2, 4 (pp.230-234, 238)	Relational predicate logic symbolization	**QUIZ #5 (on ch.9)**

Apr.	exercises due	reading due	lecture topic	Quizzes
T 5	10-1, 10-2, 10-3, 10-4 (#5-15 only)	Ch.10:5, 7-8 (pp.239-242, 246-254)	Relational predicate logic symbolization and proofs	
R 7	10-6, 10-7, 10-9, 10-10; *optional: 10-11*	--	Relational predicate logic proofs	
T 12	--	Ch.13:1-2 (pp.291-298)	Identity and Definite Descriptions	**QUIZ #6 (on ch.10)**
R 14	13-1, 13-2, 13-3	Ch.13:3 (pp.299-304)	Properties of Relations	
T 19	13-4	--	Catch-up and review	**TERM PAPER**
R 21	--	--	Review / Course evaluations	
FINAL EXAM: Tuesday April 26, 11am-1:30pm				