**Philosophy 2100: Logic**

**Syllabus**

PHI 2100, Section 01GA

Summer A 2020

MTWThF 11:00am – 12:15pm

Zoom Meeting ID: 999-749-87707

**Instructor Information**

Chris Dorst

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Office Hours: MW 2:00pm – 3:00pm, or by appointment

Office Hours Zoom Meeting ID: 952-180-44406

**Course Description**

This course is an introduction to logic. Logic is centrally concerned with arguments, good and bad. If an argument is a good one, its conclusion will logically follow from its premises, and we say that the argument is valid. It is not always easy to tell whether an argument is valid or not just by looking at it. Thus, we will develop formal techniques that will help us to determine the validity of arguments in a rigorous way. This will require the introduction of special formal languages, and we will learn how to translate between English and these formal languages. This course satisfies a math (M) requirement.

**Zoom Meetings**

Class meetings will be held over Zoom, at the regularly-scheduled times. To access the meetings, you must log into Zoom with your UF email and password. You can do so by navigating to the Zoom meetings through the course Canvas page.

Logic is best learned through practice, trial and error, and conversations with others. Therefore, for some of the course topics, we will use a “flipped classroom” approach, where I will post lecture recordings ahead of time for you to watch before class. During class, we will then work in groups to apply the material covered in the recorded lectures.

**Learning Objectives**

At the end of this course, students will be able to:

* Translate arguments from ordinary English into our formal language and vice versa
* Check arguments for validity using our derivation system
* Check arguments for validity and invalidity using truth tables
* Explain the rules of inference and where they come from

**Academic Honesty**

UF students are bound by The Honor Pledge, which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: ‘On my honor, I have neither given nor received unauthorized aid in doing this assignment.’”

The Honor Code (http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor. **Plagiarism on any assignment will automatically result in a grade of "E" for the course.** Plagiarism is defined in the University of Florida's Student Honor Code as follows: "A student shall not represent as the student’s own work all or any portion of the work of another. Plagiarism includes (but is not limited to): a. Quoting oral or written materials, whether published or unpublished, without proper attribution. b. Submitting a document or assignment which in whole or in part is identical or substantially identical to a document or assignment not authored by the student." Students found guilty of academic misconduct will be prosecuted in accordance with the procedures specified in the UF honesty policy.

**Attendance and Classroom Policies**

Students are expected to attend class and to have done all assigned reading and work in advance. Failure to do so will adversely affect students' ability to perform well in this course. The use of smart phones during class is not permitted. Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

**Canvas e-Learning Environment**This course is supplemented by online content in the Canvas e-Learning environment. To login to the Canvas site for this course, go to<https://lss.at.ufl.edu/>, click the **e-Learning in Canvas** button, and on the next page enter your Gatorlink username and password. You can then access the course e-Learning environment by selecting PHI 2100 from the **Courses** pull-down menu at the top of the page.If you encounter any difficulties logging in or accessing any of the course content, contact the UF Computing Help Desk at (352) 392-4537. Please do not contact the course instructor regarding computer issues.

**Online Course Evaluation**Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via [https://ufl.bluera.com/ufl/](https://urldefense.proofpoint.com/v2/url?u=https-3A__ufl.bluera.com_ufl_&d=DwMFAg&c=sJ6xIWYx-zLMB3EPkvcnVg&r=y2HjEMjRMHJhfdvLrqJZlYczRsfp5e4TfQjHuc5rVHg&m=WXko6OK_Ha6T00ZVAsEaSh99qRXHOgMNFRywCoehRho&s=itVU46DDJjnIg4CW6efJOOLgPjdzsPvCghyfzJoFONs&e=). Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

**Accommodation for Students with Disabilities**

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

**Counseling and Wellness Center:** <http://www.counseling.ufl.edu/cwc/Default.aspx>, 392-1575

**University Police Department:** 392-1111 or 9-1-1 for emergencies.

**Course Text**

The text used for this course is *An Introduction to Symbolic Logic* by Terence Parsons. It is available for free through the software we will be using. The course will focus on the first three chapters of the book.

**Logic 2010 (Course Software)**

Much of the course will be done using UCLA’s “Logic 2010” program (<http://logiclx.humnet.ucla.edu/>). The program runs on both Windows and Mac. Students need to download, install, and register for this program. You will need to know your UF Student ID number and pick a password when you register with the system.

**Course Website**

There are two websites for this course. The first is the Logic 2010 student page, which I will call the “Program Site”:

<https://logiclx.humnet.ucla.edu/Logic/Student/Course/674/>.

Students must register for the Logic 2010 program before they can access the Logic 2010 course website. The Logic 2010 website lists the homework assignments and records student grades for those assignments. It also contains a section (under the “Documents” tab) with many helpful documents explaining how to use the Logic 2010 program. The second course website is the Canvas site for this course. The Canvas site will mainly be used for announcements and for posting documents.

**Course Requirements**

Homework assignments: 40%

Midterm Exam: 25%

Final: 25%

Class attendance/participation: 10%

**Homework**

Homework assignments will consist of reading, watching videos and/or completing problem sets. Homework will typically be assigned every class, and will be due 10 minutes before the start of the next class.

Reading assignments can be accessed through the program (by clicking “Logic Text” in the main menu).

Assigned videos will be posted in announcements on Canvas.

Problem Sets can be accessed through the Logic 2010 program (by clicking on the “Assignments” button on the Main Menu) or by signing in to the Logic 2010 student page (i.e. the Program Site). Problem sets must be submitted over the internet to the Logic 2010 database directly from the logic software. Please make sure that your computer is connected to the internet before submitting your assignment. Further instructions for using the program and for submitting homework to the database are available under the “Documents” tab on the Logic 2010 website. (Under the main “Documents” tab, click the “Program Documents” sub-tab, and then open the document titled “Saving, Submitting, and Backing Up.”)

Late problem sets receive no credit unless a valid excuse is communicated (if possible) well in advance of the deadline for the assignment.

**Exams**

There will be a midterm and a final exam. We will use the program to submit these exams, and they will take place during regular class meetings. I will explain the exam process in more detail closer to the exam dates.

**Participation**

Class attendance is required. Group work will play a large role in class meetings, especially on days when we use a flipped classroom approach. On these days, you will be divided into “breakout groups” and given a problem set to work on together. When we reconvene as an entire class, I will often ask for someone to explain to the class how they solved the problem. This will count toward your participation grade.

**Course Schedule**

The following is a tentative schedule. Any changes to this schedule will be announced in class and on Canvas.

Dates marked with an asterisk (\*) will have recorded lectures. Dates without an asterisk will have live lectures.

**May 11:** Introduction to the course

**May 12:** Validity and invalidity; logical form

**May 13:** Introduction to sentential logic with conditional and negation

**May 14:** Parsing and symbolizing with conditional and negation; truth tables

**May 15:** Translating English sentences into symbolic sentences

**May 18:** Rules of inference for conditional and negation

**May 19:** Direct derivations\*

**May 20:** Conditional derivations\*

**May 21:** Indirect derivations\*

**May 22:** Subderivations\*

**May 25: Memorial Day (No class)**

**May 26:** Derivation practice, tips

**May 27:** More derivation practice

**May 28:** Theorems\*

**May 29:** Review for Midterm Exam

**June 1:** Midterm Exam

**June 2:** Conjunction, disjunction, biconditional

**June 3:** Parsing and symbolizing with conjunction, disjunction, biconditional

**June 4:** New rules of inference

**June 5:** Derivations\*

**June 8:** Derived rules of inference\*

**June 9:** More derived rules of inference\*

**June 10:** Derivation practice

**June 11:** More derivation practice

**June 12:** Truth tables\*

**June 15:** Introduction to predicate logic

**June 16:** Quantifiers: parsing and symbolizations

**June 17:** Some rules of inference for quantifiers

**June 18:** Review for Final Exam

**June 19:** Final Exam (in class)