Introduction to Logic

People, Locations and Times

Professor: John Morrison   jmorrison@barnard.edu
Assistant: Molly Gurdon   mcg2197@columbia.edu
Assistant: Chuyu Tian   ct2823@columbia.edu

Monday	Tuesday	Wednesday	Thursday	Friday
Lecture John Morrison Milbank 405 10:10-11:25am		*Lecture* John Morrison Milbank 405 10:10-11:25am		
Office Hour Molly Gurdon 3:00-4:00pm 326B Milbank	*Office Hour* Molly Gurdon 10:00-11:00am 326B Milbank	*Office Hour* John Morrison 4:00-5:00pm 326B Milbank	*Office Hour* Chuyu Tian 12:00-1:00pm 722 Philosophy	*Office Hour* Chuyu Tian 1:00-2:00pm 326B Milbank

Materials

We'll be using the second edition of *Language, Proof and Logic* by Barwise & Etchemendy. All of the homework assignments will be completed on-line using the accompanying software. To use the software, you'll need the non-transferable ID number that comes with a new text-book. As a result, you **cannot** complete the homework assignments with a **used textbook**. You can buy a new physical copy or a new digital copy at the textbook website: `https://www.gradegrinder.net/Store/store.html` or at Book Culture (536 W 112th St). You can also check the Columbia University Bookstore (2922 Broadway) and online retailers, such as Amazon. I'll be using Course Works (`https://courseworks2.columbia.edu/`) to post my slides, your grades, and other relevant files. There are videos explaining each chapter: `https://lagunita.stanford.edu/courses/Philosophy/LPL-SP/SelfPaced/courseware/`

Software

The textbook comes with four programs :

1. *Tarski's World*: a program for investigating when sentences in logical languages are true or false.

2. *Fitch*: a program for constructing and checking formal proofs

3. *Boole*: a program for constructing and checking truth tables

4. *Submit*: a program for submitting homework assignments to an on-line program called 'Grade Grinder' (you'll need an ID number)

If you don't have a computer, you can download the software onto a memory stick, and then run it on any campus computer.

Communication

For most questions, you should attend office hours. You don't need to make an appointment. For quick questions, you can email a teaching assistant. If your last name starts with a letter between A and M, you should email Molly. If you last name starts with a letter between N and Z, you should email Chuyu. You should always copy me so I can make sure they are giving out the same information.

Grade

There will be three exams, each worth 30% of your final grade. Make-up exams will only be provided to students with excuses verified by their class dean. Except for the final, all make-ups will be provided at the end of the semester. The make-up for the final exam will be in September at a time set by the college.

The remaining 10% of your grade will be determined by your performance on the homework questions. While you should complete all the homework questions, your grade will be determined by your performance only on the questions **in bold**. You are **strongly encouraged** to submit your answers before the next class. But you are only **required** to submit them by the next exam. For each individual question you correctly answer by the deadline, you will receive one point (1). For each individual question you *in*correctly answer by that deadline, you will receive eight-tenths of a point (.8). You will receive zero points for answers that are late even if they are correct. Note that if you answer every assignment by the deadline, but you answer them all incorrectly, your homework grade will still be 8/10.

With one exception, your answers must be submitted through Submit, a program described above and in the book (p.5-10). The program will ask you for the instructor's e-mail. You **must** input: introductionlogic@gmail.com. If you input the e-mail address of the professor (jmorrison@barnard.edu) or one of the TAs, you will not count as having completed the assignment. The program will also ask you for your email address. You can use whatever email address you want, but remember to include your name so we know the assignment is coming from you. The exception is that you may submit handwritten answers to questions involving truth tables. You must submit any handwritten answers to your TA during their office hours or on the day of your next exam.

After you submit an answer through Submit you will receive an automated email indicating whether it is correct. You are encouraged to keep submitting answers until you get it right. We will only count your best submission. Because you have so much time to submit your answers, there will be **absolutely no extensions**. If you wait until the night before the exam to submit your answers, then you are gambling that you won't become ill and that your computer won't malfunction. You are encouraged to work in groups though you must write up the answers on your own. The automated grader can detect when two people submit the same file.

Schedule

Date		Lecture	Reading	Homework
1/22	W	L1: Introduction	p. 1-10	
1/27	M	L2: Atomic Sentences	1.1-1.4	**1.2**, **1.3**, **1.4**, **1.5**
1/29	W	L3: Atomic Sentences	2.1, 2.5	handout
2/3	M	L4: Boolean Connectives	3.1-3.7	3.2, **3.3**, 3.6, **3.7**, 3.9, 3.23
2/5	W	L5: Boolean Connectives	4.1	**4.2**, 4.4, **4.5**, 4.6, **4.7**
2/10	M	L6: Boolean Connectives	4.2-4.3	**4.12**, 4.13, 4.14, **4.20**, 4.21
2/12	W	L7: Review		handout
2/17	M	**First Exam**		
2/19	W	L8: Boolean Connectives	2.2-4, 4.4, 5.1-3	**2.17**, 2.20, 5.1, 5.5, 5.7
2/24	M	L9: Boolean Connectives	6.1, 6.2	**6.3**, **6.4**, **6.5**, **6.6**
2/26	W	L10: Boolean Connectives	6.3	**6.9**, **6.10**, 6.11, 6.12
3/2	M	L11: Boolean Connectives	6.4-6.6	**6.18**, 6.19, **6.20**, 6.28, 6.29
3/4	W	L12: Conditionals	7.1, 7.2	**7.1**, 7.2, 7.10, **7.12**, 7.13
3/9	M	L13: Conditionals	8.1, 8.2	**8.18**, **8.19**, 8.20, **8.21**
3/11	W	L13: Conditionals (again)	8.4	8.44, 8.45, **8.46**, 8.48
3/16	M	Spring Break		
3/18	W	Spring Break		
3/23	M	L14: Logic of Conditionals	8.4	8.49, **8.50**, **8.51**, 8.52, 8.53
3/25	W	L15: Review		handout
3/30	M	L15: Review		handout
4/1	W	**Second Exam**		
4/6	M	L16: Quantifiers	9.1-9.5	9.3, **9.5**, 9.12, **9.13**
4/8	W	L17: Multiple Quantifiers	9.6, 10.3, 11.1-5	9.16, **9.17**, **11.4**, 11.9, 11.17
4/13	M	L18: Quantifiers	12.1-4, 13.1	**13.2**, **13.3**, 13.4
4/15	W	L19: Quantifiers	13.2	13.11, **13.12**, 13.13, 13.14
4/20	M	L20: Quantifiers	13.3, 13.5	**13.23**, 13.33, 13.35, **13.43**
4/22	W	L21: Quantifiers	14.1, 14.2	**14.3**, 14.4, **14.10**, 14.11, 14.12
4/27	M	L22: Review		handout
4/29	W	L22: Review		handout
5/4	M	L22: Review		handout
TBA		**Third Exam**		

Slides, assignments, and handouts associated with a particular lecture are posted on Course-Works and their names begin with the relevant lecture number (e.g. L3.homework.pdf).

Other Important Dates: 2/25 is the last day to drop the course and 3/26 is the last day to withdraw or take the P/D/F option.

Syllabus Version: Thursday 16th January, 2020