FITCHBURG STATE UNIVERSITY

LOGIC

PHIL 1100
Summer 2021
3 Credit Hours

Instructor: TBD
Office: TBD
Telephone: TBD
E-mail: TBD
Office Hours: By appointment

COURSE DESCRIPTION

The course introduces students to the nature of logical and critical thinking. Topics include: basic logical concepts, language and definition, informal fallacies, categorical propositions and syllogisms in Aristotelian and Boolean logic, arguments in ordinary language, and symbolic logic.

COURSE GOALS AND LEARNING OBJECTIVES

Arguments are everywhere; they are means by which we try to get each other to believe and do some things rather than others. The aim of this course is to improve your ability to identify, analyze, and evaluate *arguments*—in short, to teach you how to distinguish good arguments from bad. Specifically, students will learn, among other useful and important things:

→ How to recognize arguments and their parts in ordinary language.

→ How to make ordinary language more precise.

→ How to diagram an argument.

→ How to identify common argument *forms* and how to evaluate arguments using the method of counterexamples.

→ The basic principles of categorical logic, propositional, and predicate logic, which will enable you to evaluate the validity of arguments involving different kinds of propositions.

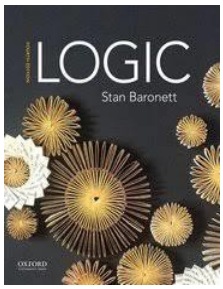
→ How to symbolize ordinary language arguments to allow for formal methods of analysis and evaluation.

→ How to test for (and prove) validity using formal methods.

ATTENDANCE POLICY

This is an accelerated course and it is thus imperative that students attend all meetings. Homework assignments will only be accepted from students who attend class on the date for which the homework was assigned. Since homework will be assigned for each class, students who miss a class will always lose points. Students who miss more than three meetings *may* fail the course, depending on the reasons for their absences and their overall performance in the course.

REQUIRED TEXT



Stan Baronett. *Logic,* 4th edition. (Oxford University Press: 2018).

The previous edition of your textbook includes access to online resources, including self-quizzes, chapter guides, and video tutorials. These resources can be accessed here: http://global.oup.com/us/companion.websites/9780199383405/student/

COURSE REQUIREMENTS

Students will be required to complete the following assignments prior to most meetings:

- *Reading assignments* from our textbook, introducing the material to be discussed in class.
- *Viewing assignments* designed to reinforce material introduced in the readings.
- *Exercise sets* in which you apply the concepts introduced in the reading and viewing assignments. [*20 x 10 points, or ½ of your final grade.*]

Students will take two *exams*: a **mid-term exam** (7/15) and a (non-cumulative) **final exam** (8/2). [*2 x 100 points*, *or ½ of your final grade*.]

For specific assignments and their due dates see the Course Outline.

COURSE OUTLINE

Reading assignments include chapter, sections, and page numbers.
All *viewing assignments* [V] will be posted on our Blackboard course site.
All *exercise sets* [ES] will be posted on our Blackboard course site.

DATE	TOPICS	READING ASSIGNMENT	VIEWING ASSIGNMENT	WORK DUE
MON	The nature of logic; branches of logic; course expectations and requirements	--	--	--

TUE	Recognizing and classifying *arguments*	1A-E, 2-26	[V] 1, 2	[ES] 1B, 1C, 1E
WED	Some common argument forms; enthymemes	1F-H, 30-57	[V] 3, 4	[ES] 1F, 1G, 1H
THUR	Diagramming Arguments	3A-B, 113-117	[V] 5	[ES] 3B
FRI	Review/ Discussion Section	--	--	--
MON	Analyzing categorical propositions	5A-B, 194-201	[V] 6, 7	[ES] 5A, 5B
TUE	Diagramming categorical propositions; immediate arguments in categorical logic	5C-E, 203-215	[V] 8, 9	[ES] 5D, 5E
WED	Analyzing and evaluating categorical syllogisms	6A-C, 247-265	[V] 10, 11, 12	[ES] 6B, 6C
THUR	Categorical syllogisms: rules and fallacies	6D, 6H	[V] 13, 14	[ES] 6D, 6G
FRI	Review/ Discussion Section	--	--	--
MON	**mid-term exam**	-	--	--
TUE	introducing propositional logic	7A-B, 317-334	[V] 15, 16	[ES] 7A, 7B
WED	Introducing truth tables	7C-F, 338-363	[V] 17, 18	[ES] 7D, 7F
THUR	Using truth tables to test for validity	7G-H, 364-382	[V] 19, 20	[ES] 7G, 7H

FRI	Review / Discussion Section	--	--	--
MON	How to construct *proofs* using implication rules	8A-C, 391-408	[V] 21, 22	[ES] 8B, 8C
TUE	More implication rules	8D, 412-417	[V] 23, 24	[ES], 8D
WED	How to construct *proofs* using replacement rules	8E, 424-432	[V] 25, 26	[ES] 8E
THUR	More replacement rules	8F, 439-444	[V] 27, 28	[ES] 8F
FRI	Review / Discussion	--	--	--
MON	conditional and indirect proofs	8G-H, 453-464	[V] 29, 30	[ES] 8G, 8H
TUE	the language of predicate logic	9A, 473-480	[V] 31, 32	[ES] 9A
WED	Rules of inference in predicate logic	9B, 482-489	[V] 33, 34	[ES] 9B
THUR	Change of quantifier; conditional and indirect proof	9C-D, 493-500	[V] 35, 36	[ES] 9C, 9D
FRI	**final exam**	--	--	--

FITCHBURG STATE UNIVERSITY UNDERGRADUATE GRADING POLICY

4.0	**A**	**95 –100**
3.7	**A-**	**92 – 94**
3.5	**A-/B+.**	**89 - 91**
3.3	**B+**	**86 – 88**
3.0	**B**	**83 – 85**
2.7	**B-**	**80 – 82**
2.5	**B-/C+**	**77 – 79**
2.3	**C+**	**74 – 76**
2.0	**C**	**71 – 73**
1.7	**C-**	**69 – 70**
1.5	**C-/D+**	**67 – 68**
1.3	**D+**	**64 – 66**
1.0	**D**	**60 – 63**
0.0	**F**	**0 – 59**
	IN	**Incomplete**
	IP	**In Progress**
	W	**Withdrawn**

CLASS POLICIES

- ✓ Homework assignments will not be accepted from students who do not attend class on the day the assignment is due. Also, late work will not be accepted.
- ✓ In the event that a student cannot make the mid-term or final exam on the assigned date a make-up date can be arranged, but students should contact me as early as possible to make arrangements.
- ✓ Please do not use your cell-phone in class.
- ✓ Each student is responsible for completing all course requirements and for keeping up with all activities of the course.

POLICY ON DISABILITY

If you need course adaptations or accommodations because of a disability, if you have emergency medication information, or if you need special arrangements in case the building must be evacuated, please make an appointment at the beginning of the course to talk with me. It is important that the issues relating to disabilities be discussed with me as soon as possible.

GRADE APPEAL

If you disagree with the evaluation of your work or believe an improper grade has been assigned, an appeal may be followed. Please discuss the matter with the instructor and refer to the Fitchburg State University Grade Appeal Policy in the university catalog: https://catalog.fitchburgstate.edu/?/catalog/

ACADEMIC INTEGRITY POLICY

The faculty at Fitchburg State University require that work submitted in fulfillment of course requirements will be solely that of the individual candidate and all other sources will be cited appropriately. University Academic Integrity Policy, as outlined in the University Catalogue, will be strictly adhered to.

DISTANCE LEARNING & EXTENDED CAMPUS LIBRARY SERVICES

The Gallucci-Cirio Library at Fitchburg State University provides a full range of library services including borrowing privileges; document delivery (books and articles mailed to your home); Interlibrary Loan; reference assistance via: phone, email, IM, Blackboard's Collaboration and Elluminate tools, Skype and in-person; library instruction; research help and more. Any questions relating to library services should be directed to the Linda LeBlanc, Access Services Librarian, at 978-665-3062 or dllibrary@fitchburgstate.edu. There is also a special section for Distance Learning and Extended Campus Services at http://fitchburgstate.libguides.com/dlservices outlining the wide range of services available to you and how to access them.