

Philosophy 2303.01E— Logic

Spring 2024

Dr. Bill Bolin

Office & Hours: Talbot Hall 324, MW 3:30p—5:00p, T 3:00p—5:00p, and by appt.

Telephone: 903.886.5260 (Dept. of Literature and Languages)

Email: [bill.bolin@tamuc.edu](mailto:bill.bolin@tamuc.edu) (best way to reach me)

## COURSE DESCRIPTION

This course will allow you many opportunities to study and practice informal and formal logic. We will examine different ways to evaluate deductive arguments for validity and inductive arguments for strength, including historical arguments, legal arguments, fictitious arguments, and even contemporary arguments in the news. For the most part, we will study informal reasoning, logical fallacies, logic puzzles, Aristotle's categorical logic, the Stoics' propositional logic, and Gautama's Nyaya logic. The primary take-away of the course is that you will be able to judge arguments, your own and others', based on different types of reasoning.

No textbooks are required. We will learn our logic through open-source material, stirring lectures, and a few corny jokes.

## STUDENT LEARNING OUTCOMES

1. Students will successfully test an argument for validity.
2. Students will analyze categorical arguments.
3. Students will analyze truth-functional arguments.
4. Students will be able to demonstrate knowledge of the interconnectedness of global dynamics (issues, processes, trends, and systems).
5. Students will be able to analyze, evaluate, or solve problems when given a set of circumstances, data, texts, or art.
6. In written, oral, and/or visual communication, A&M-Commerce students will communicate in a manner appropriate to audience and occasion, with an evident message and organizational structure.
7. Students will be able to interpret, test and demonstrate principles revealed in empirical data and/or observable facts.
8. Students will demonstrate an understanding of societal and/or civic issues.

## COURSE OBJECTIVES

1. To examine and evaluate arguments with regard to internal validity.
2. To demonstrate proficiency in explaining how parts of arguments relate to each other to prove validity.
3. To demonstrate understanding of features of logic from both Western and non-Western civilizations.

ASSIGNMENTS

**Exams:** You will take four exams, each covering roughly a quarter of the semester. The questions on each exam will look much like the questions in the exercises we'll be doing as preparation, with spaces provided on the exam sheet for your written answers.

**Response Papers:** In addition, you'll turn in two written responses (300-400 words each) to some of the reading assignments. These responses will serve as opportunities for you to apply some of the features of various logical systems to arguments going on in the world. Specific assignments are forthcoming in the course shell.

**Quizzes:** You will take six quizzes to test your comprehension of some of the reading and of class lectures. These timed quizzes will be announced as the semester progresses and cannot easily be made up.

**Homework:** You will have plenty of homework from the exercises provided, but that homework will not be graded. We will regularly review the homework exercises in class, and you are expected to keep up with it to prepare for the exams and to complete the student learning outcomes.

As a rule I do not accept late assignments, so please be attentive to deadlines. If you must miss an upcoming deadline, you will need to contact me to make prior satisfactory arrangements for submitting the assignment. Failure to make prior satisfactory arrangements will result in your forfeiting the right to turn in that assignment. An extra credit assignment to be named later will be an opportunity to restore points from a missed assignment or simply to add points to the total grade.

EVALUATION

Assignment Values	Final Grade Ranges
<b>Exams</b> (4 @ 30 pts. each) 120 pts.	A=180--200
<b>Response Papers</b> (2 @ 10 pts. each) 20 pts.	B=160--179
<b>Quizzes</b> (6 @ 10 pts. each) 60 pts.	C=140--159
<b>Extra Credit</b> 10 pts.	D=120--139
	F=0--119

ATTENDANCE

Regular attendance is important for several reasons, but it is especially important for you to keep up with the assignments in this class. The tentative calendar below offers only the most general description of activities; more detail will be provided in class as the semester goes on. If you are absent the day an assignment is due, you must contact me and make satisfactory arrangements for turning in the assignment. In most cases, such arrangements will include your emailing the assignment to me as an attachment by the deadline. Failure to make *prior satisfactory* arrangements will result in your forfeiting the right to turn in that assignment. As per university policy, excessive absences (three weeks' worth) may result in your being dropped from the course.

## PLAGIARISM/ACADEMIC DISHONESTY STATEMENT

Instructors in the Department of Literature and Languages do not tolerate plagiarism and other forms of academic dishonesty. Instructors uphold and support the highest academic standards, and students are expected to do likewise. Penalties for students guilty of academic dishonesty include disciplinary probation, suspension, and expulsion. (Texas A&M University-Commerce Code of Student Conduct 5.b[1,2,3]).

**AI use in course [Draft 2, May 25, 2023]** Texas A&M University-Commerce acknowledges that there are legitimate uses of Artificial Intelligence, ChatBots, or other software that has the capacity to generate text, or suggest replacements for text beyond individual words, as determined by the instructor of the course. **Any use of such software must be documented.** Any undocumented use of such software constitutes an instance of academic dishonesty (plagiarism). Individual instructors may disallow entirely the use of such software for individual assignments or for the entire course. Students should be aware of such requirements and follow their instructors' guidelines. If no instructions are provided the student should assume that the use of such software is disallowed. In any case, students are fully responsible for the content of any assignment they submit, regardless of whether they used an AI, in any way. This specifically includes cases in which the AI plagiarized another text or misrepresented sources.  
13.99.99.R0.03 Undergraduate Academic Dishonesty 13.99.99.R0.10 Graduate Student Academic Dishonesty

Plagiarism on one assignment in this course will result in a failing grade for the course.

## TENTATIVE CALENDAR

Jan. 10 Introduction to course

Jan. 12 Definitions of *logic*, read "[Structural Approach](#)" and "[Pragmatic Approach](#)"

Jan. 15 MLK Day

Jan. 17 Inductive and deductive arguments: Read "[Deductive and Inductive Arguments](#)"

Jan. 19 Deductive puzzles, including [Knights and Knaves](#)

Jan. 22 Legal deductive logic, including the [LSAT](#)

Jan. 24 Evaluating inductive arguments

Jan. 26 Evaluating inductive arguments, continued

Jan. 29 Informal fallacies: Examples at [Purdue OWL](#) and [School of Thought](#)

Jan. 31 Informal fallacies, continued

Feb. 2 **Exam 1**

Feb. 5 Categorical logic form

Feb. 7 Categorical logic form, continued

Feb. 9 Syllogism

Feb. 12 Syllogism, continued

Feb. 14 Syllogism, continued

Feb. 16 Boole and Venn

Feb. 19 Boole and Venn, continued; **RP1 due**

Feb. 21 Boole and Venn, continued

Feb. 23 Boole and Venn, continued

Feb. 26 **Exam 2**

Feb. 28 Propositional language beginnings and form

Mar. 1 English to propositional language

Mar. 4 English to propositional language, continued

Mar. 6 English to propositional language, continued, and a little talk about truth tables

Mar. 8 Propositional logic rules

Mar. 11-15 Spring Break

Mar. 18 Propositional logic rules, continued

Mar. 20 Propositional logic rules, continued

Mar. 22 Propositional logic inference rules

Mar. 25 Propositional logic inference rules, continued

Mar. 27 Propositional logic inference rules, continued

Mar. 29 Propositional logic rules [Notes provided in the course shell; class will not meet]

Apr. 1 Propositional logic inference rules, continued

Apr. 3 **Exam 3**

Apr. 5 Propositional logic replacement rules

Apr. 8 Something related to the eclipse

Apr. 10 Propositional logic replacement rules, continued

Apr. 12 Propositional logic replacement rules, continued

Apr. 15 Indirect and conditional proofs

Apr. 17 Indirect and conditional proofs, continued

Apr. 19 Classical Indian logic

Apr. 22 Classical Indian logic, continued

Apr. 24 Arabic logic; **RP2 due**

Apr. 26 Confucian logic

Apr. 29 Review

May 1 University Study Day [Class will not meet.]

May 3 University Study Day [Class will not meet.]

May 8 **Exam 4** (8:00a—10:00a Final Exam schedule)

### **University Specific Procedures**

**The Counseling Center at A&M-Commerce, located in the Halladay Building, Room 203, offers counseling services, educational programming, and connection to community resources for students. Students have 24/7 access to the Counseling Center’s crisis assessment services by calling 903-886-5145. For more information regarding Counseling Center events and confidential services, please visit [www.tamuc.edu/counsel](http://www.tamuc.edu/counsel)**

### **TECHNOLOGY REQUIREMENTS**

#### **LMS**

All course sections offered by Texas A&M University-Commerce have a corresponding course shell in the myLeo Online Learning Management System (LMS). Below are technical requirements

LMS Requirements:

<https://community.brightspace.com/s/article/Brightspace-Platform-Requirements>

LMS Browser Support:

[https://documentation.brightspace.com/EN/brightspace/requirements/all/browser\\_support.htm](https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.htm)

YouSeeU Virtual Classroom Requirements:

<https://support.youseeu.com/hc/en-us/articles/115007031107-Basic-System-Requirements>

### **ACCESS AND NAVIGATION**

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or [helpdesk@tamuc.edu](mailto:helpdesk@tamuc.edu).

**Note:** Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

### **COMMUNICATION AND SUPPORT**

If you have any questions or are having difficulties with the course material, please contact your Instructor.

### **Technical Support**

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found here:

<https://community.brightspace.com/support/s/contactsupport>

### **Syllabus Change Policy**

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

### **Student Conduct**

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the [Student Guidebook](#).

<http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx>

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: <https://www.britannica.com/topic/netiquette>

### **TAMUC Attendance**

For more information about the attendance policy please visit the [Attendance](#) webpage and [Procedure 13.99.99.R0.01](#).

<http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx>

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf>

### **Academic Integrity**

Students at Texas A&M University-Commerce are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

[Undergraduate Academic Dishonesty 13.99.99.R0.03](#)

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf>

[Graduate Student Academic Dishonesty 13.99.99.R0.10](#)

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf>

### **Students with Disabilities-- ADA Statement**

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

#### **Office of Student Disability Resources and Services**

Texas A&M University-Commerce  
Gee Library- Room 162

Phone (903) 886-5150 or (903) 886-5835

Fax (903) 468-8148

Email: [studentdisabilityservices@tamuc.edu](mailto:studentdisabilityservices@tamuc.edu)

Website: [Office of Student Disability Resources and Services](#)

<http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/>

### **Nondiscrimination Notice**

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

### **Campus Concealed Carry Statement**

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the [Carrying Concealed Handguns On Campus](#) document and/or consult your event organizer.

Web url: <http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf>

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.