

# Phil 4, Introduction to Logic

Section 5507, Spring 2017 Course Syllabus

## Class Meetings

Mondays & Wednesdays from 10:30 am-12 noon in Emeritus 1509

## Instructor Contact

Miguel Balboa

[mbalboa@santarosa.edu](mailto:mbalboa@santarosa.edu)

**Office Hours:** Mondays 8-9 am in 1513 Emeritus, 2:45-3:45 pm in PC 680, and by appointment.

I respond to emails usually within hours, but during rush periods weekly on Wednesdays and Fridays, at the minimum.

## This Syllabus is arranged Alphabetically.

Please look this or the course schedule over before emailing me. If you don't I may merely respond by having you look it up here.

## Attendance

You need to come to class and I will take roll.

Please plan to attend every class, one of the major causes for failure of Phil 4 is a high rate of absence. If you are proactive, letting me know as soon as possible, we can make plans to help you succeed.

We meet 34 times this semester twice per week for 17 weeks, and have quizzes or assignments scheduled nearly every week. Miss classes and you miss what we cover for the quizzes and this often hurts performance—there are no makeups. Miss the classes where we cover concepts and have assignments based on them and you miss points—there are no makeups.

Missing 30 minutes of class because you arrived late or left early is an absence.

Proper excuses are illness, funerals, visits to the doctor, job interviews, religious obligations, or verifiable transportation emergencies. Please be proactive, document them, communicate them to me, and make a plan with me to make up for the lost time.

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Tardiness may negatively affect your grade. If you are tardy four times your grade shall drop one full letter grade, for instance, from a B to a C.

## Communicating

The class syllabus is online and so all updates to the syllabus will be online. I will announce any important (official) changes in class and through either the SRJC email or online. So check this site and your email before classes start for the week.

You should use email to let me know about excused absences or any other official business. I will respond to emails about two or three times per week, so don't expect an immediate response, but don't worry, email is time stamped so even if I don't get to it right away, you've done your duty, and I'll respect that.

You should use class time to ask questions about the content of the class or the schedule or the policies.

You should use office time for more private questions or if you aren't getting the material and you've already asked about it in class. I'll be happy to make an appointment with you as well.

## Course Description

Development of modern symbolic logic through first-order predicate logic plus identity. Emphasis on translation and proof techniques. Provides a basis for understanding recent analytic trends.

## For Instance

A common Philosophical question is *What is the meaning of life?*

*Life* is a biological concept- see your biology teacher for details.

*Meaning* is a multidisciplinary concept, asking your teachers in psychology/cognitive science, English Literature and Linguistics, Art, Music, and Speech classes may be a decent start. You might want to look into the philosophy of Language and the Philosophy of Art as well as semantics. Also Religious Studies and History. Heck, just be educated.

*Is* — you've come to the right place, we'll study 'is' for at least half the class, along with 'and', 'not', 'or', 'if' and 'only'. Just kidding. But not really, look at the book.

## Course Schedule

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Week 1	Lecture: Intro: Logic & Philosophy; Reading: Pages 1-14 (14) (Chapter 1); Homework: pages 11-12: 1.2e; page 14: 1.3e 1-2
Week 2	Lecture: Connectives; Reading: Pages 15-58 (42) (Chapter 2.1-3); Homework: Page 23: 2.1e 1-2; pages 36-37: 2.2e 1-2; pages 55-57 2.3e 1-5
Week 3	Lecture: More Connectives; Reading: Pages 15-58 (42)(Chapter 2.1-3); Homework: Page 23: 2.1e 1-2; pages 36-37: 2.2e 1-2; pages 55-57 2.3e 1-5; Quiz 1
Week 4	Lecture: Truth Tables; Reading: Pages 69-87; (18)(Chapter 3.1-2); Homework: Page 76: 3.1e 1-3; pages 85-87: 3.3e 1, 3, 4, 5; Quiz 2
Week 5	Lecture: Derivations; Reading: Pages 146-178 (32) (Chapter 5.1-2); Homework: Pages 152-155 5.1.1e 1-2; pages 163-166 5.1.2e pages 173-174 5.1.3e; Quiz 3
Week 6	Lecture: More Derivations; Reading: Pages 179-225 (46); (Chapter 5.2-4); Homework: Page 209-211: 5.3e 1, 2, & 7; p 222-224: 5.4e 1, 2, 3, & 5; Quiz 4
Week 7	Lecture: Midterm Review; Reading: Review all reading up to this point Homework: Review all assignments up to this point; Quiz 5
Week 8	<b>Midterm (Both days)</b>
Week 9	Lecture: Predicates & Quantifiers; Reading: Pages 262-295 (33) (Chapter 7.1-3); Homework: P 267: 7.1e, 274: 7.2e 1-4; p 294-296: 7.3e 1-4
Week 10	Lecture: Predicate Logic; Reading: Pages 296-310 (48) (Chapter 7.4); Homework: n/a; Quiz 6
Week 11	Lecture: More Predicate Logic; Reading: Pages 474-491 (17) (Chapter 10.1) Homework: 490-1: 10.1e 1; Quiz 7
Week 12	Lecture: Even More Predicate Logic/Interim Exam Review; Reading: Pages 492-526 (24) (Chapter 10.2-3); Homework: 518-521: 10.2e 1-6; Quiz 8
Week 13	<b>Interim Exam (Both days OR one day + takehome)</b>
Week 14	Lecture: Identity; Reading: Pages 310—325 (15), 381—401 (20) (Chapter 8.6) (Chapter 7.5); Homework: P 325: 7.5e 1-5, P 397: 8.6e 1-7
Week 15	Lecture: More Identity; Reading: Pages 526—545 (19) (Chapter 10.4); Homework: Page 541 ff: 10.4e 2, 4, 5, 7; Quiz 9
Week 16	Lecture: Completeness; Reading: Pages 226-234 (8) (Chapter 6.1); Homework: P 233: 6.1e 1 & 2, Quiz 10
Week 17	<b>Final Exam Review (Both days)</b>
Finals Week	<b>Final Exam Period tbd</b>

**Note: All readings are from *The Logic Book 6e* by Bergman, Moor & Nelson unless otherwise noted; changes to this schedule, if any, will be announced in class, by email, and through Canvass. For the most current schedule please see the Canvass modules section for this site and ask your instructor.**

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## Dates, Important Dates

- Day Class Begins: Wednesday January 18th
- Day Class Ends: Wednesday May 17th (last day)
- Last Day to Add without instructor's approval: January 22nd
- Last Day to Drop and be eligible for a refund: January 29
- Last Day to Add with instructor's approval: February 5th
- Last Day to Drop without a 'W' symbol: February 5th
- Last Day to Opt for Pass/No Pass: February 26th
- Last Day to Drop with a 'W' symbol: April 23<sup>rd</sup>

NOTE: all dates listed above are superseded by SRJC's official [Academic Calendar](#), which can be found [here](#).

## Dropping the Class

If you decide to discontinue this course, it is your responsibility to officially drop it. A student may be dropped from any class when that student's absences exceed ten percent (10%) of the total hours of class time. I strongly advise you to contact me if you need to miss more than one class/homework deadline in a row to avoid being dropped from the class. I may drop you if you miss the first week of class as well.

## Exams

There will be a midterm, an interim and a final exam. The material comes from the textbook, class lectures and supplemental materials listed online. If any exam is missed, a zero will be recorded as the score. It is your responsibility to take the exams on the scheduled date.

## Extra Credit

The only extra credit will be through participation and pop extra credit assignments (like pop quizzes but they are for extra credit).

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## Grading Policy

There are 400 points available in this course:

- 100 for the quizzes (twelve quizzes, I will keep the highest ten, each worth ten points);
- 100 for the midterm;
- 100 for the interim exam;
- 100 for the final exam

The grades break down as follows:

- 360 + is an A
- 320-359 is a B
- 280-319 is a C
- 240-279 is a D
- Below 240 is an F

You can keep score by keeping track of your grades and doing the math. Please see me in my office if you have questions about your grades.

If you are taking this class Pass/No Pass you need at least 280 points to pass.

## A Note on Grading

I will grade you based on the criteria given in the canons of logic, in the book and verbally in class. If you think my comments show that I misread your work, you can write a brief challenge to the grade I've given you showing how you did follow the guidelines. I will review your challenge and if I find it has merit, will adjust the grade.

I make every effort to grade your work with comments within one week, often the very next class. Occasionally, other professional obligations make this impossible.

## Homework

I do not grade, collect, or even look at the homework assignments. You are expected to do them and bring any ones you cannot do to class to start the discussion. I will go over the more difficult ones to

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start every class, provided you prompt me. I will not go over some of the ones marked with a '\*' as they may appear on a quiz or exam.

Some students, upon hearing I do not grade the homework assignments, treat them as optional and do not do them. In my experience, most of these students drop or fail the course.

## Late Policy

All quizzes and exams are due in class. Makeups will be given only for documented excuses (such as serious illness or death in the family, transportation failure, and so on).

## Methods

I will lecture parallel to, but not based on the book.

I expect you to be active, ask questions, challenge the views presented. A classroom in philosophy is a place where you may test any and all ideas, no matter how controversial or popular, cherished or preposterous. What philosophical discussion does require is respectful listening in order to get at the idea being expressed. In philosophy, we test the ideas, not the people who hold them.

We'll have workshops using small groups, lots of quizzes and tests.

You will read the book, and hopefully another (find another logic book or website that speaks to you, as it were. Be active!), do the homework as your own self test (I will help you with any homework assignment except the starred\* ones, which may be used in the quizzes and exams), and come to class with questions and maybe even some answers. I won't grade or collect the homework assignments, but quizzes will generally be taken from the homework assignments. Reckon it out. I open every class with time for your most burning questions. Then I'll lecture about some logical concept or technique, and we might segue into a workshop on it, and continue in this fashion until the quiz on the logical concepts or techniques we've covered.

## Participation

Sometimes I give credit for participation.

You might be awarded as much as 3-4% extra on your final grade. For instance, if you have averaged a C +, but have made constant and significant positive contributions to class discussion, I may award you

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an additional 3-4%, raising your grade from a C+ to a B-. Of course, SRJC does not recognize pluses or minuses, but this gives you an idea of how much a grade may be boosted.

Not everyone gets credit for participating.

This can only be used to raise your grade-whatever you've earned is yours.

## Slides

I will not post them.

The slides used for lectures will be instead of a blackboard.

## Software, Required Software

- [Adobe Reader](#)
- [QuickTime Player](#)
- [Flash Player](#)
- [Open Office](#)

## Special Needs

Every effort is made to conform to accessibility standards for all instructor-created materials. Students should contact their instructor as soon as possible if they find that they cannot access any course materials. Students with disabilities who believe they need accommodations in this class are encouraged to contact Disability Resources (527-4278).

## Standards of Conduct

Students who register in SRJC classes are required to abide by the SRJC Student Conduct Standards. Violation of the Standards is basis for referral to the Vice President of Student Services or dismissal from class or from the College. See the [Student Code of Conduct page](#).

Collaborating on or copying of tests or homework in whole or in part without my consent will be considered an act of academic dishonesty and result in a grade of 0 for that test or assignment.

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Students are encouraged to share information and ideas, but not their work. See these links on Plagiarism:

[SRJC Writing Center Lessons on avoiding plagiarism](#)

[SRJC's statement on Academic Integrity](#)

## Student Learning Outcomes, Outcomes

Upon completion of this course, the student will be able to:

1. Reduce complex English sentences into the simpler component parts.
2. Translate typical English connectives.
3. Perform valid proofs for valid arguments using the statement logic.
4. Perform valid proofs in the predicate logic using four additional quantifier rules as extension of the statement logic.

Here's what these outcomes mean you will be able to do, in detail:

1. Distinguish arguments from non-arguments in ordinary language.
2. Examine ordinary statements for ambiguity, equivocation and clarity.
3. Generate translations from ordinary language into symbolic notations.
4. Distinguish valid from invalid argument forms.
5. Analyze complex expression into simple forms.
6. Determine truth values for complex expressions.
7. Deduce valid conclusions using proof strategies and rules.
8. Develop first-order predicate logic as an attempt to provide a method of analysis and as a possible foundation for mathematics
9. Evaluate recent analytic philosophical positions using symbolic notations.
10. Describe the relation between modern symbolic notations and other formal systems, for example, computer languages.
11. Trace the historical development of modern symbolic logic and show the attempt to base mathematics on the foundation of the extended predicate logic.
12. Translate English statements with 'or', 'and', 'if, then', 'not', 'all', 'some', 'only', and 'is' into logic notation.

## Support for Students Learning Online



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For questions about this course in particular, your grades, your enrollment status, or details about assignments, please contact your instructor directly.

## Canvas Support

For immediate help with Canvas, call the Canvas Help line at **(844) 698-7484**. Also click on the **?** at the bottom left of the screen for more Canvas support options. Click "Search the Canvas Guides" for answers to commonly asked questions about Canvas.

## Technical Support

SRJC's Information Technology Department provides [technical support for students](#) covering general topics such as student email, campus WiFi, computer labs, the student portal (myCubby), etc. The [Maggini computer lab](#) provides [drop-in face-to-face support for students](#) with topics such as how to get a student email account, how to register for an online class, where your online class website is located, how to find your class homepage, how to contact your instructor, etc.

## Tutoring

You can access online tutoring by logging into your portal (myCubby) and clicking on the "SmartThinking" links ([see screen shot here](#)). An outstanding [Writing Center](#) ([Links to an external site.](#)) is also available at SRJC.

## Textbook

*The Logic Book* 6e by Bergman, Moor & Nelson, ISBN-10: 0078038413 ISBN-13: 978-0078038419

You can locate and order textbooks online via the [SRJC Bookstore](#). If your class is based out of Petaluma, your books will be listed on the [Petaluma Bookstore](#) web site.

## Website, Course Web Site

We will use Canvas, minimally.

## Workload

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For this class there will be twelve (only ten count) quizzes and three exams, all cumulative (meaning they should show evidence that you have taken this class).

For many, this is the most idiosyncratic philosophy course and takes a great deal of acclimation. You should budget at least three hours outside of class for every hour of class time. That means nine (9) extra hours per week for this class.