

($p \vee \cdot \equiv \supset \sim \exists \phi \vee$ Philosophy 110 $\vee \cdot \equiv \supset \sim \exists \phi \vee q$)
Introduction to Logic

Philosophy 110 Introduction to Logic

TR 1130-1245p PALANA 214 CRN 61425

INSTRUCTOR: James Andy Stroble, PhD.
OFFICE: Palanakila 152
OFFICE HOURS: TR 10:00-11:30, or by appointment.
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EFFECTIVE DATE: Fall 2017

Windward Community College Mission Statement
Windward Community College offers innovative programs in the arts and sciences and opportunities to gain knowledge and understanding of Hawai'i and its unique heritage. With a special commitment to support the access and educational needs of Native Hawaiians, we provide O'ahu's Ko'olau region and beyond with liberal arts, career and lifelong learning in a supportive and challenging environment — inspiring students to excellence.

CATALOGUE DESCRIPTION:

A study of the foundations and development of rational thought and communication and their applications. Includes analysis of deductive reasoning, formal and informal fallacies, and the use of symbolic systems.
WCC: FS

STUDENT LEARNING OUTCOMES:

At the completion of this course, you should be able to:

- Recognize fallacies of relevance, presumption, and and ambiguity.
- Employ rules of logic in deductive analysis.
- Construct truth tables for deductive analysis.
- Use symbolic systems for deductive analysis.

Students who successfully complete Philosophy 110 will have learned the principles of accurate thinking. They will know how to acquire reliable information and how to evaluate competing claims. Students who do not, well, they will be wandering into a morass competing claims to truth, with no means of sorting out the truth from the appearances.

COURSE HALLMARKS

To satisfy the Symbolic Reasoning requirement, a course will

1. expose students to the beauty, power, clarity and precision of formal systems.
2. help students understand the concept of proof as a chain of inferences.
3. teach students how to apply formal rules or algorithms.
4. require students to use appropriate symbolic techniques in the context of problem solving, and in the presentation and critical evaluation of evidence.

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5. include computational and/or quantitative skills.
6. build a bridge from theory to practice and show students how to traverse this bridge.

COURSE TASKS

- READ the assigned parts of the textbook, before class.
- Attend class!
- Homework exercises: Logic is like a language, or music, you must practice to learn. Homework due on Thursdays.
- Quizzes: Take the quizzes, make them up if you miss one. Quizzes are on Thursdays.
- Take Exams: We have lots of them, so we can practice.

METHOD OF GRADING:

Grading will be based on a percentage scores on **weekly** quizzes, three mid-term exams, and a final exam, and percentage of attempted or completed homework assignments, with the following weights:

- Homework: 10%
- Quiz average: 20%
- Mid-term exams: 30% (or, 10% each)
- Final exam: 40%

Letter grades will be assigned on an approximate curve, depending upon the range of final total percentages.

LEARNING RESOURCES AND MATERIALS:

Textbook: *Logic*, Third Edition, by Stan Baronett. Available in the Bookstore.
Study guides and other materials will be made available on Laulima.

Important Registration and Withdrawal Deadline Information

08/25/2017	Last day to register
08/25/2017	Last day to receive 100% tuition refund
09/12/2017	Last day to receive 50% tuition refund
09/12/2017	Last day to drop (No "W" on transcript)
10/30/2017	Last day to withdraw from class ("W" on transcript)

Schedule

(as of August 16, 2017, subject to change, modification and/or disruption)

Week One

August 22-24: Introductions, What Logic is.

Reading: Chapter One, Sections A-C .

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Homework: Exercises 1B.1 #1-10, 1B.2 # 2-4, 1C #3, 5, 10, 12. Quiz on Thursday, last 10 minutes of class.

***** *08/26/2016 Friday: Last day to Add/Late Register**

Week Two

Aug. 29- : Validity, Deduction and Induction

Reading: Chapter One, Sections D-G

Homework: Exercises 1E #2-9, 1F #3, 5, 7.

Week Three

Sept. 5: Fallacies! *Defense Against the Dark Arts!*

Reading: Chapter Four, the whole thing!

Homework: Exercises 4B.II, # 7, 17, 23, 34. 4C.II # 9, 12, 19, 44. 4D.II # 6, 10, 11, 19. 4E, pick one!

Week Four

Sept. 12: Propositional Logic

Reading: Chapter Seven, Sections A-B; Logical Operators and Translation

Homework: Exercises 7A, # 1-15, 7B.I, #1-10.

****Monday, Sep 12, 2016 : Last day to withdraw with 50% tuition refund, to drop without a "W".**

Week Five

Sept. 19: Truth Functions and Truth Tables

Reading: Chapter Seven, Sections C-D

Homework: Exercises 7C #1, 2,3,5,8,11,16, 17, 19. 7D.I #2-6.

Week Six Kinds of Statements

Sept. 26: **Reading:** Chapter Seven, Sections E-G

Homework: Exercises 7D2.I #2-5, 7D2.II # 1-5, 7E #9-16, 7F # 2-10.

****First Mid-term Exam, Sept. 29, 20 minutes.**

Week Seven

Oct. 3 : Validity and Truth Tables

Reading: Chapter Seven, sections G-I

Homework: Exercises 7G # 2-8, 7H.I #3, 4; 7H.II #2, 3, 4; 7I.1 # 5, 10; 7I.2 # 2, 3, 7.

Week Eight

Oct. 10: **Natural Deduction**

Reading: Chapter Eight, sections A-B

Homework: Exercises 8B.I # 1-10, 8B.II #1-7

Week Nine

Oct. 17: **Natural Deduction:**

Reading: Chapter Eight, Section C

Homework: Exercises 8B.III # 3-6, 8B.IV # 2-4. 8C.I # 4, 8, 8C.II # 7.

Week Ten

Oct. 24: Deduction **Replacement Rules**

Reading: Chapter Eight, Section D

Homework: Exercises 8D.I #2-6, 8D.II #2, 8, 9, 8D.III #3, 9, 18.

****Middle Mid-term examination: Oct. 27, 25 minutes.**

Week Eleven

Oct. 31 : Rules of Replacement

Reading: Chapter Eight, Section E

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Homework: Exercises 8E.I # 2-6, 8E.II #5, 9, 11, 8E.III #5,

******Nov 3, 2016: Last Day to Withdraw (at all). Point of no-return!**

Week Twelve

Nov. 7 : More on the Method of Deduction

Reading: Chapter Eight, Section F

Homework: Exercises 8E.I #2-6, 8E.II #2-6, 8E.III #2, 5, 11

****Third Mid-Term Exam, Nov. 10, 30 minutes.**

Week Thirteen

Nov. 14: Indirect Proofs

Reading: Chapter Eight, Sections G, H: Conditional and Indirect Proof

Homework: Exercises 8G.I #5, 8H.I # 5, 12, 8H.II # 2, 3.

Week Fourteen

Nov. 21: Predicate Logic

Reading: Chapter 9A, B

Homework: Exercises 9A # 1-10

November 23 is Thanksgiving Day: NO CLASS (and Friday, November 24)

Week Fifteen

Nov. 28 : Subject-Predicate Propositions

Reading: Chapter 9C

Homework: Exercises 9B.I # 3, 9B.II #2, 9B.III #5

Week Sixteen

Dec. 5-7: Last week of class. Reading: Nothing? Exercises: To Be Announced

****Final Exam: Thursday, December 14, 11:30am to 1:30pm (In the usual classroom)**

DISABILITIES ACCOMMODATION STATEMENT

If you have a physical, sensory, health, cognitive, or mental health disability that could limit your ability to fully participate in this class, you are encouraged to contact the Disability Specialist Counselor to discuss reasonable accommodations that will help you succeed in this class. Ann Lemke can be reached at 235-7448, lemke@hawaii.edu, or you may stop by Hale 'Akoakoa 213 for more information.