

INFORMATION FOR PHILOSOPHY 521

Instructor: Tom Weston
Office: AH-4143
Office Phone: 594-6218
Office Hrs: MWF 2:00-3:00

Read Chapter IV, *Validity and Conditionals*, pp. 46-57
Ex. 4-2, a, c, e
Ex. 4-8, a, c, e, g, i, k
Do truth-table and translation exercises on computer

Texts:

P. Teller, *A Modern Formal Logic Primer*, vol I and vol II; computer manual, available later at Cal Copy (not in bookstore). Also buy one or two 3-1/2" high-density computer disks, 1.44 or 2.0, preferably IBM formatted.

Read Chapter V, *Natural Deduction for Sentence Logic: Fundamentals*, pp. 59-74
Do proof exercises on computer

Read Chapter VI, *Natural Deduction for Sentence Logic: Strategies*, pp. 75-93
Do proof exercises on computer

Requirements:

- 1) Three midterm exams, only best two count, 30% each.
- 2) Comprehensive final, 35%.
- 3) Homework and lab work, 5%.

FIRST MIDTERM

Read Chapter VI, *Natural Deduction for Sentence Logic: Derived Rules*, pp. 94-106
Do proof exercises on computer

Brief Outline:

- 1) Propositional language, logical equivalences, translation to and from English, truth table test for validity, natural deduction proofs.
- 2) Predicate language, simplified syntax and interpretation of predicate logic, translation to and from English, full predicate language, full interpretations, proofs of invalidity by counterexamples, natural deduction proofs, theories.

Read Volume II, Chapter I, *Predicate Logic: Syntax*, pp. 1-12
Ex. 1-1, a, c, e, g
Ex. 1-2, a, c, e, g, i
Ex. 1-3, b, c, g, i
Ex. 1-4, a, c, e, f, g, j, m
Ex. 1-5, a, c, g, g, i, h, m

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Read Chapter II, *Predicate Logic: Semantics and Validity*, pp. 13-27
Ex. 2-1, a, b, d
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Ex. 2-4, a, c, e, g, i
Ex. 2-5(b), b1, b3, b5, b7, b9
Ex. 2-6, a, c, e, g, h (added)
Read Chapter III, *More About Quantifiers*, pp. 28-39
Ex. 3-1, a, c, e, f
Ex. 3-2, a, c, e, g, i
Read Chapter IV, *Transcription*, pp. 40-61
Ex. 4-3, a, c, e, g, i, k, m, o
Ex. 4-4, a, c, e, g, g, k, r, s, w, x, aa
Read Handout "Translation Strategies: Successive Refinement"
Ex. 4-8, a, c, h, i, n, q, x, aa, ee, gg, mm, rr, uu, kkk
Do translation, truth, and validity exercises on computer
Read Handout "Proving Invalidity," do exercises

Reading and Exercises:

Read Volume I, Chapter I, *Basic Ideas*, pp. 1-20

Ex. 1-2, a, c, e, g, i

Ex. 1-4, b, d

Ex. 1-5, a, b, e, f

Ex. 1-6, b, d, f

Read Chapter II, *Transcription Between English and Sentence Logic*, pp. 21-28

Ex. 2-2, a, c, e, g, i, k, m, o, q, s, u

Read Chapter III, *Logical Equivalence, Logical Truths, and Contradictions*, pp. 29-39

Ex. 3-2, a, c, e, g, i

Ex. 3-6, a, b, h

SECOND MIDTERM

Read Chapter V, *Natural Deduction in predicate logic*, pp. 62-90
Do proof problems on computer
Read Chapter VI, *More on Natural Deductions for Predicate Logic*, pp. 91-105
Do proof problems on computer

THIRD MIDTERM

Read Handouts on Theories, Philosophical Arguments, do exercises

FINAL EXAM (comprehensive)

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Read Handout "Proving Invalidity," do exercises

Reading and Exercises:

Read Volume I, Chapter I, *Basic Ideas*, pp. 1-20

Ex. 1-2, a, c, e, g, i

Ex. 1-4, b, d

Ex. 1-5, a, b, e, f

Ex. 1-6, b, d, f

Read Chapter II, *Transcription Between English and Sentence Logic*, pp. 21-28

Ex. 2-2, a, c, e, g, i, k, m, o, q, s, u

Read Chapter III, *Logical Equivalence, Logical Truths, and Contradictions*, pp. 29-39

Ex. 3-2, a, c, e, g, i

Ex. 3-6, a, b, h

SECOND MIDTERM

Read Chapter V, *Natural Deduction in predicate logic*, pp. 62-90
Do proof problems on computer
Read Chapter VI, *More on Natural Deductions for Predicate Logic*, pp. 91-105
Do proof problems on computer

THIRD MIDTERM

Read Handouts on Theories, Philosophical Arguments, do exercises

FINAL EXAM (comprehensive)

INFORMATION FOR PHILOSOPHY 521

Instructor: Tom Weston
Office: AH-4143
Office Phone: 594-6218
Office Hrs: MWF 2:00-3:00

Read Chapter IV, *Validity and Conditionals*, pp. 46-57
Ex. 4-2, a, c, e
Ex. 4-8, a, c, e, g, i, k
Do truth-table and translation exercises on computer

Texts:

P. Teller, *A Modern Formal Logic Primer*, vol I and vol II; computer manual, available later at Cal Copy (not in bookstore). Also buy one or two 3-1/2" high-density computer disks, 1.44 or 2.0, preferably IBM formatted.

Read Chapter V, *Natural Deduction for Sentence Logic: Fundamentals*, pp. 59-74
Do proof exercises on computer

Read Chapter VI, *Natural Deduction for Sentence Logic: Strategies*, pp. 75-93
Do proof exercises on computer

Requirements:

- 1) Three midterm exams, only best two count, 30% each.
- 2) Comprehensive final, 35%.
- 3) Homework and lab work, 5%.

FIRST MIDTERM

Read Chapter VI, *Natural Deduction for Sentence Logic: Derived Rules*, pp. 94-106
Do proof exercises on computer

Brief Outline:

- 1) Propositional language, logical equivalences, translation to and from English, truth table test for validity, natural deduction proofs.
- 2) Predicate language, simplified syntax and interpretation of predicate logic, translation to and from English, full predicate language, full interpretations, proofs of invalidity by counterexamples, natural deduction proofs, theories.

Read Volume II, Chapter I, *Predicate Logic: Syntax*, pp. 1-12
Ex. 1-1, a, c, e, g
Ex. 1-2, a, c, e, g, i
Ex. 1-3, b, c, g, i
Ex. 1-4, a, c, e, f, g, j, m
Ex. 1-5, a, c, g, g, i, h, m

Remarks:

- 1) This course does not require previous experience with computers.
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Read Chapter II, *Predicate Logic: Semantics and Validity*, pp. 13-27
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Ex. 2-4, a, c, e, g, i
Ex. 2-5(b), b1, b3, b5, b7, b9
Ex. 2-6, a, c, e, g, h (added)
Read Chapter III, *More About Quantifiers*, pp. 28-39
Ex. 3-1, a, c, e, f
Ex. 3-2, a, c, e, g, i
Read Chapter IV, *Transcription*, pp. 40-61
Ex. 4-3, a, c, e, g, i, k, m, o
Ex. 4-4, a, c, e, g, g, k, r, s, w, x, aa
Read Handout "Translation Strategies: Successive Refinement"
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