GRANDE PRAIRIE REGIONAL COLLEGE
DEPARTMENT OF COMMERCE AND EDUCATION

PH 1250
Practical Logic
3 (3-0-0) UT
Winter 2003

Instructor: Ruth Michaels
Office: C212
Office hours: TBA

Phone: 539-2866
email: rmichaels@gprc.ab.ca
Lecture/No pre-requisites

Calendar Description
Elementary methods and principles for analysing arguments will be covered. Topics may include informal fallacies, introduction of scientific method, elementary statistical reasoning, elementary propositional logic, rational decision procedures.

Content Description
The first, and shortest, section of the course will focus on identifying and determining the relationship between premises and conclusions in ordinary language arguments, and on learning some of the informal fallacies. The other two sections of the course will examine the two major kinds of argument, deductive arguments and inductive arguments. We will focus on developing facility in assessing the validity of syllogistic argument forms (deductive argument forms) and in assessing arguments based on analogy, causal connections, probabilistic reasoning and statistical reasoning (that is, inductive argument forms). An online tutorial programme accompanies the textbook. Use of the programme is optional but students will find that consistent use of the tutorial aids improves their performance in the course.

Texts
Copi, Irving M. and Cohen, Carl, *Introduction to Logic*, 11th edition
Class handouts on Fallacies, truth functional logic and statistical reasoning.

Timeline
(A detailed syllabus will be distributed on the first day of classes.)
Week One: What is an argument? Recognising arguments
Week Two: Parts of Arguments, Truth Functional Logic
Week Three-Four: Fallacies
Week Five-Nine: Deduction
Week Ten-Thirteen: Induction

Evaluation

- 10 problem sets..35%
- 2 Midterm Exams...each 20%
- Final, registrar scheduled, examination...25%
- 5 Optional Bonus Assignments (analyses of arguments in the media)..............10%

Office Hours

Classroom instruction does *not* include tutorial on how to approach specific exercises in logic. One group "office hour" will be scheduled each week to allow students to address questions about specific logic exercises in the text and on the problem sets. This hour is arranged to accommodate student schedules. Regular office hours are available to students who have questions about logic exercises, assignments and class content. The online tutorials associated with the textbook are also an excellent source of tutorial instruction available to students.

Evaluation Policies

Assignments are due at the beginning of class on the day that they are due. Solutions to the problem sets are posted immediately following that class (outside the instructor's office and in the PH1250 binder available at the Reserve Desk of the Library), therefore late assignments will not be accepted. Extensions of assignment deadlines will be considered *only* in the case of significant extenuating circumstances. Students are expected to begin work on assignments on the day the assignment is made and should not expect to be able to complete a problem set in a single evening. Students requesting extensions may be asked to show evidence of work done prior to requesting an extension. Requests for extensions will not be considered on the day materials are due. Students in circumstances of extreme duress should notify the instructor as soon as possible if they anticipate difficulty submitting their work on time.

A missed midterm exam may or may not be re-scheduled at the discretion of the instructor. A missed final exam will be dealt with according to GPRC policy regarding absence from a final exam (see your Student Handbook).

Absences

Students should be aware that they are expected to meet their academic responsibility to attend classes. The instructor reserves the right to debar a student from writing the final exam when the student has accumulated more than 10% (2-3 classes) unexcused absences. Absences will be excused on the basis of verifiable illness, dentistry, accident, or emergency. If any student is unable to attend a particular class it is his/her responsibility to ascertain what has been missed. In addition, students should not make plans for travel, holidays, employment etc. which will interfere with their writing of exams during any scheduled examination time.

Plagiarism and Cheating

Students are encouraged to form study groups and to work through logic problems together, however, assignments must be the independent work of the individual seeking credit for the assignment and students should be prepared to demonstrate that the work they turn in is their own. Assignments that are copied from the work of other students will be considered instances of cheating and will be dealt with as indicated under GPRC policy concerning Student Responsibilities, Plagiarism and Cheating.

Students are responsible for familiarizing themselves with Student Rights and Responsibilities. This information can be found in the GPRC calendar and in the Student Handbook.

GRANDE PRAIRIE REGIONAL COLLEGE
DEPARTMENT OF ARTS, COMMERCE AND EDUCATION

PH 1250
Practical Logic
3 (3-0-0) UT
Winter 2003

Detailed Syllabus
(This syllabus is tentative. It is open to revision.)

Week #1
* Introduction
* Arguments, Chapter 1: 1.1, 1.2, 1.3, 1.4A, 1.5, 1.6

Week #2
* Informal fallacies, Chapter 4: 4.1, Handout
* Informal fallacies continued

Week #3
* Deduction: validity and truth, Chapter 1: 1.7, 1.9, Chapter 5: 5.1
* Types of propositions, truth-functional logic, Chapter 8: 8.2, Handout

Week #4
* Diagramming arguments, Chapter 1: 1.10
* Categorical propositions, Venn diagrams, Chapter 5: 5.2, 5.3

Week #5
* Square of opposition, Chapter 5: 5.4
* Other immediate inferences, Chapter 5: 5.5

Week #6
* Existential import, the Boolean square, schemas, Chapter 5: 5.6, 5.7
* Standard form categorical syllogisms, Venn diagrams, Chapter 6: 6.1, 6.2, 6.3

Week #7
* Rules & Fallacies, Chapter 6: 6.4
* The 15 valid forms, Chapter 6: 6.5

Week #8
* Arguments in Ordinary Language, Chapter 7: 7.1, 7.2, 7.3, 7.4, 7.5
* **Midterm Examination**

Week #9

- Arguments in ordinary language continued
- Disjunctive & hypothetical syllogisms, dilemma, Chapter 7: 7.7, 7.8

Week #10

- Exercises, conclusion of deductive arguments
- Induction, arg. by analogy, appraising analogical arg., Chapter 1: 1.8, Chapter 11: 11.1, 11.2

Week #11

- Refutation by logical analogy, Chapter 11: 11.3
- Exercises, conclusion of arg. by analogy

Week #12

- Mill's Methods, Chapter 12: 12.1, 12.2
- Mill's Methods continued, Chapter 12: 12.3

Week #13

- Probability, Chapter 1: 1.8, Chapter 14 summary, handout
- Statistical reasoning, handout

Week #14

- Statistical Reasoning continued
- Review for final examination