Syllabus
Logic (PHI 2102) 3 credits

Instructor:	Lab Section Leader:
Office: Office Hours:	Office Hours:
E-mail Address:	E-mail Address:

Description: This course introduces students to the methods of deductive argument employed in syllogistic, propositional, and predicate logic.

Objectives: Central to the course is the notion of *validity*, a property of arguments whereby if the premises of the argument are true then it is impossible for the conclusion to be false. Students may expect to learn about validity as well as other techniques of analyzing and evaluating arguments. We will cover in detail three ways of analyzing and evaluating the logic of arguments. THE FIRST WAY is the theory of the syllogism, a logic that deals only with class membership; THE SECOND WAY is the logical system built around whole propositions; and THE THIRD WAY is predicate logic and consists of a combination of ideas found in the first two ways.
Syllogistic logic concerns class membership as expressed the four standard categorical statements, i.e.,

(1) All wombats are marsupials

(2) No marsupials are penguins

(3) Some animals are marsupials

(4) Some animals are not penguins

What might these statements imply when appropriately joined together? For one, given (2) are (3) as premises, (4) validly follows. Syllogistic logic specifies the rules for what can and cannot be deduced from such statements.

Frequently, we argue in terms of whole propositions, not classes. For example,

(5) If this rose is red, then either it is not blue or I am color blind

is not a statement whose logical structure concerns classes. Rather, it is a conditional statement, which, if taken in conjunction with

(6) This rose is red

leads validly to the conclusion that

(7) This rose is either not blue or else I am color blind

By studying propositional logic, you will see that complex strings of propositions can be joined to form long arguments, and that one can use a set of rules to prove that such arguments are valid.
Predicate logic takes propositional logic and adds some devices for representing the logic of quantified statements. As with syllogistic logic, but using a different language, we are then able to mark the difference between asserting, for example, that *some* roses are red versus saying *all* roses are red.

IFP General Education Outcomes:

1. Knowledge in several different disciplines;
2. The ability to think critically;
3. The ability to communicate effectively;
4. An appreciation for how knowledge is discovered, challenged, and transformed as it advances;
5. An understanding of ethics and ethical behavior.

Information available at http://www.fau.edu/deanugstudies/NewGeneralEdCurriculum.php

General Education: This course satisfies, in part, the general education requirements for Foundations of Mathematics and Quantitative Reasoning.
http://www.science.fau.edu/student_services/student_info_gen_edu.php

Software: None

Materials: None

Website: None

Attendance Policy: Regular attendance is expected, including active involvement in all class sessions, and professional conduct in class. Students are responsible for arranging to make up work missed because of legitimate class absence, such as illness, family emergencies, military obligation, court-imposed legal obligations, or participation in university-approved activities. It is the student's responsibility to notify the instructor prior to any anticipated absence, and within a reasonable amount of time after an unanticipated absence.

Tutoring: PS 111/112 from M--F; please see the schedule at http://www.math.fau.edu/MLC for tutors and hours of operation.

Course Grade:

Homework	20%
In Class Quizzes	20%
Exams	20%
Comprehensive Final exam	40%

Grading Scale:

Percentage:	93%-100%	90%-92%	87%-89%	83%-86%	80%-82%	75%-79%	65%-74%	60%-64%	55%-59%	0%-54%
Grade:	A	A-	B+	B	B-	C+	C	D	D-	F

Homework: Homework is due in duplicate at the start of class. Full points are given for satisfactorily completed work, partial points for work that is incomplete. Homework that is submitted a week after the due date will receive half of the points, zero thereafter. The lowest homework grade is dropped.

Exams: Comprehensive unit exams (including a final exam) will be given on the days and times stated in the course calendar, in rooms to be assigned. *Every exam will count towards your final grade.* Students are only allowed a number 2 pencil, eraser, scientific calculator, and valid picture ID during a testing session. DO NOT BRING CELL PHONES, BOOKS, BOOK BAGS, NOTES, OR ANY OTHER ITEMS TO THE EXAM ROOM! *Entrance to the exam requires a valid picture identification card:* Only FAU Owl Cards, U.S. Passports, or Florida Driver's Licenses will be accepted!

Comprehensive Final Exam: Duration - 150 minutes. Date, location and time will be announced in class. *You must take the final exam to receive a passing grade!*

Makeup Exams: Makeup exams will be given only under exceptional circumstances. *If you miss an exam, you must provide a written, verifiable excuse, if possible in advance of the scheduled exam.* Approval for a makeup exam must be obtained from your instructor.

Classroom Etiquette : Please refer to the FAU Code of Conduct available at http://www.fau.edu/regulations/chapter4/4.007_Student_Code_of_Conduct.pdf.

Academic Honesty: Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the university mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the university community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see University Regulation 4.001 at
http://www.fau.edu/regulations/chapter4/4.001_Code_of_Academic_Integrity.pdf

Students With Disabilities: In compliance with the Americans with Disabilities Act (ADA), students who require special accommodation due to a disability to properly execute coursework must register with the Office for Students with Disabilities (OSD) and follow all OSD procedures. In Boca Raton, SU 133 (561-297-3880); in Davie, MOD 1 (954-236-1222); in Jupiter, SR 117 (561-799-8585); or at the Treasure Coast, CO 128 (772-873-3305). OSD website at http://www.osd.fau.edu.

Included course topics are subject to reasonable changes at the discretion of the instructor.