Math 1030 Schedule Spring 2006

Date	Lecture Topic	Assignment Due
Jan 9	3.1	
Jan 10	3.2	
Jan 11	Help Session (optional)	
Jan 12	3.3	**3.1:** **A:** Read page 88. Put a ✓ to show you did it. **3.1: 2,4,5,7,8,11** For these problems, if the sentence isn't a statement, explain why. **B:** Determine whether *This sentence is false* is a statement. If it isn't, explain why. **C:** Determine whether *Prunes are a good source of Vitamin A* is a statement. If it is not, explain why. **3.1: 14,15,17,20,21,23,26,28,30,31,33,36-38,41,43-46,48** **D:** Which is true, p or $\sim p$? *p: Cedar City is in Southern Utah.* **E:** Which is true, p or $\sim p$? *p: Five is not a prime number.* **F:** Represent the following using Venn diagrams. *No A are B.* *All A are B.* *Some but not all A are B.* **G:** List five resources for math help. **H:** Where is my office and what are my office hours? **I:** Where is the Student Success Center? **J:** Visit the Math 1030 website on WebCT. Put a ✓ to show you did it. **3.2:** **3.2: 5-8** **3.2: 9-12** For these problems, indicate whether the statement is true or false. **3.2: 25,27,30,31,33,37,42,49,53,58,68** **A:** Write the following statements in symbolic form. *to be or not to be* *If you buy your girlfriend flowers, she will love you.* *If you love your kids, buy them this toy.* *He will apologize if she apologizes, and she will apologize if he apologizes.* **3.2: 69-73** **B:** What does *iff* stand for? **C:** Represent the following using Venn diagrams. $A \rightarrow B$. $\sim A \rightarrow \sim B$. $A \rightarrow \sim B$. **D:** Write two statements p and q such that $p \rightarrow q$ is true but $q \rightarrow p$ is false. **E:** Write two statements p and q such that $p \leftrightarrow q$ is true.
Jan 13	3.4	
Jan 16	Martin Luther King Jr. Holiday	
Jan 17	3.4	**3.3:** **3.3: 1,4,6,8,9,11,13,15-17,23,26,33** **A:** Use De Morgan's law to write an equivalent statement: *x is not 5 or x is not -3*. **3.3: 37,38,51-54,61** **B:** True or false? *All of the elephants in this room are pink.* Explain.

Jan 18	Help Session (optional)	
Jan 19	3.5	**3.4:** **3.4: 1,4,5,10,11,13,18,23,25,51,52,56,57,68,69,73** **A:** Create your own tautology. **3.4: 78** **B:** Consider *I'll take you out to eat if and only if you get an A*. If I take you out to eat, did you get an A? Explain. **C:** In the book *Artemis Fowl* by Eoin Colfer, Artemis tells the fairies "None of your race has permission to enter here while I'm alive." The fairies conclude that if he is dead, they have permission to enter. Write Artemis's statement and the fairies' conclusion in symbolic form. Is the fairies' logic valid? Explain.
Jan 20	3.5	
Jan 23	3.6	**3.5:** **3.5: 1,4,6,7,10,11,13,14,16-18,20,23,27,29-31,34-37,39,43,46,51,54,57,61,65,67, 68,73,76** **A:** Write the negation of *96% of the patients are women*. **B:** Why is the following not the negation of the above statement? *96% of the patients are not women*. **C:** Can a statement be not necessarily true? Explain. **D:** Define counterexample. **E:** How many counterexamples are needed to prove a statement false? **3.5: 77** For 77, do not use "not necessarily true." Just use "true" or "false." **3.5: 80,82,83,85,86,90**
Jan 24	Review	**3.6:** **3.6: 1,6** **A:** Use a truth table to determine whether the argument is valid. $\begin{array}{l} p \to \sim q \\ \sim q \\ \hline \therefore p \end{array}$ **B:** Translate the argument into symbolic form. Use a truth table to determine whether the argument is valid. If I think, then I am. I think._____. $\therefore$ I am. **3.6: 11,14** **3.6: 29-31,37-39** For these problems, give the names of the arguments. **3.6: 45-47,49,50,55** **C:** What is wrong with the following argument? If you work hard enough, you can be in the Olympics. You were not in the Olympics._____. $\therefore$ You did not work hard enough.
Jan 25	Help Session (optional)	
Jan 26	Chapter 3 Test	Chapter 3 Extra Credit Review
Jan 27	8.1	