Instructor: Filix Maisch  
e-mail: maischf@math.oregonstate.edu  
Meetings: MWF 1 - 1:50 PM  
Room: Kidder 350  
Office: Kidder 332  
Web: people.oregonstate.edu/~maischf/  
Attendance: Regular attendance will be expected, but roll will not be taken.  
Honor Code: Students are expected to be familiar with Oregon State University’s Statement of Expectations for Student Conduct. Please review this statement at the following web link: http://oregonstate.edu/admin/stucon/achon.htm  
Accommodations: Accommodations are collaborative efforts between students, faculty and Disability Access Services (DAS). Students with accommodations approved through DAS are responsible for contacting the faculty member in charge of the course prior to or during the first week of the term. Students who believe they are eligible for accommodations should contact DAS immediately at 737-4098.  
Course Description: Elementary logic and set theory, functions and relations, direct proof techniques, contradiction and contraposition, mathematical induction and recursion, elementary combinatorics, basic graph theory, and minimal spanning trees.  
Prerequisites: Placement in MTH 251  
Schedule: See web for tentative term schedule.  
Evaluation: Your grade is determined by recitation quizzes, unannounced in-class true-false discussion quizzes, one midterm, and a final. Here is the point breakdown:  
• T/F Quizzes - 30 (4 quizzes worth 10 points each, but only the top three count.)  
• Recitation quizzes - 80 (9 quizzes worth 10 points each, but only the top eight count.)  
• Midterm - 100 (May 2nd, 2014, in class.)  
• Final - 140 (7:30 AM on Wed. June 11th. Location: TBA)  
Grades will not be harder than:  
315 - 350 A/A-, 280 - 314 B+/B-, 245 - 279 C+/C, 210 - 244 D, 0 - 209 F.  
I do not use blackboard. A “keep track of my own grade” sheet is included at the end of this syllabus.  
Resources: The Math Learning Center is in Kidder 108H and is a great place to drop in for help. It is open from 9 AM to 4 PM, Monday through Friday, from the second week onward.  
Tests: No calculators are allowed (answers can be left unsimplified). You are allowed both sides of one 3x5 inch handwritten note card for the midterm and both sides of one 4x6 inch handwritten note card for the final exam.  
T-F Quizzes: No resources are allowed on the unannounced in-class true-false discussion quizzes, but you are intended to discuss your reasoning with your fellow students. No make-ups are allowed unless you have a verifiable and documented emergency.
Recitation Quizzes: There is no recitation during the first week. There is a list of strongly suggested homework exercises on the web page. Homework will not be collected, but you are expected to do it. Every week, starting the second week your TA will put some random problems from the week’s suggested homework on that week’s recitation quiz. You are not allowed to use notes nor completed homework on these quizzes. Calculators are also not allowed (answers can be left unsimplified). Make-ups are given at the discretion of your TA. Do not e-mail your instructor regarding making-up a recitation quiz.

Specific Learning Outcomes:
1. Apply basic set operations and DeMorgan’s Laws. Apply propositional calculus.
2. Negate compound and quantified statements. Form contrapositives.
3. Construct direct proofs (from definitions) of simple statements.
4. Apply the Principle of Mathematical Induction.
5. Demonstrate an understanding of the construction of proofs by contradiction and contraposition.
6. Demonstrate an understanding of basic properties of binary relations and functions.
7. Construct complete explanations for solutions to counting problems.
8. Understand and use the matrix representation of finite graphs.
9. Use at least one algorithm for finding a minimal spanning tree in a connected graph.
Write down your scores!

(1) Recitation quiz 1: ......out of 10
(2) Recitation quiz 2: ......out of 10
(3) Recitation quiz 3: ......out of 10
(4) Recitation quiz 4: ......out of 10
(5) Recitation quiz 5: ......out of 10
(6) Recitation quiz 6: ......out of 10
(7) Recitation quiz 7: ......out of 10
(8) Recitation quiz 8: ......out of 10
(9) Recitation quiz 9: ......out of 10
(10) Best 8 of 9 homework quizzes: ......out of 80
(11) True-false quiz 1: ......out of 10
(12) True-false quiz 2: ......out of 10
(13) True-false quiz 3: ......out of 10
(14) True-false quiz 4: ......out of 10
(15) Best 3 of 4 true-false quizzes: ......out of 30
(16) Midterm: ......out of 100
(17) Final: ......out of 140