Math 355 - 75196 - Discrete Mathematics (3)
Syllabus - OSU - Summer 2015

Instructor: Filix Maisch e-mail: maischf@math.oregonstate.edu
Meetings: MWF 10 - 11:20 AM Room: Waldo 244
Office: Bexell 429 or Kidder 368E or TBAD (in transition)
Off. hrs: MW 11:30 - 12:30 and by appt. during 1 – 3 PM on MWF
Required Text: A Discrete Transition To Advanced Mathematics, by Bettina Richmond, Thomas Richmond.
Web: people.oregonstate.edu/~maischf/
Attendance: Regular attendance will be expected.
Honor Code: Students are expected to be familiar with Oregon State University’s Student Conduct Code. Please review this statement at the following web link:
http://studentlife.oregonstate.edu/studentconduct/university-policies
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: Proof analysis and development in the context of discrete mathematics for math majors transitioning to upper-division course work. Topics include elementary logic and set theory, quantifiers, basic counting principles, elementary combinatorics, equivalence relations, the binomial theorem, and mathematical induction. Additional topics may include recurrence relations, generating functions, and introductory graph theory.
Prerequisites: MTH 253 (with MTH 341 recommended)
Schedule: See web for tentative term schedule.
Evaluation: Your grade is determined by 6 homework assignments, a midterm, and a final. Here is the point breakdown:
  • Homework - 125 (6 homework scores worth 25 points each. One is for “extra credit.”)
  • Midterm - 75 (Monday, July 20th, in-class)
  • Final - 100 (Friday, August 14th, in-class)
Grades will not be harder than:
270 - 300 A/A-, 240 - 269 B+/B/B-, 210 - 239 C+/C, 180 - 209 D, 0 - 179 F.
I do not use blackboard/canvas for this course. A “keep track of my own grade” sheet is included at the end of this syllabus.
Resources: Your primary resource is me. Make a note of my office hours and come by as soon as you have any questions related to your study of discrete math. Another resource is the Math Learning Center (aka MLC) in Kidder 108H, which is a great place to drop in for help (but please be aware that not all tutors in the MLC will be able to help you with this material). It is open from 9 AM to 4 PM, Monday through Friday, from the second week onward.
Homework: The homework assignments are available on the course web page and the due dates are shown on tentative term calendar. Late homework will not be accepted. If for some reason you have to miss a class on a day homework is due, you may either slide it under my office door or scan and e-mail me your assignment (no later than noon the day the assignment is due).

Tests: Calculators and/or notes are NOT allowed on the midterm nor on the final. Tests cannot be made-up/rescheduled without an extremely compelling reason.

Specific Learning Outcomes: Upon completing MTH 355 a successful student is expected to be able to...

(1) ...construct simple proofs using various proof techniques.
(2) ...construct an inductive argument.
(3) ...solve combinatorics problems.
(4) ...utilize properties of functions and their inverses.
(5) ...be able to identify and understand relations and their properties (in particular, equivalence relations).

Write down your scores!

(1) Homework 1: ......out of 25
(2) Homework 2: ......out of 25
(3) Homework 3: ......out of 25
(4) Homework 4: ......out of 25
(5) Homework 5: ......out of 25
(6) Homework 6: ......out of 25
(7) Midterm: ......out of 75
(8) Final: ......out of 100