

# MAT283: Introduction to the Concepts of Mathematics

## Fall 2011

**Time:** MWF 9:30-10:20

**Room:** MWF ARM 315

**Instructor:** Ryan Hansen

**Office:** 305G Armstrong Hall

**Phone:** (304) 293-2011 x2314

**Email:** rhansen@math.wvu.edu

**Office Hours:** Mon: 11:30 pm – 1:00 pm

Wed: 2:00 pm – 3:15 pm

Otherwise: By Appointment

### Course Information

**Course Homepage:** <http://math.wvu.edu/~rhansen/283>

**Text:** Required:

1. *Mathematical Thinking: Problem-Solving And Proofs*, 2nd Ed., John P D'Angelo & Douglas B. West (ISBN10: 0-13-014412-6, ISBN13: 978-0-13-014412-6)

Recommended:

1. *A Student's Guide to the Study , Practice, and Tools of Modern Mathematics*, Donald Bindner, Martin Ericson (ISBN10: 1-43-984606-3, ISBN13: 978-1-4398-4606-3)
2. *Mathematical Proofs: A Transition to Advanced Mathematics*, Gary Chartrand, Albert D. Polimeni, Ping Zhang (ISBN10: 0-321-39053-9, ISBN13: 978-0-321-39053-0)

**Classroom:** Mondays, Wednesdays, Fridays: Armstrong 315 from 9:30-10:20

**Pre-requisites:** MAT 156

### Objectives:

Topics covered in this course may include elementary logic, basic theory, relations and functions, equivalence relations and decomposition of sets, order relations, and cardinality. This course will emphasize techniques for proving theorems.

## Evaluation:

Assessment	Percentage
Assignments	15
Test 1	20
Test 2	20
Test 3	20
Final Exam	25

## Working Together:

While working together or in groups is often useful, you must acknowledge (list sources of help for) any work that you have not done solely on your own. Furthermore, I have the following advice: try to work on the assignments by yourself first before discussing the problems with course-mates. After this discussion, write the solution on your own, by yourself, to ensure that you understand the idea. I am always available for discussion as well. A few well asked questions may clarify the problem.

If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class, you must make appropriate arrangements with Disability Services (293-6700).

West Virginia University is committed to social justice. This course conforms to that commitment by fostering a nurturing learning environment based upon open communication, mutual respect, and non-discrimination. Our University does not discriminate on the basis of race, sex, age, disability, veteran status, religion, sexual orientation, color or national origin. Any suggestions as to how to further such a positive and open environment in this class will be appreciated and given serious consideration.

The integrity of the classes offered by any academic institution solidifies the foundation of its mission and cannot be sacrificed to expediency, ignorance, or blatant fraud. Therefore, I will enforce rigorous standards of academic integrity in all aspects and assignments of this course. For the detailed policy of West Virginia University regarding the definitions of acts considered to fall under academic dishonesty and possible ensuing sanctions, please see the Student Conduct Code at <http://studentlife.wvu.edu/studentconductcode.html>. Should you have any questions about possibly improper research citations or references, or any other activity that may be interpreted as an attempt at academic dishonesty, please see me before the assignment is due to discuss the matter.