SYLLABUS
Set Theory and Applications (math 783.1) SPRING 2016

INSTRUCTOR:	Dr. Krzysztof Chris Ciesielski
OFFICE HOURS:	T, Th 3:30-5:15pm and by appointment
OFFICE:	308G Armstrong Hall
CLASS MEETING TIMES:	T, Th 7:30-8:45pm
CLASS MEETING PLACE:	313 Armstrong Hall
WEB PAGE:	www.math.wvu.edu/~kcies
TEXT:	Krzysztof Ciesielski, *Set Theory for the Working Mathematician*, London Math. Soc. Stud. Texts **39**, Cambridge Univ. Press 1997, see http://www.math.wvu.edu/~kcies/STbook.html
TENTATIVE GRADING SCHEME:	Homework & Quizzes 30%
	Mid Term Test 30%
	Final Test 40%
FINAL EXAM:	The final exam will be comprehensive and will be given during the last class of the course, that is, on Thursday, April 28, 7:30-9:30pm, as specified by WVU standard finals schedule.

This course is a sequel of the set theory course math 683 given in Fall 2015. In particular, it is assumed that the participants are acquainted with the material presented in the text in the first six chapters. I will especially heavily rely on the basic knowledge of the proofs by transfinite induction – the students are strongly encouraged to review with special care the examples presented in the section 6.1 from the text.

The emphasis of the course will be to further participants' mastery of the constructions by transfinite induction in basic form (Chapter 7) and with the help of additional set theoretical assumptions, like Martin's Axiom and diamond principle–the subject of Chapter 8.

Although there is a possibility of covering some material from Chapter 9, on forcing, this will depend of participants' mastery of the material leading to this point of the course.

To help you get through the difficulty of studying the abstract theory I will be regularly assigning you homework exercises. You will be expected to write the solutions, which I will correct. I will try to write you my comments in your solutions. I like also to emphasize that some of the exercises might be more difficult that the others and I will not expect you to solve all exercises during the semester. However, to be at the "A" level for the homework I will expect you to solve 70-80% of all homework assignments.

The questions and discussions will be encouraged. In particular, this kind of interaction may have an important influence on the pace and some aspects of the content of the course.