Mathematical Analysis I
(Fall 2017 dates)

Required text: S. Lay, *Analysis with an Introduction to Proof* (5th Edition, Pearson, 2014)

Classes	**Sections / Topics / Quiz / Test**
#1: Mon, Aug 28 #2: Wed, Aug 30 **Mon, Sep 4: no class** #3: Wed, Sep 6	**1.1** Logical Connectives **1.2** Quantifiers **1.3** Techniques of Proof I **1.4** Techniques of Proof II
#4: Mon, Sep 11 #5: Wed, Sep 13 #6: Mon, Sep 18 **Wed, Sep 20: no class** #7: Mon, Sep 25 #8: Wed, Sep 27	**QUIZ #1 on Chapter 1** **GO OVER QUIZ #1** **2.1** Basic Set Operations **2.2** Relations **2.3** Functions **2.4** Cardinality
#9: Mon, Oct 2 #10: Wed, Oct 4 **Mon, Oct 9: no class** #11: Wed, Oct 11 #12: Mon, Oct 16 #13: Wed, Oct 18 #14: Mon, Oct 23	**QUIZ #2 on Chapter 2** **3.1** Natural Numbers and Induction **3.2** Ordered Fields **3.3** Axioms of Continuity and Completeness, Archimedean Law **3.4** Topology of the Real Numbers **3.5** Compact Sets
#15: Wed, Oct 25 **#16: Mon, Oct 30: MIDTERM EXAM**	**QUIZ #3 on Chapter 3** **MIDTERM EXAM**
#17: Wed, Nov 1 #18: Mon, Nov 6 #19: Wed, Nov 8 #20: Mon, Nov 13	**4.1** Convergent Sequences **4.2** Limit Theorems **4.3** Monotone Sequences and Cauchy Sequences **4.4** Subsequences
#21: Wed, Nov 15 #22: Mon, Nov 20 #23: Wed, Nov 22 #24: Mon, Nov 27	**QUIZ #4 on Chapter 4** **5.1** Limits of Functions **5.2** Continuous Functions **5.3** Properties of Continuous Functions **5.4** Uniform Continuity
#25: Wed, Nov 29 #26: Mon, Dec 4	**QUIZ #5 on Chapter 5** **6.1** The Derivative **6.2** The Mean Value Theorem **6.3** L'Hospital's Rule **6.4** Taylor's Theorem
#27: Wed, Dec 6 #28: Mon, Dec 11 **Tue, Dec 12: LAST DAY OF CLASSES**	**QUIZ #6 on Chapter 6** and a speedy version of **7.1** The Riemann Integral **7.2** Properties of the Riemann Integral so we can end with **7.3** The Fundamental Theorem of Calculus
FINAL EXAM **Mon, Dec 18**	**FINAL EXAM REVIEW** **FINAL EXAM**