Course Announcement

Math 5154/Comp Eng 5803/Comp Sci 5203/Philos 4354

- Mathematical Logic I

Course Description:
A mathematical introduction to logic with some applications. Functional and relational languages, satisfaction, soundness and completeness theorems, compactness theorems. Examples from Mathematics, Philosophy, Computer Science, and/or Computer Engineering. Prerequisite: Philos 1115 with junior standing or Math 5105 or Comp Sci 2500, or Comp Eng 2210, consent of instructor. (Co-listed with Philos 4354 and Comp Sci 5203 and Comp Eng 5803)

Instructor:  Dr. Matt Insall [insall@mst.edu, (573)341-4901, 315 Rolla Bldg, Rolla Campus]

Textbooks:
ALL:  
``The Logic of Thermostatistical Physics’’, by Gerard Emch and Chuang Liu  
``Models and Ultraproducts:  An Introduction’’, by John Bell and Alan Slomson  

Math 5154:  ```Proof Theory’’,  
by Gaisi Takeuti,  
Dover Publications  
``Nonstandard Methods in Stochastic Analysis and Mathematical Physics'',  
by Raphael Høegh-Krohn, Sergio Albeverio, Tom Lindstrøm, Jens Erik  
Dover Publications  

Comp Eng 5803:  
``Mathematical Theory of Computation’’, by Zohar Manna  
Dover Publications  
``Learning Automata: An Introduction''  
By: Kumpati S. Narendra, Mandayam A.L. Thathachar  
Dover Publications
   Dover Publications
``The Undecidable: Basic Papers on Undecidable Propositions, Unsolvable
Problems and Computable Functions By: Prof. Martin Davis”
   Dover Publications

Philos 4354: "Natural Deduction: A Proof-Theoretical Study By: Dag Prawitz
   Dover Publications
``An Introduction to Stability Theory", By: Anand Pillay
   Dover Publications

Location: 260 Toomey Hall (Hybrid Class)

Semester: Summer 2015, Second 4 Week Session

Time offered: MTWThF 12:40 to 2:50 PM, from 02 July to 27 July

Credit: 3 Units

Distance Course IDs: 1DI4 70872 (for Computer Engineering), 1DI4 70869 (for Mathematics), 1DI4 70870 (for Computer Science), 1DI4 70871 (for Philosophy)

On Campus Course IDs: 70858 (for Mathematics), 70861 (for Philosophy), 70860 (for Computer Science), 70859 (for Computer Engineering)

Note: If you would like to take this course in a regular semester, or, if you cannot take it this summer but would like to take it next year, please email Dr. Insall, at insall@mst.edu.