CMSC 691
Special Topics in Computer Science
Spring, 1992
Logic for Computer Science

Instructor: Dr. Howard E. Motteler
Time: TuTh 5:30–6:45, SS 209
Text: Logic: A Foundation for Computer Science, Sperschneider & Antoniou

Course Outline:
1. Predicate Logic
   Syntax
   Semantics
   Proof theory
   Predicate logic with equality
   Model theory
2. Equational Logic
   Birkhoff’s calculus
   Term rewriting systems
   Applications in specification
   Applications in process theory
3. Logic Programming and Prolog
   Horn Logic
   Soundness and completeness
   Applications
   Procedural interpretation
4. Hoare Logic (as time permits)

Grading: Grading will be based on regular problem sets. There may be one or two short projects in Prolog or Equational Logic. There will be one assignment due approximately every two weeks.