All students are assumed to have an excellent knowledge of the major pre-requisite for this class, namely EE 101, i.e. a basic course in logic design. Excellent books covering this material include:


Good sources of material that cover the main topics of EE658 include:


Some optional sources for further reading include:

4. One can go to the Internet and possibly find other materials, such as course lecture notes and/or surveys presented at conferences.

The exam will stress concepts. As a trivial example from EE 101, a freshman class on logic design, we all understand how to find all the prime implicants of a Boolean switching function using a Karnaugh map. But do you know things like: the precise definition of a prime implicant; the difference between essential, redundant, and non-essential irredundant prime implicants; the reason we seek the prime implicants rather than just the implicants of a function; and, if there can be more prime implicants than minterms? For each area (topic) you study, ask yourself the following questions: what are the significant contributions in this area, who made them, and can I clearly describe them; why are these contributions significant; how is this information relevant today, and in the near future;
what are the associated counting/enumeration/complexity issues associated with any important algorithmic techniques in this field.

***************

Please be aware that these references are for guidance in BASIC knowledge. Ph.D. candidates are screened on the basis of talent, course knowledge, independent reading and experience.

***************