

**ECE 3544: Digital Design I**  
**Project 3 (Part A) – Design and Synthesis of a Magnitude Comparator System**

Student Name: Jacob Abel

Honor Code Pledge: I have neither given nor received unauthorized assistance on this assignment.



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**Grading: The design project will be graded on a 100 point basis, as shown below:**

*Manner of Presentation (30 points)*

- \_\_\_\_\_ Completed cover sheet included with report (5 points)
- \_\_\_\_\_ Organization: Clear, concise presentation of content; Use of appropriate, well-organized sections (15 points)
- \_\_\_\_\_ Mechanics: Spelling and grammar (10 points)

*Technical Merit (70 points)*

- \_\_\_\_\_ General discussion: *Did you describe the objectives in your own words? Did you discuss your conclusions and the lessons you learned from the assignment?* (5 points)
- \_\_\_\_\_ Design discussion: *Did you discuss the approach you took to designing any original modules? Did you discuss the approach you took to assembling the top-level module?* (10 points)
- \_\_\_\_\_ Testing discussion: *What was your approach to formulating your test benches? How did you verify the correctness of the modules you designed?* (5 points)
- \_\_\_\_\_ Supporting figures: *Waveforms showing correct operation of the top-level module.* (10 points)
- \_\_\_\_\_ Supporting files: *Do the modules pass any tests applied by the grading staff? Modules whose declarations do not conform to the requirements of the project specification cannot be tested, and will receive no credit.* (15 points)
- \_\_\_\_\_ Validation of the final design on the DE1-SOC board (25 points): *Modules that exhibit the correct behavior but do not represent the correct implementation will receive no credit.*

===== **Project Grade**