ECE 3544: Digital Design I

Project 5 – Datapath and Finite State Machine Design

Student Name:

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

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

*Manner of Presentation (30 points)*

/ 5 Completed cover sheet included with report

/ 15 Organization: Clear, concise presentation of content; Use of appropriate, well-organized sections

/ 10 Mechanics: Spelling and grammar

*Technical Merit (70 points)*

/ 5 General discussion: *Did you describe the objectives in your own words? Did you discuss your other conclusions and the lessons you learned from the assignment?*

/ 15 Design discussion: *Did you discuss the approach you took to designing and implementing the modules that make up your system, and how you synthesized the system from its components?*

/ 5 State diagrams: *Does your state diagram model a system that performs the required tasks? Connect this discussion to your design discussion*.

/ 5 Testing discussion: *What was your approach to formulating your test benches? How did you verify the correctness of the modules you designed?*

/ 10 Supporting figures: *Waveforms showing correct operation of the top-level module.*

/ 30 Validation of the final design on the DE1-SoC board

**Project Grade**