

## **MECE-301 Engineering Applications Laboratory**

### **Assignment #6**

Create a LabVIEW subVI that could be used to assign letter grades to input numeric scores according to a “standard” model. That is, for any numeric score greater than or equal to a supplied “A” cutoff, assign a letter grade of “A”; for any grade greater than or equal to a “B” cutoff, but less than the “A” cutoff, assign a “B”; and so forth. Any grade less than the supplied “D” cutoff should receive an “F.”

Include the following specific features:

- Your subVI must minimally include a valid and appropriate connector pane, a meaningful and professional looking icon, and basic documentation to explain the purpose of the subVI.
- Make sure that the default values that appear in the subVI are consistent with the functionality required (that is, the values that show in the controls and indicators are actually correct for the functionality, and are not left as the datatype defaults).
- You should consider any supplied numeric score that is outside of the range of 0-100 to be an error, and act accordingly in your subVI (that is, include basic error handling).
- The input numeric score is to be a required input.
- The grade cutoffs are to be supplied as an optional input, bundled into a single cluster of numerics. Use the “standard” values for the defaults of 90, 80, 70, and 60 for the “A,” “B,” “C,” and “D” cutoffs, respectively.