# COSC 2779/2972 (Deep Learning)

## ASSIGNMENT 1 MARKING SHEET

### Approach (40%)

PA

**1)Data exploration leading to well informed approach.**
identified class imbalance in both emotion and AUs- good analysis.
Did not discover potential biases in the EDA stage - gender, racial imbalance etc. need to plot some images and observe at start
**2)Identifying an adequate evaluation framework that is tailored to the problem.**
identified suitable performance measures and target values - justification not adequate. Need f1 or other metric that accounts for classs imbalance.
**Random data splitting is not adequate** for this task. Need to do splitting by subject - data leakage.

**3)Well justified network architecture and objective**
Baseline established but not justified adequately. transfer learning should be used.

for FACS, Cross entropy is not adequate when class imbalance - need to use balanced version.
**should never use test data while developing model** - major error in ML.

**4)Hyper parameters selection strategy.**
done tuning hyper parameters - however correct process not used - using the bias variance tradeoff - learning curves.

**5)Approach satisfy all the requirements and restrictions.**
multi-task/data loader done. tranfer learning not done.

### Ultimate Judgment & analysis (30%)

PA

**1)Analysis of the model and the outputs using suitable methods.**
analysis not valid as test data used before finishing model dev.
Random splitting introduces bias.
Should do error analysis, based on different segments in data.
**2)Make a clear ultimate Judgment**
yes; somewhat justification
**3)Rational behind the ultimate model is clear and considers all the aspects.**
partial

**4)Limitations of the model identified.**
discussed but not adequate.

### Discussion on Ethical issues and biases (20%)

DI

adequate discssion.

### Implementation & Report Presentation (10%)

DI

code is adequately documented.
Report is adequate but need to link more with the code.

**Late Penalty (Days)** 0

**Final Total (Out of 30)** 19