**Introduction to Machine Learning for Materials Science Unit**

**Quiz Questions**

Instructions:

Quiz questions are separated by module and can either be given as a quiz at the end of class, or as homework to be completed outside of class.

Module 1: What is Machine Learning

1. If you wanted to build a machine learning model that can predict the hardness of a metal would that be a classification problem or a regression problem?
2. We can think of machine learning models as looking for patterns and making predictions based off of those patterns. Which component of a dataset does the model use as input to find those patterns?

Module 2: Supervised Learning Workflow 1

1. List 3 common problems with a dataset that would be handled during a data cleaning step.

Module 3: Supervised Learning Workflow 2

1. If you were going to set up a cross validation test and chose to do 10-Fold cross validation, what percentage of the dataset is set as testing data during each individual test of the process?

Module 4: Challenges in Materials Science Machine Learning

1. What is one solution to dealing with skewed data?

Module 5: Machine Learning Tools for Materials Science

1. List 2 tools that currently exist that enable you to perform a machine learning workflow