ECON 5370 – Take Home Quiz #4 (20 pts)

<u>Due</u>: Tuesday, April 10, 2018 (by 5 pm)

<u>Directions</u>. The goal of this assignment is to create a simulation-based 3D graph that tests the importance of the two instrumental variable assumptions – the *inclusion* and *exclusion* restrictions. One axis should measure the strength of the instrument varying from zero correlation with the right-hand-side endogenous variable to perfect correlation (i.e., the so-called inclusion restriction). The second axis should measure the strength of the correlation of the instrument with the error term (i.e., the so-called exclusion restriction). The third axis should measure the performance of instrumental variable estimation. Use MATLAB and a Monte Carlo simulation to create the 3D graph. Keep the model as simple as possible. Write two paragraphs interpreting the results, one for each assumption.