## ECONOMETRICS II, FALL 2024

## Homework 5. Due Wednesday October 2.

- 1. Simulate and estimate an ordered probit model using the posted Matlab code.
- 2. Use the posted Matlab code to simulate and estimate an exponential duration model. Truncate the outcomes at T=40 and estimate the exponential duration model with incomplete spells.
- 3. Instead assume the hazard  $\theta_i$  takes a logit form. Now simulate and estimate the model.
- 4. For the same simulated data as in question 3., generate a panel of observations with  $t_i$  observations for each individual i. (Generate a 0 for each period up till  $t_i 1$  and a 1 for  $t_i$ ). Now estimate the parameter using the logit code you used earlier and compare the results from 3.