

You should be prepared to answer questions related to the following items:

Deriving DTDS's from descriptions of scenarios (Medication examples, population examples)

Finding fixed points (equilibria) for a DTDS

Finding the general solution for a linear DTDS. Using this to find the time at which the parameter reaches a certain value

Cobwebbing to classify equilibria by stability

Reading a trig graph and finding the appropriate sin or cos equation, or taking a sin or cos equation and drawing a graph

Solving inequalities with the variable in the denominator, solving inequalities with absolute values

Evaluating limits (especially those that appear to be $0/0!$)

Continuity, making a piecewise function continuous

solving exponential and logarithmic equations

The midterm will be 75 minutes long. It is comprised of four multiple choice questions and five short answer questions, some of the latter having multiple components.