

## Homework Jan-11: Disease + Question + States & Processes

15 points total

By 9am on Thursday, January 11, please upload a Word document with your file to the corresponding Canvas assignment. Please follow the naming convention:

**HW\_Jan11\_DiseaseQ\_LastName\_FirstName.doc/docx**

For the assignment, please include the following in whatever format you choose:

1. Choose (and state) an infectious disease of interest that will be the focus of your final project (presentation + dynamical model + term paper). *(2 points)*
2. Formulate (and state) a research question about it the infectious disease that can be addressed with a dynamical model. *(5 points)*
3. List the 'states' and 'processes' associated with your research question. *(4 points for states, 4 points for processes)*

*Example from In-Class Discussion:*

**Disease:** COVID-19

### **Research Question:**

How does contact with the Parisian population at large influence the incidence of COVID-19 in the student population at the UChicago Center in Paris?

### **States**

Susceptible\_Parisians

Infected\_Parisians

Recovered\_Parisians

Susceptible\_UChicagoans

Infected\_UChicagoans

Recovered\_UChicagoans

### **Processes**

becoming infected (Parisians)

becoming infected (Chicagoans)

recovering from infection

coming into contact (Chicagoans with Parisians)