

## 3.2 Building the Contagion Model

Heckman Library 406C

Eric Araújo, and Jonathan Hill

**Keywords** agent-based modeling, social sciences, computational methods

---

### 1. 📖 SESSION A (LECTURE)

Contagion models: a brief overview.

- Overview of contagion models: SIR, SEIR, and agent-based approaches.
- Discussions on limitations: norms, emotions, networks.

☀️ [Contagion Models \(Slides\)](#)

---

### 2. 💻 SESSION B (LAB)

Contagion Model in NetLogo.

Building contagion models in NetLogo for spontaneous infections.

- [Slides with some of my research from the past \(some of it might be outdated\)](#)
- Deliverable: Lab memo #4 due next week.

📁 [Netlogo Code - Contagion Model](#)

---

### 3. 🧑‍🔬 ♀ **ASSIGNMENT:** LAB MEMO #4

**Due:** 10/16 before class | **Points:** 100 points

**Prompt (1-2 pages):**

Contagion model implementation & analysis

1. Implement a contagion model in NetLogo using the SEIR framework.
  2. Analyze the model's behavior under different parameters (e.g., transmission rate, recovery rate).
  3. Write your Lab Memo. You can [download the template in here](#).
  4. Make sure you add the codes you've changed, as well as interface modifications.
  5. Submit your Lab Memo in PDF format through Moodle.
-