# CDS 292: Network Analysis 

Syllabus Part 3

Spring, 2022

This syllabus is split into three parts:

1. Part 1: General Course description
2. Part 2: Instructors
3. Part 3: Calendar

Definition of a week: This semester, each week is defined from the beginning of Saturday (12:00 AM) to the end of the following Friday (11:59 PM)

## Snow Day Policy

If Mason is closed due to inclement weather on a class meeting day (only section 1), the class is canceled. Section DL will have no changes due to inclement weather.

## Calendar

|  |  |  |
| :--- | :--- | :--- |
| Calendar week | Lesson | Due dates |
| Jan 22-Jan 28 | Lesson 0: Navigating CDS |  |
|  | 292; Lesson 1: Tools | - FERPA form related to Colaboratory |
|  |  |  |
|  | use: Wednesday Jan 26th |  |


| Jan 29 - Feb 4 | Lesson 2: Building blocks <br> of networks |
| :--- | :--- |

- Colaboratory notebook: Wednesday Feb 2nd, by the end of the day (11:59 pm)
- Problem Set: Friday Feb 4th

| Feb 5-Feb 11 | Lesson 3 (part 1): Node |  |
| :--- | :--- | :--- |
|  | Degrees, Link Indicators, |  |
| Network Formulas, and | - Colaboratory notebook: Wednesday |  |
|  | Adjacency Matrices | Feb 9th |


| Feb 12 - Feb 18 | Lesson 3 (part 2): Node <br> Degrees, Link Indicators, <br> Network Formulas, and <br> Adjacency Matrices | - Colaboratory notebook: Wednesday Feb 16th <br> - Problem Set: Friday Feb 18th |
| :---: | :---: | :---: |
| Feb 19 - Feb 25 | Lesson 3 (part 3): Node Degrees, Link Indicators, Network Formulas, and Adjacency Matrices | - Colaboratory notebook: Wednesday Feb 23rd |

- Problem Set: Friday Feb 25 th
Feb 26 - Mar 4 Lesson 4 (part 1): His- tograms of Node Degrees
- Colaboratory notebook: Wednesday Mar 2nd
- Problem Set: Friday Mar 4th

| Mar 5-Mar 11 | Lesson 4 (part 2): His- <br> tograms of Node Degrees |
| :--- | :--- |

- Colaboratory notebook: Wednesday Mar 9th
- Problem Set: Friday Mar 11th

| Mar 19 - Mar 25 | Review and Midterm |  |
| :--- | :--- | :--- |
| Mar 26-Apr 1 | Lesson 5 (part 1): Paths in <br> networks | Midterm Available Mar 23rd |
|  |  | - Colaboratory notebook: Wednesday |
|  |  | Mar 30th |


| Apr 2-Apr 8 | Lesson 5 (part 2): Paths in <br> networks |
| :--- | :--- |

- Colaboratory notebook: Wednesday Apr 6th
- Problem Set: Friday Apr 8th

Apr 9-Apr 15 | Lesson 6: Shortest paths in |
| :--- |
| networks |

- Colaboratory notebook: Wednesday Apr 13th
- Problem Set: Friday Apr 15th

| Apr 16-Apr 22 | Lesson 7 (part 1): Trian- <br> gles, v-shapes and cluster- <br> ing |
| :--- | :--- |

- Colaboratory notebook: Wednesday Apr 20th
- Problem Set: Friday Apr 22nd

Apr 23 - Apr 29 Lesson 7 (part 2): Triangles, v-shapes and clustering

- Colaboratory notebook: Wednesday Apr 27th
- Problem Set: Friday Apr 29th

Apr 30 - May 6 Lesson 7 (part 3): Triangles, v-shapes and clustering

- Colaboratory notebook: Wednesday May 4th
- Problem Set: Friday May 6th

| May 9th - May 11th | Review Sessions |
| :--- | :--- |
| May 12th | Final Exam |

