2020/8/23 Schedule - CS 357

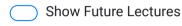
# Schedule

Home/Schedule

# Synchronous online lectures (Section N only):

Tuesdays 12:30pm - 1:45pm

Zoom link on course CampusWire



**Semester Progress** 

Aug

#### Week 16

Tue, Dec 08, lecture 29

none

**Group Activity 14:** Machine Learning

8 points

Wed, Dec 09

Last day of classes

#### Week 15

Tue, Dec 01, lecture 27

none

Sync lecture at: 12:30pm

**Group Activity 13: PCA** 

**MP 5:** Breast cancer prediction

8 points 24 points Thu, Dec 03, lecture 28

none

**HW 13:** Lecture 25

24 points

Dec

# Week 14

Tue, Nov 24

Fall break

Thu, Nov 26

Fall break

# Week 13

Tue, Nov 17, lecture 25

**Principal Component Analysis** 

Sync lecture at: 12:30pm

**Group Activity 12:** Least-squares + SVD

2 points

8 points

Thu, Nov 19, lecture 26

none

Quiz 5: Nonlinear, Opt, Least-squares, SVD (hw 9-11)

**Time:** 9:30am or 12:30pm

**Details:** Without remote proctoring

**HW 12:** Lecture 23-24

70 points

24 points

# Week 12

Tue, Nov 10, lecture 23

Least-squares + SVD

Sync lecture at: 12:30pm

**Group Activity 11:** Least-squares **MP 4:** Topology optimization

2 points

8 points

24 points

Thu, Nov 12, lecture 24 **SVD** applications

**HW 11:** Lecture 21-22

2 points

24 points

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#### Week 11

Tue, Nov 03, lecture 21

Least-squares (Normal Equations)

Sync lecture at: 12:30pm

**Group Activity 10:** Optimization

2 points

8 points

Thu, Nov 05, lecture 22

**Singular Value Decomposition** 

**HW 10:** Lecture 19-20

2 points 24 points

#### Week 10

Tue, Oct 27, lecture 19

**1D Optimization** 

Sync lecture at: 12:30pm

**Group Activity 9:** Nonlinear equations

MP 3: Basketball Rank

2 points

8 points

24 points

Thu, Oct 29, lecture 20 **ND Optimization** 

Quiz 4: Linsys, Eigenvalues, Markov, FD (hw 6-8)

**Time:** 9:30am or 12:30pm

**Details:** With (CBTF) remote proctoring

HW 9: Lecture 17-18

2 points

70 points

24 points

#### Week 9

Tue, Oct 20, lecture 17

1D Nonlinear System of Equations

Sync lecture at: 12:30pm

**Group Activity 8:** Markov Chains

2 points

8 points

Thu, Oct 22, lecture 18

ND Nonlinear System of Equations

**HW 8:** Lecture 15-16

2 points

24 points

#### Week 8

Tue, Oct 13, lecture 15

Markov chains

Sync lecture at: 12:30pm **Group Activity 7:** Eigenvalues

**MP 2:** Truss design

2 points

8 points

24 points

Thu, Oct 15, lecture 16 **Finite Difference Methods** 

**HW 7:** Lecture 13-14

2 points

24 points

# Week 7

Tue, Oct 06, lecture 13

Eigenvalues

Sync lecture at: 12:30pm

**Group Activity 6:** Linear Systems

2 points

8 points

Thu, Oct 08, lecture 14

Eigenvalues

Quiz 3: Taylor, MC, Matrices, Norms (hw 4-5)

**Time:** 9:30am or 12:30pm

**Details:** Without remote proctoring

**HW 6:** Lecture 11-12

2 points

70 points

24 points

# Week 6

Tue, Sep 29, lecture 11

Linear system of equations

Sync lecture at: 12:30pm

**Group Activity 5:** Matrices and Norms

MP 1: Texas Hold'em

2 points

8 points

24 points

Thu, Oct 01, lecture 12 Conditioning

**HW 5:** Lecture 9-10

2 points

24 points

# Week 5

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Tue, Sep 22, lecture 9

**Matrices and Norms** 

Sync lecture at: 12:30pm

**Group Activity 4:** Monte Carlo

2 points

8 points

Thu, Sep 24, lecture 10

Sparse systems + Linear System of Equations

Quiz 2: Errors, FP, IEEE, Rounding (hw 2-3)

**Time:** 9:30am or 12:30pm

**Details:** With CBTF remote proctoring

HW 4: Lectures 7-8

2 points

70 points

24 points

#### Week 4

Tue, Sep 15, lecture 7

**Taylor Series** 

Sync lecture at: 12:30pm **Group Activity 3:** Rounding 2 points

8 points

**Monte Carlo Methods** 

Thu, Sep 17, lecture 8

HW 3: Lectures 5-6

2 points

24 points

# Week 3

Tue, Sep 08, lecture 5

IEEE

Sync lecture at: 12:30pm

**Group Activity 2:** Floating Point

2 points

8 points

Thu, Sep 10, lecture 6

Rounding and cancellation

**Quiz 1:** Python, Linear Algebra (hw 1 + review)

**Time:** 9:30am or 12:30pm

**Details:** Without remote proctoring

HW 2: Lectures 3-4

2 points

70 points

24 points

#### Week 2

Tue, Sep 01, lecture 3

Errors, Big-O notation, plots

<u>lecture activity</u> • <u>annotated slides</u>

Sync lecture at: 12:30pm

**Group Activity 1:** Python

2 points

8 points

Thu, Sep 03, lecture 4 Floating Point

HW 1: Lectures 1-2

2 points

24 points

# Week 1

Tue, Aug 25, lecture 1

Course syllabus and introduction

No pre-recorded video (but I will post the zoom recording from the sync lectures)

Sync lecture at: 9:30am AND 12:30pm

Thu, Aug 27, lecture 2

**Python Intro** 

2 points

No pre-recorded video. Instead complete the self-guided Python notebook that is included in the lecture activity. Mariana will be available on Zoom today 10-11am and 1-2pm to provide additional help (use the office hours zoom link).

lecture activity