CSC 340 - Fall 2020 Schedule

Week 1 : Aug. 19 - 22
- Image formation
- Assignment 0: Image Handling Overview

Week 2 : Aug. 23 - 29
- Matrix Operations (Appendix 3 - Schilling)
- Assignment 0 Due
- Assignment 1: Image Rotation Overview

Week 3 : Aug. 30 - Sept. 5
- Numerical Computation Overview (Ch. 1 - Schilling, Ch. 7 - Numerical Recipes)

Week 4 : Sept. 6 - 12
- Labor Day/No classes - Sept. 7
- Assignment 1: Image Rotation Due
- Linear Systems - Solving (Ch. 2 - Schilling, Ch. 2 - Kiusalaas)
- Assignment 2: Gaus-Jordan Elimination and Variations

Week 5 : Sept. 13 - 19
- Linear Systems - Condition Number (Ch. 2 - Schilling)
- Linear Systems - Iterative Improvement (Ch. 2 - Schilling, Ch. 2 - Kiusalaas)
- Test 0 available September 18

Week 6 : Sept. 20 - 26
- Assignment 2 Due
- Eigenvalues and Eigenvectors - Applications
- Assignment 3: Harris Corners Overview
- Eigenvalues and Eigenvectors - Characteristic Polynomial (Ch. 3 - Schilling, Ch. 9 - Kiusalaas)

Week 7 : Sept. 27 - Oct. 3
- Eigenvalues and Eigenvectors - Jacobi, Householder (Ch. 3 - Schilling, Ch. 9 - Kiusalaas)

Week 8 : Oct. 4 - 10
- Assignment 3: Harris Corners Due
- Curve Fitting - Least Squares Fitting (Ch. 4 - Schilling, Ch. 3 - Kiusalaas)

Week 9 : Oct. 11 - 17
- Assignment 4: Optical Flow Overview
- Curve Fitting - Polynomial Interpolation, Splines (Ch. 4 - Schilling, Ch. 3 - Kiusalaas)
- Test 1 available October 16

Week 10 : Oct. 18 - 24
- Correlation and Convolution (Ch. 10 - Schilling)
- Direct Cosine Transform/JPEG

Week 11 : Oct. 25 - 31
- Assignment 4: Optical Flow Due
- Assignment 5: Image Stitching Overview

Week 12 : Nov. 1 - 7
- Fourier Transform (Ch. 10 - Schilling)

Week 13 : Nov. 8 - 14
- Fourier Transform (Ch. 10 - Schilling)
- Assignment 5: Image Stitching Due

Week 14 : Nov. 15 - 21
- Catch-up Week

Week 15 : Nov. 22 - 24
- Final Exam available November 22-24
- Classes end Nov. 24