|      | CS109B SPRING 2019 SCHEDULE |           |  |            |      |      |                       |     |   |        |  |    |              |  |
|------|-----------------------------|-----------|--|------------|------|------|-----------------------|-----|---|--------|--|----|--------------|--|
| Week | Date                        | Lecture # | Topics   | Instructor | Lab# | Date | Lab Topic             | HW# | Assignment                              | A-sec# | Advanced section topics  |    | A-Section HW |  |
|      | 1/28                        | 1         | Intro + Review of 109A Preview of 109B                               | PP/MG      |      |      |                       |     |   |        |  |    |              |  |
| 1    | 1/30                        | 2         | Smoothing and Additive 1/3   | MG         | 1    | 1/31 | Setting up enviroment |     | Self-assessment HW0                     |        |  |    |              |  |
|      | 2/4                         | 3         | Smoothing and Additive 2/3   | MG         |      |      |                       |     |   |        |  |    |              |  |
| 2    | 2/6                         | 4         | Smoothing and GAM 3/3  | MG         | 2    | 2/7  | Smoothing/GAM         | 1   | HW1: Smoothing (due 2/13 midnight)      |        |  |    |              |  |
|      | 2/11                        | 5         | Feed Forward + Reg + Review from NN fall                             | PP         |      |      |                       |     |   |        |  |    |              |  |
| 3    | 2/13                        | 6         | Optimization of NN (Solvers)   | PP         | 3    | 2/14 | Optimization          | 2   | HW2: Neural Net 1 (due 2/27 midnight)   | 1      | Optimization/Dropout   | JZ |              |  |
|      |                             |           |  |            |      |      | -                     |     |   |        |  |    |              |  |
| 4    | 2/20                        |           | AWS scalable systems   | RD         | 4    | 2/21 | Setting UP AWS        |     |   | 2      | EMD +  | JZ |              |  |
|      | 2/25                        | 8         | CNNs-1   | PP         |      |      |                       |     |   |        |  |    |              |  |
| 5    | 2/27                        | 9         | CNNs-2   | PP         | 5    | 2/28 | CNNs                  | 3   | HW3: CNNs (due 3/6)                     | 3      | ConvNets: LeNet,<br>AlexNet, VGG-15, ResNet<br>and Inception + | JZ | HW 3         |  |
|      | 3/4                         |           | RNN 1  | PP         |      |      |                       |     |   |        |  |    |              |  |
| 6    | 3/6                         | 11        | RNN 2  | PP         | 6    | 3/7  | RNNS                  | 4   | HW4: RNNs (due 3/13)                    | 4      | LSTN, GRU in NLP +   | MM | HW 4         |  |
|      | 3/11                        | 12        | Unsupervised learning/clustering 1                                   | MG         |      |      |                       |     |   |        |  |    |              |  |
| 7    | 3/13                        | 13        | Unsupervised learning/clustering 2                                   | MG         | 7    | 3/14 | Clusterig             | 5   | HW5: Unsupervised<br>Learning (due 4/3) | 5      | Neural style transfer learning +                               | JZ |              |  |
|      |                             |           |  |            |      |      |                       |     |   |        |  |    |              |  |
|      |                             |           |  |            |      |      |                       |     |   |        |  |    |              |  |
|      | 3/25                        | 14        | Reinforcement Learning   | PP         |      |      |                       |     |   |        |  |    |              |  |
| 8    | 3/27                        | 15        | Bayesian 1/3   | MG         | 8    | 3/28 | Bayes 1               |     |   | 6      | Deep RL +  | SS | HW 5         |  |
|      | 4/1                         | 16        | Bayesian 2/3   | MG         |      |      |                       |     |   |        |  |    |              |  |
| 9    | 4/3                         | 17        | Bayesian 3/3   | MG         | 9    | 4/4  | Bayes 2               | 6   | HW6: LDA and Bayes<br>(due 4/10)        |        |  |    | HW 6         |  |
|      | 4/8                         | 18        | Autoenders   | PP         |      |      |                       |     |   |        |  |    |              |  |
| 10   | 4/10                        | 19        | Generative Models Varational Autoenders                              | PP         | 10   | 4/11 | VAE                   | 7   | (HW7: VAE+GANS (due 4/23)               | 7      | Variational Inference +  | ss |              |  |
|      | 4/15                        | 21        | GANS 1   | PP         |      |      |                       |     |   |        |  |    |              |  |
| 11   | 4/17                        | 22        | GANS 2 - Adversarial Networks  | PP         | 11   | 4/18 | GANS                  |     | Milestone #1 (due 4/17)                 | 8      | GANS +   | VK |              |  |
|      | 4/22                        | 23        | MODULE: LECTURE DOMAIN   | MI         |      |      |                       |     |   |        |  |    |              |  |
| 12   | 4/24                        | 24        | MODULE: PROBLEM BACKGROUND   | MI         |      |      |                       |     | Milestone #2 (due 4/27)                 |        |  |    |              |  |
|      | 4/29                        | 25        | MODULE: PROBLEM BACKGROUND   | MI         |      |      |                       |     |   |        |  |    |              |  |
| 13   | 5/1                         | 26        | PROJECT WORK   |            |      |      |                       |     |   |        |  |    |              |  |
|      | 5/6                         |           | PROJECT WORK   |            |      |      |                       |     |   |        |  |    |              |  |
| 14   | 5/8                         |           | PROJECT WORK   |            |      |      |                       |     |   |        |  |    |              |  |
|      | 5/13                        |           |  |            |      |      |                       |     | Milestone #3 (FINAL due 5/12)           |        |  |    |              |  |
| 15   | 5/14                        |           | FINAL IGNITE TALKS (Note: the Milestone #3 deliverables is due 5/12) |            |      |      |                       |     | Peer Evaluation (due 5/12)              |        |  |    |              |  |