

GANS DIS Textbook Schedule [01/11/2022]:

*= Holiday Modification (Spring Break and Easter) *Subject to change*

Tentative Schedule Topics Covered:

What are GANS

How to Implement Basic GANS

How to Evaluate GANS/GANS loss Functions

Introduction to specific types of GANs

Schedule subject to change during semester, with instructor approval

Chapter // Section	Pages	Week	Meeting Date	Lead
What are GANs? (Introduction Meeting)	12	1	01/28/2022	Durant
<i>How to develop Deep Learning Models with Keras</i>	14	1	<i>Refresher</i>	ALL
How to up-sample with CNNs	14	2	02/04/2022	Christian
How to implement GAN training Algorithm	8	3	02/11/2022	Preston
How to implement GAN Hacks to stabilize model	14	3	02/11/2022	
Develop a 1D GAN	26	4	02/18/2022	Durant
Develop a DCGAN for Grayscale Handwritten Digits	36	5	02/25/2022	Christian
Develop a DCGAN for small color images	39	6	03/04/2022	Preston
Explore Latent Space when Generating Faces	35	7	03/11/2022	Durant
Identify and Diagnose GAN Failure Modes	36	8	03/25/2022*	Christian
How to Evaluate GANS	8	9	04/01/2022	Preston
How to implement inception Scores	13	9	04/01/2022	
How to implement Fréchet inception Distance	12	9	04/01/2022	
How to use different GAN Loss Functions	8	10	04/08/2022	Durant
How to develop a Least Squares GAN (LSGAN)	18	10	04/08/2022*	
How to develop a Wasserstein GAN (WGAN)	26	11	04/14/2022	Christian
How to Develop a Conditional GAN (CGAN)	30	12	04/22/2022	Preston
How to Develop an Info Maximizing GAN (InfoGAN)	30	13	04/29/2022	Durant
How to Develop an Auxiliary Classifier GAN (AC-GAN)	28	
How to Develop a Semi-Supervised GAN (SGAN)	30	

The last topics after the class ends are additional topics we may cover if time allows, depending on the pace of the class.

Each week, the Lead is responsible for organizing the presentation materials, ensuring the group understands the material for that week, and leads the group meetings.

All members are responsible for reading the chapters each week, and during presentation meetings the group will divide the material in the presentation.