## Math Basics (3 lectures)

	Topics	Lecture notes	Tasks
08/19	Vectors, matrices, and derivatives	<u>Lecture 1</u> (https://canvas.uidaho.edu/courses/30734/files/3268203? wrap=1)	Read 1) R. Baraniuk, D. Donoho, and M. Gavish, "TI science of deep learning," Proceedings of the Nation Academy of Sciences, vol. 117, no. 48, pp. 30029-3(2020. <a href="https://doi.org/10.1073/pnas.2020596117">https://doi.org/10.1073/pnas.2020596117</a> (https://doi.org/10.1073/pnas.2020596117)  2) Appendix A: Matrix Calculus, The Science of DL
08/21	Probabilities	Lecture 2 (https://canvas.uidaho.edu/courses/30734/files/3268204? wrap=1)	Read 1) Chapter 3, Deep Learning  2) 2D Gaussian distribution: Gaussian function - W  (https://en.wikipedia.org/wiki/Gaussian_function)
08/26	Functions	Lecture 3 (https://canvas.uidaho.edu/courses/30734/files/3268196?wrap=1)	HW 1: Functions (https://canvas.uidaho.edu/courses/30734/assignment