CMPE-371: Digital Signal Processing

Lecture Schedule	See Time Table	**Course Type, Semester**	Fundamental Engineering, 6th
Credit Hours	Three	**Pre-requisite/ Co-requisite**	Signals and Systems, Linear Algebra
Instructor(s)	Fareed Jafri	**Contact**	Please DM me on What's App
Office	1st Floor, CE Department	**Office Hours**	By appointment Please DM me on What's App
Teaching Assistant	None	**Laboratory Schedule**	See time table
Course Description	The objective of the course is to familiarize students with mathematical tools and techniques that can be used to enable computers digitally process signals.		

Measurable Learning Outcomes	**CLOs**	**Description**	**Taxonomy & Domain Level**	**PLOs**
	CLO1	Students will be able to identify the effects of sampling a signal in both the time domain and the frequency domain.	Cognitive, 4	PLO2
	CLO2	Students will be able to investigate digital and discrete-time signals and systems using signal processing techniques in both the time domain and the frequency domain.	Cognitive, 4	PLO4
	CLO3	Students will be able to design digital and discrete-time systems or filters to perform specific signal processing tasks.	Cognitive, 5	PLO3

Textbooks	**RECOMMENDED**: 1. Discrete Time Signal Processing, Alan V. Oppenheim and R. W. Schafer, Pearson, 2014 2. Signals and Systems, Alan. V. Oppenhiem and Alan. S. Willsky **OPTIONAL**: 1. Digital Signal Processing Principals, Algorithms and Applications, John G. Proakis, Dimitris K. Manolakis
Student Resources	**https://drive.google.com/drive/folders/10E-lLahWzasaG6Men4ITA4VNvRfQqaWu?usp=sharing**

Grading Policy	Exams	Weightage	CLOs
	Midterm	30%	CLO1, CLO2
	Final	40%	CLO1, CLO2, CLO3
	Quiz1	10%	CLO, CLO2
	Quiz2	10%	CLO, CLO2, CLO3
	CEP	10%	CLO3