

<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>1151EC307</b>	<b>SIGNALS AND SYSTEMS LAB</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1</b>

**Course Category:** Program Core

**a. Preamble :**

Signals & Systems laboratory course uses simulation software to demonstrate the generation, basic operations of signals like shifting, scaling and convolution etc. Students will also understand the applications of transformation techniques.

**b. Prerequisite Courses:**

Nil.

**c. Related Courses:**

Discrete Time Signal Processing and Digital Image Processing

**d. Course Outcomes :**

Upon the successful completion of the course, students will be able to:

<b>CO Nos.</b>	<b>Course Outcomes</b>	<b>Skill Level (Based on Dave's Taxonomy)</b>
CO1	Perform basic signal processing concepts on signals	S2
CO2	Implement transformation techniques to analyze signals & systems	S2

**e. Course Content:**

**List of experiments:**

<b>Experiment No.</b>	<b>Experiment Title</b>	<b>COs</b>
<b>MATLAB/SIMULINK based experiments</b>		
1.	Generation of Signals	CO1
2.	Basic Operations on Signals	CO1
3.	Linear convolution and Correlation of sequences and signals	CO1
4.	Properties of systems	CO1
5.	Fourier series representation of continuous time signals	CO2
6.	Fourier transform of continuous time signals	CO2
7.	Sampling theorem	CO1
8.	Discrete time Fourier analysis	CO2
9.	Computation of DFT	CO2
10.	Z transform of discrete time signals	CO2
11.	System responses using SIMULINK	CO2
12.	Analysis of DT LTI systems	CO1
13.	Amplitude modulation with sinusoidal and exponential carrier	CO2