EE 315 : DSP LAB
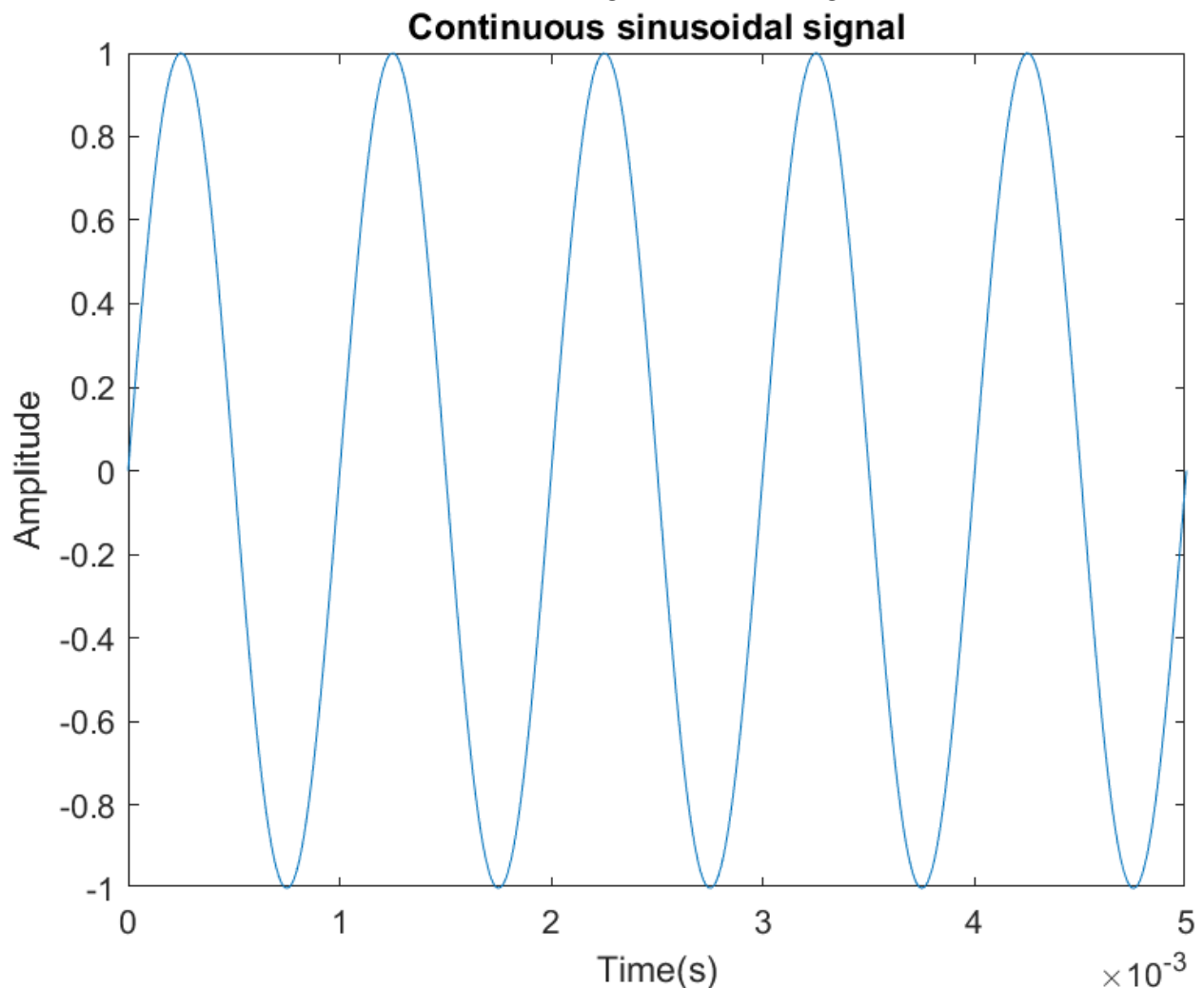
PRELAB-2

By making choices of the sampling frequencies, you can see the effects of aliasing in the frequency domain plots.
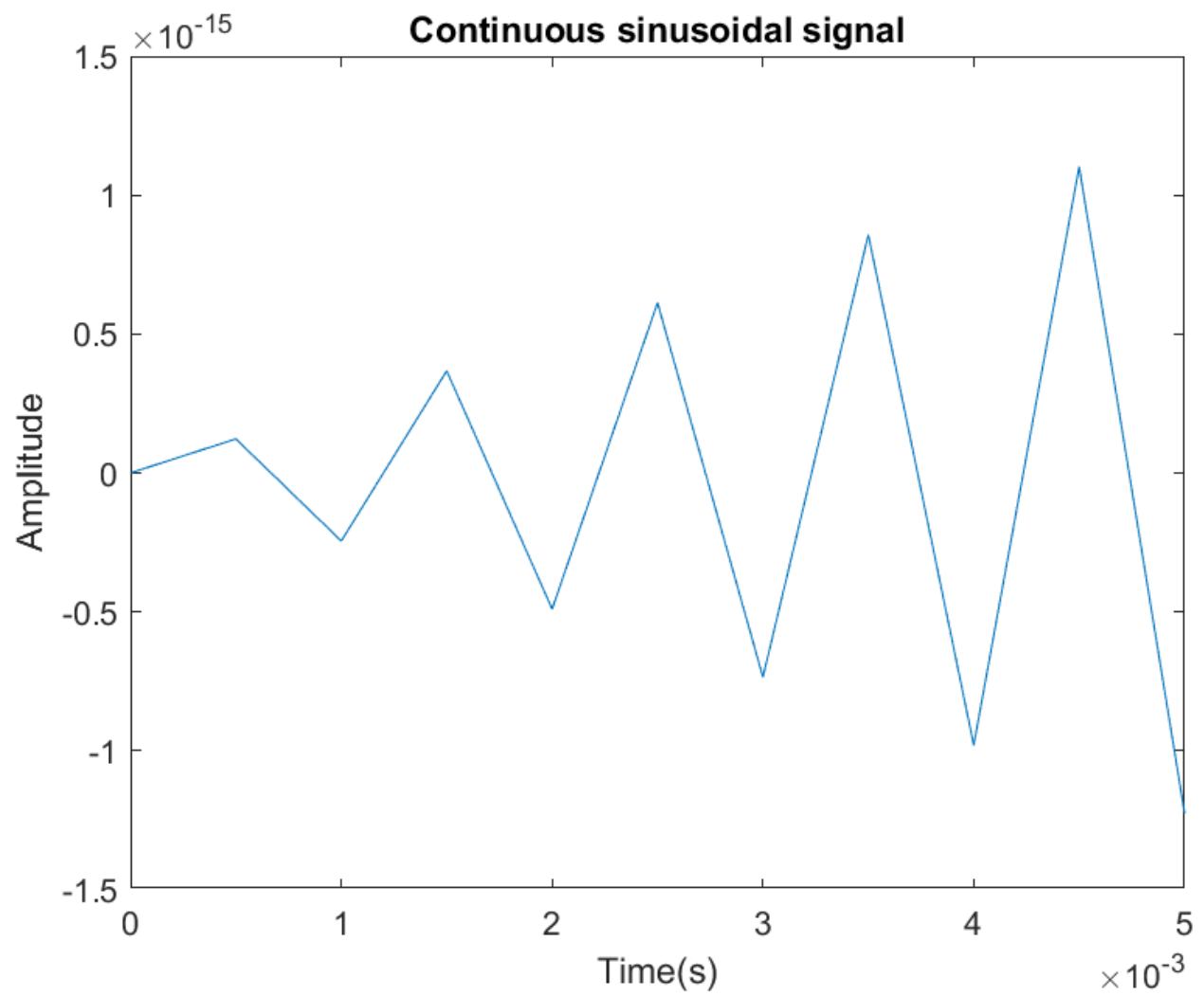
If the rate of samples is too high the system may not be able to process them fast enough - it runs out of processing time and memory.

Similarly, as the sampling frequency decreases, the signal separation also decreases. When the sampling frequency drops below the Nyquist rate, the frequencies will crossover and cause aliasing.

For, f = 1000 Hz and f_s = 500000 Hz, we get the following sinusoid.

For, f_S = 2000 Hz, we get the following sinusoid.

For, f_S = 500 Hz, we get the following sinusoid.

Continuous sinusoidal signal