1. Write a Python3 function `myawgn` that takes in the desired PSD (in W/Hz), total bandwidth, the sampling frequency, and the length of a sequence, and produces an AWGN sequence of the desired length over the given bandwidth. The function should also estimate and plot the PSD of the stochastic process.

2. Note that the function `randn.m` generates samples from a Gaussian distribution with mean 0 and variance 1. Write a Python3 function `mygauss` that takes an input of (a) mean vector $m \in \mathbb{R}^n$, (b) Covariance matrix $C \in \mathbb{R}^{n \times n}$, and (c) Number of samples to be generated s, and outputs samples $y_i, i = 1, \ldots, s$ with $y_i \in \mathbb{R}^n$ such that y_i's come from a Gaussian distribution with given mean and covariance.