Stat 400, Chapter 4.1-4.2 Summary ~ things you should know

notes by Tim Pilachowski

Chapter 4.1-4.2 - Important concepts:

continuous random variables

probability density functions

cumulative distribution functions

percentiles

expected value, variance and standard deviation

probability distributions:

    uniform probability distribution

    exponential probability distribution

Be able to:

given a function, determine whether it could be a probability density function

given a continuous random variable, determine the probability density function

given a continuous random variable, determine the cumulative distribution function

given a probability density function, calculate probabilities

given a cumulative distribution function, calculate probabilities

given a probability density function, calculate percentiles

given a cumulative distribution function, calculate percentiles

calculate expected value, variance and standard deviation for a continuous random variable

for each of the probability distributions above,

    calculate probabilities

    calculate expected value, variance and standard deviation