

**Math 180B**  
**Introduction to Probability**  
**Winter 2006**  
**Distributions List**  
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The probability distribution/probability density functions for the following distributions will not be provided on the upcoming midterm, i.e., students should have them committed to memory.

1. Discrete Distributions <sup>1</sup>

- (a) Bernouli  $p$
- (b) Binomial  $(n, p)$
- (c) Hypergeometric  $(N, G, n)$
- (d) Uniform  $\{1, \dots, n\}$

2. Continuous Distributions

- (a) Uniform  $(a, b)$  and Uniform  $R$ , where  $R$  is a bounded polygon in  $\mathbb{R}^2$ .
- (b) Exponential  $\lambda$
- (c) Normal  $(\mu, \sigma^2)$
- (d) Standard Bivariate Normal  $\rho$

We have studied other distributions, e.g., bivariate normal. Of course, you need to know how to compute probabilities and such for any distribution that we have studied. However, you don't necessarily need to have the probability distribution/density function committed to memory.

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<sup>1</sup>Generally, Poisson  $\mu$  and Geometric  $p$  would be included on this list, however we have not reviewed those in the course of our studies. Therefore, if you need to work with this distribution for the exam, the relevant formula for the probability distribution will be provided.