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Course:        MATH 2P81 (PROBABILITY)
Instructor:    J. Vrbik
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Topics to be covered

Basic Combinatorics: Permutations, Combinations, Binomial and
          Multinomial Theorems

Elementary Probability: Sample Space, Boolean Algebra of Events,
          Conditional Probability, Independence, Bayes' Theorem

Discrete Random Variables: Univariate, Bivariate, Marginal and
          Conditional Distribution

Expected Value: Expected Value, Standard Deviation, Moments of a
          Distribution, Probability Generating Function, Conditional
          Expectation

Special Distributions: Binomial, Negative Binomial, Hypergeometric,
          Poisson and Multinomial, Central Limit Theorem

Continuous Random Variables: Probability Density Function,
          Distribution Function, Moment Generating Function

Special Distributions: Uniform, Exponential, Gamma, Beta and Normal

Textbook: MATH 2F81 LECTURE NOTES (all you need)

Extra references (if desired):

     **Wackerly, Mendenhall and Scheaffer: MATHEMATICAL STATISTICS
     WITH APPLICATIONS, Duxbury (publisher) - required for MATH 2P82**

     Neil A. Weiss: A COURSE IN PROBABILITY, Addison-Wesley (2005)


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Marking Scheme: Assignments (weekly)   - 24%
                Two Midterms           - 18% each
                Final Exam             - 40%
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