

TEST 1 – STUDY GUIDE

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	Topic	Suggested exercises
Sample Spaces & events	<ul style="list-style-type: none"> • Be able to list elements of events and sample spaces 	Class notes & examples
Sets: complement, intersection, union, mutual exclusivity, disjoint sets, null (empty set)	<ul style="list-style-type: none"> • Define terms • Construct Venn diagrams for various events in a sample space 	<ul style="list-style-type: none"> • class notes & examples • http://math.uww.edu/~mcfarlat/143venn.htm
Independence of events	<ul style="list-style-type: none"> • Define independence • Determine whether events are independent 	<ul style="list-style-type: none"> • class notes & examples • 2.7(f), 2.8(f) (alternate text) • 2.9 (alternate text)
Probability (definition)	<ul style="list-style-type: none"> • Define probability (with respect to a random process repeated an infinite # of times) 	<ul style="list-style-type: none"> • class notes & examples • 2.1 to 2.3 (alternate text)
Probability of an event (computation)	<ul style="list-style-type: none"> • Computing probability as a ratio • Counting number of elements in an event (fundamental principle of counting) 	<ul style="list-style-type: none"> • class notes & examples • 1-3 (official text) • 2.4 to 2.6, 2.10 (alternate text)
Additive Law $P(A \cup B) = P(A) + P(B) - P(A \cap B)$	<ul style="list-style-type: none"> • Computing probability using additive law 	<ul style="list-style-type: none"> • class notes & examples • 2.7, 2.8, 2.12, 2.14 (alternate text)
Conditional Probability and Multiplicative Law $P(A \cap B) = P(A B) \times P(B)$	<ul style="list-style-type: none"> • Computing conditional probability 	<ul style="list-style-type: none"> • class notes & examples • 2.15-2.20 (alternate text)
Conditional Probability	<ul style="list-style-type: none"> • Computing conditional probability $P(B A)$ given $P(A B)$ 	<ul style="list-style-type: none"> • class notes & examples • 2.22-2.26 (alternate text)
Permutations	<ul style="list-style-type: none"> • Compute # of permutations (simple examples) 	<ul style="list-style-type: none"> • class notes & examples • 4-14 (official text)

