

## Prerequisites Worksheet for MS in Applied Statistics (code MATHMS05)

Please indicate on the line beneath each course the course or courses from your transcript that you feel are equivalent to each prerequisite. You need not have satisfied all requirements in order to be admitted conditionally as a graduate student. If conditionally admitted, you may clear up one course deficiency (specifically STAT 381) by taking the necessary course at CSULB; this course will not count as part of the 30 units required for the MS degree. If you have to take more than 1 prerequisite course, you can take them through what is called open university at CSULB (or another campus) and then apply when you are ready.

1. MATH 122, 123, 224. Calculus 1, 2, and 3.

Calc 1 Course: \_\_\_\_\_ Where taken: \_\_\_\_\_ Grade: \_\_\_\_\_

Calc 2 Course: \_\_\_\_\_ Where taken: \_\_\_\_\_ Grade: \_\_\_\_\_

Calc 3 Course: \_\_\_\_\_ Where taken: \_\_\_\_\_ Grade: \_\_\_\_\_

2. MATH 247. Introduction to Linear Algebra.

Prerequisites: Prerequisite or corequisite: MATH 224 (Calculus 3). Matrix algebra, solution of systems of equations, determinants, vector spaces including function spaces, inner product spaces, linear transformations, eigenvalues, eigenvectors, quadratic forms and applications. Emphasis on computational methods.

Course: \_\_\_\_\_ Where taken: \_\_\_\_\_ Grade: \_\_\_\_\_

3. MATH/STAT 380. Probability and Statistics (Calculus based)

Prerequisites: MATH 222 or 224. Frequency interpretation of probability. Axioms of probability theory. Discrete probability and combinatorics. Random variables. Distribution and density functions. Moment generating functions and moments. Sampling theory and limit theorems.

Course: \_\_\_\_\_ Where taken: \_\_\_\_\_ Grade: \_\_\_\_\_

4. STAT 381. Mathematical Statistics (Calculus based)

Prerequisites: MATH 247 and 380. Estimation and hypothesis testing. Maximum likelihood and method of moments estimation. Efficiency, unbiasedness, and asymptotic distribution of estimators. Neyman-Pearson Lemma. Goodness-of-fit tests. Correlation, and regression. Experimental design and analysis of variance. Nonparametric methods.

Course: \_\_\_\_\_ Where taken: \_\_\_\_\_ Grade: \_\_\_\_\_

5. Your name: \_\_\_\_\_