**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](https://www.ccpe.csulb.edu/OpenUniversity/Register.aspx) 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: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Year:\_\_\_\_\_\_ Grade:\_\_\_\_\_\_\_

Calc 2 Course: \_\_\_\_\_\_\_\_\_\_\_\_\_\_Where taken: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Year:\_\_\_\_\_\_ Grade:\_\_\_\_\_\_\_

Calc 3 Course: \_\_\_\_\_\_\_\_\_\_\_\_\_\_Where taken: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Year:\_\_\_\_\_\_ 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: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Year:\_\_\_\_\_\_ Grade:\_\_\_\_\_\_\_

\*\*\****IF YOU HAVE NOT TAKEN CALCULUS, THEN YOU HAVE NOT TAKEN THE COURSES BELOW***\*\*\*

**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: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Year:\_\_\_\_\_\_ Grade:\_\_\_\_\_\_\_

**Link to Catalog Description:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**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: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Year:\_\_\_\_\_\_ Grade:\_\_\_\_\_\_\_

**Link to Catalog Description:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

*If you do not have a link to course descriptions for courses 3 and 4, please attach syllabi, or provide instructor’s email address.*

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