



## **BA Mathematics with Secondary Certification**

Calculus I, Calculus II, Multivariable Calculus

Applied Probability and Statistics, Linear Algebra

Introduction to Advanced Mathematical Thinking (Proofs)

Advanced Calculus I, Abstract Algebra I

Discrete Mathematics, Geometric Structures, History of Mathematics

Computer Programming plus the introductory secondary education course,  
admission to the secondary program (which includes higher GPA requirements  
2.8 overall and 3.0 in the major and minor courses), appropriate education courses  
and internship

## **Applied Statistics**

Calculus I, Calculus II, Multivariable Calculus

Linear Algebra, one mathematics elective,

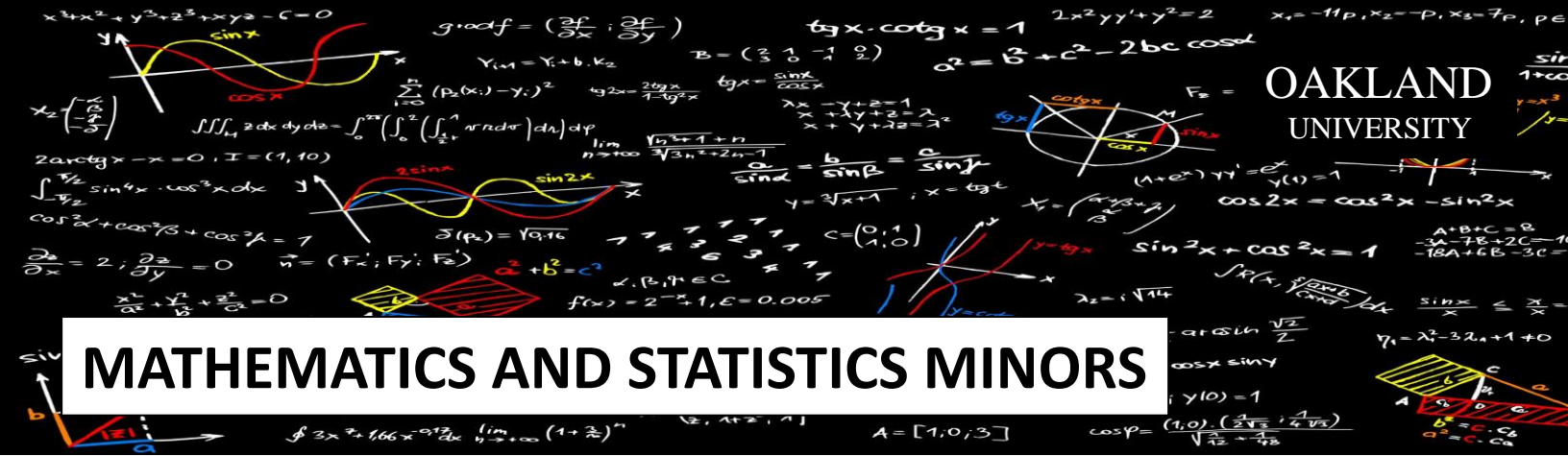
Applied Probability and Statistics

Mathematical Statistics I, Mathematical Statistics II

Applied Linear Models I, 3 statistics electives at or above the 3000 level (typically chosen  
from Applied Linear Models II, Analysis of Categorical Data, Elements of Stochastic  
Processes, Nonparametric Statistics, Time Series, and some graduate courses)

A professional writing course

An ethics course



# MATHEMATICS AND STATISTICS MINORS

## Liberal Arts Minor in Mathematics

20 or more credits taken from MTH courses numbered 1555 or above, APM courses at the 2000 level or above, STA 2226 or STA courses at the 3000 level or above, MOR courses

## Secondary Teaching Minor in Mathematics

Calculus I (MTH 1554), Calculus II (MTH 1555), Applied Probability and Statistics (STA 2226), Discrete Mathematics (APM 2663), Introduction to Advanced Mathematical Thinking (MTH 3002), Geometric Structures (MTH 4662), and an appropriate teaching methods class.

A 3.0 GPA in the content minor courses is required. This minor and the suitable state required exams can be used to add a secondary certification in mathematics.

## Applied Statistics Minor

Applied Probability and Statistics (STA 2226), Linear Models I (STA 4002), and three electives taken from statistics courses at the 3000 level or higher (taken from Applied Linear Models II (STA 4003), Mathematical Statistics I (STA 4227), Mathematical Statistics II (SAT 4228), Analysis of Categorical Data (STA 4224), Elements of Stochastic Processes (STA 4225), Nonparametric Statistics (STA 4226), Time Series (STA 4330), and some graduate courses).

## **Applied Mathematics Minor**

This minor is only available to students of the School of Engineering and Computer Science, and it is the only mathematics minor available to students of the School of Engineering and Computer Science.

Multivariable Calculus (MTH 2554), Linear Algebra (MTH 2775), Applied Probability and Statistics (STA 2226 although EGR 2600 Introduction to Industrial and Systems Engineering can apply here), Introduction to Advanced Mathematical Thinking (MTH 3002), either Advanced Calculus I (MTH 4552) or Abstract Algebra II (MTH 4775).