Student Name:_____   Perm: _____

DOCTOR OF PHILOSOPHY – STATISTICS AND APPLIED PROBABILITY – EMPHASIS IN FINANCIAL MATHEMATICS AND STATISTICS
2023-24

In addition to departmental requirements, candidates for graduate degrees must fulfill University requirements described in the "Graduate Education" section of the UCSB General Catalog.

*A total of **72.0** graduate-level units are required for this degree. The core courses must be passed with a grade of B or better, and the overall minimum GPA requirement is 3.0. There is no language requirement for this degree. The time-to-degree for the Ph.D. is three years to advance and five years to complete.*

CORE COURSES (44.0 units total)			
All of these core courses are required. A grade of B or better is required for each core course.			
COURSE #	COURSE NAME	UNITS	GRADE
PSTAT 207A	Statistical Theory	4	
PSTAT 207B	Statistical Theory	4	
PSTAT 207C	Statistical Theory	4	
PSTAT 213A	Introduction to Probability Theory & Stochastic Processes	4	
PSTAT 213B	Introduction to Probability Theory & Stochastic Processes	4	
PSTAT 213C	Introduction to Probability Theory & Stochastic Processes	4	
PSTAT 223A	Financial Modeling	4	
PSTAT 223B	Financial Modeling	4	
PSTAT 223C	Financial Modeling	4	
MATH 201A	Real Analysis	4	
MATH 201B	Real Analysis	4	

ELECTIVE COURSES (28.0 units total)			
Electives should be chosen from the list below. Other courses not listed may be counted as electives only with approval from the FMS Director.			
COURSE #	COURSE NAME	UNITS	GRADE
PSTAT 220A	Advanced Statistical Methods	4	
PSTAT 220B	Advanced Statistical Methods	4	
PSTAT 220C	Advanced Statistical Methods	4	
PSTAT 221A	Advanced Probability Theory	4	
PSTAT 221B	Advanced Probability Theory	4	
PSTAT 221C	Advanced Probability Theory	4	
PSTAT 222A	Advanced Stochastic Processes	4	
PSTAT 222B	Advanced Stochastic Processes	4	

PSTAT 222C	Advanced Stochastic Processes	4	
PSTAT 262FM	Seminars in Probability and Statistics	4	
PSTAT 274 or ECON 245B	Time Series Analysis/Economic Theory	4	
ECON 210A	Theory of Consumption and Production	4	
ECON 210B	Game Theory	4	
ECON 210C	Markets and Incentives	4	
ECON 235A	Finance	4	
ECON 235B	Finance	4	
MATH 201C	Real Analysis	4	
MATH 206A	Matrix Analysis and Computation	4	
MATH 206B	Numerical Simulation	4	
MATH 206C	Numerical Solution of Partial Differential Equations – Finite Difference Methods	4	
MATH 206D	Numerical Solution of Partial Differential Equations – Finite Element Methods	4	
MATH 228A	Functional Analysis	4	
MATH 228B	Functional Analysis	4	
MATH 228C	Functional Analysis	4	
MATH 246A	Partial Differential Equations	4	
MATH 246B	Partial Differential Equations	4	
MATH 246C	Partial Differential Equations	4	

QUALIFYING EXAMS

All students seeking the Ph.D. in Statistics need to pass two Qualifying Examinations with at least a "Ph.D. Level" pass on each exam. Students seeking the FMS Emphasis must pass the Mathematical Statistics and the Probability and Stochastic Processes Qualifying Exams. Both of these exams are offered once per year and consist of a 3-hour in-class exam. Students are given two attempts to pass each exam.

Ph.D. QUALIFYING EXAM 1 – Mathematical Statistics

Passed on: _____
                          Month/Day/Year

Ph.D. QUALIFYING EXAM 2 – Probability and Stochastic Processes

Passed on: _____
                          Month/Day/Year

ADVANCEMENT TO CANDIDACY/DISSERTATION RESEARCH

A student is eligible to advance to candidacy after the core coursework is completed and the qualifying exams are passed. Students are expected to advance to candidacy during their second or third year, but no later than the end of the third year. In order to advance to candidacy, students must nominate a dissertation committee and successfully pass the preliminary advancement oral exam. The oral exam requires a satisfactory presentation by the student of their proposed research topic and the results of the preliminary reading and research on the topic. Students are urged to officially add the Emphasis in Financial Mathematics and Statistics via Graduate Student Petition after advancing to candidacy.

Doctoral Committee: Chair: _____

Member: _____

Member: _____

Member: _____

Advancement to Candidacy Oral Exam passed on: _____
Month/Day/Year

Emphasis Officially Added on: _____
Month/Day/Year

DISSERTATION

The final requirement for the doctoral program is for the candidate to complete a dissertation, which must be an original work based on independent research, and a public oral dissertation defense.

Dissertation Defense passed on: _____
Month/Day/Year