



**REQUIREMENTS FOR THE B.S. DEGREE IN MATHEMATICS
DEPARTMENT OF MATHEMATICS
(At least 15 hours of the major must be earned in residence.)**

APPLIED MATHEMATICS OPTION (43HRS)

Required Courses (37 Hours)

COURSE NO.	COURSE	CREDIT HRS	PREREQUISITE	SEMESTER OFFERED
MATH 1496	Calculus I	4	C or better in MATH 1390 and MATH 1392; or C or better in MATH 1580; or equivalent.	Fall, Spring, & Summer
MATH 1497	Calculus II	4	C or better in MATH 1496.	Fall, Spring, & Summer
MATH 2335	Transition to Advanced Math	3	MATH 1497	Fall & Spring
MATH 2471	Calculus III	4	C or better in MATH 1497	Fall, Spring, & Summer
MATH 2441	Mathematical Computation	4	MATH 1497	Fall & Spring
MATH 3320	Linear Algebra	3	MATH 1497 or 2330	Fall, Spring, & Summer
MATH 3331	Ordinary Differential Equations	3	MATH 1497	Fall & Spring
MATH 4305	Applied Math I	3	MATH 3320, 3331	Fall
MATH 4306	Applied Math II	3	MATH 4305	Spring
MATH 4371	Introduction to Probability Theory	3	MATH 1497	Fall
MATH 4372	Introduction to Statistical Inference	3	MATH 4371	Spring

AND Electives (6 Hours)

Chosen from at least one of: MATH 4315, MATH 4340, or MATH 4373

MATH 3360	Abstract Algebra I	3	MATH 2335	Fall
MATH 3362	Abstract Algebra II	3	MATH 3360	Spring
MATH 4315	Partial Differential Equations	3	MATH 2471 and MATH 3331	Fall
MATH 4316	Fundamentals of Applied Math for Fluid and Granular Materials	3	MATH 4315	Spring
MATH 4330	Mathematical Modeling in Biology	3	C or better in MATH 3331	Fall
MATH 4340	Numerical Methods	3	MATH 1497, 3320; and CSCI 1470 or equivalent	Spring
MATH 4362	Advanced Calculus I	3	MATH 2471	Fall
MATH 4363	Advanced Calculus II	3	MATH 4362	Spring
MATH 4373	Applied Statistics	3	MATH 4372	Fall
MATH 4374	Introduction to Stochastic Processes	3	MATH 4371 or Consent of instructor	Fall
MATH 4375	Introduction to Topology I	3	Consent of instructor	On Demand
MATH 4385	Complex Analysis	3	MATH 2471	On Demand

ANCILLARY REQUIREMENTS:

**PHYS 1441 and 1442 or
PHYS 1410 AND 1420 or
CHEM 1450 and 1451 or
ECON 2320 AND ECON 2321**

OTHER REQUIREMENTS:

- 1) **MINOR REQUIRED**
- 2) 38 HOURS of General Education, 120 semester hours with a GPA of not less than 2.00
- 3) GPA of 2.00 or better in each of the major and minor fields
- 4) 40 hours of upper division courses (3000 or 4000)

