

CHECK SHEET FOR THE B.S. DEGREE IN MATHEMATICS

DEPARTMENT OF MATHEMATICS

University of Central Arkansas

PURE MATHEMATICS TRACK (39 HRS)

Core Courses (21 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 3320	Linear Algebra [Upper Core : I]	3	MATH 1497 or 2330	Fall, Spring & Summer
MATH 4371	Intro to Probability Theory [Upper Core : R]	3	MATH 1497	Fall

Required Courses (12 hours)

MATH 3331	Ordinary Differential Equations I [Upper Core : C]	3	MATH 1497	Fall, Spring
MATH 3360	Introduction to Rings and Fields	3	MATH 2335	Fall
MATH 3362	Introduction to Group Theory	3	MATH 3360	Spring
MATH 4362	Advanced Calculus I [Upper Core : Z]	3	MATH 2471	Fall

Choose 2 Electives (6 Hours)

MATH 4305	Ordinary Differential Equations II	3	MATH 3320, 3331	Fall
MATH 4306	Modeling and Simulation [Upper Core : Z]	3	MATH 4305	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 4363	Advanced Calculus II	3	MATH 4362	Spring
MATH 4372	Intro to Statistical Inference	3	MATH 4371	Spring
MATH 4373	Regression Analysis	3	MATH 4372	Fall
MATH 4374	Intro 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

OTHER REQUIREMENTS

- MINOR REQUIRED
- Must complete 120 semester hours including 38 hours of General Education.
- GPA of 2.00 or better in each of the major and minor fields
- Must have 40 hours of upper level (3000 or 4000) courses.
- At least 15 hours of the major must be earned in residence.