

CHECK SHEET FOR THE B.S. DEGREE IN MATHEMATICS
DEPARTMENT OF MATHEMATICS
University of Central Arkansas

APPLIED MATHEMATICS TRACK (49-51 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 (16 Hours)				
MATH 2441	Mathematical Computation	4	MATH 1497	Fall
MATH 3331	Ordinary Differential Equations I [Upper Core : C]	3	MATH 1497	Fall, Spring
MATH 4306	Modeling and Simulation [Upper Core : Z]	3	Math 2441, Math 3320, Math 3331 and Math 4371	Spring
MATH 4372	Introduction to Statistical Inference	3	MATH 4371 and MATH 2441	Spring
MATH 4315 or MATH 4340 or MATH 4373	Partial Differential Equations Numerical Methods Regression Analysis	3	MATH 2471, MATH 3331 and MATH 2441 MATH3320 AND MATH 2441 MATH 4372	Fall Spring Fall
Choose 2 Electives (6 Hours)				
MATH 3360	Introduction to Rings and Fields	3	MATH 2335	Fall
MATH 3362	Introduction to Group Theory	3	MATH 3360	Spring
MATH 4305	Ordinary Differential Equations II	3	MATH 3320 AND MATH 3331	Fall, Spring
MATH 4315	Partial Differential Equations	3	MATH 2471, MATH 3331 and MATH 2441	Fall
MATH 4316	Fundamentals of Applied Math for Fluid and Granular Materials	3	MATH 4315	Spring
MATH 4330	Mathematical Modeling in Biology	3	MATH 3331 AND MATH 2441	Fall
MATH 4340	Numerical Methods	3	MATH 3320 AND MATH 2441	Spring
MATH 4362	Advanced Calculus I [Upper Core : Z]	3	MATH 2471	Fall
MATH 4363	Advanced Calculus II	3	MATH 4362	Spring
MATH 4373	Regression Analysis	3	MATH 4372	Fall
MATH 4374	Intro to Stochastic Processes	3	MATH 4371	Fall
MATH 4385	Complex Analysis	3	MATH 2471	On Demand
Ancillary Requirements (6-8 hours)			OTHER REQUIREMENTS	
PHYS 1410 and 1420 OR PHYS 1441 and 1442 OR CHEM 1450 and CHEM 1451 OR ECON 2320 and ECON 2321			<ul style="list-style-type: none"> • 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. 	

Effective Fall
2015
Updated
3/23/15