



**BACHELOR of ARTS in MATHEMATICS (#528)**

**B2: Fundamentals of Applied Mathematics**

Department of Mathematics

Ogden College of Science and Engineering

Western Kentucky University

The following four-year plan is an example of how to map your program in consultation with your faculty advisor. Every student will finish with a unique plan of his/her own depending on the electives selected.

**Success Markers**

**SAMPLE - 4 year plan**

<b>FIRST YEAR</b>	<b>Fall Semester</b>		<b>Spring Semester</b>	
	MATH 136 Calculus I (F-QR)	4	MATH 137* - Calculus II	4
	CS 180 – Computer Science I	4	CS 181 – Computer Science II <b>OR</b> MATH 371 – Computational Problem Solving	3-4
	PHIL 215 – Elementary Logic (prerequisite for CS 181 if taking that course) <b>OR</b> EE 180 – Digital Circuits	3	ENGL 100 Introduction to College Writing (F-W1)	3
	Natural & Physical Science & Lab (E-NS, SB)	4	HIST 101 World History I <b>OR</b> HIST 102 World History II (F-SB)	3
			Social & Behavioral Studies (E-SB)	3
	<b>TOTAL CREDIT HOURS</b>	<b>15</b>	<b>TOTAL CREDIT HOURS</b>	<b>16</b>

<b>SECOND YEAR</b>	<b>Fall Semester</b>		<b>Spring Semester</b>	
	MATH 307* - Linear Algebra	3	MATH 237 – Multivariable Calculus	4
	MATH 310 – Discrete Math	3	MATH 317 – Introduction to Algebraic Systems	3
	COMM 145 Fund of Public Speaking and Communication (F-OC)	3	MATH 331 – Differential Equations	3
	ENG 200 Intro to Literature (F-AH)	3	Arts & Humanities (E-AH)	3
	World Language, if needed, <b>OR</b> General Elective	3	Natural & Physical Science (E-NS)	3
	<b>TOTAL CREDIT HOURS</b>	<b>15</b>	<b>TOTAL CREDIT HOURS</b>	<b>16</b>

**World Language Proficiency:** All students entering in fall 2014 or later must demonstrate proficiency in a world language at the Novice High level before completing 60 credit hours. Novice high is the ability to communicate in writing and speaking on familiar topics in simple sentences. To meet this requirement, students may take college language courses or take a proficiency test. For more information go to: [World Language Proficiency](#).

**Colonnade Program:** All students entering in fall 2014 or later must complete 39 hours in 13 specific Colonnade areas. Colonnade areas are listed in parentheses marked in blue after the corresponding classes. Some areas may have specific course requirements while others can be chosen from selected lists of options. For more details and to see lists of options, go to [Colonnade Requirements](#).

THIRD YEAR	Fall Semester		Spring Semester	
	MATH 370 – Applied Techniques in Mathematics	3	MATH 337 – Elements of Real Analysis	3
	MATH 382 – Probability and Statistics I	3	Math Elective (300/400 level)**	3
	MATH 405 – Numerical Analysis I	3	Connections: Systems (K-SY)	3
	ENG 300 Writing in the Disciplines OR COMM 200 Communications Foundations (F-W2)	3	Connections: Local to Global (K-LG)	3
	Connections: Social & Cultural (K-SC)	3	General Elective	3
	<b>TOTAL CREDIT HOURS</b>	<b>15</b>	<b>TOTAL CREDIT HOURS</b>	<b>15</b>

SUMMER TERM	Summer Term
	It is STRONGLY recommended to pursue an internship in your prospective career field after the third year.

FOURTH YEAR	Fall Semester		Spring Semester	
	MATH 431 – Intermediate Analysis I	3	MATH 498 – Senior Seminar	3
	Math Elective (300/400 level)**	3	Math Elective (300/400 level)**	3
	General Electives	8	General Elective	8
	<b>TOTAL CREDIT HOURS</b>	<b>14</b>	<b>TOTAL CREDIT HOURS</b>	<b>14</b>

**Total Credit Hours:120**

\* Denotes prerequisite courses before admission

\*\* Two courses from MATH 305, 406, 435, 470, 482. Three more hours from MATH 275 (up to 3 hours), STAT 301, MATH 305, 315, 323, 371 (if not taken in place of CS 181), 398 (up to 3 hours), 406, 409, 415, 417, 423, 435, 439, 450, 470, 473, 475 (up to 6 hours), 482.

**PLEASE NOTE:** Prerequisites, Course Numbers, and Course Titles are subject to change.

Consult your advisor each semester.

Course Descriptions may be viewed at <http://www.wku.edu/catalog>

**For more Information:**

**Department:** Mathematics

**Website:** [www.wku.edu/math](http://www.wku.edu/math)

**Phone:** (270)745-3651