



BACHELOR of SCIENCE in MATHEMATICS (#528)

B2: Fundamentals of Applied Mathematics

Department of Mathematics

Ogden College of Science and Engineering

Western Kentucky University

The suggested program of study shown below should be used in consultation with your advisor(s). Every student will finish with a unique plan of his/her own depending on the electives selected. Admission to the major is required to register for all 300 and 400 nursing classes. All upper-division nursing courses must be taken in sequence to meet NURS course prerequisite requirements.

SAMPLE – Finish in Four Plan

FIRST YEAR			
Fall Semester		Spring Semester	
MATH 136 – Calculus I (F-Quantitative Reasoning)	4	MATH 137 - Calculus II	4
CS 180 – Computer Science I	4	CS 181 – Computer Science II OR MATH 371 – Computational Problem Solving	3-4
PHIL 215 – Elementary Logic (prerequisite for CS 181 if taking that course) OR EE 180 – Digital Circuits	3	ENG 100 – Introduction to College Writing (F-College Composition)	3
Colonnade (E-Natural & Physical Science, with lab)	3-5	HIST 101 – World History I OR HIST 102 – World History II (F-World History)	3
		Colonnade (E-Social & Behavioral Sciences)	3
TOTAL CREDIT HOURS	14-16	TOTAL CREDIT HOURS	16-17

SECOND YEAR			
Fall Semester		Spring Semester	
MATH 307 - Linear Algebra	3	MATH 237 – Multivariable Calculus	4
MATH 310 – Discrete Math	3	MATH 317 – Introduction to Algebraic Systems	3
COMM 145 – Fundamentals of Public Speaking and Communication (F-Human Communication)	3	MATH 331 – Differential Equations	3
ENG 200 – Introduction to Literature (F-Literary Studies)	3	Colonnade (E-Arts & Humanities)	3
Foreign Language	3	Colonnade (E-Natural & Physical Sciences)	3
TOTAL CREDIT HOURS	15	TOTAL CREDIT HOURS	16

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	Colonnade (C-Local to Global)	3
Colonnade (F-Writing in the Disciplines)	3	Colonnade (C-Systems)	3
Colonnade (C-Social to Cultural)	3	General Elective	3
TOTAL CREDIT HOURS	15	TOTAL CREDIT HOURS	15

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	6-9
TOTAL CREDIT HOURS	14	TOTAL CREDIT HOURS	12-15

Total Credit Hours: 120

* Two courses from MATH 315, 323, 415, 423, 473. Six more hours from MATH 275 (up to 3 hours), STAT 301, MATH 305, 315, 323, 331, 370, 371 (if not taken instead of CS 181), 382, 398 (up to 3 hours), 405, 406, 409, 415, 423, 435, 470, 473, 475 (up to 6 hours), 482.

For more details and courses offered in the Colonnade General Education program visit the [website](#).

World Language Requirement: Language Proficiency of novice-high before completing 60 credit hours is required (or completion of 2nd level of a language). Two credits (or equivalent) of a single world language in High School satisfies this WKU requirement.

For more Information:

Department: Mathematics

Website: www.wku.edu/math

Phone: (270)745-3651

Email: math@wku.edu

Course Descriptions: <http://www.wku.edu/undergraduatecatalog/>