BS: Mathematics Major -- Applied Concentration

Andrews University

39 semester credits

(updated 1-22-2024)

Acro/Num	Course Title	Credits	Credits Earned	Term Taken	Grade	Quality Points	Semesters offered
Required courses: Core							
MATH 191	Calculus I	4					
MATH 192	Calculus II	4					
MATH 215	Introduction to Linear Algebra	3					fall
MATH 240	Calculus III	4					fall
MATH 355	Foundations of Advanced Mathematics	3					spring
MATH 389	Mathematics Colloquium (4 sem.)	0					fall and spring
	Plus one of the following courses						
MATH 431	Real Analysis I **OR**	3					fall, odd years
MATH 441	Abstract Algebra I	3					spring, odd years
Required courses: Applied Concentration							
MATH 286	Differential Equations	3					spring
MATH 405	Applied Mathematics	3					fall, even years
MATH 408	Complex Analysis	3					spring, odd years
	Plus one of the following courses						
MATH 426	Mathematical Modeling **OR**	3					fall, odd years
STAT 340	Probability Theory with Stat. App.	3					spring
At least 6 credits in additional courses							
MATH 315	Advanced Linear Algebra	3					spring, odd years
MATH 426	Mathematical Modeling	3					fall, odd years
MATH 431	Real Analysis I	3					fall, odd years
MATH 432	Real Analysis II	3					spring, even years
MATH 441	Abstract Algebra I	3					spring, odd years
MATH 442	Abstract Algebra II	3					
MATH 475	Geometry (see note 3)	3					fall, odd years
MATH 487	Special Topics	1-3					
MATH 495	Independent Study	1-3					
MATH 497	Research in Mathematics	0-3					
STAT 340	Probability Theory with Stat. App.	3					spring
STAT 4xx	Mathematical Statistics	3					fall, even years
Cognate (choose 1)							
ENGR 365	Numerical Methods for Engineers	3					fall
CPTR 151	Computer Science I	3					

Notes:

1. Major GPA must be at least 2.25, and no course with a grade below C- may count toward the major.
2. For teacher certification, major GPA must be at least 2.50 and no course with a grade lower than a C may count toward the maior.
3. For secondary teacher certification, students must take MATH 475. Students in an elementary teacher certification program take MATH 221 and MATH 222.
4. For teacher certification, the State of Michigan requires that Subject Content Exams must be passed before a recommendation for certification can be made to the State.
5. An exit exam must be taken in the senior year.