Minor in Mathematics

19 units

Students interested in the mathematics minor may also wish to consider the statistics minor (http://catalog.apu.edu/academics/college-arts-humanities-theology-sciences/school-humanities-sciences/math-physics-statistics/statistics-minor/)—students are permitted to earn both.

Requirements

Code	Title	Units
Requirements [1]		
MATH 165	Calculus I	3
MATH 166	Calculus II	3
MATH 167	Sequences and Series [F]	1
Electives		**12**
Select at least 12 units from below; at least two courses must be at the 200 level.		
MATH 268	Multivariable Calculus	
MATH 270	Ordinary Differential Equations [S]	
MATH 280	Discrete Mathematics and Proof [F]	
MATH 290	Linear Algebra [2, S]	
MATH 295	Applied Linear Algebra [2, F]	
MATH 340	Geometry [S]	
MATH 361	Introduction to Modeling with Probability	
MATH 370	Partial Differential Equations [OS]	
MATH 375	Dynamical Systems [OF]	
MATH 390	Number Theory [OF]	
MATH 400	Abstract Algebra [ES]	
MATH 450	Real Analysis [EF]	
MATH 455	Numerical Analysis [ES]	
MATH 460	Topology [OS]	
MATH 470	Complex Analysis [ES]	
MATH 495	Advanced Topics in Mathematics	
Total Units		**19**

[1] Students earning the mathematics major or applied mathematics major are not eligible to earn the mathematics minor.

[2] It is not permitted to count MATH 290 **and** MATH 295 toward the mathematics minor.

F	Offered in Fall only
S	Offered in Spring only
F/S	Offered in both Fall and Spring terms
EF	Offered in Fall in even years
ES	Offered in Spring in even years
OF	Offered in Fall in odd years
OS	Offered in Spring in odd years

Program Learning Outcomes

Program Learning Outcomes

Students who successfully complete this program shall be able to:

1. Master fundamental mathematical methods and problem solving strategies.
2. Employ logical reasoning and standard proof techniques to construct rigorous mathematical arguments.
3. Communicate mathematical ideas in speech and writing, combining precise language and notation with insightful explanation.

4. Use mathematical models to analyze cross-disciplinary problems.
5. Employ appropriate technology and computational techniques.
6. Articulate how Christian perspectives and the study of mathematics and its applications mutually inform and enhance each other.