

Bachelor of Science in Secondary Education: Applied Mathematics

Program Overview

"Shaping tomorrow's teachers today" is the cornerstone of our All Grade Education program. Graduates successfully complete licensure programs to work with students in preschool through 12th grade. Classroom teaching experiences each semester ensure that our students have the best skills possible to work with young people of all ages. Our state-of-the-art curriculum aligns courses together so that you'll take less, learn more, and leave our program with licenses to teach in all school settings: For Secondary, you will be licensed to teach fifth grade through twelfth grade.

Degree Requirements

To earn this degree, students must have a GPA of 2.75 or higher in the Major as well as an overall GPA of 2.5, complete a minimum of 120 credit hours, and fulfill the course requirements of the program listed below.

*This is a sample plan; specific courses may vary from year to year. Academic advisors will work with each student to develop their individual schedule.

CORE		CREDITS
✓	Foundation	
	LA-FWS First-Year Writing Seminar	3
	LA-FCS First-Year Communication Seminar	3
	LA-FQR Quantitative Reasoning	3-4
	LA-FSS First Year Success Seminar	1
	LA-FCG Cultural and Global Understanding	3-5
	Exploration	
	LA-EAH Arts and Humanities	3
	LA-ENS Natural Sciences	3-6
	LA-ESS Social Sciences	3-4
	Transformation	
	LA-TFR Faith, Reason, and Ethics	3
	LA-TBI Big Issues - 2 courses	6-7
	LA-TCE Creative Expression	1-3
	Additional credits to bring total to 120+ credits	CREDITS
✓	Electives	
	Experiential Learning	

Total Program Credits: 120+

MAJOR	*Options
CORE	^CORE equivalent
ELECTIVE/MINOR	
EXPERIENTIAL	

Secondary and All-Grade Education		CREDITS
✓		
	EDUC 111^ Exploring Educational Systems	3
	EDUC 112 The Exceptional Learner	3
	EDUC 202 Professional Learning Communities I	0.5
	EDUC 204 Professional Learning Communities II	0.5
	EDUC 207 Integrating Technology into Classroom	3
	EDUC 223 Child & Adolescent Development	3
	EDUC 230^ Educational Psychology	3
	EDUC 246 Educational Assessment	3
	EDUC 302 Professional Learning Communities III	0.5
	EDUC 304 Professional Learning Communities IV	0.5
	EDUC 343 Disciplinary Literacy	3
	EDUC 402 Professional Learning Communities V	0.5
	EDUC 430 Culturally Responsive Classrooms	3
	EDUC 440 General Methods for Adolescent Learners	3
	INTD 355^ Critical Issues in Education	3
	ENG/MODL 350 Teaching English to Speakers of Other Languages	3
	Need a total of 13 credit hours from this list	CREDITS
	EDUC 475 High School Student Teaching	7
	EDUC 477 Jr High/Middle School Student Teaching	6
	or	
	EDUC 479 All grade Student Teaching	13
	Applied Mathematic Required Courses	CREDITS
	DATA 210 Statistical Analysis	4
	MATH 121 Calculus I	4
	MATH 122 Calculus II	4
	MATH 130 Discrete Mathematics	4
	MATH 233 Scientific Computing	3
	MATH 245 Ordinary Differential Equations	3
	MATH 251 Linear Algebra I	4
	MATH 315^ Probability and Simulation	3
	MATH 330 Operations Research Models	3
	Choose 1 of the following:	CREDITS
	CPTR 105 Computer Programming	3
	CPTR 111 Foundations of Computer Science I	4
	Choose 6 hours of approved electives from the following:	CREDITS
	CPTR 310 Algorithms and Data Structures	3
	CPTR 430 Machine Learning	3
	DATA 242 Data Analytics	3
	MATH 231 Multivariable Calculus	4
	MATH 340 Linear Algebra II	3
	MATH 380/480 Special Problems	3
	MATH 385/485 Seminar	3
	MATH 440 Secondary Methods	3

Example Course Sequence:

The following is a sample of a semester-by-semester approach to completing this program in 4 years.

YEAR 1						
FIRST SEMESTER						
COURSE		CREDITS	PREREQUISITES			
EDUC 111^	Exploring Educational Systems	3				
EDUC 223	Child & Adolescent Development	3				
LA-FWS	First-Year Writing Seminar	3				
LA-FCS	First-Year Communication Seminar	3				
LA-FSS	First Year Success Seminar	1				
JAN TERM						
COURSE		CREDITS				
CPTR 111	Foundations of Computer Science I	4				
SECOND SEMESTER						
COURSE		CREDITS				
EDUC 112	The Exceptional Learner	3				
DATA 210	Statistical Analysis	4				
LA-EAH	Arts and Humanities	3				
MATH 121	Calculus I	4				
		31				

YEAR 2						
THIRD SEMESTER						
COURSE		CREDITS	PREREQUISITES			
EDUC 230^	Educational Psychology	3				
EDUC 202	Professional Learning Communities I	0.5				
LA-TFR	Faith, Reason, and Ethics	3				
MATH 122	Calculus II	4	MATH 121			
MATH 233	Scientific Computing	3	MATH 121			
JAN TERM						
COURSE		CREDITS				
LA-ENS	Natural Sciences	3				
FOURTH SEMESTER						
COURSE		CREDITS				
EDUC 204	Professional Learning Communities II	0.5				
EDUC 207	Integrating Technology into Classroom	3				
EDUC 246	Educational Assessment	3				
MATH 130	Discrete Mathematics	4				
DATA 242*	Data Analytics	3	DATA 210, MATH 115, MATH 240 or PSYC 241			
		30				

4-Year Sample Schedule Cont.

YEAR 3			
FIFTH SEMESTER			
COURSE		CREDITS	PREREQUISITES
EDUC 302	Professional Learning Communities III	0.5	
ENG/MODL 350	Teaching English to Speakers of Other Lang	3	
LA-TBI	Big Issues - 2 courses	3	
LA-TCE	Creative Expression	3	
MATH 251	Linear Algebra I	4	MATH 121 and 130
JAN TERM			
COURSE		CREDITS	
EXPERIENTIAL		3	
SIXTH SEMESTER			
COURSE		CREDITS	
EDUC 304	Professional Learning Communities IV	0.5	
EDUC 343	Disciplinary Literacy	3	EDUC 230
INTD 355^	Critical Issues in Education	3	soph, junior, or senior standing
MATH 245	Ordinary Differential Equations	3	MATH 122
MATH 315^	Probability and Simulation	3	DATA 210 or PSYC 241; CPTR 105 or 111
		29	

YEAR 4			
SEVENTH SEMESTER			
COURSE		CREDITS	PREREQUISITES
EDUC 402	Professional Learning Communities V	0.5	
EDUC 430	Culturally Responsive Classrooms	3	Admission to program, junior or senior standing
EDUC 440	General Methods for Adolescent Learners	3	EDUC 343
MATH 330	Operations Research Models	3	MATH 130 or 251
CPTR 430	Machine Learning	3	DATA 231, DATA 242 or MATH 315
JAN TERM			
COURSE		CREDITS	
EXPERIENTIAL		3	
EIGHTH SEMESTER			
COURSE		CREDITS	
EDUC 475	High School Student Teaching	7	Completion of the program; professor approval required
EDUC 477	Jr High/Middle School Student Teaching	6	Completion of the program; professor approval required
EXPERIENTIAL		3	
		31.5	
TOTAL CREDITS		121.5	