

UNIVERSITY STUDIES - BS, MATHEMATICS FOR PRE-PROFESSIONALS CONCENTRATION

The Bachelor of Science in University Studies, Mathematics for Pre-Professionals area of concentration consists of courses that are designed to give students who are both interested in pre-professional programs and mathematically inclined a way to combine both interests.

Program Requirements

Code	Title	Semester Credit Hours
Select one of the following: 3		
MATH 221	Several Variable Calculus ¹	
MATH 251	Engineering Mathematics III ¹	
MATH 253	Engineering Mathematics III ¹	
MATH 300	Foundations of Mathematics ¹	3
MATH 304	Linear Algebra ¹	3
	or MATH 32 or Linear Algebra	
MATH 308	Differential Equations ¹	3
MATH 409	Advanced Calculus I	3
MATH 415	Modern Algebra I	3
	or MATH 433 or Applied Algebra	
STAT 414	Mathematical Statistics I	3
	or MATH 41 or Mathematical Probability	
MATH 407-499	(http://catalog.tamu.edu/undergraduate/course-descriptions/math/) ²	3
University and College Requirements		
ENGL 103	Introduction to Rhetoric and Composition	3
	or ENGL 104 or Composition and Rhetoric	
POLS 206	American National Government ³	3
POLS 207	State and Local Government ³	3
Select one of the following: 4		
MATH 147	Calculus I for Biological Sciences ¹	
MATH 151	Engineering Mathematics I ¹	
MATH 171	Calculus I ¹	
Select one of the following: 4		
MATH 148	Calculus II for Biological Sciences ¹	
MATH 152	Engineering Mathematics II ¹	
MATH 172	Calculus II ¹	
American history	(http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history) ³	6
Communication	(http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#communication)	3

Creative arts	(http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts)	3
Language, philosophy and culture	(http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture)	3
Life and physical sciences	(http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#life-physical-sciences)	9
Social and behavioral sciences	(http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#social-behavioral-sciences)	3
Minor 1		15-18
Minor 2		15-18
General Electives ⁴		16-22
Total Semester Credit Hours		120

¹ Must make a grade of C or better.

² MATH 433 will not fulfill this requirement.

³ Completion of four semesters of upper-level ROTC may be substituted for three hours of the history requirement and 3 hours of the government requirement.

⁴ Select from any 100-499 course not used elsewhere, (except ALED 125; ASCC 102; ASTR 109/PHYS 109, ASTR 119/PHYS 119; BMEN 153; ISEN 101; KINE 199; LAND 101; MATH 102-148, 151-168 (<http://catalog.tamu.edu/undergraduate/course-descriptions/math/>), MATH 304, MATH 309, MATH 311, MATH 365, MATH 366, MATH 367, MATH 375, MATH 376; PBSI 301, PHYS 109/ASTR 109, PHYS 119/ASTR 119, PHYS 201, PHYS 202, PHYS 205; STAT 201, STAT 301-303 (<http://catalog.tamu.edu/undergraduate/course-descriptions/stat/>).

Maximum of 3 hours of MATH 300 or CSCE 222/ECEN 222 may be used in this degree program.

Maximum of 3 hours of MATH 411 or STAT 414 may be used in this degree program.

Maximum of 4 hours of MATH 417, MATH 437 or CSCE 442 may be used in this degree program.

Graduation requirements include a requirement for 3 hours of International and Cultural Diversity (<http://catalog.tamu.edu/undergraduate/general-information/degree-information/international-cultural-diversity-requirements/>) courses and 3 hours of Cultural Discourse (<http://catalog.tamu.edu/undergraduate/general-information/degree-information/cultural-discourse-requirements/>) courses. A course satisfying a Core category, a college/department requirement, or a general elective can be used to satisfy this requirement. See academic advisor.