

MATHEMATICS

Degree: Bachelor of Science
 Specializations: Mathematics
 Computational and Applied
 Mathematics
 Financial Mathematics and
 Applied Statistics
 Mathematics in Teaching
 Minor: Mathematics
 Department: Mathematics and Statistics
 Building 38, Room 135A
 (850) 474-2276
<http://uwf.edu/mathstat/>
mathstat@uwf.edu
 College: Arts and Sciences
 Semester Hours Required for Degree: 120

Faculty: K. Li (Chairperson), R.W. Amin, S.C. Bagui, C.M. Bundrick (Emeritus), L.S. Bushway, F. Fedele, R. Hemasinha, J.S. Kuhl, Z. Manseur, M.L. Marx, S. McNeil, M.M. Ncube, R.S. Novosad (Emeritus), A.U. Okafor, S.E. Shamma (Emeritus), D.L. Sherry (Emeritus), J.A. Uvah, J.R. Weaver (Emeritus), H. Zhang

The undergraduate curriculum of the Department of Mathematics and Statistics prepares the student for graduate study; teaching; service in science, government and industry; and supporting roles in the social, biological, and physical sciences. This program emphasizes mathematics and statistics.

The bachelor's degree program permits students considerable flexibility in choosing electives outside the major. It is recommended that students seek the advice of faculty regarding career opportunities and choice of a suitable minor.

PROGRAM REQUIREMENTS

In addition to general University requirements, students seeking the B.S. in Mathematics must meet the requirements listed below.

Students should consult with their academic advisor for courses which may satisfy both the general education requirements and prerequisites.

Course descriptions are listed alphabetically by prefix in the back of this *Catalog*.

General Studies (36 sh)

For additional information see the General Studies section of this *Catalog*.

Common Prerequisites (23 sh)

State mandated common prerequisites must be completed prior to graduation, but are not required for admission to the program. Courses in brackets indicate substitutes from Florida Public Junior/Community Colleges and Universities.

COP	xxxx	Computer Language elective	3
+	MAC 2311	Analytic Geometry & Calculus I	4
		[MAC x311]	
+	MAC 2312	Analytic Geometry & Calculus II	4
		[MAC x312]	

- + MAC 2313 Analytic Geometry & Calculus III4
[MAC x313]
- + Two lab-based science courses8
- + Indicates common prerequisites which can be used to satisfy
General Studies requirements.

Lower Division Electives (1-14 sh)

Sufficient 1000/2000 level electives to complete at least 60 semester hours in the lower division. Current UWF students may use elective courses at any level (1000-4999) to meet this elective requirement.

MATHEMATICS SPECIALIZATION

Major (32-35 sh)

Mathematics Core (17-20 sh)

MAD 4401	Numerical Analysis.....	3
MAS 3105	Linear Algebra	3
MAT 4500	Undergraduate Proseminar in Mathematics/Statistics	1
MHF 3202	Set Theory & Mathematical Logic	3
STA 3162C	Applied Statistics	4
STA 4321	Introduction to Mathematical Statistics I.....	3

If not taken at the Lower Division (0-3 sh):

MAP 2302	Differential Equations	3
----------	------------------------------	---

Mathematics Specialization (15 sh)

MAA 4211	Advanced Calculus I	3
MAS 4301	Abstract Algebra.....	3
	3000/4000 level advisor-approved mathematics or statistics electives	9

Major-Related (0 sh)

Upper Division Electives (25-28 sh)

Sufficient 3000/4000 level electives to meet UWF's requirement of 48 semester hours in the upper division or completion of all departmental requirements at the 3000/4000 level, whichever is greater.

**COMPUTATIONAL AND APPLIED
MATHEMATICS SPECIALIZATION**

Major (32-35 sh)

Mathematics Core (17-20 sh)

Same as Mathematics Specialization

Computational and Applied Mathematics
Specialization (15 sh)

	3000/4000 level advisor-approved mathematics or statistics courses	15
--	---	----

Major-Related (15 sh)

	3000/4000 level advisor-approved computer science courses	15
--	--	----

Upper Division Electives (10-13 sh)

Sufficient 3000/4000 level electives to meet UWF's requirement of 48 semester hours in the upper division or completion of all departmental requirements at the 3000/4000 level, whichever is greater.

**FINANCIAL MATHEMATICS AND
APPLIED STATISTICS
SPECIALIZATION**

Major (32-35 sh)

Mathematics Core (17-20 sh)

Same as Mathematics Specialization

Financial Mathematics and Applied Statistics
Specialization (15 sh)

	3000/4000 level advisor-approved mathematics or statistics courses	15
--	---	----

Major-Related (15 sh)

Advisor-approved courses from the College of Business15

Upper Division Electives (10-13 sh)

Sufficient 3000/4000 level electives to meet UWF's requirement of 48 semester hours in the upper division or completion of all departmental requirements at the 3000/4000 level, whichever is greater.

**MATHEMATICS TEACHING
SPECIALIZATION**

Major (32-35 sh)

Mathematics Core (17-20 sh)

Same as Mathematics Specialization

Mathematics Teaching Specialization (15 sh)

MAS 4203	Number Theory	3
MTG 3212	Modern Geometry	3
	3000/4000 level advisor-approved mathematics or statistics courses	9

Major-Related (15 sh)

3000/4000 level advisor-approved courses from the
College of Professional Studies15

Upper Division Electives (10-13 sh)

Sufficient 3000/4000 level electives to meet UWF's requirement of 48 semester hours in the upper division or completion of all departmental requirements at the 3000/4000 level, whichever is greater.

MINOR

A Minor in Mathematics requires completion of 15 sh approved by the mathematics department in courses beyond the level of MAC 2313. A list of approved courses may be obtained from the department. Mathematics majors may not earn this minor.