

MATHEMATICS

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

Faculty: K. Li (Chairperson), R.W. Amin, S.C. Bagui, K.A. Bloch, C.M. Bundrick (Emeritus), L.S. Bushway, D.R. Byrkit (Emeritus), F. Fedele, R. Hemasinha, Z. Manseur, M.L. Marx, S. McNeil, M.M. Ncube, R.S. Novosad (Emeritus), A.U. Okafor, A.K. Shamma, S.E. Shamma (Emeritus), D.L. Sherry (Emeritus), J.A. Uvah, J.R. Weaver, J. Xu, 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 offered by the Department of Mathematics and Statistics 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 III 4
 [MAC x313]
- + Two lab-based science courses 8

+ 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	Mathematical Statistics I	3

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

MAP 2302	Differential Equations	3
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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 Business 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.

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 Studies 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.

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.