**NORTHERN ARIZONA UNIVERSITY**
**BACHELOR OF SCIENCE IN MATHEMATICS - EXTENDED MAJOR**
**DEGREE PLAN**
**2001-2003**

*Note*: *The degree plan used by the students must be the one in effect at the time the student entered the specific major program, or a later version, regardless of when the student entered NAU.*

Student Name _____ SS# _____
Advisor Name _____ Advisor Code _____
Date Admitted to Program (requires C or better in MAT 136) _____

STUDENTS MUST CONFER WITH THEIR ASSIGNED ADVISORS AT LEAST ONCE EACH TERM TO ENSURE PROPER COURSE SELECTION AND FULFILLMENT OF REQUIREMENTS.

## PART ONE: LIBERAL STUDIES CURRICULUM

**I. UC 101 UNIVERSITY COLLOQUIUM** (3 hours) Semester Taken _____

**II. FOUNDATION STUDIES** (4 hours)

A. English (4 hours)

| Dept.. | Course No. | Title | Hours | Sem Taken |
|---|---|---|---|---|
| Eng | 105 | Critical Reading | 4 | _____ |

B. Mathematics
Please note that the usual 35 hours for Liberal Studies are reduced to 32 hours for Mathematics Majors, who are exempted from the three-hour Mathematics foundation requirement.

**III. DISTRIBUTIONAL REQUIREMENT** (25 hours)

A. Lab Science (4 hours)
____ ____ _____ ____ ____

B. Science and Applied Science (3-6 hours)
____ ____ _____ ____ ____
____ ____ _____ ____ ____

C. Social and Political Worlds (3-6 hours)
_____ ____ _____ _____ _____
_____ ____ _____ _____ _____

D. Aesthetic and Humanistic Inquiry (3-6 hours)
_____ ____ _____ ____ ____
_____ ____ _____ ____ ____

E. Cultural Understanding (3-6 hours)
_____ ____ _____ ____ ____
_____ ____ _____ ____ ____

IV. TOTAL HOURS (must be at least 32) _____

## PART TWO: MAJOR REQUIREMENTS

**I. CORE:** (29 HOURS)

| Dept. | Course No. | Title | Hours | Sem. Taken | Dept. | Course No. | Title | Hours | Sem. Taken |
|---|---|---|---|---|---|---|---|---|---|
| MAT | 136 | Calculus I | 4 | _____ | MAT | 320W | Foundations of Math | 3 | _____ |
| MAT | 137 | Calculus II | 4 | _____ | MAT | 411 | Intro to Abstract Alg | 3 | _____ |
| MAT | 238 | Calculus III | 3 | _____ | MAT | 431 | Introduction to Analysis | 3 | _____ |
| MAT | 239 | Differential Equations | 3 | _____ | STA | 473 | Intro to Math Stat I | 3 | _____ |
| MAT | 316 | Intro to Linear Alg. | 3 | _____ | | | | | |

**II. EMPHASIS:** Check one emphasis and complete courses listed.

A. Actuarial Science (27 hours) _____

| | | | | |
|---|---|---|---|---|
| MAT | 226 | Discrete Mathematics | 3 | _____ |
| MAT | 362 | Intro to Num. Analysis | 3 | _____ |
| MAT | 467 | Operations Research | 3 | _____ |
| MAT | 480 | Math Fin Models | 3 | _____ |
| STA | 270 | Applied Statistics | 3 | _____ |
| STA | 471 | Regression Theory | 3 | _____ |
| STA | 474 | Intro to Math Stat II | 3 | _____ |
| ACC | 255 | Prin Acct/Financial | 3 | _____ |
| ACC | 256 | Prin Acct/Managerial | 3 | _____ |

B. Applied Mathematics (21 hours) _____

| | | | | |
|---|---|---|---|---|
| MAT | 226 | Discrete Mathematics | 3 | _____ |
| MAT | 362 | Intro to Num. Analysis | 3 | _____ |
| MAT | 368 | Mathematical Modeling | 3 | _____ |
| MAT | 461 | Partial Differential Eq's. | 3 | _____ |
| MAT | 467 | Operations Research | 3 | _____ |
| MAT | 480 | Capstone | 3 | _____ |
| One of | MAT 412, 432, or STA 474 | | | _____ |
| ____ | _____ | _____ | 3 | _____ |

C. Mathematics (9 hours) _____

Two of MAT 412, 432, 441 or STA 474

____ _____ _____3 _____

____ _____ _____3 _____

One of MAT 226, 318, 365, or 442

MAT_____ _____3 _____

D. Statistics (15 hours) _____

| | | | | |
|---|---|---|---|---|
| MAT | 270 | Applied Statistics | 3 | _____ |
| STA | 371 | Intermediate Statistics | 3 | _____ |
| STA | 471 | Regression Analysis | 3 | _____ |
| STA | 472 | Nonparametric Statistics | 3 | _____ |
| STA | 474 | Intro to Math Stat II | 3 | _____ |

**III. ADDITIONAL MATHEMATICS/STATISTICS:** Additional mathematics or statistics courses from MAT 226, MAT 239, and those numbered 300 and above (except MAT 301, 308, 401, 402, 420, 430, or 440)

____ ____ _____ ____ ____ ____ ____ _____ ____ ____

____ ____ _____ ____ ____ ____ ____ _____ ____ ____

____ ____ _____ ____ ____ ____ ____ _____ ____ ____

**TOTAL MATHEMATICS/STATISTICS HOURS (53 OR MORE) _____**

## PART THREE: COMPUTER LANGUAGE REQUIREMENT (3 HOURS)

One of CSE 122, 123, 126 ____ ____ _____ 3 ____

## PART FOUR: ELECTIVES

____ ____ _____ ____ ____ ____ ____ _____ ____ ____

____ ____ _____ ____ ____ ____ ____ _____ ____ ____

____ ____ _____ ____ ____ ____ ____ _____ ____ ____

____ ____ _____ ____ ____ ____ ____ _____ ____ ____

____ ____ _____ ____ ____ ____ ____ _____ ____ ____

____ ____ _____ ____ ____ ____ ____ _____ ____ ____

TOTAL ELECTIVE HOURS _____

TOTAL HOURS (minimum of 120) _____

Verified:_____ _____

Advisor Name/Signature Chair Name/Signature

A GRADE OF "C" OR HIGHER IS REQUIRED IN EACH MATHEMATICS/STATISTICS COURSE APPLIED TOWARD THIS MAJOR.

Rev 5/2001