# Mathematics - Pure Math Option, B.S.

## **DEPARTMENT**

MN in Mathematics, Minor

BS in Mathematics - General Math Option, B.S.

BS in Mathematics - Pure Math Option, B.S.

BS in Mathematics - Applied Math Option, B.S.

BS in Mathematics - Statistics Option, B.S.

BS in Mathematics - Teaching Option, B.S.

BS in Mathematics - Integrated Credential Option, B.S.

MS in Mathematics, M.S.

CRED in Single Subject Credential - Mathematics

## REQUIREMENTS

Department

#### **Bachelor of Science Degree Requirements**

## **Pure Mathematics Option**

The requirement for entrance to the major and minor programs is completion of two years of algebra as well as courses in geometry and trigonometry, or a sequence of courses containing their equivalents, ssuch as MATH 3 and 5. It is strongly recommended that such study be completed before entrance to the university.

## 1. Major requirements (57-60 units)

Core curriculum (34-35 units)

MATH 75 (or 75A and B), 76, 77, 81 (15 units)

MATH 101 or 107 (3-4 units)

MATH 111 (4 units)

MATH 151, 152 (8 units)

MATH 171 (4 units)

## **Option specific electives (16-18 units)**

MATH 107 or MATH 114 (3 units)

MATH 128 or MATH 172 (3-4 units)

MATH 161 or MATH 165 (3 units)

MATH 191T (1 unit)

MATH 198 (3 units)

MATH elective (see note 1) (3-4 units)

#### Additional requirements (7 units)

CSCI 40 (4 units)

PHYS 4A (see note 2) (3 units)

## 2. General Education requirements (49 units) (see notes 2 and 3)

#### 3. Other requirements (6 units)

Upper-division writing and Multicultural and International (MI)

## 4. Sufficient elective units to meet required total units (varies)

#### 5. Total units (120)\*

\* G.E. and MI courses can be double-counted with major requirements. The writing requirement may be met by taking the upper-division writing exam. See advisor for details.

The Culminating Experience for the Pure Mathematics Option consists of the following:

• A Junior Seminar (MATH 191T) in Pure Mathematics in the spring semester of the year prior to graduation, and

• A Senior Project (MATH 198) in Pure Mathematics, which will include a report and a presentation in the Junior Seminar in the spring semester of student's graduating year.

#### **Major Advising Notes**

- 1. One 3-4 unit mathematics course, upper division or graduate, excluding MATH 100, 133, 134, 137, 138, 139. Special conditions apply for graduate courses; see department advisor.
- 2. PHYS 4AL is not required for the math major. If students wish to include PHYS 4A as a General Education Breadth course, they must also take PHYS 4AL.
- 3. Three units of MATH 75 (or MATH 75A) also will satisfy the G.E. Foundation B4 requirement.
- 4. See Mathematics Road Map at http://www.fresnostate.edu/degreeroadmap/

**Advising Requirements.** It is strongly recommended, to all math majors, to have an advising session at least once a semester. See the department chair for assignment to an advisor.

**Grade Requirements**. All courses required as prerequisites for a mathematics course must be completed with a grade of C or better before registration will be permitted. All courses taken to fulfill major or minor requirements must be completed with a grade of C or better.

## **FACULTY**

For faculty phone numbers and e-mail, see the campus directory.

For more on the faculty, see the faculty pages.

The faculty pages are updated by the department or program.