## **MATH MINOR REQUIREMENTS**

Minimum units required: 18 total, 6 upper-division, 3 at UA

Minimum minor GPA: 2.00 Course Work Requirements:

1. Complete both (AP credit is OK):

o MATH 122A/B\*\* or 125: Calculus I

o MATH 129: Calculus II

2. Choose two courses from:

o MATH 223: Vector Calculus

o MATH 243: Discrete Mathematics in Computer Science

MATH 254<sup>†</sup>: Introduction to Ordinary Differential Equations

o MATH 355<sup>†</sup>: Analysis of Ordinary Differential Equations

3. Complete one linear algebra course:

o MATH 313\*: Introduction to Linear Algebra

4. Choose one additional upper-division course from the following; at least six upper-division units required: MATH 315, 322, 323, 330, 361<sup>††</sup>, 362<sup>††</sup>, 363<sup>††</sup>, 396T, 401A, 401B, 402, 404, 407, 412, 413, 415A, 415B, 422, 424, 425A, 425B, 432, 443, 445, 446, 447, 454, 456, 462, 464<sup>††</sup>, 466<sup>††</sup>, 468, 475A, 475B, 481, 485, 488, 496T, 498, 498H, ECOL 480, or equivalent UA South courses, iCourses, or officially cross-listed courses.

To add the Math minor: <a href="http://math.arizona.edu/academics/undergrads/advising/minor">http://math.arizona.edu/academics/undergrads/advising/minor</a>

For advising questions: mathcenter@math.arizona.edu

## **MATH MINOR REQUIREMENTS**

(2019-24 catalogs)

(2019-24 catalogs)

Minimum minor GPA: 2.00 Course Work Requirements:

1. Complete both (AP credit is OK):

MATH 122A/B\*\* or 125: Calculus I

Minimum units required: 18 total, 6 upper-division, 3 at UA

MATH 129: Calculus II

2. Choose two courses from:

o MATH 223: Vector Calculus

o MATH 243: Discrete Mathematics in Computer Science

- MATH 254<sup>†</sup>: Introduction to Ordinary Differential Equations
- o MATH 355<sup>†</sup>: Analysis of Ordinary Differential Equations
- 3. Complete one linear algebra course:
  - MATH 313\*: Introduction to Linear Algebra
- 4. Choose one additional upper-division course from the following; at least six upper-division units required: MATH 315, 322, 323, 330, 361<sup>††</sup>, 362<sup>††</sup>, 363<sup>††</sup>, 396T, 401A, 401B, 402, 404, 407, 412, 413, 415A, 415B, 422, 424, 425A, 425B, 432, 443, 445, 446, 447, 454, 456, 462, 464<sup>††</sup>, 466<sup>††</sup>, 468, 475A, 475B, 481, 485, 488, 496T, 498, 498H, ECOL 480, or equivalent UA South courses, iCourses, or officially cross-listed courses.

To add the Math minor: <a href="http://math.arizona.edu/academics/undergrads/advising/minor">http://math.arizona.edu/academics/undergrads/advising/minor</a>
For advising questions: <a href="mathcenter@math.arizona.edu">mathcenter@math.arizona.edu</a>

<sup>\*\*</sup> MATH 122A and 122B are a single-semester sequence that cover Calculus I. MATH 125 is an accelerated version with additional placement requirements.

MATH 254 and 355 count as duplicate credit; only one of the two courses may be used toward minor requirements. Note that 355 does not count in part 4 of the minor.

<sup>\*</sup>MATH 313 has replaced 215. Either MATH 313 or MATH 310 may be used to complete part 3 of the minor and fulfill upper-division unit requirements in the minor; however, 310 is not currently available here. Students with transfer credit for MATH 215 can use this credit to complete part 3 of the minor, but will need an additional upper-division course (6 units upper-division required).

<sup>††</sup>SDS majors who minor in math must complete at least 6 unique upper-division units in the minor, and may not use courses with "probability" or "statistics" in the title. MATH 363 has added programming requirements: a Python prerequisite, and SOL co-requisite. Contact the Math Center with questions.

<sup>\*\*</sup> MATH 122A and 122B are a single-semester sequence that cover Calculus I. MATH 125 is an accelerated version with additional placement requirements.

<sup>&</sup>lt;sup>†</sup> MATH 254 and 355 count as duplicate credit; only one of the two courses may be used toward minor requirements. Note that 355 does not count in part 4 of the minor.

<sup>\*</sup> MATH 313 has replaced 215. Either MATH 313 or MATH 310 may be used to complete part 3 of the minor and fulfill upper-division unit requirements in the minor; however, 310 is not currently available here. Students with transfer credit for MATH 215 can use this credit to complete part 3 of the minor, but will need an additional upper-division course (6 units upper-division required).

<sup>&</sup>lt;sup>††</sup>SDS majors who minor in math must complete at least 6 unique upper-division units in the minor, and may not use courses with "probability" or "statistics" in the title. MATH 363 has added programming requirements: a Python prerequisite, and SQL co-requisite. Contact the Math Center with questions.