

TRANSFER PATHWAY GUIDE

2024-2025

Associate of Science in Mathematics at Sinclair College to a Bachelor of Science in Mathematics at Northern Kentucky University

Overview

Completion of the following curriculum will satisfy the requirements for the Associate of Science (AS) in Mathematics degree at Sinclair College and leads to the Bachelor of Science (BS) in Mathematics degree at Northern Kentucky University (NKU).

Degree Requirements for Sinclair College

To earn a degree at Sinclair College, a student must complete a minimum of 60 credit hours, attain a minimum cumulative GPA of 2.0, and earn a minimum of 20 credit hours at Sinclair College.

Admission Requirements for NKU

Students completing an associate degree with a cumulative GPA of 2.0 or higher will be accepted into NKU.

Tuition and Scholarships

For information on tuition and scholarships, please visit <https://nku.edu/admissions/adult/online.html>

NKU Contact

For more information, students should contact Kim McCoy, Assistant Director of Transfer Services, at mccoyk8@nku.edu.

Degree Requirements for NKU

To earn a bachelor's degree at NKU, students must complete a minimum of 120 credit hours with at least 45 credit hours numbered 300 and above. In addition, at least 25% of the credit hours required for the degree and the last 30 credit hours must be completed at NKU. Students must have an overall GPA of 2.0 and meet all prerequisites for courses and requirements for the major.

In addition, the mathematics major at NKU requires that:

- Students must make a C- or better in all courses. At least 20 percent of the total required hours must be taken at NKU.
- At least 9 credit hours toward the major must be completed at NKU
- A double major in mathematics and statistics consists of satisfying the degree requirements of both majors with a minimum of 58 credit hours of courses applicable to either major.
- A student majoring in mathematics and seeking a focus in statistics must complete four additional 300 or 400-level STA courses not used to satisfy the mathematics major.
- Any substitutions in these programs must be made in consultation with the chair of the department.

SINCLAIR COLLEGE AS IN MATHEMATICS TO NKU BS IN MATHEMATICS CHECKLIST

Sinclair College

Category 1: Sinclair Requirements for the AS in Mathematics

| Sinclair Course | Course or Category | Credits | NKU Course | Completed |
|-------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------------------------------------------------------------------------|-----------|
| COM 2206 or COM 2211 or COM 2225 | Interpersonal Communication or Effective Public Speaking or Small Group Communication | 3 | CMST 220 CMST 101 CMST 230 | |
| ENG 1101 | English Composition I | 3 | ENG 101 | |
| MAT 2270 | Calculus & Analytic Geometry I | 5 | MAT 129 | |
| MAT 2280 | Calculus & Analytic Geometry II | 5 | MAT 229 | |
| MAT 2290 | Calculus & Analytic Geometry III | 5 | MAT 329 | |
| MAT 2310 or MAT 2600 and TBS XXX OR CIS 1111 and CIS 2212 and TBS XXX | Elementary Differential Equations and Applied Statistics and Any Course in Catalog Elective (preferred) OR Introduction to Problem Solving & Computer Programming and Java Software Development I and Any Course in Catalog Elective | 10-11 | MAT 325 STA 250 TBD XXX INF 100T CSC 260 TBD XXX | |
| MAT 2320 or CIS 2217 | Linear Algebra (preferred) or Java Software Development II | 3-4 | MAT 234 CSC 360 | |
| SCC 1101 | First Year Experience | 1 | UNV 101 | |
| TBS XXX | Ohio Transfer 36: Arts & Humanities Elective | 6 | TBD XXX | |
| TBS XXX | Ohio Transfer 36: Natural & Physical Sciences Elective | 10 | TBD XXX | |
| TBS XXX | Ohio Transfer 36: Social & Behavioral Sciences Elective | 6 | TBD XXX | |
| TBS XXX | Multicultural Elective | 3 | TBD XXX | |
| | Total Associate Degree Hours | 60-62 | | |

TBS XXX means to be selected by Sinclair College student.

TBD XXX means to be determined by NKU based on course selected at Sinclair College.

The Category 2 table below shows a pathway where preferred mathematics courses are selected in the AS in Mathematics curriculum. Students who select the programming courses in the AS degree can still complete a mathematics major at NKU in 120 total credit hours.

Northern Kentucky University

Category 2: NKU Major Requirements for the BS in Mathematics

| NKU Course | Course | Credits | Sinclair Course | Taken at Sinclair |
|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------------|-------------------------------------------|
| MAT 129 | Calculus I | 4 | MAT 2270 | x |
| MAT 229 | Calculus II | 5 | MAT 2280 | x |
| MAT 329 | Calculus III | 4 | MAT 2290 | x |
| MAT 234 | Linear Algebra | 3 | MAT 2320 | x |
| MAT 302 | Introduction to Higher Mathematics | 3 | | |
| MAT 393 | Career Explorations in Mathematics | 1 | | |
| MAT 489 | Comprehensive Examination | 0 | | |
| STA 250 | Probability and Statistics | 3 | MAT 2600 | x |
| CSC 260 OR CSC 270 | Object Orient Programming OR Mathematics Software Programming | 3 | CIS 2212 | |
| Select one: MAT 310 MAT 410 MAT 415 | Select one course from the following: Elementary Theory of Numbers Group Theory Rings and Fields | 3 | | |
| Select one: MAT 360 MAT 420 MAT 430 | Select one course from the following: Numerical Analysis Real Variables I Complex Variables | 3 | | |
| TBS XXX | Select 12 hours of additional MAT/STA electives at the 300 level or above. At least 6 of these hours must be MAT courses. | 12 | MAT 2310 = MAT 325 | x Need 9 additional credit hours |
| | Total NKU Major Credit Hours | 44 | | |
| | Less Major Credit Hours from Sinclair | 22 | | |
| | Subtotal Major Credit Hours at NKU | 22 | | |

Category 3: Additional Requirements at NKU

| NKU Course | Course | Credits | Sinclair Course | Taken at Sinclair |
|------------|-----------------------------------------------------|--------------|-----------------|-------------------|
| | Subtotal Minor Credit Hours Taken at NKU | 12-24 | | |
| | Subtotal Elective (some 300/400 level) Hours | 12-26 | | |
| | Total Baccalaureate Degree Credit Hours | 120 | | |

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