

**ASSOCIATE IN SCIENCE**  
**Pre-Major: MATHEMATICS EDUCATION**

*This template has been developed by university and community college faculty and made specific for Durham Tech students. It is to be used as a blueprint for guiding students interested in majoring in Mathematics Education in their course selections. Students who successfully complete this course of study and who meet the requirements for admission to the university may be eligible to apply for admission to the major with junior standing. **This agreement is meant as a guide and the student should not assume that it addresses unique requirements set by his or her university of choice. It is the student's responsibility to become aware of individual requirements of the senior institution and to make course substitutions as warranted, within the requirements of the AS Plan-of-Study.***

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**General Education Core (44 SHC):** 44 semester hours of credit (SHC) in general education core courses are required as outlined by the North Carolina Community College Curriculum Standards for Associate in Science degree programs. Students who complete the General Education Core exclusively at public colleges and universities in North Carolina or at private colleges that have signed on to the Comprehensive Articulation Agreement will be able to transfer the core as a package. The General Education core includes study in the areas of English composition, humanities and fine arts, social and behavioral sciences, natural sciences and mathematics.

**English Composition (6 SHC):**

- ENG 111 (3 SHC)—Expository Writing
- ENG 113 (3 SHC)—Literature-Based Research

**Humanities and Fine Arts (9 SHC):**

- One English literature course (3 SHC) selected from—ENG 231, 232, 233, 241, 242, 243, 251, 252, 261, 262
- \*FL 112 (3 SHC)—Elementary Foreign Language II (Must be taken with the accompanying lab—see Other Required Hours below)
- One course (3 SHC) selected from—ART 111, 114, 115, 117; DRA 122; HUM 110, 121, 150, 160; MUS 110, 113; PHI 215, 240; REL 110, 211

*\*Foreign languages offered at Durham Tech include French, German, Italian, Portuguese, and Spanish. Students graduating from UNC-CH are required to complete Intermediate Foreign Language I. Students must demonstrate competency in or complete the prerequisite for Elementary Foreign Language II.*

**Social and Behavioral Sciences (9 SHC):**

- One history course (3 SHC) selected from—HIS 111, 112, 121, 122, 131, 132
- PSY 150 (3 SHC)—General Psychology
- One course (3 SHC) selected from—ANT 210, 220; ECO 251, 252; GEO 111, 112; POL 120, 220; SOC 210, 213, 220, 225

**Natural Science and Mathematics (20 SHC)**

**Natural Science (8 SHC):**

- PHY 251 (4 SHC)—General Physics I (Offered spring only)
- PHY 252 (4 SHC)—General Physics II (Offered fall only)

**Mathematics (12 SHC):**

- MAT 271\* (4 SHC)—Calculus I (Offered fall and spring, only)
- MAT 272 (4 SHC)—Calculus II (Offered spring and summer, only)
- MAT 273 (4 SHC)—Calculus III (Offered fall only)

*\*Students must demonstrate competency in or complete the prerequisites for MAT 271*

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## MATHEMATICS EDUCATION, continued

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**ELECTIVES:** To complete the Associate in Science degree a student must complete a total of 66 semester hours. Sixty-four credit hours are guaranteed to transfer. The transfer of credit hours beyond the 64<sup>th</sup> is not guaranteed. If the student completes the AS degree then the electives transfer as a package. If the degree is not completed then electives transfer on a course-by-course basis and it is the student's responsibility to address individual requirements at the university. The additional 22 hours beyond the General Education Core are recommended to be distributed as follows:

**Natural Science/Mathematics (14-17 SHC):** An additional 14 hours of mathematics and science, selected from the following list of courses:

**Required (9 SHC):**

- CIS 115 (3 SHC)—Introduction to Programming and Logic *or* CSC 134 (3 SHC) – C++ Programming (Offered fall only) *or* CSC 151 (3 SHC)—Java Programming (Offered spring only) (*Note: These courses transfer to UNC-CH only if the student completes the AA or the AS degree.*)
- MAT 285 (3 SHC)—Differential Equations (Offered by demand only)
- CAPSTONE COURSE (Required for Graduation): BIO 140 (3 SHC)—Environmental Biology

**For students who did not place into Calculus I (4-8 SHC):**

- MAT 171/171A (4 SHC)—Pre-calculus Algebra and accompanying Lab
- MAT 172/172A (4 SHC)—Pre-calculus Trigonometry and accompanying Lab

**For Students who placed into Pre-calculus Trigonometry or Calculus I (1-5 SHC):**

- Two to three additional mathematics and science courses (8 SHC) selected from—BIO 111, 112, 120, 130, 168, 169, 175, 250, 275; CHM 131 *and* 131A, 151, 152, 251, 252, 263; CSC 115, 134, 148; GEL 111, 113; MAT 151 *or* 155, 167

**Physical Education (1 SHC):**

- One course (1 SHC) selected from the following—PED 111, 113, 114, 120, 121, 128, 130, 139, 142, 143, 145, 148, 162, 172, 183, 186

**Other Required Hours† (4-7 SHC):** Four to seven semester hours credit selected from:

- COM 231 (3 SHC)—Public Speaking *or* one course (3 SHC) selected from ART 111, 114, 115, 117; HUM 110, 120, 121, 150, 160; MUS 110; PHI 215, 240; REL 110, 211
- FL 182 (1 SHC)—Foreign Language II Lab
- PSY 241 (3 SHC)—Developmental Psychology

†*Students entering this pre-major must demonstrate computer competency or complete CIS 110 or CIS 115. Students must demonstrate competency in or complete the pre-requisite required for FL 112.*

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**The colleges and universities that offer this major:**

To identify the public universities offering this major, go to the web site

<http://ias.ga.unc.edu/%7Epassess/acrobat/apibyprog.pdf> or  
[www.northcarolina.edu/content.php/aa/planning/traditional.htm](http://www.northcarolina.edu/content.php/aa/planning/traditional.htm) .

To identify the private colleges and universities offering this major, go to the web site

<http://www.northcarolina.edu/content.php/assessment/reports/publications/api.htm> .

**Admission to teacher licensure programs requires satisfactory scores on PRAXIS I and II.**

**Transfer Assured Admissions Policy (TAAP):** Beginning in Fall Semester 2005, a student who successfully earns the A.A. or A.S. degree and who falls under the other requirements of the Comprehensive Articulation Agreement (CAA) is assured admission to one of the 16 UNC institutions. See your advisor for further details.

Students should be aware that universities look more favorably on those who have completed the General Education Core (44 hours defined on the first page of this agreement) or the Associate in Arts or Associate in Science degree (64 hours). Most universities allow at most 64 hours of credit to transfer. However, there are some situations where more than 64 hours can be completed at the community college. Please consult with an advisor to find out what those situations are.