

**Bachelor of Arts in Mathematics
with Actuarial Certificate (BA MATH ACTU)
2024 - 2025 Advising Handout**

Important Information About Your Degree

- **College of Science Admission Requirement:** Students must demonstrate proficiency in College Algebra by placing into Math Level 2 or higher through the UNT Math Placement Exam (Not the same as TSI) OR completing College Algebra or higher with a grade of C or higher.
- **UNT Double-Dip Course Policy (Best Selection):** Courses shown in *italics* satisfy multiple degree program requirements. Students who do not take the Best Selection courses, will have to take additional courses to meet program requirements. Whether or not the course is taken to fulfill a specific university core category, all courses are required by the program to complete the degree. Electives may be required due to double-dipping.
- Hour and GPA Requirements for graduation/degree completion:
 - BA in Math with ACTU requires at least 120 hours, 36 advanced, 2.00 UNT GPA, 2.00 overall GPA, and a minimum 2.0 GPA in math courses numbered 3350 or above.
- Courses marked with an asterisk (*) require a grade of **C or Higher**.
- Courses in **bold** require prerequisites. **Prerequisites** are listed in the university catalog with the course description.
- An official degree audit is required for graduation; Students **must** meet with an academic advisor to request that their audit be made official. Students can review degree requirements by running their audit at <http://degreeaudit.unt.edu/>
- For major-specific career information, contact the Department of Mathematics in GAB 443 or at MathAdvising@unt.edu.
- For information regarding transfer credit or enrollment issues, contact Krista Hines (krista.hines@unt.edu)
- For teaching certification courses and requirements, contact tnt@unt.edu.
- For assistance with TSI status or mandatory courses, contact TSI@unt.edu.
- For additional program information visit <https://cos.unt.edu/advising> or contact the COS Advising Center at cosadvising@unt.edu.

Advising Notation Key

X = Requirement Completed
Credit is posted within the degree audit.

IP = In Progress/Pending Credit
Advisor has seen proof from an unofficial transcript or an official score

? = Needs further evaluation
Student may need to provide additional information. (ex. a course syllabus)

Foundation Requirements:		University Core Requirements	
MATH 1710* – Calculus I	4	42 hours – Students may elect to take any course approved for the University Core Curriculum to fulfill these requirements; however, there are courses recommended in the core categories for students pursuing a Mathematics major	
MATH 1720* – Calculus II	3	Composition I*:	3
MATH 2000* – Discrete Math	3	Composition II*:	3
MATH 2700 – Linear Algebra and Vector Geometry	3	Math:	3
MATH 2730 – Multivariable Calculus	3	Life & Physical Science:	3
MATH 3000 – Real Analysis I	3	Life & Physical Science:	3
One of the Following: Double dips with major requirement		Creative Arts:	3
MATH 3510: Intro. to Abstract Algebra I	3	Language, Philosophy & Culture:	3
MATH 3610: Real Analysis II	3	US History to 1865:	3
Major Requirements		US History from 1865:	3
Depth: two courses from one of the following areas (6hrs) Breadth: one course in each of the three areas below not used to satisfy the depth requirement (9hrs)		Federal Government:	3
Math Electives: three hours of advanced Math elective 3350 in addition to the Depth and Breadth Requirement.		Texas Government:	3
Analysis Area:		Social & Behavioral Sciences:	3
MATH 3350 – Intro to Numerical Analysis	3	Component Area Option I:	3
MATH 3410 – Differential Equations I	3	Component Area Option II:	3
MATH 3420 – Differential Equations I	3	Other Required Courses for Degree	
MATH 3610 – Real Analysis II	3	Foreign Language Option 1: Complete 6 hours total - See catalog for options	
MATH 3740 – Vector Calculus	3	Foreign Language 1010 -	3
MATH 4080 – Differential Geometry	3	Foreign Language 1020 -	3
MATH 4100 – Fourier Analysis	3	Foreign Language Option 2: Complete 6 hours total	
MATH 4200 – Dynamical Systems	3	TECM 2700* – Technical Writing	3
MATH 4520 – Intro. To Functions of a Complex Variable	3	Advanced Technical Writing* – See Course Catalog for options	3
Algebra Area:		Computer Programming: Complete one of the following:	
MATH 3400 – Number Theory	3	CSCE 1010 – Discovering Computer Science	3
MATH 3510 – Intro. to Abstract Algebra I (required if depth)	3	or CSCE 1030 – Computer Science	4
MATH 4010 – Intro. to Metamathematics	3	Lab Science: See degree audit for course options	
MATH 4430 – Intro. to Graph Theory	3	Physical science with lab intended for science majors*	4
MATH 4450 – Intro. to the Theory of Matrices	3	Physical science with lab intended for science majors*	4-5
MATH 4510 – Abstract Algebra	3	Lab science course that meets university core requirement*	3-5
Probability and Statistics Area:		Actuarial Certificate Pre-requisites – also fulfills COS Breadth Requirement	
MATH 3680 – Applied Statistics	3	CSCE 1010 – Discovering Computer Science	3
MATH 4610 – Probability	3	or CSCE 1030 – Computer Science	4
MATH 4650 – Statistics	3	ECON 1100 – Principles of Microeconomics	3
Geometry and Topology		ECON 1110 – Principles of Macroeconomics	3
MATH 3740 – Vector Calculus	3	FINA 3770 – Finance	3
MATH 4060 – Foundation of Geometry	3	MATH 2700 – Linear Algebra and Vector Geometry	3
MATH 4080 – Differential Geometry	3	MATH 2730 – Multivariable Calculus	3
MATH 4500 – Intro. to Topology	3	MATH 3680 – Applied Statistics	3
Three hours of advanced math electives 3350 or higher		Actuarial Certificate Required Courses	
Advanced Math Elective –	3	ECON 4870 – Intro. to Econometrics	3
		FINA 4200 – Investments	3
		MATH 3860 – Financial Mathematics (cannot count towards BS Math degree requirements)	3
		Complete 3 of the following courses: FINA 4210, FINA 4300, FINA 4310, FINA 4400, ECON 4030, ECON 4180, ECON 4875, RMIN 2500, RMIN 4200, RMIN 4310, or any 4000 level RMIN course. (Any other course must be approved by faculty advisor.)	
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*This information is for **ADVISING ONLY** and is not official. Requirements can and do change without notification.