

2018-2019
Bachelor of Science in Mathematics
Math (120 hrs.)

Name _____

T# _____

Mathematics (48 hrs.)

Course	Course Title	Credits	Grade	✓	Sem.
1910	Calculus I	4			
1920	Calculus II	4			
2010	Intro. Linear Algebra	3			
2110	Calculus III	4			
2120	Differential Equations	3			
3810	Complex Variables	3			
3400	Intro Concepts Math	3			
4010	Modern Algebra I	3			
3430	College Geometry or	3			
4410	Differential Geometry				
4310	or Intro. Topology I				
4530	Linear Algebra I	3			
4470	Probability & Statistics I	3			
4110	Advanced Calculus I	3			

One Sequence from **Pure Mathematics Sequence**
List: 4010-4020; 4110-4120; 4310-4320; 4530-4540;
or 4850-4860

One Sequence from **Applied Mathematics Sequence**
List: 3070-3080, 4210-4220; 4250-4260; 4470-4480;
or any two of the three: 4350, 4360 or 4050

One additional sequence from either list above

History (6 hrs.)

2010	Early US History	3			
2020	Modern US History	3			

Humanities/Fine Arts (6 hrs.)

Social/Behavioral Science (6 hrs.)

Exams Required for Graduation: Senior Exit Exam

The Major Field Test will be given to students during their senior year in the Math Department (it is not a required exam for graduation, but is needed for testing results and data).

*See catalog at <http://catalog.tntech.edu/index.php?catoid=23>

English (9 hrs.)

Course	Course Title	Credits	Grade	✓	Sem.
1010	English Comp. I	3			
1020	English Comp. II	3			
2130	Top. American Lit.	3			
2235	Top. British Lit., or				
2330	Top. World Lit.				

Science Sequence (8 hrs.)

Courses to be selected from the list below:

ASTR 1010 & 1020	Intro. Modern Astronomy I & II	8
BIOL 1010 & 1020	Intro to Biol & Div of Life	8
BIOL 1113 & 1123	Gen Biol I & Gen Biol II	8
BIOL 1113 & 2310	Gen Biol I & Gen Botany	8
CHEM 1010 & 1020	Intro. Chemistry I & II	8
CHEM 1110 & 1120	General Chemistry I & II	8
GEOL 1040	Physical Geology	4
GEOL 1045	Earth Environ Res. Soc.	4

or

PHYS 2110	Calculus Based Physics I with Lab	4
PHYS 2120	Calculus Based Physics II with Lab	4

Computer Science (4 or 2 hrs.)

CSC 1300	Intro to Prob Sol & Comp Programming OR	4			
ENGR 1120	Prog for Engineers	2			

Communication (3 hrs.)

COMM 2025	Fundamentals of Communication, OR	3			
PC 2500	Communicating in the Profession				

***First-Year Connections (or any other UNIV 1020 course)**

1020	CSC/MATH/PHYS First-Year Connections	1			
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*This course is not included in 120-hour curriculum. It can be any First Year Connections course or HON 1010, and is only required for incoming freshman with less than 12 hours.

Electives (30 or 32 hrs.)

MATHEMATICS - B. S. in MATH (120 hrs.)

Freshman Year	Sem. Hrs.	Sophomore Year	Sem. Hrs.
MATH 1020 First-Year Connections*	*	MATH 2010 Intro. Linear Algebra	3
MATH 1910 Calculus I	4	MATH 2110 Calculus III	4
MATH 1920 Calculus II	4	MATH 2120 Differential Equations	3
ENGL 1010 English Comp. I	3	MATH 3400 Concepts of Math	3
ENGL 1020 English Comp II	3	ENGL 2130, or 2235, or 2330	3
Approved Natural Science Sequence**	8	CSC 1300 Intro Prob. Sol & Comp Prog.	4
Humanities/Fine Arts Elective	3	OR	
Electives	6	ENGR 1120 Programing for Engineers	2
		COMM 2025 Fund of Communication	3
		OR	
		PC 2500 Comm. in the Profession	3
		Social/Behavioral Science Electives	6
		Humanities/Fine Arts Electives	3
Total	31	Total	30 or 32
Junior Year	Sem. Hrs.	Senior Year	Sem. Hrs.
MATH 3810 Complex Variables	3	MATH 4110 Advanced Calculus I	3
MATH 4010 Modern Algebra I	3	Mathematics***	9
MATH 4530 Linear Algebra I	3	Electives	20 or 18
MATH 4470 Probability and Statistics I	3		
HIST 2010 Early US History	3		
HIST 2020 Modern US History	3		
Mathematics***	3		
MATH 3430, 4410, or 4310	3		
Electives	6		
Total	30	Total	30 or 32

*This course is not included in 120-hour curriculum.

** ASTR 1010-1020; or BIOL 1010-1020; or BIOL 1113-1123; or BIOL 1113-2310; or CHEM 1010-1020; or CHEM 1110-1120; or GEOL 1040-1045; or PHYS 2110, 2120.

*** Upper-division mathematics courses (3000 or higher). The student must complete three upper-division sequences. The approved sequences are organized into pure mathematics and applied mathematics categories as shown below. The student must complete at least one sequence from each category.

Pure Mathematics Sequence List: MATH 4010-4020, 4110-4120, 4310-4320, 4530-4540; or 4850-4860.

Applied Mathematics Sequence List: MATH 3070-3080, 4210-4220; 4250-4260; 4470-4480; or any two of the three: 4350, 4360 or 4050.