

2010-2011  
 Bachelor of Science in Mathematics  
 Math (120 hrs)

Name \_\_\_\_\_

T# \_\_\_\_\_

**Mathematics (47 hrs)**

Course	Course Title	Credits	Grade	✓	Sem
1910	Calculus I	4			
1920	Calculus II	4			
2010	Elem. Matrix Algebra	2			
2110	Calculus III	4			
2120	Differential Equations	3			
3810	or Complex Variables				
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			
3000/ 4000	Math Elective (If needed for 47 credit hours of Math)	3			

\* One Sequence from Pure Mathematics Sequence  
 List: 3430-4310; 4010-4020; 4110-4120; 4310-4320;  
 4530-4540; or 4850-4860

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

One additional sequence from either list above

\* 3430 – 4310 – 4320 does not constitute 2 sequences.

**History (6 hrs)**

2010	American History	3			
2020	American History	3			

**\*Humanities/Fine Arts (6 hrs)**

**\*Social Science (6 hrs)**

College Base Exam \_\_\_\_\_  
 English Qualifying Exam \_\_\_\_\_

# This course is not included in 120-hour curriculum, and  
 is only required for incoming freshman with less than 12  
 hours.

\*See catalog [http://www.tntech.edu/images/stories/ugcatalog/Undergraduate\\_Catalog\\_2010-2011.pdf](http://www.tntech.edu/images/stories/ugcatalog/Undergraduate_Catalog_2010-2011.pdf) on page 37

**English (9 hrs)**

Course	Course Title	Credits	Grade	✓	Sem
1010	Writing I	3			
1020	Writing II	3			
2130	American Literature,	3			
2230	British Literature, or				
2330	World Literature				

**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 Biology I & II 8

BIOL 1110 & 1120 General Zoology & Botany 8

CHEM 1010 & 1020 Intro. Chemistry I & II 8

CHEM 1110 & 1120 General Chemistry I & II 8

GEOL 1040 & 1045 Dyn. Earth & Earth Envir. 8

or

PHYS 2110-2111 Calculus Based Physics/Lab I 4

PHYS 2120-2121 Calculus Based Physics/Lab II 4

**Computer Science (3 hrs)**

CSC 2100	Intro to Problem Solving & Computer Programming	3			
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**Speech or Professional Communication (3 hrs)**

2410	Fundamentals of Public Speaking, <b>OR</b>	3			
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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**Electives and Minor (32 hrs)**

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## MATHEMATICS (B. S. in MATH)

<b>Freshman Year</b>	sem. hrs.	<b>Sophomore Year</b>	sem. hrs.
MATH 1020 First-Year Connections <sup>1</sup>	1	MATH 2010 Elementary Matrix Algebra	2
MATH 1910 Calculus I	4	MATH 2110 Calculus III	4
MATH 1920 Calculus II	4	MATH 2120 or 3810	3
ENGL 1010 Writing I	3	MATH 3400 Concepts of Math	3
ENGL 1020 Writing II	3	ENGL 2130, 2230, or 2330	3
Approved Natural Science Sequence <sup>2</sup>	8	CSC 2100 Intro to Programming	3
Humanities/Fine Arts Elective	3	PC 2500 or SPCH 2410	3
Electives or Minor	6	Social/Behavioral Science Electives	6
		Humanities/Fine Arts Elective	3
<b>Total</b>	<b>32</b>	<b>Total</b>	<b>30</b>
<b>Junior Year</b>	sem. hrs.	<b>Senior Year</b>	sem. hrs.
MATH 4010 Modern Algebra I	3	MATH 4110 Advanced Calculus I	3
MATH 4530 Linear Algebra I	3	Mathematics <sup>3</sup>	9
MATH 4470 Probability and Statistics I	3	Electives or minor	17
HIST 2010 American History I	3		
HIST 2020 American History II	3		
Mathematics <sup>3</sup>	3		
MATH 3430, 4410, or 4310	3		
Electives or minor	9		
<b>Total</b>	<b>30</b>	<b>Total</b>	<b>29</b>

<sup>1</sup> This course not included in 120-hour curriculum.

<sup>2</sup> ASTR 1010-1020; or BIOL 1010-1020; or BIOL 1110-1120; or CHEM 1010-1020; or CHEM 1110-1120; or GEOL 1040-1045; or PHYS 2110, 2111, 2120, 2121.

<sup>3</sup> 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.

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

Pure Mathematics Sequence List: MATH 3430-4310; 4010-4020, 4110-4120, 4310-4320, and 4530-4540; and 4850-4860

A minor of 15 hours, including at least 6 upper division hours must be completed in a coherent program of study. The criterion for coherence may be met (1) by taking all minor courses in a single discipline (i.e., courses with the same prefix) or (2) by taking the courses prescribed in an approved interdisciplinary minor.