

DEGREE REQUIREMENTS

The College of Natural Sciences and Mathematics offers both Bachelor of Arts and Bachelor of Science degrees. Requirements differ based on degree as indicated below.

A. Grade Point Averages

A cumulative grade point average (GPA) reflects all grades earned, including grades of F and grades in repeated courses. Candidates must earn a minimum overall cumulative GPA of C (that is, a 2.0 GPA on a 4.0 scale) for all UT course work. In addition, candidates must earn a minimum cumulative GPA of C in the major, minors (optional) and UT General Education, with the grades of all courses attempted at all institutions included in the GPA calculation. Some programs require a higher GPA in the major. For example, BS Chemistry and BS Biochemistry require a 2.5 GPA. *Criteria governing this policy are given in the Undergraduate Policy 3364-71-07: Repeating a course and recalculation of GPA.pdf* (<http://www.utoledo.edu/policies/academic/undergraduate/pdfs/3364-71-07%20Repeating%20a%20course%20and%20recalculation%20of%20GPA.pdf>).

B. Residency Requirement

Students transferring from other institutions must earn at least 30 hours of credit at The University of Toledo; at least 12 of these must be in the major area, and for students pursuing a minor, at least 9 hours must be earned at The University of Toledo. Policy Name: 3364-71-10 Residency requirement for a degree (<https://nam04.safelinks.protection.outlook.com?url=https%3A%2F%2Fwww.utoledo.edu%2Fpolicies%2Facademic%2Fundergraduate%2Fpdfs%2F3364-71-10%2520%2520Residency%2520requirement%2520for%2520a%2520degree.pdf&data=05%7C01%7CCathy.Zimmer%40utoledo.edu%7Cc009cb29b62c4971f76e08dab8ff2476%7C1d6b1707baa94a3da8f8deabfb3d467b%7C0%7C0%7C638025703211082552%7CUnknown%7CTWFpbGZsb3d8eyJWIjojMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTiI6Ikl1aWw%7C%7C%7C3000%7C%7C%7C&sdata=HBvKVxBAGQC5jHyDdy2wRVfzqlsqyKiTFqeodJ61UQ%3D&reserved=0>).

C. Credit Hours and Levels

- Students must complete a minimum of 120 hours of course work that must include the University General Education and college course requirements, and either major and course work related to the major, or an interdisciplinary program. Individual programs may require more than 120 hours of coursework to complete.
- In all baccalaureate programs, a minimum of 60 hours must be taken at the 2000 to 4000 levels; of these a minimum of 30 hours must be taken at the 3000 to 4000 levels.
- Students are cautioned to make use of their degree audit and review remaining requirements with their adviser before every registration in order to make progress toward completion of their requirements in an orderly, timely manner. Insofar as a student can complete the basic courses and the courses required for a chosen major (as outlined in sections E - J below) in fewer than the 120 hours required for a

degree, the student must choose elective courses to complete the total of 120 hours, subject to the restrictions outlined below.

D. Credit Restrictions

Total earned hours shown on a student's transcript may not all be applicable to the minimum 120 credits required for a degree, as follows:

- Students with entrance deficiencies in mathematics and other students who are required or choose to take developmental course work will need to complete additional hours.
- No courses in typing, shorthand or keyboarding will apply toward the degree.
- No more than two hours in skill courses in physical education or recreation courses at the 1000 level will apply toward the degree.
- No more than two hours in Student Leadership Development I and II will apply toward the degree.
- Duplicate credit – except for courses identified as repeatable courses, students will not receive credit for repeated courses (taking the same course twice), whether taken at The University of Toledo or elsewhere.
- The college reserves the right to deny credit for other specific courses (including most SKLS courses) and for blanket technical credit not applicable to a student's specific program.

E. University General Education Requirements

Students earning baccalaureates in all colleges and programs are required to complete a minimum of 36 credit hours of courses that comprise the General Education Curriculum. Those courses are distributed in the areas of English composition, humanities/fine arts, social sciences, natural sciences, mathematics, and multicultural studies courses. Students should view their Degree Audit Report or contact their academic department or college office for specific details.

F. Natural Sciences and Mathematics Skill Area Requirements

Students are placed into mathematics courses by ACT scores or placement tests in those subjects. Students are placed into foreign language courses through placement testing. With careful planning, students will be able to satisfy UT General Education Curriculum and College of Natural Sciences and Mathematics requirements by taking the minimum required hours.

Code	Title	Hours
1. Orientation		
NSM 1000	Natural Sciences & Mathematics ¹	2
2. English Composition ²		
Select one of the following tracks:		6
<i>a. Native speakers track (for students for whom English is a first language)</i>		
ENGL 1110	College Composition I	
or ENGL 101 College Composition 1 Co-Requisite		
Select one of the following:		

ENGL 1130	College Composition II: Academic Disciplines And Discourse	
ENGL 2950	Science And Technical Report Writing	
ENGL 2960	Professional and Business Writing	
<i>b. Non-native speakers track (for students for whom English is a second language)</i> ³		
ENGL 1020	Writing And Grammar For Students Of English As A Second Language	
ENGL 1110	College Composition I (ESL section)	
Select one of the following:		
ENGL 1130	College Composition II: Academic Disciplines And Discourse	
ENGL 2950	Science And Technical Report Writing	
ENGL 2960	Professional and Business Writing	
3. Mathematics ⁴		
Select one of the following tracks:		3-8
<i>a. Bachelor of Arts (BA)</i>		
Select one of the following:		
MATH 1320	College Algebra	
MATH 1340	College Algebra And Trigonometry	
MATH 2600	Introduction To Statistics	
MATH 2640	Statistics for Applied Science (or higher Math)	
<i>b. Bachelor of Science (BS)</i>		
Select one of the following calculus sequences:		
MATH 1750 & MATH 1760	Calculus For The Life Sciences With Applications I and Calculus For The Life Sciences With Applications II	
MATH 1830 & MATH 1840	Calculus I For Mathematicians, Scientists And Educators and Calculus II For Mathematicians, Scientists And Educators	
MATH 1850 & MATH 1860	Single Variable Calculus I and Single Variable Calculus II	
4. Writing Across the Curriculum (WAC) Requirement		
Select two writing intensive courses approved by advisor ⁵		6
5. Natural Sciences/Mathematics		
Select 2-3 courses based on degree as indicated: ⁶		6-9
<i>a. Bachelor of Arts (BA)</i>		
Select two science/mathematics courses from two different departments outside of the student's major ⁷		
<i>b. Bachelor of Science (BS)</i>		
Select three science/mathematics courses from three different departments outside of the student's major ⁷		
6. Cultural Experience (BA Requirement Only)		
Select 0 to 8 hours foreign language or one semester of Study Abroad ⁸		0-8
7. Humanities and Fine Arts required courses (BA Requirement Only) ⁹		
<i>English Literature</i>		
Select 3 hours of English Literature		3
<i>History</i>		
Select 3 hours of history		3

<i>Fine Arts</i>		
Select 3 hours of Fine Arts from appreciation or theory courses, not studio or skills courses		3
<i>Electives</i>		
Select 6 hours of humanities or fine arts electives ¹⁰		6
Social Sciences Courses (BA Requirement Only) ¹¹		
Select 9 hours of social science courses.		9

- ¹ All new first-year students are required to take NSM 1000. The course is optional for transfer students.
- ² University of Toledo General Education and College of Natural Sciences and Mathematics requirement - 6 hours. To earn a degree in the College of Natural Sciences and Mathematics, students must pass both Composition I and II with a C or better. The College of Natural Sciences and Mathematics recommends that these requirements be met before completing 45 credit hours.
- ³ Students will take an English placement test to determine appropriate starting level.
- ⁴ UT General Education and College of Natural Sciences and Mathematics requirement.
- ⁵ Students must pass two writing intensive courses approved by their advisor. Many courses will require completion of Composition I and II as pre-requisites. The College of Natural Sciences and Mathematics recommends that the first of these writing intensive courses be completed within the first 65 and the second within the first 90 hours. At least one of these courses must be taken within the student's major. In consultation with their advisors, students with dual or interdisciplinary majors will meet this requirement by selecting a course within one of their chosen majors.
- ⁶ UT General Education requirement is two courses for 6 hours; College of Natural Sciences and Mathematics requirement differs based on degree as indicated.
- ⁷ Students may select courses from biology, chemistry, environmental sciences, mathematics, and physics and astronomy. Courses must be major-level. See DAR for more information.
- ⁸ Bachelor of Arts (BA) requirement only, not required for Bachelor of Science (BS) - 0 to 8 hours (foreign languages 1110 and 1120 (or 1500) or one semester of Study Abroad).
Every student enrolled in a BA degree program in the College of Natural Sciences and Mathematics is required to demonstrate proficiency in a single foreign language (Arabic, Chinese, French, German, Japanese, Latin, Spanish, or American Sign Language) through the elementary (foreign languages 1120) level by successfully completing a foreign language course at this level or by achieving an appropriate score on a proficiency/placement test administered by the department of foreign languages that reflects the equivalent. Students beginning a foreign language should enroll in their chosen language at the elementary 1110 level and will take two semesters of foreign language. Those continuing a foreign language or attempting to demonstrate competency by examination should take a proficiency/placement test. Alternatively, students may satisfy the cultural experience requirement by studying abroad for at least once semester in an approved study abroad/exchange program for academic credit.
- ⁹ UT General Education requirement is two courses for six hours; students enrolled in a BA degree program in the College of Natural Sciences and Mathematics are required to take an additional

9 hours. Students will take five courses (15 hours) in the humanities in addition to those taken to meet the English composition and foreign language requirements. Students may select humanities courses that also will satisfy a UT General Education humanities or multicultural requirement. No more than two courses under each departmental code in satisfying the Fine arts and Humanities requirements.

- ¹⁰ Students may select courses from art, art history, communication, English, film, foreign languages (courses higher than 1120/1500 or culture courses 1080 and 1090, or a second foreign language), history, humanities, music, philosophy, religious studies and theatre. Higher-level humanities courses will satisfy these requirements and may be taken if student has met the prerequisites.
- ¹¹ UT General Education requirement is two courses for six hours; Students in a BA degree program in the College of Natural Sciences and Mathematics are required to take one additional course for a total of nine hours. Students may select social science courses that also will meet a UT General Education social science requirement and one multicultural requirement. Students may select courses from anthropology, economics, geography, political science, psychology, and sociology. No more than two courses can be from a single discipline.

G. Major Area

Every student must complete either a departmental major or an interdisciplinary major. Courses given in other colleges of the University may be credited to the major only with the approval of the Dean of the College of Natural Sciences and Mathematics upon recommendation of the department Chair. Waiver of a required course or the substitution of a course from another department does not necessarily reduce the minimum credits required in the major.

a. Departmental Major

- See the complete list of departmental majors under “Degrees Offered” in the College of Natural Sciences and Mathematics section of this catalog.
- A student may have two majors from two different departments provided the requirements of both programs are satisfied. Work in the second major may be accepted as fulfilling the related course requirement upon the approval of the advisers in both departments. A student cannot use courses from the first major to satisfy the second and vice-versa. See section on “Earning a Second Degree (<https://catalog.utoledo.edu/undergraduate/natural-sciences-mathematics/admission-policies/>)” for statement on requirements when two or more desired major programs are offered as different degrees.

b. Interdisciplinary Majors

- The College of Natural Sciences and Mathematics offers interdisciplinary majors in Data Science (<https://catalog.utoledo.edu/undergraduate/natural-sciences-mathematics/bs-data-science/>) and Interdisciplinary Science (<https://catalog.utoledo.edu/undergraduate/natural-sciences-mathematics/bs-interdisciplinary-science/>). A student completing a departmental major and a second major in an interdisciplinary or interdepartmental major cannot use courses from the first

major to satisfy the second or vice-versa. See the complete list of interdisciplinary majors under “Degrees Offered” in the College of Natural Sciences and Mathematics section of this catalog.

H. Related Courses

Students in some majors also must complete courses related to the major. These courses must be in addition to courses taken to fulfill the basic requirements listed above. Each department defines the areas from which courses may be chosen by its majors, and these listings are given in the later sections of this catalog under Programs of Study. For most programs, related courses must be chosen from courses acceptable for credit in a College of Natural Sciences and Mathematics major. Generally, these are upper-level courses.

Courses given in other colleges of the University may be credited to the major or to related courses only if indicated in later sections of the this catalog under Programs of Study or with the approval of the Dean of the College of Natural Sciences and Mathematics upon recommendation of the department Chair.

I. Minors

Many College of Natural Sciences and Mathematics departments offer minors. Departmental requirements for particular minors are given in later sections of the catalog under Programs of Study. Students wishing to pursue minors should consult with their primary program advisor and then with an advisor in NSM Advising office. Not all minors can be added to all degree programs. Courses selected for the minor must be chosen from courses acceptable for credit toward a major in that department. In meeting requirements for some majors, work in the minor may be accepted as fulfilling the required hours of related courses, but only with the approval of the student’s major advisor. Students completing a minor must be sure that at least 12 credit hours of the minor requirements are unique to that minor, and are not being used to satisfy requirements in the major or another minor. A minimum GPA of 2.0 is required in the minor. At least nine of those hours must be completed at The University of Toledo.