



Mathematics

Associate of Science to Bachelor of Science

Effective beginning Academic Year 2019-20 (Last revised August 6, 2020)

The following table outlines how transfer credits will be applied to the Bachelor of Science in Mathematics degree at Youngstown State University for students who completed an Associate of Science degree via the Ohio Guaranteed Mathematics (AS to BS) Transfer Pathway. The OGTP designation guarantees the transfer and applicability of credits, but does not guarantee admission to a program. Some bachelor-degree granting programs may be competitive, and students should check with individual institutions for their program admission requirements.

COURSE EQUIVALENCIES FROM THE ASSOCIATE DEGREE	Course Number	Credit Hours
GENERAL EDUCATION REQUIREMENTS/OHIO TRANSFER 36		
Any Ohio Transfer 36 approved First Writing (TME001) course	ENGL 1550	3
Calculus I (TMM005)	MATH 1571	4
Any Ohio Transfer 36 approved Arts and Humanities course	Ohio Transfer 36 Elective*	3
Any Ohio Transfer 36 approved Arts and Humanities course	Ohio Transfer 36 Elective*	3
Any Ohio Transfer 36 approved Social and Behavioral Sciences course	Ohio Transfer 36 Elective*	3
Any Ohio Transfer 36 approved Social and Behavioral Sciences course	Ohio Transfer 36 Elective*	3
Calculus-based Physics I with lab (OSC016)	PHYS 2610/L	5
Calculus-based Physics II with lab (OSC017) or any Ohio Transfer 36 approved Natural Sciences course	PHYS 2611/L	5
Any Ohio Transfer 36 approved Second Writing (TME002) course	ENGL 1551	3
Calculus II (TMM006)	MATH 1572	4
Up to 3 additional hours of Ohio Transfer 36 approved courses	Ohio Transfer 36 Elective*	3
PRE-MAJOR/BEGINNING MAJOR		
Calculus III (OMT018)	MATH 2673	4
Elementary Linear Algebra (OMT019)	MATH 3720	3
Elementary Differential Equations (OMT020)	MATH 3705	3
OTHER RECOMMENDATIONS		
General Electives ¹	Varies*	7-12
TOTAL HOURS FROM ASSOCIATE DEGREE:		60-65
Advising Notes: (*) Indicates that coursework will be evaluated for applicable equivalency upon transfer at the university. If a Transfer Assurance Guide (TAG) course is taken, the approved course equivalency will be awarded. ¹ Youngstown State University recommends two semesters of foreign language be taken during the associate degree if possible, or that credit has been earned via an approved Advanced Placement or International Baccalaureate exam through the end of the beginning level (or higher). Students must earn eight credit hours in a foreign language at or beyond the intermediate level. If not taken during the associate degree, up to two semesters of foreign language may need to be taken upon transfer.		

SPECIAL NOTES

Students with plans of pursuing a pre-professional or graduate studies track in the future should work closely with their academic advisor and receiving institution starting in the first year of their program in order to adequately prepare themselves for those types of tracks. Some pre-professional degrees include pre-medicine, pre-veterinary, pre-law, and pre-dentistry.



Mathematics

Associate of Science to Bachelor of Science

Effective beginning Academic Year 2019-20 (Last revised August 6, 2020)

The following additional coursework will be required to complete the Bachelor of Science in Mathematics degree at Youngstown State University after a student has completed their Associate of Science Ohio Guaranteed Mathematics (AS to BS) Transfer Pathway degree. Some bachelor-degree granting programs may be competitive and admission into the program is not guaranteed. Students should check with individual institutions for their program admission requirements.

REMAINING COURSEWORK TO COMPLETE BACHELOR'S DEGREE		Course Number	Credit Hours
Major Requirements:	Discrete Mathematics	MATH 3715	3
Major Requirements:	Abstract Algebra 1	MATH 3721	4
Major Requirements:	Real Analysis 1	MATH 3751	4
Major Requirements:	Senior Undergraduate Research Project or Thesis or STEM Internship	MATH 4896 or MATH 4897H or STEM 4890	2
Major Requirements:	Probability and Statistics	STAT 3743	4
Major Requirements:	Programming and Problem Solving	CSIS 2610	4
Major Requirements:	3 Upper Division Mathematics/Statistics Electives	MATH 37XX, MATH 48XX, and MATH 48XX	9
Minor Requirement:	Minor Courses	Varies	18-21
Foreign Language Requirement:	Beginning and Intermediate Foreign Language	1550 and 2600	8
Electives:	General Electives	Varies	0-3
REMAINING COURSEWORK TO COMPLETE BACHELOR'S DEGREE TOTAL:¹			59-62
Advising Notes: ¹ Students must complete at least 39 hours of coursework must be upper-division (3700 or higher). Youngstown State University requires a total of 120 credit hours to earn a bachelor's degree. The total number of hours to complete a bachelor's degree represents a range of hours that may be needed depending on the individual course selections made during the associate degree program.			

COMPLETE BACHELOR'S DEGREE	Total Credit Hours
BACHELOR'S DEGREE TOTAL:	120

SPECIAL NOTES
For more information, please contact: Mathematics 501 Lincoln Building mathandstats@ysu.edu (330) 941-3302 http://stem.yosu.edu

SAMPLE DEGREE MAP

THIRD YEAR

SEMESTER 5		SEMESTER 6	
Course Name & Number	Credit Hours	Course Name & Number	Credit Hours
MATH 3715 Discrete Mathematics	3	MATH 3721 Abstract Algebra 1	4
MATH 37XX Math Elective	3	Intermediate Foreign Language	4
Beginning Foreign Language	4	STAT 3743 Probability and Statistics	4
Minor Course	3	Minor Course	3
Elective	0-3		
Total Semester 5 Credit Hours	13-16	Total Semester 6 Credit Hours	15

FOURTH YEAR

SEMESTER 7		SEMESTER 8	
Course Name & Number	Credit Hours	Course Name & Number	Credit Hours
MATH 3751 Real Analysis 1	4	MATH 48XX Math Elective	3
MATH 4896 or MATH 4897H or STEM 4890 Undergraduate Research Project or Thesis or STEM Internship	2	MATH 48XX Math Elective	3
CSIS 2610 Programming and Problem Solving	4	Minor Course	3
Minor Course	3	Minor Course	3
Minor Course	3	Minor Course (if needed)	0-3
Total Semester 7 Credit Hours	16	Total Semester 8 Credit Hours	12-15