

Miami University

Mathematics Associate of Science to Bachelor of Science

Effective beginning Academic Year 2022-23 (Last revised August 31, 2023)

The following table outlines how transfer credits will be applied to the Bachelor of Science in Mathematics degree at Miami 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	ENG 111	3	
Calculus I (TMM005)	MTH 151	5	
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)	PHY 191	5	
Calculus-based Physics II with lab (OSC017) or any Ohio Transfer 36 approved Natural Sciences course	PHY 192	5	
Any Ohio Transfer 36 approved Second Writing (TME002) course	ENG 112	3	
Calculus II (TMM006)	MTH 249 or MTH 251	4-5	
Up to 3 additional hours of Ohio Transfer 36 approved courses	Ohio Transfer 36 Elective*	0-4	
PRE-MAJOR/BEGINNING MAJOR			
Calculus III (OMT018)	MTH 252	4	
Elementary Linear Algebra (OMT019)	MTH 222	3	
Elementary Differential Equations (OMT020)	MTH 245	3	
OTHER RECOMMENDATIONS			
General Electives as needed (Recommened: Discrete Math (TMM023); May include FYE or Orientation course) $^{\scriptscriptstyle 1}$	Varies*	9-17	
TOTAL HOURS FROM ASSOCIATE DEGREE:		60-65	

Advising Notes:

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.

^(*) 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 Miami 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). The College of Arts & Sciences (CAS) requires that students earn credit in a foreign language at or beyond the 202-level. If not taken during the associate degree, up to four semesters of foreign language may need to be taken upon transfer.



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The following additional coursework will be required to complete the Bachelor of Science in Mathematics degree at Miami 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 Core Course/ Advanced Writing Requirement:	Proof: Introduction to Higher Mathematics	MTH 331	3
Major Core Course:	Introduction to Abstract Algebra	MTH 421	4
Major Core Course:	Real Analysis	MTH 441	3
Major Core Course:	Choose two Theory Courses at 400-level	MTH 411, MTH 422, MTH 425, MTH 438, MTH 451, MTH 483, MTH 486, or MTH 491	6-8
Major Core Course:	Choose two Application Courses	MTH 347, MTH 432, MTH 435, MTH 439, MTH 447, MTH 453, MTH 455, MTH 495, or STA 401	6
Major Elective Course/ Capstone:	MTH Electives (may include capstone) ¹	Theory course, Application course, or MTH 410, MTH 420, MTH 437, MTH 440, or MTH 482	4-6
Major Core Course:	Related Area Part I: Computer Programming	Select one: CSE 153, CSE 163, CSE 174, STA 402, MTH 408, or PHY 286	3
Major Core Course/ Thematic Sequence:	Related Area Part II: cluster of courses in one of ACC, CHM, CSE, ECO, ECE, PHY, or STA (with at least six hours at advanced level)	Varies	12
Divisional Requirement:	First (if needed) and Second year of selected foreign language sequence	101, 102, 201, and 202	6-14
General Education:	Experiential Learning Requirement	Varies	0-3
General Education:	Intercultural Consciousness Course	Varies	3
General Education:	Global Inquiry Courses	Varies	6
General Education:	Natural Science (Biological)	Varies	3
Major Core Course and General Education:	Capstone	MTH 406, MTH 407, MTH 425, MTH 435, or MTH 482	0-3
General Electives:	General Electives ²	Varies	0-3
REMAINING COURSEWORK TO COMPLETE BACHELOR'S DEGREE TOTAL:3			62-73

Advising Notes:

³ Miami University requires a total of 124 credit hours for degree completion. The total number of hours to complete the 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:	124

¹This program requires at least 28 semester hours in MTH or STA at the 300+ level, with at least 22 hours at the 400+ level. At least 12 of the hours at the 400-level must be earned at Miami. Students may meet the capstone requirement by completing MTH 406, MTH 407, MTH 425, MTH 435, or MTH 482 are taken among these credit hours. Please work closely with your advisor.

² Students are required to attend an orientation session and will meet with an advisor to review the coursework coming in, as well as what they should register for the following semester. At this time, the divisional requirements for CAS will be addressed so that students are able to be efficient in their course selection.



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SPECIAL NOTES

For more information, please contact: College of Arts & Sciences Advising Office casadvising@miamioh.edu (513) 529-3031 http://miamioh.edu/cas/academics/advising/

SAMPLE DEGREE MAP

THIRD YEAR

SEMESTER 5		
Course Name & Number	Credit Hours	
MTH 331 Proof: Introduction to Higher Mathematics	3	
MTH Application Course 400+ Level	3	
Foreign Language 201	3	
Related Area - Part II	3	
Related Area - Part I: Computer Programming	3	
Total Semester 5 Credit Hours	15	

SEMESTER 6		
Course Name & Number	Credit Hours	
MTH 421 Introduction to Abstract Algebra	4	
MTH Application Course 400+ Level	3	
Foreign Language 202	3	
Related Area - Part II	3	
Global Perspectives Course	3	
Total Semester 6 Credit Hours	16	

FOURTH YEAR

SEMESTER 7		
Course Name & Number	Credit Hours	
MTH 441 Real Analysis	3	
MTH Theory Course 400+ Level	3-4	
MTH Elective/Capstone	3-4	
Related Area - Part II	3	
Global Perspectives Course	3	
Total Semester 7 Credit Hours	15-17	

SEMESTER 8 Credit Course Name & Number Hours MTH Theory Course 400+ Level 3-4 MTH 400+ Level MTH Elective 0-2 Related Area - Part II 3 **Experiential Learning Requirement** 3 Intercultural Perspectives Course 3 **Total Semester 8 Credit Hours** 15-18