

**MATHEMATICS MAJOR**

**HEIDELBERG UNIVERSITY**

**Planning Guide for Transfer Students with an earned ASSOCIATE OF ARTS or ASSOCIATE OF SCIENCE Degree**

<u>MATHEMATICS MAJOR REQUIREMENTS</u>	<u>Hours</u>	<u>TRANSFER CREDIT</u>	<u>OAN</u>	<u>HU 2-YEAR GUIDE</u>	<u>Hours</u>	<u>HU 2-YEAR GUIDE</u>	<u>Hours</u>	
<b>32 hours in MTH courses numbered 222 or above, including</b>				<i>Use when beginning in the fall of an even-numbered year</i>		<i>Use when beginning in the fall of an odd-numbered year</i>		
MTH 222 Calculus I	3	All HU general education requirements are fulfilled with a completed AA or AS degree from a regionally accredited state-assisted institution of higher education in Ohio		<b>Semester 1</b>		<b>Semester 1</b>		
MTH 223 Calculus II	3		MTH 307 Calculus III	3	MTH 307 Calculus III	3		
MTH 307 Calculus III	3		MTH 310 Numerical Analysis ( <i>Over-ride for CPS201 prerequisite will be granted as needed</i> )	3	MTH 302 Ordinary Differential Equations	3		
MTH 308 Calculus IV	3		^ MTH 390 Mathematical Communication Skills	1	^ MTH 390 Mathematical Communication Skills	1		
MTH 390 Mathematical Communication Skills (JWO)	1		^ MTH 390 Mathematical Communication Skills	1	CPS 150 Fundamentals of Computer Science	4		
MTH 490 Math Capstone	1		CPS 150 Fundamentals of Computer Science	4	PHY 101 General Physics	4		
<b>One Course from:</b>	3	<b>To complete the Bachelor's Degree in 2 years at Heidelberg University, the following major requirements must be completed prior to transfer:</b>		PHY 101 General Physics	4			
MTH 401 Abstract Algebra			MTH 222 Calculus I	TMM 005				
MTH 402 Topology			MTH 223 Calculus II	TMM 006	<b>Semester 2</b>		<b>Semester 2</b>	
MTH 403 Complex Analysis					MTH 308 Calculus IV	3	MTH 308 Calculus IV	3
MTH 404 Real Analysis					MTH 312 Mathematical Statistics	3	MTH 303 Linear Algebra	3
					^^MTH 401 Abstract Algebra	3	MTH 305 College Geometry	3
<b>Additional hours in MTH to total 32 hours</b>			<b>Additional courses that may be transferred to meet major requirements:</b>		^^^ MTH 490 Math Capstone	1	CPS 201 Computer Programming I	3
MTH _____			MTH 307 Calculus III	OMT 007	CPS 201 Computer Programming I	3	Elective	3
MTH _____			MTH 308 Calculus IV	OMT 007	Elective	2		
MTH _____			MTH 302 Differential Equations	OMT 009		15		15
MTH _____		MTH 303 Linear Algebra	OMT 008	<b>Semester 3</b>		<b>Semester 3</b>		
MTH _____		PHY 101 General Physics	OSC 014	MTH 302 Ordinary Differential Equations	3	MTH 310 Numerical Analysis	3	
<b>Allied Courses:</b>		This list of courses includes all of those that are most likely to be available as part of an Associate's degree program. Additional courses might apply, but please note that at least half of the MTH major hours required must be taken at Heidelberg.		Allied course from BIO, CHM, CPS, PHI, or PHY	3	Allied course from BIO, CHM, CPS, PHI, or PHY	3	
PHY 101 General Physics I	4		Elective (300-level)		Elective (300-level)	3	Elective (300-level)	3
CPS150 Fundamentals of Computer Science	4		Elective		Elective	3	Elective	3
CPS 2 _____	3		Elective		Elective	3	Elective	3
<b>One additional course from:</b>						15		15
BIO, CHM, CPS, PHI, or PHY	3 or 4				<b>Semester 4</b>		<b>Semester 4</b>	
					MTH 303 Linear Algebra	3	MTH 312 Mathematical Statistics	3
					MTH 305 College Geometry	3	^^MTH 401 Abstract Algebra	3
					Elective (300-level)	3	^^^ MTH 490 Math Capstone	1
					Elective	3	Elective (300-level)	3
				Elective	3	Elective	3	
<b>Total Major Hours</b>	47				15	Elective	2	
		<b>OAN (Ohio Articulation Number):</b> This is the numbering system for TAG (Transfer Assurance Guide) and OTM (Ohio Transfer Module) approved course equivalents.			15	Elective	15	
				<b>If any of the above 300-level courses are transferred in, additional 300-level electives must be taken to total 30 hours</b>				
<i>*MTH390 can be waived if JWO requirement satisfied in another major</i>				^ MTH 390 can be moved to any other semester but must be taken concurrently with another 300-level MTH course.		Elective hours needed will vary depending on transfer credit. These hours may be used towards a second major or a minor		
<i>*MTH490 can be waived if capstone requirement satisfied in another major</i>						At least 1/2 of the major hours must be completed at Heidelberg.		
				^^ MTH 401 is required for students seeking the AYA EDU license in Integrated MTH. All other MTH majors may take a different 400 level course during a different semester. An over-ride for the prerequisite will be granted as needed		Minimum of 30 hrs at the 300-level or above must be completed at 4-year institutions.		
2013-2014 Catalog				^^^ MTH 490 can be moved to any other semester but must be taken concurrently with another 400-level MTH course.				
<b>TOTAL MINIMUM HOURS REQUIRED AT HU</b>	<b>60</b>	<b>MAXIMUM HOURS APPLIED FROM 2-YEAR INSTITUTIONS</b>	<b>60</b>	<b>TOTAL HOURS REQUIRED FOR BA/BS DEGREE</b>	<b>120</b>			

Due to variations of course offerings at Ohio community colleges, only TAG courses are included in the middle column above. It is possible to receive specific credit toward a major for non-TAG courses.

This guide provides an example of how you can complete your degree in the number of semesters indicated in column 3 with the minimum transfer requirements listed in column 2. Modifications to column 3 may be necessary due to changes in HU course offerings, start terms, and transfer credit. While not a guarantee, with careful planning and working closely with an advisor, degree completion should be possible in the designated time frame.