Secondary Education Mathematics

The most efficient pathway from a MD community college (CC) program to completion of Towson University's (TU) Mathematics Secondary Education major can be achieved by taking the content and education courses listed below while completing your two-year degree at a community college. The courses are identified by their TU course numbers. To determine course equivalencies and ensure transferability of courses visit TU's Transfer Evaluation System.

SEMS 230	Knowing & Learning (3 credits) [waived if Educational Psychology is taken prior to matriculation to TU]
MATH 265	Elementary Linear Algebra (4 credits)
MATH 273	Calculus I (4 credits)
MATH 274	Calculus II (4 credits)
MATH 275	Calculus III (4 credits)
MATH 374	Differential Equations (3 credits) This course satisfies one of two content electives.
PHYS 241	General Physic I Calculus-Based (4 credits) This course has combined lecture and lab components.
PHYS 242	General Physic II Calculus-Based (4 credits) This course has combined lecture and lab components. It satisfies one of two content electives.

A 2+2 plan from MD CC to TU is provided on the following page. The courses are identified by their TU numbers.

Recommended Transfer Program for Math Secondary Education
Community College Pathway with Towson University (Fall entry)
Note – Subject codes of all four years are those of Towson University

1st year at Community College			
Fall Term		**Spring Term**	
Course	**Units**	**Course**	**Units**
MATH 273 Calculus I	4	MATH 274 Calculus II **(Core Category 3)**	4
ENGL 102 **(Core Category 2)**	3	MATH 265 Elementary Linear Algebra	4
PYSC 101 **(Core Category 6)** typically a prereq for Ed Psychology	3	choose from TU Core Curriculum Categories 4,10,11,12,13,14	3
choose general elective course that will also satisfy one of TU Core Curriculum Categories 4,10,11,12,13,14	3	choose general elective course that will also satisfy one of TU Core Curriculum Categories 4,10,11,12,13,14	3
elective	3		
Total	**16**	**Total**	**14**

2nd year at Community College			
Fall Term		**Spring Term**	
Course	**Units**	**Course**	**Units**
Education Psychology [SEMS 230 Knowing and Learning will be waived]	3	Content Elective – Math (MATH 374 – Differential Eqs)	3
		Content Elective PHYS 242 **(Core Category 8)**	4
MATH 275 Calculus III	4	choose from TU Core Curriculum Categories 4,10,11,12,13,14	3
PHYS 241 General Physics I **(Core Category 7)**	4	choose general elective course that will also satisfy one of TU Core Curriculum Categories 4,10,11,12,13,14	3
choose general elective course that will also satisfy one of TU Core Curriculum Categories 4,10,11,12,13,14	3	elective	3
Total	**14**	**Total**	**16**

60 credits at the CC level, including two electives (6 credits); 60 credits at TU.

3rd year at Towson University			
Fall Term		**Spring Term**	
Course	**Units**	**Course**	**Units**
SEMS130 Introduction to STEM Teaching I&II Combined **(field placement)**	2	SEMS 240 Classroom Interactions **(field placement)**	3
SEMS 250 Perspectives on Science and Math **(Core Category 5)**	3	SCED 460 Using Reading & Writing in the Secondary Schools	4
MATH 267 Introduction to Abstract Mathematics	4	MATH 310 Functions and Modeling **spring-only**	3
MATH 353 Euclidean and Non-Euclidean Geometries **fall-only**	3	MATH 369 Intro to Abstract Algebra	4
MATH 223 PCK of MS Math **fall-only**	2	MATH 420 Applications of Technology for Secondary School Teachers **spring-only**	3
Total	**14**	**Total**	**17**

4th year at Towson University			
Fall Term (SEMS 498 scheduled one day/wk; other courses on remaining four days)		**Spring Term**	
Course	**Units**	**Course**	**Units**
SEMS 370 Project-Based Instruction **(field placement)**	3	MATH 426 Student Teaching in Secondary Education – Mathematics **(field placement)**	12
SEMS 498 Internship in Mathematics and Science Secondary Education **(field placement)**	3		
SCED 461 Teaching Reading in the Secondary Content Areas	3	SEMS 430 Seminar in Apprentice Teaching	1
MATH 423 Teaching Mathematics in the Secondary Schools **fall-only**	3		
MATH 330 Introduction to Statistical Methods	4		
Total	**16**	**Total**	**13**