PROGRAM TRANSFER GUIDE

CARROLL COMMUNITY COLLEGE

TOWSON UNIVERSITY

This transfer guide is intended for students pursuing an Associate Degree in Physical Science-Physics at Carroll CC who are interested in pursuing a Bachelor's Degree in Physics-General Physics at Towson University. This transfer guide outlines the courses and program requirements a student should follow to satisfy degree requirements at Carroll in order to complete both the Carroll and TU degrees within a total of 4 years and 120 credits.

Associate Degree in Physical Science: Physics

Bachelor's Degree in Physics-General Physics

Effective Term: Spring 2027

YEAR 1 - Carroll Community College

Fall	TU Equivalent	Credits	Spring	TU Equivalent	Credits
CHEM 105 - Principles of General Chemistry 1*© (Core 7)	CHEM 131/131L	4	PHYS 111 - Physics 1 for Scientists and Engineers*© (Core 8)	PHYS 241	4
MATH 135 - Calculus of a Single Variable 1* © (Core 3)	MATH 273	4	MATH 136 - Calculus of a Single Variable 2*	MATH 274	4
ART 125 - Art Appreciation © (Core 5) ◆	ARTH 105	3	ENGL 102 - Writing About Literature © (Core 12)	ENGL TLL	3
ENGL 101 - College Writing*© (Core 2)	ENGL 102	3	CHEM 106 - Principles of General Chemistry 2	CHEM 132/132L	4
	TOTAL CREDITS:	14		TOTAL CREDITS:	15

YEAR 2 - Carroll Community College

Fall	TU Equivalent	Credits	Spring	TU Equivalent	Credits
PHYS 212 - Physics 2 for Scientists and Engineers*	PHYS 242	4	PHYS 213 - Physics 3 for Scientists and Engineers*	PHYS 243	4
MATH 205 - Multivariable Calculus*	MATH 275	4	MATH 215 - Differential Equations*	MATH T74 (374)	4
PHIL 105 - Ethics © (Core 14) ◆	PHIL 103	3	SOC 101 - Introduction to Sociology (Core 10) ◆	SOCI 101	3
PSYC 101 - General Psychology © (Core 6) ◆	PSYC 101	3	COMM 105 - Introduction to Speech Comm (Core 13) ◆	COMM 131	3
CIS 105 - Intro to Object-Oriented Programming*	COSC 175	3			
	TOTAL CREDITS:	17		TOTAL CREDITS:	

YEAR 3 - Towson University

Fall	Credits	Spring	Credits
PHYS 185 Introductory Seminar in Physics*	1	PHYS 307 Introductory Mathematical Physics*	3
PHYS 305 Computers in Physics*	4	PHYS 312 Modern Physics II*	3
PHYS 311 Modern Physics I*	3	Physics Upper-Level Elective (consult TU catalog for approved courses)*	3
Core 9 Advanced Writing Seminar*	3	Core 11 The United States as a Nation	3
Core 4 Creativity and Creative Development	3	General Elective	3
General Elective	3		
TOTAL CREDITS:	17	TOTAL CREDITS:	15

YEAR 4 - Towson University

Fall	Credits	Spring	Credits
PHYS 341 Intermediate Physics Laboratory*	3	EPHY 442 Materials Characterization and Instrumentation Lab*	3
PHYS 351 Mechanics*	4	PHYS 354 Electricity and Magnetism*	4
PHYS 455 Introductory Quantum Mechanics	3	Physics Upper-Level Elective (consult TU catalog for approved courses)*	3
Physics Upper-Level Elective (consult TU catalog for approved courses)*	3	PHYS 352 Thermodynamics and Kinetic Energy	3
PHYS 486 Physics Seminar II*	1	PHYS 385 Physics Seminar	1
TOTAL CREDITS:	14	TOTAL CREDITS:	14

** Denotes course that must be completed with a grade of C or better* *** Must consult with a TU Academic Advisor* *© Core Curriculum*

Notes & Recommendations from Towson University:

*Core 1 at TU is automatically waived for all transfer students.
*Students must follow the course selections outlined in this agreement. Failing to complete the specified courses will require them to fulfill remaining requirements at TU and could jeopardize their ability to earn a bachelor's degree within two years.
*Courses with the ◆ symbol are recommendations only; consult with advising for alternate options to complete all coursework within four years.
*Course equivalents ending in TLL are general lower-level elective coursework at TU.

Bachelor's degree requirements for all students:

- A cumulative grade point average (GPA) of 2.0 is required.
- A C grade (2.0 GPA) or higher is required for all major courses and prerequisites.
- 32 credits of the bachelor's degree must be completed at the upper level (courses numbered 300 or above) at TU

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