Ohio TRANSFER TO DEGREE guarantee

Guaranteed Transfer Pathways

Youngstown State University

Physics
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 Physics degree at Youngstown State University for students who completed an Associate of Science degree via the Ohio Guaranteed Physics 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)	PHYS 2611/L	5
Calculus II (TMM006)	MATH 1572	4
General Chemistry I with lab (OSC008)	CHEM 1515/L	4
Ohio Transfer 36 Approved Elective [Recommended: Any Ohio Transfer 36 approved Second Writing (TME002) course or General Chemistry II (OSC009)]	ENGL 1551	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 Chemistry II with lab (OSC009) (if not taken as part of the Ohio Transfer 36)	CHEM 1516/L	4
General Electives	Varies*	8
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.

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.

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The following additional coursework will be required to complete the Bachelor of Science in Physics degree at Youngstown State University after a student has completed their Associate of Science Ohio Guaranteed Physics 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:	Classical Mechanics and Dynamics	PHYS 3703	4
Major Requirements:	Modern Physics with Laboratory	PHYS 3704/L	5
Major Requirements:	Thermodynamics and Classical Statistical Dynamics with Thermodynamics and Classical Statistical Mechanics Laboratory	PHYS 3705/L	4
Major Requirements:	Mathematical Physics	PHYS 3750	3
Major Requirements:	Electromagnetic Field Theory 1	PHYS 3741	3
Major Requirements:	Electromagnetic Field Theory 2	PHYS 3742	3
Major Requirements:	Undergraduate Physics Research	PHYS 4805	3
Major Requirements:	Quantum Mechanics and Quantum Statistical Mechanics 1	PHYS 5810	3
Major Requirements:	Quantum Mechanics and Quantum Statistical Mechanics 2	PHYS 5811	3
Major Requirements:	Basics of Electrical Engineering	ECEN 2614	3
Major Requirements:	Programming and Problem Solving	CSIS 2610	3
Major Requirements:	Upper Division Course Electives	Any 37XX or 48XX	12
Electives:	General Electives	Varies	6-12
REMAINING COURSEWORK TO COMPLETE BACHELOR'S DEGREE TOTAL:[1]			55-61

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:
Physics
2023 Ward Beecher Science Hall
(330) 941-3616
https://ysu.edu/academics/science-technology-engineering-mathematics/physics-major

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SAMPLE DEGREE MAP

THIRD YEAR

SEMESTER 5

Course Name & Number	Credit Hours
PHYS 3703 Classical Mechanics and Dynamics	4
PHYS 3705 Thermodynamics and Classical Statistical Dynamics	3
PHYS 3705L Thermodynamics and Classical Statistical Mechanics Laboratory	1
ECEN 2614 Basics of Electrical Engineering	3
Elective	3
Total Semester 5 Credit Hours	14

SEMESTER 6

Course Name & Number	Credit Hours
PHYS 3704 Modern Physics	4
PHYS 3704L Modern Physics Laboratory	1
PHYS 3750 Mathematical Physics	3
CSIS 2610 Programming and Problem Solving	3
Elective (any level)	3
Elective	0-3
Total Semester 6 Credit Hours	14-17

FOURTH YEAR

SEMESTER 7

Course Name & Number	Credit Hours
PHYS 3741 Electromagnetic Field Theory 1	3
PHYS 5810 Quantum Mechanics and Quantum Statistical Mechanics 1	3
PHYS 4805 Undergraduate Physics Research	3
Elective 37XX or 48XX	3
Elective (any level)	0-3
Total Semester 7 Credit Hours	12-15

SEMESTER 8

Course Name & Number	Credit Hours
PHYS 3742 Electromagnetic Field Theory 2	3
PHYS 5811 Quantum Mechanics and Quantum Statistical Mechanics 2	3
Elective 37XX or 48XX	3
Elective 37XX or 48XX	3
Elective 37XX or 48XX	3
Total Semester 8 Credit Hours	15