

Wright State University

Physics Bachelor of Science

Effective beginning Academic Year 2019-20 (Last revised February 16, 2024)

The following table outlines how transfer credits will be applied to the Bachelor of Science in Physics degree at Wright 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	ENG 1100	3	
Calculus I (TMM005)	MTH 2300	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)	PHY 2400/L	5	
Calculus-Based Physics II with lab (OSC017)	PHY 2410/L	5	
Calculus II (TMM006)	MTH 2310	4	
General Chemistry I with lab (OSC008)	CHM 1210/L	5	
Ohio Transfer 36 Approved Elective [Recommended: Any Ohio Transfer 36 approved Second Writing (TME002) course]	Ohio Transfer 36 Elective or ENG 2100	3	
PRE-MAJOR/BEGINNING MAJOR			
Calculus III (OMT018)	MTH 2320	4	
Elementary Linear Algebra (OMT019)	MTH 2530	3	
Elementary Differential Equations (OMT020)	MTH 2330	3	
OTHER RECOMMENDATIONS			
Ohio Transfer 36 Approved Electives (Recommended: Any Ohio Transfer 36 approved Second Writing (TME002) course and/or General Chemistry I (OSC008))	CHM 1220/L	5	
General Electives ¹	Varies*	4	
TOTAL HOURS FROM ASSOCIATE DEGREE:			

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.
- ¹ Additional recommended pre-major/major coursework is institution specific and might include an appropriate course in programming or modern physics (may not be offered by most two-year institutions). Different tracks for bachelor's degree programs may require complementary science courses, such as Biology. Chemistry may be required for students interested in teaching. Consult with your academic advisor and your receiving institution to determine an appropriate program of study.

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 Wright 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 COURSEW	ORK TO COMPLETE BACHELOR'S DEGREE	Course Number	Credit Hours
University Requirements:	Research Writing and Argumentation (if not completed during associate degree)	ENG 2100	0-3
Departmental Core Requirements:	Undergraduate Physics Seminar I	PHY 1000	1
Departmental Core Requirements:	Undergraduate Physics Seminar II	PHY 1010	1
Departmental Core Requirements:	Introduction to Modern Physics	PHY 2420	3
Departmental Core Requirements:	Physics Instrumentation	PHY 3150	3
Departmental Core Requirements:	Applied Optics	PHY 3220	3
Departmental Core Requirements:	Advanced Physics Laboratory I	PHY 3500	2
Departmental Core Requirements:	Advanced Physics Laboratory II	PHY 3510	2
Departmental Core Requirements:	Analytical Mechanics	PHY 3710	3
Departmental Core Requirements:	Electricity and Magnetism I	PHY 4500	3
Departmental Core Requirements:	Electricity and Magnetism II	PHY 4510	3
Departmental Requirements and Electives:	Introduction to Quantum Mechanics I	PHY 4600	3
Departmental Requirements and Electives:	Introduction to Quantum Mechanics II	PHY 4610	3
Departmental Requirements and Electives:	Statistical Mechanics	PHY 4830	3
Departmental Requirements and Electives:	Senior Project	PHY 4940	6
Related Course Requirements:	Complex Variables	MTH 3320	3
Related Course Requirements:	Partial Differential Equations	MTH 3330	3
General Electives:	General Electives	Varies	10-15
REMAINING COURSEWORK TO COMPLETE BACHELOR'S DEGREE TOTAL:1		55-60	

Advising Notes:

¹Wright State University requires a total of 120 credit hours for degree completion. 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



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SPECIAL NOTES

For more information, please contact: Department of Physics 248 Fawcett Hall (937) 775-2955 physics@wright.edu

SAMPLE DEGREE MAP

THIRD YEAR

SEMESTER 5		
Course Name & Number	Credit Hours	
MTH 3320 Complex Variables	3	
PHY 1000 Undergraduate Physics Seminar I	1	
PHY 2420 Introduction to Modern Physics	3	
PHY 3150 Physics Instrumentation	3	
General Elective	3	
General Elective	0-2	
Total Semester 5 Credit Hours	13-15	

SEMESTER 6		
Course Name & Number	Credit Hours	
MTH 3330 Partial Differential Equations	3	
PHY 1010 Undergraduate Physics Seminar II	1	
PHY 3220 Applied Optics	3	
PHY 3500 Advanced Physics Laboratory I	2	
PHY 3710 Analytical Mechanics	3	
General Elective	3	
Total Semester 6 Credit Hours	15	

FOURTH YEAR

SEMESTER 7		
Course Name & Number	Credit Hours	
PHY 3510 Advanced Physics Laboratory II	2	
PHY 4500 Electricity and Magnetism I	3	
PHY 4600 Introduction to Quantum Mechanics I	3	
PHY 4940 Senior Project	3	
General Elective	3-4	
Total Semester 7 Credit Hours	14-15	

SEMESTER 8 Credit Course Name & Number Hours PHY 4510 Electricity and Magnetism II 3 PHY 4610 Introduction to Quantum 3 Mechanics II PHY 4830 Statistical Mechanics 3 PHY 4940 Senior Project 3 General Elective 1-3 Total Semester 8 Credit Hours 13-15