



This roadmap is a recommended semester-by-semester plan of study for this major. However, courses and milestones designed as critical (!) must be completed in the semester listed to ensure a timely graduation.

Critical	Course Subject and Title	Credit Hours	Upper Div.	Min. Grade	Major GPA	Type	Term Taken
Semester One [16 Credits]							
!	MATH 12002 Analytic Geometry and Calculus I ¹	5			■	KMC	
!	PHY 12000 Introductory Physics Seminar	1			■		
	US 10097 Destination Kent State: First Year Experience ²	1					
	Kent Core Requirement	3					
	Kent Core Requirement	3					
	General Electives ³	3					
Semester Two [14 Credits]							
!	CS 13001 Computer Science I-Programming and Problem Solving	4			■		
!	MATH 12003 Analytic Geometry and Calculus II	5			■		
!	PHY 23101 General University Physics I ⁴	5			■	KBS	
Semester Three [16 Credits]							
!	CS 23022 Discrete Structures for Computer Science	3			■		
!	MATH 32051 Mathematical Methods in the Physical Sciences I	4	■		■		
!	PHY 23102 General University Physics II ⁴	5			■	KBS	
	Foreign Language ⁵	4 - 5					
Semester Four [14 Credits]							
!	MATH 32052 Mathematical Methods in the Physical Sciences II	4	■		■		
!	PHY 36001 Introductory Modern Physics	3	■		■		
	Foreign Language ⁵	4 - 5					
	Kent Core Requirement	3					
Semester Five [16 Credits]							
!	PHY 30020 Intermediate Physics Laboratory ⁶	2	■	C	■	WIC	
!	PHY 35101 Classical Mechanics	4	■		■		
!	PHY 36002 Applications of Modern Physics	3	■		■		
!	PHY 45201 Electromagnetic Theory	4	■		■		
	Kent Core Requirement	3					
Semester Six [16 Credits]							
!	CS 23001 Computer Science II-Data Structures and Abstraction ^{7,8}	4		C	■		
	CS 3/4xxxx Computer Science electives	3	■		■		
	Kent Core Requirement	3					
	Kent Core Requirement	3					
	Physics 3/4xxxx elective	3	■		■		
Semester Seven [15 Credits]							
!	CHEM 10060 General Chemistry I	4			■	KBS	
!	CHEM 10062 General Chemistry I Laboratory	1			■	KBS	
!	CS 42201 Introduction to Numerical Computing I	3	■		■		
!	PHY 40020 Advanced Physics Laboratory ⁵	2	■	C	■	WIC	
!	PHY 40092 Internship in Physics ⁹	2	■		■	ELR	
	Kent Core Requirement	3					
Semester Eight [13 Credits]							
!	CHEM 10061 General Chemistry II	4			■	KBS	
!	CHEM 10063 General Chemistry II Laboratory	1			■	KBS	
	CS 3/4xxxx Computer Science electives	3	■		■		
	Physics 3/4xxxx elective	3	■		■		
	General Electives ³	2					

Graduation Requirements Summary

Minimum Total Hours	Minimum Upper-Division Hours	Minimum Kent Core Hours	Minimum	
			Major GPA	Overall GPA
120	42	36	2.000	2.000

- Prerequisites: MATH 11010 and 11022 may be bypassed with sufficient background
- US 10097 is not required of transfer students with 25 credits or students age 21+ at time of admission.
- Credit required depends on meeting minimum 120 credit hours and minimum 42 upper-division credit hours.
- Credit is not granted for both the PHY 13001/PHY 13002 and the PHY 23101/PHY 23102 series, nor for the PHY 13011/PHY 13012 series.
- Fulfills College General Requirement.
- A minimum C (2.000) grade must be earned in PHY 30020 or PHY 40020 to fulfill the writing-intensive requirement.
- Fulfills minor requirement
- Must earn a C in order to fulfill minor requirement



9. With advisor's permission, PHY 40092 may be replaced with PHY 40096 Individual Investigation or PHY 40099 Senior Honors Thesis. If PHY 40096 is taken, a suitable research project should be selected.

Additional Notes for the Physics major:

The following courses may not count towards the major:

PHY 11030 Seven Ideas that Shook the Universe (3)

PHY 21040 Physics in The Entertainment and the Arts (3)

PHY 21041 Physics in The Entertainment and the Arts Laboratory (1)

PHY 21430 Frontiers in Astronomy (3)

PHY 21431 Frontiers in Astronomy Laboratory (1)

University Requirements Summary

Type	Categories	Course(s) Satisfying Category	Remaining Requirements
KCM	Kent Core I. Composition Enrollment based on placement test	visit www.kent.edu/catalog/kent-core	6
KMC	Kent Core II. Mathematics and Critical Reasoning Enrollment based on placement test	MATH 12002	fulfilled
KHU	Kent Core III. Humanities Minimum one course from humanities in Arts and Sciences; may fulfill diversity requirement	visit www.kent.edu/catalog/kent-core	3
KFA	Kent Core IV. Fine Arts Minimum one course from the fine arts; may fulfill diversity requirement	visit www.kent.edu/catalog/kent-core	3
KFH	Kent Core V. Humanities or Fine Arts One additional course from either the humanities or fine arts category, may fulfill diversity requirement.	visit www.kent.edu/catalog/kent-core	3
KSS	Kent Core VI. Social Sciences Must be selected from two curricular areas; may fulfill diversity requirement	visit www.kent.edu/catalog/kent-core	6
KBS	Kent Core VII. Basic Sciences Must include one laboratory	CHEM 10060, CHEM 10062 , PHY 23101	fulfilled
KAD	Kent Core VIII. Additional May fulfill diversity requirement	CHEM 10062, CHEM 10063, PHY 23102	fulfilled
DD	Domestic Diversity Course Requirement Either domestic or global diversity must be from Kent Core	visit www.kent.edu/catalog/diversity	one course
DG	Global Diversity Course Requirement Either domestic or global diversity must be from Kent Core	visit www.kent.edu/catalog/diversity	one course
ELR	Experiential Learning Requirement Either course or non-course experience approved by the appropriate faculty member	PHY 40092	fulfilled
WIC	Writing-Intensive Course Requirement Minimum C (2.000) grade	PHY 30020 or PHY 40020	fulfilled