

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 [14 Credits]							
!	MATH 12002 Analytic Geometry and Calculus I	5			■	KMC	
!	PHY 12000 Introductory Physics Seminar	1			■		
	US 10097 Destination Kent State: First Year Experience ¹	1					
	Foreign Language ²	4 - 5					
	Kent Core Requirement	3					
Semester Two [14 Credits]							
!	MATH 12003 Analytic Geometry and Calculus II	5			■		
!	PHY 23101 General University Physics I	5			■	KBS	
	Foreign Language ²	4 - 5					
Semester Three [15 Credits]							
!	MATH 32051 Mathematical Methods in the Physical Sciences I	4	■		■		
!	PHY 23102 General University Physics II	5			■	KBS	
	Foreign Language ²	3 - 5					
	College General Requirements ³	3					
Semester Four [16 Credits]							
!	MATH 32052 Mathematical Methods in the Physical Sciences II	4	■		■		
!	PHY 36001 Introductory Modern Physics	3	■		■		
	Foreign Language ²	3 - 5					
	Kent Core Requirement	3					
	Kent Core Requirement	3					
Semester Five [15 Credits]							
!	PHY 30020 Intermediate Physics Laboratory ⁴	2	■		■	WIC	
!	PHY 35101 Classical Mechanics	4	■		■		
!	PHY 36002 Applications of Modern Physics	3	■		■		
	Kent Core Requirement	3					
	College General Requirements ³	3					
Semester Six [15 Credits]							
	Physics 3/4xxxx electives ⁵	3	■		■		
	Kent Core Requirement	3					
	Kent Core Requirement	3					
	Kent Core Requirement	3					
	General Electives ⁶	3	■				
Semester Seven [15 Credits]							
!	PHY 40020 Advanced Physics Laboratory ⁴	2	■		■	WIC	
!	PHY 45201 Electromagnetic Theory	4	■		■		
	Kent Core Requirement	3					
	Kent Core Requirement	3					
	General Electives ⁶	3	■				
Semester Eight [16 Credits]							
	Physics 3/4xxxx electives ⁵	5	■		■		
	General Electives (2 credit hours must be upper division) ⁶	11					

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

1. US 10097 is not required of transfer students with 25 credits or students age 21+ at time of admission.

2. Fulfills College General Requirement.

Foreign Language Note: Students pursuing a Bachelor of Arts degree in the College of Arts and Sciences must have the equivalent of Elementary I and II in any language, plus one of the following options:

1. Intermediate I and II of the same language
2. Elementary I and II of a second language
3. Any combination of two courses from the following list:
 - a. Intermediate I of the same language
 - b. MCLS 10001 Introduction to Structural Concepts for Language Students
 - c. MCLS 20000 Global Literacy and Cultural Awareness
 - d. MCLS 20091 Seminar: Global Literacy Case Studies

All students with prior foreign language experience should take the foreign language placement test to determine the appropriate level at which to start. Some students may begin their university foreign language experience beyond the Elementary I level and will complete the requirement with fewer credit hours and fewer courses. This may be accomplished by: (1) passing a course beyond Elementary I through Intermediate II level or (2) receiving credit through Credit by Exam (CBE), the College Level Examination Program (CLEP), the Advanced Placement (AP) exam or credit through the International Baccalaureate (IB) program; or (3) being designated a "native speaker" of a non-English language (consult with the College of Arts and Sciences Advising Office for additional information). When students complete the requirement with fewer than 14 credit hours and four courses, they will complete remaining hours with general electives.

3. • One additional course taken from the Kent Core Basic Science courses in the following Arts and Sciences disciplines: Anthropology (ANTH), Biological Sciences (BSCI), Chemistry (CHEM), Geography (GEOG), Geology (GEOL) or Physics (PHY). Students may take the courses listed in the "introductory" sequences with the restrictions noted above in the Kent Core Basic Science section. The course may not be from the student's major.
- One additional course taken from the Kent Core Social Sciences courses in the following Arts and Sciences disciplines: Anthropology (ANTH), Applied Conflict Management (CACM), Geography (GEOG), Justice Studies (JUS), Political Science (POL), Psychology (PSYC) or Sociology (SOC). The course may not be from the student's major.
4. A minimum C grade must be earned in either PHY 30020 or PHY 40020 to fulfill writing-intensive requirement.
5. Physics electives (8 credit hours): with advisor's permission, students may replace 3 credit hours of physics electives with PHIL 41035 Philosophy of Science or ENG 20002 Introduction to Technical Writing. Credit is not granted for both the PHY 13001/PHY 13002 and the PHY 23101/PHY 23102 series.
6. Minimum 8 upper-division credit hours. Credits required depends on meeting minimum 120 credit hours and minimum 42 upper-division credit hours

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 21430 Frontiers in Astronomy (3)
- PHY 21431 Frontiers in Astronomy Laboratory (1)
- PHY 21040 Physics in The Entertainment and the Arts (3)
- PHY 21041 Physics in The Entertainment and the Arts 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	PHY 23101 and PHY 23102	fulfilled
KAD	Kent Core VIII. Additional May fulfill diversity requirement	visit www.kent.edu/catalog/kent-core	6
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	visit www.kent.edu/catalog/elr	one course or activity
WIC	Writing-Intensive Course Requirement Minimum C (2.000) grade	PHY 30020 or PHY 40020	fulfilled