#### 1

# **PHYSICS - MINOR**

#### College of Arts and Sciences

Department of Physics www.kent.edu/physics

#### **About This Program**

The Physics minor allows students with a major or interest in natural sciences, mathematics, education and technology to complement their studies and enhance their academic credentials. Non-science majors may find that the Physics minor enhances their knowledge of this useful and fascinating field.

#### **Contact Information**

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- · Speak with an Advisor

## **Program Delivery**

- · Delivery:
  - · In person
- · Location:
  - · Kent Campus

#### **Admission Requirements**

Admission to a minor is open to students declared in a bachelor's degree, the A.A.B. or A.A.S. degree or the A.T.S. degree (not Individualized Program major). Students declared only in the A.A. or A.S. degree or the A.T.S. degree in Individualized Program may not declare a minor. Students may not pursue a minor and a major in the same discipline.

## **Program Requirements**

#### **Minor Requirements**

Code	Title	Credit Hours
Minor Prerequisites		
MATH 11010	ALGEBRA FOR CALCULUS (KMCR)	
MATH 11022	TRIGONOMETRY (KMCR)	
MATH 12002	ANALYTIC GEOMETRY AND CALCULUS I (KMCR)	
MATH 12003	ANALYTIC GEOMETRY AND CALCULUS II	
Minor Requirements		
PHY 12000	INTRODUCTORY PHYSICS SEMINAR (ELR)	1
PHY 23101	GENERAL UNIVERSITY PHYSICS I (KBS) (KLAB)	5
PHY 23102	GENERAL UNIVERSITY PHYSICS II (KBS) (KLAB)	5
PHY 30020	INTERMEDIATE PHYSICS LABORATORY (WIC)	2
PHY 36001	INTRODUCTORY MODERN PHYSICS	3
Physics (PHY) Upper-Division Electives (30000 or 40000 level)		6
Minimum Total Credit Hours:		22

#### **Graduation Requirements**

Minimum Minor GPA	Minimum Overall GPA
2.000	2.000

- Minimum 6 credit hours in the minor must be upper-division coursework (30000 and 40000 level).
- Minimum 6 credit hours in the minor must be outside of the course requirements for any major or other minor the student is pursuing.
- Minimum 50 percent of the total credit hours for the minor must be taken at Kent State (in residence).

#### **Program Learning Outcomes**

Graduates of this program will be able to:

- Demonstrate a conceptual and quantitative understanding of fundamental principles of classical and modern physics.
- Develop analytical and critical thinking skills, and use these skills to solve scientific problems.
- 3. Develop oral and written communication skills to present scientific findings obtained through theoretical, computational and experimental efforts.