

APPENDIX #3

PROPOSED NEW COURSE/PROGRAM OR MAJOR CURRICULUM REVISIONS

Please check appropriate item:

School: MHS

Department: Science

New Revision

Course/Program: AP Physics C: Mechanics

Department: Science

Date: 10/6/2025

1. **Proposed Change** – Please give a brief description of course and/or program with explanation of content.

AP Physics C: Mechanics is very similar to AP Physics 1. The major difference is that students use calculus instead of algebra to solve problems.

AP Physics 1 Units (Algebra Based)	AP Physics C: Mechanics Units (Calculus Based)
Unit 1: Kinematics Unit 2: Force and Translational Dynamics Unit 3: Work, Energy, and Power Unit 4: Linear Momentum Unit 5: Torque and Rotational Dynamics Unit 6: Energy and Momentum of Rotating Systems Unit 7: Oscillations Unit 8: Fluids	Unit 1: Kinematics Unit 2: Force and Translational Dynamics Unit 3: Work, Energy, and Power Unit 4: Linear Momentum Unit 5: Torque and Rotational Dynamics Unit 6: Energy and Momentum of Rotating Systems Unit 7: Oscillations

2. **Rationale** – What is the purpose of the proposed new course or course change? To what extent will it benefit the students?

Students can take AP Physics C: Mechanics in tandem with Calculus, allowing them to learn how to use calculus in physics. Colleges and universities can choose to count this AP course credit toward STEM majors.

3. **Target Population** – Which group of students will be directly affected (grade level, academic level)?

Students must have taken calculus or currently be taking calculus. Therefore, the course would mostly be only open to seniors who have matriculated through Algebra 1, Geometry, Algebra 2, Pre-Calculus, and are now taking calculus or AP Calculus.

4. **Course Information** - AP Physics C: Mechanics is a 1.5 credit Advanced Placement Course. Eligible students will take the corresponding AP Exam which may earn college credit based on score and institution.

5. **Evaluation** – How do you plan to assess the implementation of the proposed new course or the course change?

The Science department head and school administrators will perform classroom observations. The Science department head and school administrators will analyze AP scores in conjunction with the teacher and department. The teacher will collaborate with the other physics teachers on AP pacing and expectations.

6. **Cost** – What are the anticipated costs for staff, textbooks, materials, other?

No additional staff required. Instead of teaching 2 AP Physics 1 courses, depending on enrollment, we would teach 1 AP Physics 1 course & 1 AP Physics C course.

AP Summer Institute - approximately \$800

Curriculum Hours - 32 hours at approximately \$31.93 = \$1021.76

Text Books: 20 books at approximately \$250 each = \$5000

Total: approximately \$7000