Course SLOs aligned with Program SLOs

San Mateo CCCD

CAN Program - Physical Sciences

Use the scientific method and appreciate its importance to the development of scientific thought.

CAN Dept - Physics

CAN PHYS 250 - Physics with Calculus I

Course Outcomes:

* Laboratory Experience - Setup, perform, analyze, and document an experiment. (Created By CAN Dept - Physics)

Document and communicate their work effectively.

CAN Dept - Physics

CAN PHYS 250 - Physics with Calculus I

Course Outcomes:

* Laboratory Experience - Setup, perform, analyze, and document an experiment. (Created By CAN Dept - Physics)

Demonstrate critical thinking to analyze physical systems in terms of scientific concepts.

CAN Dept - Physics

CAN PHYS 210 - General Physics I

Course Outcomes:

* Energy - Analyze the motion of a body (rotational or linear) in terms or momentum, kinetic energy, and potential energy. (Created By CAN Dept - Physics)
* Newton's Laws - Perform an analysis of a physical system in terms of forces, velocities displacements and accelerations and time using Newton's laws. (Created By CAN Dept - Physics)
* Thermodynamics - Perform an analysis of isobaric, isochoric, isothermal and adiabatic processes in their relation to work, heat transfer, and changes in internal energy. (Created By CAN Dept - Physics)

CAN PHYS 220 - General Physics II

Course Outcomes:

* DC Circuits - Analyze and explain the behavior of simple DC circuits with resistors, capacitors, and batteries. (Created By CAN Dept - Physics)
* Modern Physics - Describe the photo-electric effect, the Compton effect, quantization of energy and the Bohr model of the atom. (Created By CAN Dept - Physics)
* Optics - Analyze the reflection and refraction of light in terms of geometrical optics in different media. (Created By CAN Dept - Physics)

CAN PHYS 250 - Physics with Calculus I

Course Outcomes:

* Energy - Analyze the motion of a body (rotational or linear) in terms or momentum, kinetic energy, and potential energy. (Created By CAN Dept - Physics)
* Newton's Laws - Perform an analysis of a physical system in terms of forces, velocities displacements and accelerations and time using Newton's laws. (Created By CAN Dept - Physics)

CAN PHYS 260 - Physics with Calculus II

Course Outcomes:

* ACDC - Analyze and explain the behavior of simple AC & DC circuits with resistors, capacitors, and inductors (Created By CAN Dept - Physics)
* EForce - Analyze electric forces and fields created by a system of charged particles (Created By CAN Dept - Physics)
* Induction - Solve problems involving induced electric and magnetic fields (Created By CAN Dept - Physics)

CAN PHYS 270 - Physics with Calculus III

Course Outcomes:

* Modern Physics - Describe the photo-electric effect, the Compton effect, quantization of energy and the Bohr model of the atom. (Created By CAN Dept - Physics)
* Optics - Analyze the reflection and refraction of light in terms of geometrical optics in different media. (Created By CAN Dept - Physics)
* Special Relativity - Explain the principle assumptions of Special Relativity and able to perform calculations involving relativistic kinematics. (Created By CAN Dept - Physics)

* Thermodynamics - Perform an analysis of isobaric, isochoric, isothermal and adiabatic processes in their relation to work, heat transfer, and changes in internal energy. (Created By CAN Dept - Physics)