coast mountain college

PHYSICS (PHYS)

PHYS 040 Advanced Physics
4 Credits
Physics 040 is a laboratory science at the advanced level and is equivalent to high school Physics 11. The objective of this course is to introduce the students to the study of physics. Course topics include kinematics, dynamics, momentum, energy, electricity and heat.
Prerequisites
Take MATH-0401 and MATH-0402
Transfer Credits
Explore transfer credit opportunities by visiting the BC Transfer Guide (http://www.bctransferguide.ca)

PHYS 101 Introduction to Physics I
3 Credits
This course provides science and engineering students who have not taken PHYS 12 with a general introduction to Classical Physics. The topics surveyed in this course are vectors, Newtonian Mechanics, properties of materials and thermodynamics. The various physical laws, for example, Newton's universal law of gravity and conservation of mass, energy and momentum, will be discussed using the principles of calculus. However, problems and exams will not require calculus for their solutions. (3,3,0)
Prerequisites
Physics 11 and Principles of Math 11, or Pre-Calculus 11, or MATH 115
Transfer Credits
Explore transfer credit opportunities by visiting the BC Transfer Guide (http://www.bctransferguide.ca)

PHYS 102 Introductory Physics II
3 Credits
Continuation of the survey of classical physics begun in PHYS 101. The topics covered in this course are electricity and magnetism, waves and an introduction to modern physics. In the first topic, electrostatics, steady state currents and magnetism will be discussed while, in the second topic, waves on wires, sound waves and light waves will be considered. Finally, an introduction to relativity and quantum physics will be presented as the last topic. The concepts described in this course will be discussed using the principles of calculus. However, problems and exams will not require calculus for their solutions. (3,3,0)
Prerequisites
PHYS 101
Transfer Credits
Explore transfer credit opportunities by visiting the BC Transfer Guide (http://www.bctransferguide.ca)

PHYS 103 Physics With Applications to Earth Sciences
3 Credits
Physics 103 is a one semester algebra based introductory survey Physics course with applications focusing on the Earth Sciences. The main topics covered are materials, Energy, Transfer and Forces. For Energy Transfer, three mechanisms are considered: Convection - Fluid Mechanics, Conduction - Waves, and Radiation - Light. Applications will be taken from the Earth Sciences.
Prerequisites
Principles of Math 11 and Physics 11 *Physics 12 and Principles of Math 12 reccommended
Transfer Credits
Explore transfer credit opportunities by visiting the BC Transfer Guide (http://www.bctransferguide.ca)

PHYS 121 Advanced Physics I
3 Credits
Strive to understand your universe! This is a calculus-based introduction to physics for students who want to learn more about the universe around them. Throughout the course there are examples relating physics to Indigenous experiential knowledge. The laboratory program is extensive and there is a project to design and build a scientific model that students test and use to perform an experiment. Topics include translational and rotational kinematics and dynamics, statics and equilibrium, momentum and energy conservation principles, fluids, kinetic theory, and thermodynamics. Students that intend to pursue careers involving engineering or science will benefit greatly from this course. This course is required for engineering and physical sciences students.
Prerequisites
Physics 12 Min Grade C and Pre-Calculus 12 Min Grade C
Transfer Credits
Explore transfer credit opportunities by visiting the BC Transfer Guide (http://www.bctransferguide.ca)

PHYS 122 Advanced Physics II
3 Credits
Continuing from Physics 121, this is a calculus-based introduction to modern physics for students who intend to pursue careers involving engineering or the physical sciences (physics, chemistry, astronomy, computer sciences, mathematics, etc). Topics covered include waves, electricity and magnetism, DC and AC circuits, properties of photons and matter waves, and quantum physics. There is an extensive laboratory program which is based on the material from the lecture and a project students complete throughout the term. There are many examples studied which relate physics to experiential knowledge.
Prerequisites
PHYS 121 Min Grade C MATH 101 Min Grade C
Transfer Credits
Explore transfer credit opportunities by visiting the BC Transfer Guide (http://www.bctransferguide.ca)

PHYS 135 Engineering Mechanics - Dynamics
3 Credits
This course is designed for (although not restricted to) students wishing to pursue an Engineering degree. Topics include vector algebra, static equilibrium of particles and rigid bodies, and dynamics of particles and rigid bodies. Included for consideration are friction, impulse, momentum, work, and energy. Emphasis is placed throughout on the analysis of practical mechanics problems using free-body diagram techniques.

Prerequisites

Take PHYS-122 and MATH-102

Transfer Credits

Explore transfer credit opportunities by visiting the BC Transfer Guide (http://www.bctransferguide.ca)