2019-2020 TTC Catalog - Physics (PHY)

PHY 001 - Physics Non-Equivalent

Lec: 0 **Lab:** 0 **Credit:** *

Indicates credit given for physics course work transferred from another college for which there is no equivalent course at TTC. *Hours vary depending on external course.

Division: Science and Mathematics

PHY 201 - Physics I

Lec: 3.0 **Lab:** 3.0 **Credit:** 4.0

Course Offered

Fall
Spring
Summer

This is the first in a two-semester sequence of non-calculus-based physics courses. Topics covered in the sequence include mechanics, wave motion, sound, heat, electromagnetism, optics and modern physics. The first semester focuses on mechanics, gravity, fluids, thermodynamics, mechanical waves and sound. Laboratory exercises supplement lectures.

Prerequisite

MAT 111

MAT 112

Students may not receive credit for both PHY 201 and PHY 221. The prerequisite for this course should have been completed in the last five years.

Grade Type: Letter Grade

Division: Science and Mathematics

PHY 202 - Physics II

Lec: 3.0 **Lab:** 3.0 **Credit:** 4.0

Course Offered

Fall
Spring
Summer

This is the second in a two-semester sequence of non-calculus-based physics. Topics covered in the sequence include mechanics, wave motion, sound, heat electromagnetism, optics and modern physics. The second semester focuses on electromagnetic forces, fields and waves, circuits, optics, relativity, quantum mechanics, and atomic and nuclear physics. Laboratory exercises supplement lectures.

Prerequisite

PHY 201

with a minimum grade of C. The prerequisite should have been completed in the last five years.

Grade Type: Letter Grade

Restrictions: Students may not receive credit for both PHY 202 and PHY 222

Division: Science and Mathematics

PHY 221 - University Physics I

Lec: 3.0 **Lab:** 3.0 **Credit:** 4.0

Course Offered

Fall
Spring
Summer

This is the first of a sequence of courses. The course is a calculus-based treatment of vectors, laws of motion, rotation, vibratory and wave motion. Laboratory exercises supplement lectures.

Prerequisite

MAT 140

The prerequisite should have been completed in the last five years.

Grade Type: Letter Grade

Restrictions: Students may not receive credit for both PHY 221 and PHY 201.

Division: Science and Mathematics

PHY 222 - University Physics II

Lec: 3.0 **Lab:** 3.0 **Credit:** 4.0

Course Offered

Spring
Summer

This course is a continuation of calculus-based treatment of thermodynamics, kinetic theory of gases, electricity and magnetism, and light, including electrostatics, dielectrics,

electric circuits, electric and magnetic fields and induction phenomena, geometric and physical optics, and relativity. Laboratory exercises supplement lectures.

Prerequisite

MAT 141

and

PHY 221

with a minimum grade of C

Grade Type: Letter Grade

Restrictions: Students may not receive credit for both PHY 222 and PHY 202.

Division: Science and Mathematics
