Course Number PHY-220-01 **Course Description** A second course in modern physics covering special relativity and an introduction to quantum mechanics. Topics include relativistic kinematics, relativistic dynamics, four-vector notation, relativistic collisions, origins of quantum mechanics, Schrodinger's equation and the development of wave mechanics, applications of wave mechanics in one and three dimensions (step potential, square well, harmonic oscillator), angular momentum operators, the hydrogen atom, Dirac notation and matrix formulation of linear operators, Dirac Delta function, spin angular momentum, measurement theory, and time-independent perturbation theory. Academic Term 21/FA Instructor Mann, Elizabeth Location & Meeting Time Integrated Science & Engineering Complex-018 M/W/F 10:30AM-11:35AM LEC Integrated Science & Engineering Complex-018 TH 03:50PM-04:45PM LEC Credits 1.00 Capacity 18 **Total Students** 8 **Interdisciplinary Programs Environmental Science & Policy** Academic Department Physics and Astronomy Field Of Study Physics (PHY)