

PHYS3416 - Electricity and Magnetism

[PHYS 3416](#) Electricity and Magnetism (4 semester credit hours) Coulomb's and Gauss' laws; potentials, methods for solving electric field distributions near conductors; potentials due to clusters of charges; polarization of dielectric materials; electric displacement. Magnetic fields in a vacuum and in matter; time varying electric and magnetic fields; Maxwell's equations; electromagnetic waves. Prerequisite: [PHYS 3311](#) or [PHYS 3411](#) or equivalent. (4-0) Y