Midterm: *Monday, March 15*

Vector calculus
Divergence, gradient, curl, Laplacian
Integral theorems (divergence, Stokes)
Divergence of $1/r^2$
Delta function
Cartesian, spherical, cylindrical coordinates
Helmholtz theorem

Coulomb's law, electric fields
Point charges
Continuous charge distributions
Gauss's law
Electric field of a plane of charge
Electric potential
Poisson's equation & Laplace's equation
Electrostatic energy
Conductors, shielding
Capacitors
Uniqueness theorem

Method images
→ grounded plane
→ grounded sphere
→ homework problems

Separation of variables
→ Cartesian symmetry method
(i.e. Fourier's trick)

SECTION 1: in-class midterm

SECTION 2: remote midterm
(Zoom proctoring)