

**MTH 413 FLUID DYNAMICS; (3 Units) (L30: PO: T 0)**

Real and Ideal fluids. Differentiation following the motion of fluid particles. Equations of motion and continuity for incompressible inviscid fluids. Velocity potentials and Stoke's Stream functions. Bernoulli's equation with application to flow along curved paths. Kinetic energy. Sources, sinks, doubles in 2-and-3-dimensions, limiting streamlines. Images and rigid planes. MTH -314.