A Summary of topics discussed in Class.

1 September 2014

1.3 Sep. 8

- Finding intersections of two planes.
- finding distance between two lines in space
- Angles between a plane and a line, two lines and two planes.
- Review.

1.4 Sep. 10

- Catch up with intersections of lines and surfaces.
- Quadric surfaces in three space. Presumed standard form: $ax^2 + by^2 + cz^2 + px + qy + rz = s$.
- If a square term is present, then the corresponding linear term is assumed absent.
- Cylinder is obtained when a variable is absent.
- Cone is obtained when only quadratic terms are present.
- Ellipsoids and hyperboloids: missing linear terms but all quadratic terms are present.
- Paraboloids are obtained when at least one quadratic term is missing.
- Idea of sketch.

1.5 Sep. 12

- Polar coordinates.
- Cylindrical coordinates.
- Spherical coordinates.
- Starting space curves (vector functions).

To be continued ...