

**Subject : Plane Surveying**

**Class : First year**

**Hours : 2 hrs ( Theoretical ) , 3 hrs ( Practical )**

---

**Objectives :**

Introducing the fundamentals, purposes , & the required calculations of the plane surveying to the student as well as qualifying him to use the different kinds of surveying instruments in designing & executing the projects of civil engineering .

Week	Practical Syllabus
1	Basic fundamentals of surveying.
2&3	Using tape and chain in the linear measurement and perpendicular construction.
4&5	Details survey by measuring tape and obstacles to measuring.
6&7	Traversing, types of traverse.
8&9&10	Training how to use leveling instrument.
11&12&13	Height difference between two points from one station of level.
14&15	Trigonometric leveling.
16&17	Close leveling.
18&19&20	Topographic survey using level instrument.
21&22	Level test by two pegs methods.
23&24&25	Area computation.
26&27&28	Details survey by stadia method.
29&30	Details survey using alidade and planometry.

**References :**

1. المساحة المستوية والمائية د علي شكري - كلية الهندسة - جامعة الاسكندرية
2. المساحة المستوية د فوزي الخالصي - وزارة التعليم العالي والبحث العلمي
3. Text book of surveying / S.K.Husain M.S.Naga Raj.
4. Surveying / Narinder Singh
5. Surveying for construction / William Irvine