SNS COLLEGE OF TECHNOLOGY

An Autonomous Institution
Coimbatore – 35

Accredited by NBA – AICTE and Accredited by NACC – UGC with 'A+ Grade
Approved by AICTE , New Delhi and Affiliated to Anna University , Chennai.

DEPARTMENT OF AGRICULTURE ENGINEERING
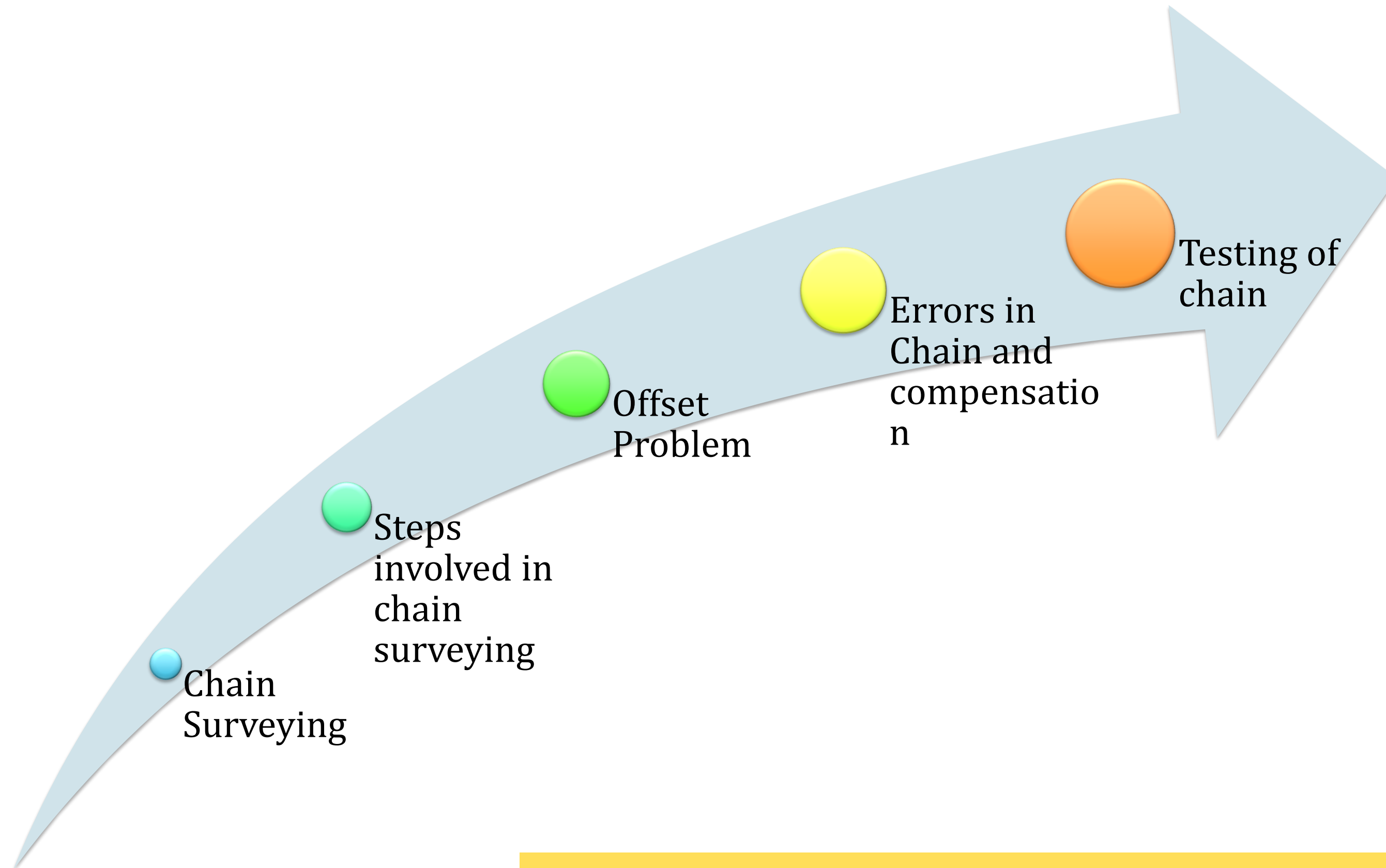
19AGT201 – SURVEYING AND LEVELING

II – YEAR III SEMESTER

UNIT 3 – COMPUTATION OF AREA AND VOLUME

TOPIC 1 – INTRODUCTION

Last Class Review

Chain Surveying

Steps involved in chain surveying

Offset Problem

Errors in Chain and compensation

Testing of chain

Objective

❖ The main objective of the surveying is to compute the areas and volumes.

Introduction

- Generally, the lands will be of irregular shaped polygons.
- There are formulae readily available for regular polygons like, triangle, rectangle, square and other polygons.
- But for determining the areas of irregular polygons, different methods are used.

Introduction

❖ Earthwork computation is involved in the excavation of channels, digging of trenches for laying underground pipelines, formation of bunds, earthen embankments, digging farm ponds, land levelling and smoothening. In most of the computation the cross sectional areas at different interval along the length of the channels and embankments are first calculated and the volume of the prismoids are obtained between successive cross section either by trapezoidal or prismoidal formula.

Methods

Calculation of area is carried out by four methods

Assessment

- **How to test a chain.**

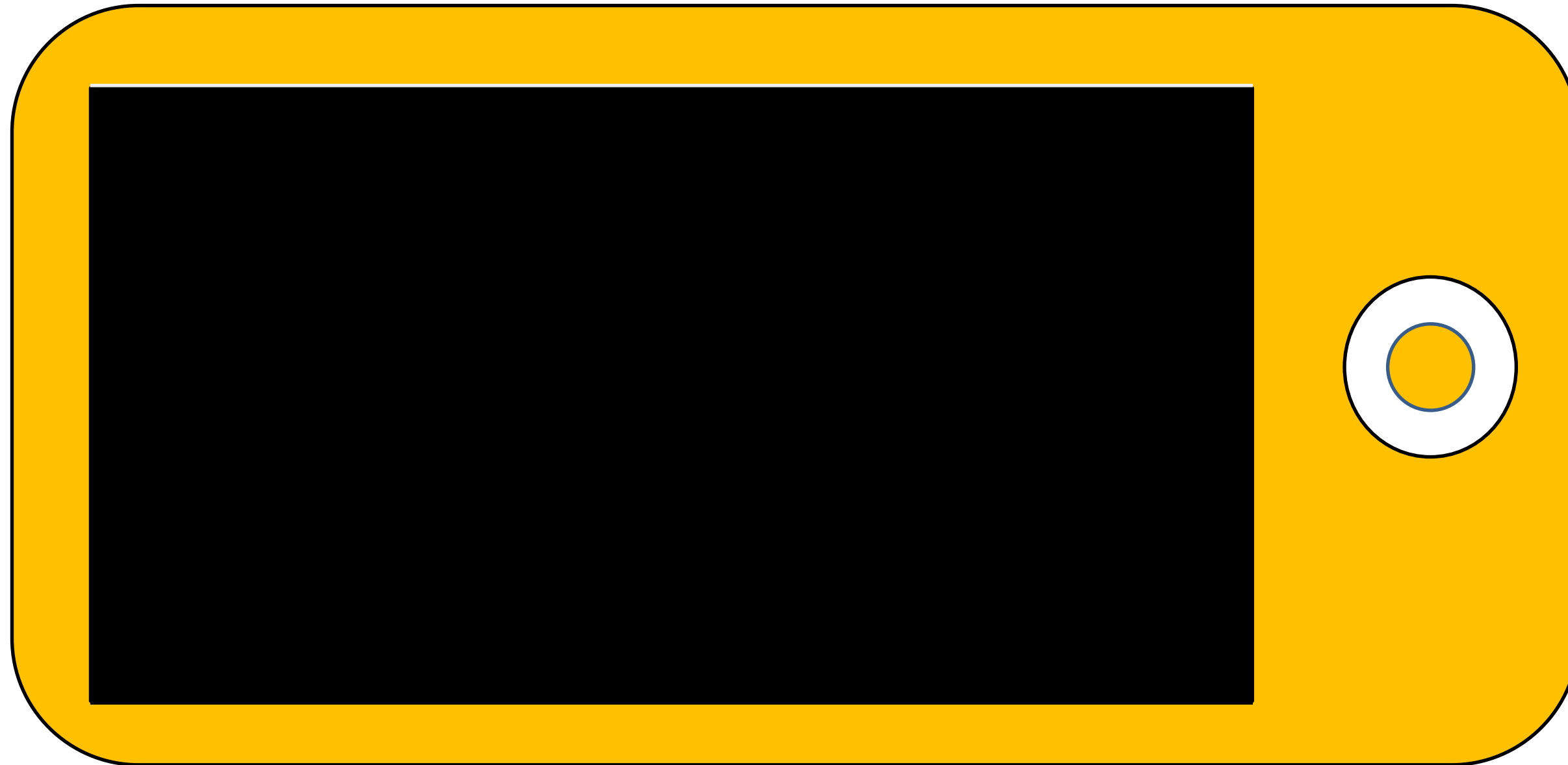- **Why is it important?**

Methods

Mid Ordinate method

Average Ordinate method

Trapezoidal rule

Simpson's rule

Reference Videos

See You at Next Class!!!!