PROJECT PLANNING PRINCIPLES

• get accurate and precise understanding of the user’s needs
• a conceptual design is used as the basis for planning
• at each subsequent refinement, resource projections, size estimates and schedules are also refined.
• when the requirements are sufficiently clear, a detailed design and implementation strategy is incorporated into the plan.
THE PLANNING CYCLE

• **Goals and Objectives**: what, for, by, and criteria for success

• **Work Breakdown Structures**: tasks to define, estimate and tracked

• **Product Size Estimates**: Quantitative assessments of the code required for each component.

• **Resource Estimates**: required for each element of the WBS

• **Project Schedule**: based on staffing and resource estimates, a schedule for the key tasks.
GOALS and OBJECTIVES

- **Functional Requirements**: performance and function (with a draft user’s manual)
- **System Needs**: Target system, standards, compatibility, environmental constraints.
- **Customer Identification**
- **Measures of Success**: *in advance!!* Cost, schedule, quality, size, and ???
- **Validation and Acceptance**: Means for determining success: acceptance testing, criteria to be used
- **Support**
WORK BREAKDOWN STRUCTURES

• Relate product to process
• Usually hierarchal
• To each element:
  – get as much detail as possible
  – precisely define the standard of measurement
  – estimate the size of each product
  – sum for total
  – apply contingencies
PROJECT TRACKING

1. checkpoints, representing a precisely defined task
2. resources required are determined as a percent of the total project
3. plot
4. compare actual and planned
   • the more you know the more you can plan
   • specific
   • measurable