Team Work

- What is a team?
- Team cohesion
- Managing yourself
- Team obligations
- Common Team problems
- Risk Management
- Meeting techniques

What is a Team

A team consists of
1. At least two people, who
2. Are working toward a common goal/objective/mission, where
3. Each person has been assigned specific roles or functions to perform, and where
4. Completion of the mission requires some form of dependency among the group members
Team Work

Difference from Individual Work
- 50% or more Interaction with other people
- 30% Individual work
- 20% Non-productive activities

Jelled team
- Productivity is higher than the sum of individual.

Team Composition

Managed Team
- Appointed manager (total authority and total responsibility), the manager not necessarily functional member of the team. This type of team is typical for large project or product with many team members.

Chief Programmer Team
- An authority evolves from within the team, not appointed.

Democratic Team
- No leader - equal responsibility
- Difficult to be effective.
Team Member Roles

- Project manager
- Development manager
- Planning manager
- Quality manager
- Support manager

Team Formation

- Forming - get to know each other
- Storming - Struggle to understand each others ideas and ways of thinking
- Norming - The project patterns and approaches are agreed upon
- Performing - The realization of the project
Team Cohesion

- Team Cohesion
  - Step toward productivity
- *Peopleware by DeMarco and Lister*
  - A jelled team is a group of people so strongly knit that the whole is greater than the sum of the parts. The production of such a team is greater than that of the same people working in unjelled form. Just as important, the enjoyment that people derive from their work is greater than what you’d expect give the nature of the work itself.

Managing Yourself

- Being responsible
  - Acting Responsibly
    - A Failing project story
  - Not giving up
    - another story
  - Facing facts
    - Back to the failing project story
  - Stating the facts
    - A story of a lighthouse
    - Facts are often debatable
  - The Risks of Being Responsible
Managing Yourself

- Striving for Defined Goals
  - Focusing on the schedule?
    - A story about getting funded, but with wrong product at the end.
  - Goals provide focus for the efforts and establish priorities
  - What do you want me to do?
    - Implicit goals
      - ex: quality
    - Clear goals

Managing Yourself

- Living by Sound Principles
  - Your opinion of yourself
    - Who are you? You are unique with special talents and abilities.
    - Respect yourself and be objective - Focus on the job itself, not what other people will think about you
  - Your opinion of Others
    - Respect others is critical.
    - The story of Dick’s case
  - Your commitment to Excellence
    - It requires conviction, perseverance
    - Resist the temptation to take shortcuts, rush through a design, nor record a defect, ...
    - Make what you do now something to be proud of
Teamwork Obligations

- Communication among team members
- Making and meeting commitments
- Participation in the Team’s Activities

Team Communication

- Communication is essential to success
  - There cannot be a successful team without effective communication
- Listening
  - The best communicators are great listeners.
  - Five levels of listening
    - Ignoring
    - Pretending
    - Selective
    - Attentive listening (focus on the words being said)
    - Empathetic listening (with the intent to understand)
      - Be an active listener, make sure speaker knows that you are listening
      - “Oh what you mean is….”
      - “In other words, you think that….”
Team Communication

- **Talking**
  - Express your ideas as clearly as possible:
    - Other team members will not know your ideas unless they are clearly expressed
  - Ask for feedback from your ideas
    - What other people understand from your words is not always what you mean

- **Negotiating**
  - Adopt Win-win strategy
  - When problems arise, if solution is not reached by discussion, establish the problem and gathering more information may help

Making and meeting commitments

- **Responsible commitments**
  - Team member should make responsible commitments and strive to meet them
  - Members must trust one another to do what they say
  - Commitment is an ethic that must be learned

- **Making commitments**
  - Commitment must be freely assumed
  - The commitment is public
  - To make responsible commitment, you must prepare
    - Define and estimate the work and conclude you can do it.
Participation in the Team’s Activities

- Do not caving in too quickly
  - Ask questions, have them explain to you
- Supporting the holdout
- Getting Attention
  - Story about airplane crash and the warning of the co-pilot
- Paying attention
  - don’t be so self-sufficient
    - When you are in trouble, ask for and accept help
    - When someone if offering help, pay attention

Common Team Problems

- Poor project management, ineffective leader
- Failure to compromise or cooperate
- Lack of participation
- Procrastination and Lack of Confidence
- Poor quality work
- Function creep
- Ineffective peer evaluation
- Under resource estimation
- Technical challenging
Conflict Among Team Members

- Conflict is indicative of introduction of variety of ideas
- Conflict management is essential to the success
- Different 'approaches' to conflict management
  - Negotiating
  - Compromising
  - Forcing
  - Avoiding
  - Organized confronting

Risk Management – Plan for uncertainty and loss

- One might encounter portions that are difficult to implement
- **support system failure** that causes delays
- Product might be so defective that **testing takes too long**
- Team might lose control over the product or product changes and spent time on constructing programs that have already been developed
- Your team might not be able to work together effectively
- Individuals might run into personal problems which reduced productivity
Setting Goals

- Write down your goals
- Specify how to measure these goals
- If not obvious explain why these goals
- Distribute goals

How to avoid procrastination?

- Plan your schedule
- Keep track of your schedule
- Record actual time
- Compare and evaluate for accuracy
- Use the time-log forms
Meeting Techniques

- **Scheduling**
  - As early as possible
  - Regular times
  - Make sure everyone can make the meetings
  - Start meeting when everyone is there
  - Meeting time and place have to be sufficient
  - How far into the project should the team meets
  - Don't spend too much time meeting

- **Preparation**
  - Agenda
  - Distribute agenda to provoke thought

Meeting Techniques

- **Procedures**
  - Complete (or table) each agenda item before going to next
  - Start discussions with a presentation of currently known facts
  - Comments and criticism should be actively solicited from all team members (invite some controversy)
  - Presenting differing idea should be encouraged
  - Differing ideas should be openly discussed. The differences must be understood and advantages and disadvantages of each must be pointed out
  - Each person must leave the meeting with something specific to do before the next meeting, that is action item