

Working in Teams

EGG 102: Introduction to Engineering Design



Adapted from: "*Team Training Workbook*"
Arizona State University

<http://www.eas.asu.edu/~asufc/teaminginfo/teamwkbk.pdf>

Why is it Important?

- Many projects are complex and multidisciplinary
- More innovative solutions
- Students can learn from one another
- ABET requirements
- Only strongest as the weakest link
- Makes for more effective meetings
- Employers value someone who can work effectively on a team

Uses of Teams

In Industry/Business:

Management Teams (Team Xerox, San Diego Zoo)
Continuous Quality Improvement Teams (CQI)
Design/Build Teams (Chrysler H-car, Boeing 777)

“The task for us at Boeing is to provide a massive change in thinking throughout the company – this is a cultural shift, and it isn’t easy!!”

Phil Condit
Exec. Vice President
Boeing Comm. Airplanes

In Academe:

Project-based Courses
 Single-discipline teams
 Multi-discipline teams
Design Course
 Multi-disciplinary teams
 Cross-functional teams (marketing, engineering, legal)
Cooperative Learning
 Short-term groups
 Long-term groups

“If you can’t operate as a team player, no matter how valuable you’ve been, you really don’t belong at GE”

John Welch
CEO, General Electric

Code of Cooperation

(adapted from Boeing Commercial Airplane Group)

- EVERY member is responsible for the team's progress and success
- Attend all sessions and BE ON TIME
- LISTEN to and show RESPECT for the contributions of other team members
- Criticize ideas, not persons
- Resolve conflicts constructively
- Pay attention – avoid disruptive behavior
- Avoid disruptive side conversations
- Only ONE PERSON speaks at a time
- Everyone participates – no one dominates
- Be succinct, avoid long anecdotes and examples
- No rank in the room
- Attend to your personal needs but minimize team disruption
- HAVE FUN!!!

Team Building Exercise: *Space Survival*

SEE HANDOUT

Team Roles and Responsibilities

- Team Facilitator: Assists teams in overall project goals, Neutral party, feedback to all team members (professor, CEO, etc...)
- Team Leader: leads team through problem solving process, prepares for team meetings.
- Team Members: equal participation, invests appropriate time/effort
 1. Team Recorder: note taker, write down all ideas
 2. Team Timer: time management, budget constraints
 3. Team Gatekeeper: makes sure all are participating
 4. Team Devil's Advocate: presents opposing view

Anticipating Problems and Establishing Corrective Norms

- Make team members aware of what things bother other team members, or if expectations are not met
- Let all voices be heard
- Organize problems into major groups (Affinity process)
- Develop a strategy for addressing potential team problems
- Intervention is necessary (teacher or outside involvement)