Section 1.2
Team Project

1. Team organization
2. The Project

1.2.1 Team Organization

- Working with others is not always intuitive
- But it is necessary in **all jobs**!
- People we work with can make or break any project
- We rarely have a choice of who we work with
  - but when we do, we must choose wisely

People Management

- We all “manage” people
  - everyone has expectations
    - what others expect of us
    - what we expect of others
  - everyone has bad days
    - your own
    - other people’s
      - empathy and gentle humour go a long way
  - everyone has good days
    - celebrate your successes
      - everyone needs recognition for a job well done
      - even small victories are meaningful

People Management (cont.)

- Four factors in managing people:
  - consistency
    - everyone on the team must be treated fairly and equally
    - equally ≠ identically
  - respect
    - appreciate different skills and different types of contributions
  - inclusion
    - listen to everyone's ideas
  - honesty
    - about your work
    - about your skills
    - the truth always comes out, usually at the worst possible time

Teamwork

- Teams have:
  - an identity
  - a personality
  - a reason for existence

- Good teams have:
  - a common goal
    - all working to achieve the same purpose
  - cohesion
    - “all for one and one for all” -- A. Dumas, *The Three Musketeers*
  - shared values

Teamwork (cont.)

- Benefits of a cohesive team
  - quality standards
    - standards adopted by all team members likely to be followed
  - learning and support
    - team members learn from each other (within reason)
  - shared knowledge
    - familiarity with all aspects of the work contributes to continuity
  - continual development
    - team members can rely on each other to deal with problems

Teamwork (cont.)

- Sources of sabotage
  - people in the group
    - liars and cheaters
    - bullies
    - leeches
  - group organization
    - wrong people given the wrong work
  - communications
    - information hoarders
    - the vanishing

Teamwork (cont.)

- Sources of sabotage (cont.)
  - mismatched skill set in your team
    - don't mix 2nd year students with 4th year students
      - teams will implode before Deliverable #2
    - students who do not contribute will be removed from their team
  - mismatched time management approaches
    - those who want to start work ahead of the deadline vs. right before

Teamwork (cont.)

- Qualities of a good team
  - balanced skill-set
    - members are assigned roles that they are good at
  - regularly share information
    - team meetings are essential for this
  - honesty in reporting their work progress
    - all members are responsible for checking on other members
    - *trust, but verify*
  - all have similar expectations
    - expected grades
    - expected scheduling of deliverable work

Teamwork (cont.)

- Qualities of a good leader
  - what is a leader?
    - a facilitator
    - someone who makes things happen
  - who is NOT a leader?
    - an ego-tripper
    - the best technical person often is **not** the best manager
  - what does the leader do?
    - organizes the work and keeps things running smoothly
    - works **for** the team, not the other way around
    - makes sure the team has everything it needs
    - encourages, motivates, listens, fixes

Common Team Issues

- Team member doesn’t respond to communications
  - members must respond to emails or texts within 24 hours
  - otherwise, they may be removed from the team
- Team member’s work is late
  - set early deadlines to make sure work is actually getting done
  - members will sometimes lie about the work they are doing
  - report member’s lack of contribution in peer evaluation
- Team member drops the course the day before due date
  - contact instructor and lab coordinator
  - your team is still responsible for doing the work

Common Team Issues (cont.)

- Team member not given fair share of work
  - every member must be given **equal** amount of work
  - every member must ensure that they have enough work
  - insufficient contribution means lower grade
    - no matter whose fault it is

- Working in isolation
  - don’t separate the work then not communicate until deadline
  - all code must compile and work together
    - this requires constant communication between members
  - integration of mismatched code can take *days*, not hours

Common Team Issues (cont.)

- Team member messes up
  - every member of the team is ultimately responsible for the work
  - check on your team members' work, and fix it if necessary

- Vacation clubs
  - functional teams:
    - teams who all agree to work during Fall Break
    - teams who all agree not to work during Fall Break
  - dysfunctional teams:
    - teams where some will work and some won't work during Break
  - do **not** form a team where members have different work ethic
    - your team will implode before Deliverable #2

Forming Your Team

- This is your most important decision in this course

- Team composition:
  - 3 or 4 people
  - work load will **not** be adjusted if members drop or quit
    - teamwork! you must pick up the slack for other members
  - roles:
    - team leader (formal role)
    - primes (informal roles)
      - documentation (ensure documents have consistent formatting)
      - requirements (ensure all requirements are documented and traceable)
      - architecture/design (ensure design is complete and optimal)
      - testing (ensure all features match the requirements)
      - configuration (ensure deliverable code is packaged correctly)

Forming Your Team (cont.)

- You need to register your team
  - submit team information in *cuLearn*
  - deadline: Thursday, October 17 at 11:59 pm

- What if you don't have a team
  - try advertising in *cuLearn* forum
  - instead of team info, submit a matching request in *cuLearn*
    - before the deadline!
  - we will **try** to match you up with other team members
    - ultimately, it's **your** responsibility to find a team

Forming Your Team (cont.)

- What if you don’t register by the deadline
  - you’re on your own
    - you will be registered as a one-person team
  - same workload for every team, whether one person or four

1.2.2 The Project

- Five work products:
  - three (3) individual assignments
    - assignment #1: Functional Model Document
    - assignment #2: Object and Dynamic Model Document (partial)
    - assignment #3: System Design Document (partial)
  - two (2) team-based deliverables
    - deliverable #1:
      - design presentation
      - implementation of selected feature(s)
    - deliverable #2
      - implementation of selected feature(s)

Expectations

- Project deliverables
  - are mandatory for every student
    - no waivers for illness or emergency situations
  - must follow the formats discussed in class
  - every team member must contribute **equally** to **each** deliverable
    - the end-product, *submitted* deliverable
    - effort doesn't count, only results do
  - must be accompanied by **peer evaluations**
    - individual grades will be adjusted based on contribution
    - peer evaluations must be confidential -- do **NOT** do them as a team

Team Roles

- Every team member
  - must contribute **equally** to:
    - assigning work
    - each deliverable
  - completes assigned work on time
  - makes sure all teammates do their work on time and correctly
  - submits peer evaluations on time

- Team leader
  - coordinates all work assignments, schedule, deliverable
  - ensures that work is allocated equally
  - organizes team meetings

Project Problem Statement

- System: Project *SCAPES*

- See system description for details
  - posted in *cuLearn*