Communication Skills

- Management: Run a team meeting
- Presentation: Present aspects of your project during its development phase
- Collaboration: Negotiate requirements with the client and with members from your team and other teams
- Technical writing: Write specs, user manuals, etc. and document your code

In large system development efforts, you will spend more time communicating than coding
Communication Events

- Type of information exchange that has defined objectives and scope
- Communication mechanisms - tool or procedure that can be used to transmit information
  - Team environment (e.g., cubicles, meeting room)
  - E-mail, text messages
  - Meetings
  - Bug report system
  - Project documentation
  - Repository coordination
  - Presentations

Information to Communicate

- The information to communicate depends on your audience

- Categories
  - Client
  - Management
  - Peers
  - Subcontractors

You will report different information depending on your audience

Know your audience

For your CSE308 formal presentations, you will be informed of your target audience
**Client Communications**

- **Client is interested in:**
  - Features
  - Cost
  - Schedule

  plus information that supports team credibility

- **Type of client communications**
  - Proposal
  - Status review (e.g., requirements review)
  - Milestone review (e.g., design review, code review)
  - Product demo (e.g., final demo)

  Design reviews are usually only done with large clients

  Good to under-promise and over-deliver

**Status Reports**

- **Typically weekly reports**
- **Goal:** inform the client on progress and changes
- **Usual format:** 1 page with some bulleted lists

- **Typical sections:**
  - Completed items (i.e., progress)
  - Issues (i.e., problems)
  - Plan for next week

  Not required for this semester’s project

  You will usually report on what you have done, not how you have done it
Management Communications

- Management concerns
  - Cost (different from client price)
  - Schedule
  - Synergy (e.g., contract extensions, reusable code, etc.)
  - Company integrity
  - HR issues

- Type of communications
  - Face-to-face
  - Status reviews (weekly, monthly, quarterly)
  - Ad hoc meetings
  - E-mail, memos, etc.

Peer Communications

- Peer concerns
  - Quality (e.g., adherence to standards)
  - Interfaces
  - Egos (?)

- Type of communications
  - Face-to-face
  - Team meetings
  - Cubicle talk
  - Reviews (e.g., audits, code, documentation and design reviews)

Honesty and trust is very important
Make Meetings Productive

- Meeting leader
  - Responsible for organizing the meeting and guiding the execution (works with a time budget)
  - Writes and distributes the agenda

- Minute taker (often not the meeting leader)
  - Responsible for recording the meeting.
  - Identifies action items and issues
  - Release them to the participants

- Meeting issue – high cost
  - Make it brief (be prepared)

Stay focused in a meeting – no side conversations

Peer Review

- Your project will include some peer reviews (oral)

- In a work environment, you are evaluated on your review of co-workers code, designs, etc.
  - Thorough
  - Respectful
  - Productive (suggest positive changes)
Project Organization

- Project organization approach depends on:
  - Size of team
  - Quality of team
  - Management philosophy
  - Modularity of system
  - Complexity of system

- Possible strategies
  - Hierarchical
  - Democratic
  - Hybrid
Democratic Models

- Member
- Member
- Member
- Member

Project Plan

- Most projects use Microsoft Project
- Identify major milestones
- Identify discrete tasks (that have a definite end)
- Construct task dependencies
- Construct an initial schedule
- Assign team members to the project tasks
## Typical Project Plan

### Tabular data

<table>
<thead>
<tr>
<th>Task Description</th>
<th>Duration</th>
<th>Start Date</th>
<th>End Date</th>
<th>Responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management</td>
<td>537 days</td>
<td>Thu 7/1/04</td>
<td>Fri 7/2/06</td>
<td>Adam J</td>
</tr>
<tr>
<td>Project review meeting</td>
<td>1 day</td>
<td>Thu 7/1/04</td>
<td>Thu 7/1/04</td>
<td></td>
</tr>
<tr>
<td>5 month progress report</td>
<td>15 days</td>
<td>Thu 12/30/04</td>
<td>Wed 1/19/05</td>
<td></td>
</tr>
<tr>
<td>12 month progress report</td>
<td>15 days</td>
<td>Fri 7/1/05</td>
<td>Thu 7/21/05</td>
<td></td>
</tr>
<tr>
<td>18 month progress report</td>
<td>15 days</td>
<td>Mon 1/3/05</td>
<td>Fri 1/21/05</td>
<td></td>
</tr>
<tr>
<td>Final project report</td>
<td>15 days</td>
<td>Mon 7/3/06</td>
<td>Fri 7/21/06</td>
<td></td>
</tr>
<tr>
<td>CPG definitions</td>
<td>93 days</td>
<td>Thu 10/21/04</td>
<td>Mon 2/28/05</td>
<td>Melina L</td>
</tr>
<tr>
<td>Identify top 20 ER CPGs</td>
<td>1 day</td>
<td>Thu 10/21/04</td>
<td>Thu 10/21/04</td>
<td>Melina L</td>
</tr>
<tr>
<td>Locate and print CPGs</td>
<td>3 days</td>
<td>Fri 10/22/04</td>
<td>Tue 10/26/04</td>
<td>Johnny T</td>
</tr>
<tr>
<td>Create XML document from first CPG</td>
<td>21 days</td>
<td>Thu 12/29/04</td>
<td>Thu 12/30/04</td>
<td>Thomas</td>
</tr>
<tr>
<td>Test XML with Rule engine</td>
<td>14 days</td>
<td>Fri 12/31/04</td>
<td>Wed 1/19/05</td>
<td>Thomas</td>
</tr>
<tr>
<td>Create next 5 CPG XML docs</td>
<td>28 days</td>
<td>Thu 1/20/05</td>
<td>Mon 2/28/05</td>
<td>Johnny T</td>
</tr>
</tbody>
</table>

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