Presentations for CSE 403, Software Engineering

This class is a senior level class for Computer Science and Engineering majors. They have strong software development skills, but in most cases have not yet participated in a large development project of commercial consequence. 55 students are registered.

My goals for the class are:

- 1. Help the students develop a good understanding of the context in which software development takes place.
- 2. Expose them to practical ways to be productive within this context and help them gain some experience on development projects during the quarter.
- 3. Provide some inspiration showing how the difficult task of efficient and effective software development can be an interesting challenge, worthy of an entire career.

Invited speakers for the class are a great help in reaching these goals as they bring "real-world" experience to the class and can explain in practical terms what really happens when the rubber meets the road in a significant project.

Topics that would be useful to include in a presentation are:

- 1. Company description. Brief history, size, market for company products.
- 2. Market for development group products. What is the primary market for the products of the group that you are describing? Embedded, desktop shrink-wrap, desktop inhouse, server commercial, server in-house, etc. National, international? Who purchases your products? Who actually uses your products?
- 3. How are your projects identified? Where do the requirements come from, where does the money come from?
- 4. What is the typical project life cycle? How is it organized? Are there specific processes that are used at various stages in a project?
- 5. Development group description. How would you describe your typical development group? Numbers of people, location (local, national, international), skills, duration of membership, organizational context, etc.
- 6. What are the specific details of your software development process? Requirements specification, development tools, programming languages, build strategy, delivery techniques, customer interactions, etc. Live examples of the tools and techniques?
- 7. Examples of real projects and lessons learned. Major successes? Major failures? Live examples of the products?
- 8. Contacts and links for follow up if students are interested in more info.

Feel free to add, delete, and emphasize topics as you feel is appropriate!

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