

CISC 498: Information Technology Project

Some Important Information

2023-24

About the Instructor

- Instructor

- Anwar Hossain, PhD
- Associate Professor, School of Computing, Queen's University
- **Contact:** 529 Robert Sutherland Hall, ahossain@queensu.ca

- Teaching Assistant

- Amin Fakhereldine
- PhD Candidate, School of Computing, Queen's University
- **Contact:** amf13@queensu.ca

- Capstone course of the Software Design program (SODE)
- Format – no lectures, presentations and report only
- Objective
 - *Application of software engineering techniques* to the development of a substantial software system
 - *Communicate with a customer* to define and deliver a system that meets the customer's needs
 - *Collaborate with colleagues* to develop a software system (group work, oral presentation, participation in software artifact review meetings)
 - *Deliver* software requirements specification and design, quality assurance plan, and a working software

Stakeholders

- Coordinator – Anwar Hossain (email)
 - ▶ to organize and oversee a number of meetings and presentations
 - ▶ assist you in finding a supervisor
 - ▶ help you in accessing the resources you need
 - ▶ evaluate your work (together with the customers and supervisors)
- Teaching Assistant – Amin Fakhereldine (OnQ and email)
 - primary contact person for the submissions
- Group members
 - registered for this course
 - 4-5 members

Stakeholders – contd

- Customer
 - Suggested a project already
 - Meet customers to develop requirements (contact info available on the website)
 - It is your responsibility to inform the customer about your presentation
 - Advise customer to become familiar with the customer related information on the course website
- Supervisor
 - School of Computing (or cross-appointed) faculty members
 - First choice: software engineering faculty members
 - Start contacting potential supervisors
 - It is your responsibility to inform the supervisor about your presentation

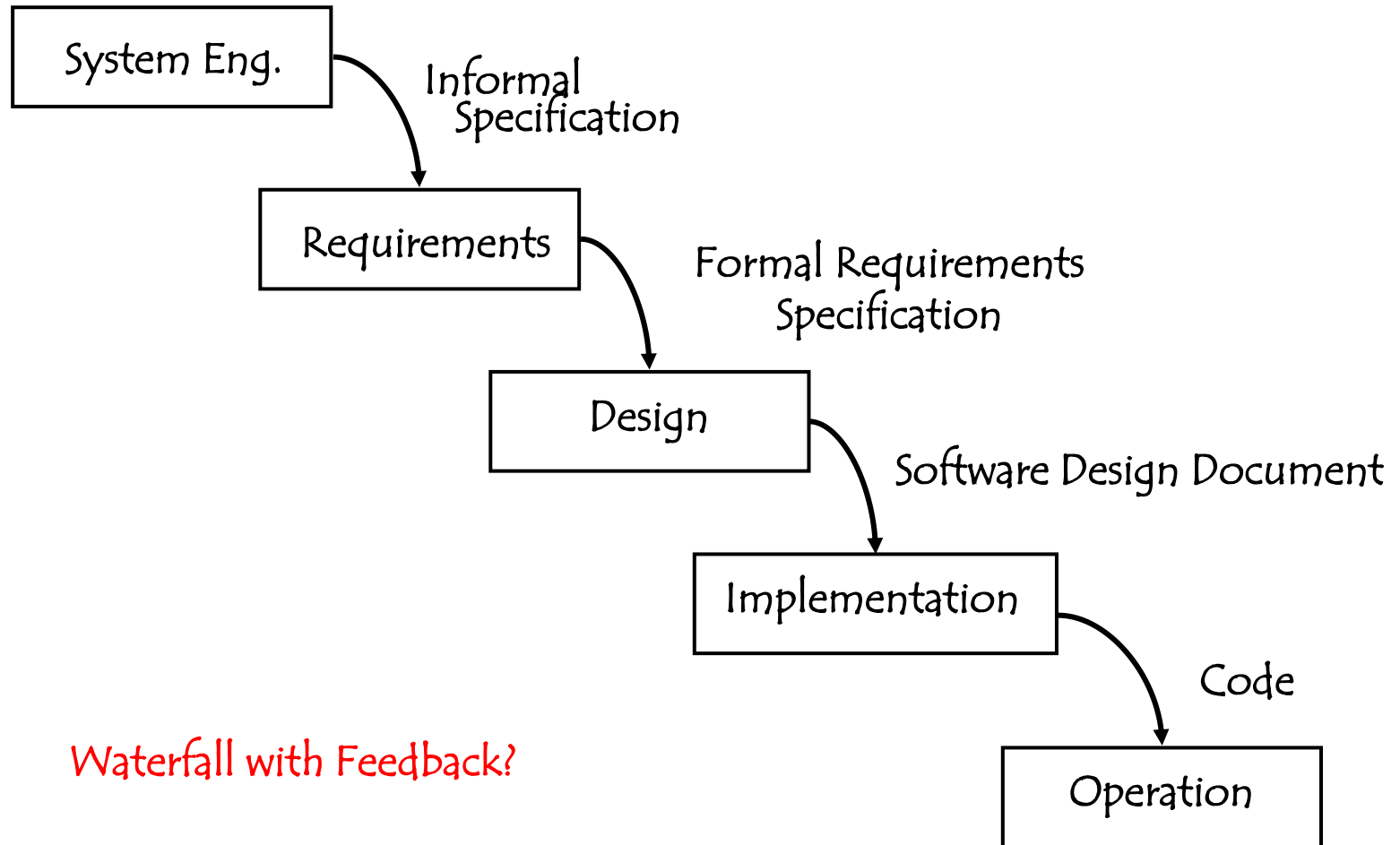
Software Engineering

- Software engineering (definitions from various sources)
 - Software development is *not only* programming
 - *Multi-person* construction of multi-version software
 - *Engineering techniques and methods* for building large software systems by a number of people in an *systematic way*
 - Each software process model includes a *set of steps* to build a software product - *software life cycle model*

Software Process Models

- Most software life cycle models include the following steps
 - Requirements
 - Specification
 - Design
 - Programming
 - Integration
 - Testing (may be attached to any steps?)
 - Operation and Maintenance
- Some most commonly used models
 - Waterfall model
 - Prototyping model
 - Spiral model

Waterfall Model



Waterfall with Feedback?

Waterfall – Advantages and Disadvantages

- Advantages
 - Prescribes a strict disciplined approach following well-defined tasks
 - Separation of phases and transitions among them – separation of tasks
 - Documentation helps reduce maintenance
- Disadvantages
 - Client: “I know this is what I asked for, but this is not what I really wanted”
 - Heavily documentation dependent – too much overhead for small software

Important Dates

- Schedule: Mondays, 11:30am – 2:30pm in Goodwin Hall, Rm 254
- Important Dates

What	When	Weight
Contract plus initial project plan	25 September, 2023 (23:59:59 EST, by email to TA and supervisor)	5%
Requirements document	23 October, 2023 (23:59:59 EST, by email to TA and supervisor)	10%
Requirements presentation	23 October, 2023	5%
Design document	27 November, 2023 (23:59:59 EST, by email to TA and supervisor)	10%
Design presentation	27 November, 2023	5%
Quality assurance and deployment plan document	29 January, 2024 (23:59:59 EST, by email to TA and supervisor)	10%
Quality assurance and deployment plan presentation	29 January, 2024	5%
Weekly progress reports (email to supervisor & customer)	By email, each Thursday, starting January 12, 2024	5%
Final project documentation	March 27, 2024 (23:59:59 EST, by email to TA and supervisor)	15%
Final project presentation (delivered system to customer)	March 27, 2024 (demo, software and documentation delivery, TBD)	25%
Final poster submission/presentation	Creative Computing Showcase (TBD)	5%
Total		100%

Next tasks and Submission

- Form the group
- Submit your group information to the TA (identify a team lead) by **September 18, 2023**
- Choose and contact the customer
- Find a supervisor
- Finalize the project plan
- Sign and submit the contract (**Wednesday, September 25, 2023**)
- Check the resource page for example documents and guidelines

Some Important Points

- Documents not submitted by the due date will face a penalty of 10%
- All members of the group are expected to cover a part of each presentation
- Attendance at meetings/presentations is **mandatory**
- **Who did what?** Each submitted document and email reports should explicitly identify the contributions of each group member
- **Next Deadline: Contract plus initial project plan, Monday, September 25, 2023**

Some Important Points – contd.

- If you cannot find a group by this week, please contact the TA
- If you cannot find a supervisor by the deadline, please contact me
- If you sense any problem in the group, please contact your supervisor and me ASAP

- Any questions? Please email me or the TA.
- For detail information:
<https://research.cs.queensu.ca/home/cisc498/index.html>