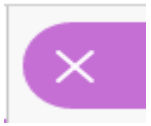
University of Dublin
Trinity College

CS7CS3: Advanced Software Engineering Introduction

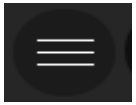
Prof. Siobhán Clarke
Ext. 2224 – L2.15
www.scss.tcd.ie/Siobhan.Clarke/

The Session Will Begin Shortly

1. Click on the pink Collaborate button (bottom right) to open the chat window and enter your message.



2. You can close the Collaborate panel at any time so you can see more of the current presentation.



3. Click on the menu icon at the top left when you want to exit the online lecture

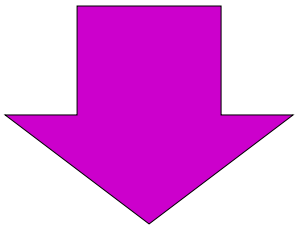
→ A recording will be made available afterwards in case you get disconnected or have technical issues.

Can You Hear Me?

If you can't hear me, check your computer's volume setting (bottom right of the screen in Windows, top right on a Mac)

If you still can't hear me, click on Collaborate icon at the bottom right of the screen then on the gear button to configure your audio settings.

Answer 'Yes' to the poll below if you can hear me.



Netiquette for Collaborate Ultra

1. Be sure to join the session 5 – 10 minutes prior to the start.
2. Set up your audio and video when you first join a session.
3. Call into the session via telephone if your audio is not working well.
4. Participate in the session by responding to polls and providing feedback to the moderator.
5. **Raise your hand** by clicking the hand icon when you have a question or a comment.
6. **Use Chat to send text messages** to other participants and the moderator during the session
    - Please don't overuse CAPS and try to be brief
7. Remember that running other applications on your computer can slow your connection to the session.
8. **Mute** your microphone when you are not speaking
9. Put a **photo** of yourself in your profile. Use full names, NOT nicknames.

Reminder that this session will be recorded.

Prof. Siobhán Clarke

>200	publications
>8600	citations
37	h-index
>19M	competitive funding

Career Highlights

2019 – present	Professor of Software Systems, Trinity College Dublin
2018 – present	Director, SFI Enable Research Programme (Smart Cities/Communities and the IoT)
2018 – present	Head of the Discipline of Networks and Distributed Systems, School of Computer Science and Statistics.
2006 – present	Head of Distributed Systems Group, School of Computer Science and Statistics
2009 – 2011	Director of Teaching and Learning (Postgraduate), School of Computer Science & Statistics.
2006 – present	Fellow of Trinity College Dublin.
2000 – present	Faculty, Trinity College Dublin
1997 – 2000	PhD Candidate
1986 – 1997	Senior Software Engineer, IBM

Breaking into random groups

Introduce yourselves!

Playing with the Whiteboard

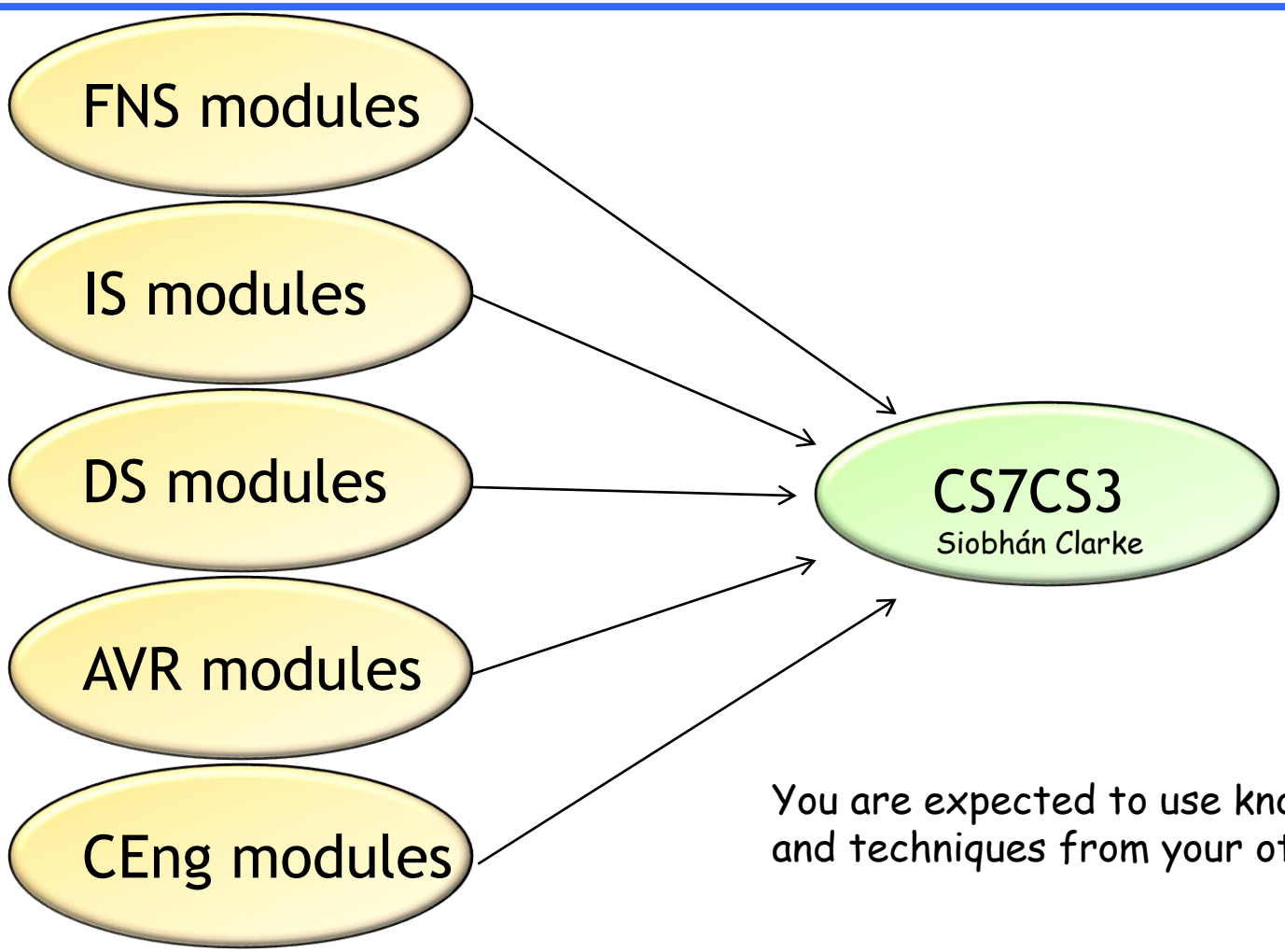
Name of your home city/town/village?

Purpose of CS7CS3

- To be exposed to the theory of software engineering and team-based software development;
- To assess the emerging practices and technologies in software development;
- To assess the current state of the art in software engineering practice and research.

Course details on Blackboard

Module Context



You are expected to use knowledge and techniques from your other modules

Module Overview

Specific topics addressed in this module include:

- Software architecture;
- Agile process, in particular eXtreme Programming (XP);
- Test-driven development;
- Object-oriented design principles;
- Refactoring.

I will give lectures on these in the first few weeks. From then, you will be following these practices in your projects and we will discuss the practices, in your groups.

Module Assessment: 100% Coursework

Coursework evaluation is based on the end-of-year project documentation, a demonstration to the course lecturer and, where relevant, other stakeholders, an oral examination within teams, and peer assessment.

60% of the marks are group-wide, and

40% is individual.

Module Assessment: 100% Coursework Semester 1

Assessment Component	Brief Description	% of total	Week set (*)	Week due (*)
Group programming exercise	Small group programming exercise. **Online collaboration** in the exercise is a key requirement.	4% for group	5	9 (on 29th October)
Group Project requirements specification	Analyse and document the requirements for the group project	5% for group	10	14 (on 3rd December)
Group project architecture	Application of an appropriate architectural model in the team-based application assigned.	5% for group	10	14 (on 3rd December)
"Thin slice" implementation	Implementation of a thin slice of project functionality across ALL architectural components	6% for group	14	23 (on 4th February)

Note (*) I am using the week numbers from College's academic year structure – see

https://www.tcd.ie/calendar/academic-year-structure/2021-22/academic-year-structure.pdf

Note: details subject to change (e.g., deadlines, deliverable content) throughout the year. Any change will be communicated to the class.

Module Assessment: 100% Coursework Semester 2

Assessment Component	Brief Description	% of total	Week set (*)	Week due (*)
"Thin slice" implementation (started in semester 1)	Implementation of a thin slice of project functionality across ALL architectural components	6% for group	14	23 (on 4th February)
Group development project	Evaluation is based on the end-of-year project documentation, a demonstration to the course lecturer and, where relevant, other stakeholders (or video), an oral examination within teams (if possible), and peer assessment. 40% of the marks are group-wide, and 40% is individual. Criteria for evaluation are: 1. Application of agile process to group project 2. Application of appropriate systems' algorithms in group project; 3. Code quality within group project code-base; Note, the default is that the individual mark will equal the group mark. This may change based on an individualised assessment, against the three evaluation criteria, which will be based on team-members' peer reviews, combined with lecturer/TA observation throughout the semester, and Q&A on software engineering theory.	40% for group; 40% for individual (**)	10	33 (on THURSDAY 14th April)

Note (*) I am using the week numbers from College's academic year structure – see https://www.tcd.ie/calendar/academic-year-structure/2021-22/academic-year-structure.pdf

Note (**) Any student who fails the individual component (<20 out of 40), will have been deemed to have failed the module.

Note: details subject to change (e.g., deadlines, deliverable content) throughout the year. Any change will be communicated to the class.

Questions?

1. **Raise your hand** by clicking the hand icon OR
2. **Use Chat to send ask a question**
3. **Mute** your microphone when you are not speaking