

MODULE INTRODUCTION

CS3213 FSE

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BASIC INFORMATION

- New module (course) offered first time January 2022.
- Planned to be offered once a year
- Title: Foundations of Software Engineering
- Course code: CS3213
- Pre-requisite: CS2103 Software Engineering

CONTENTS

- Focus on foundations.
- Foundation guided hands-on work through course project.
- Course project will involve code which will be actually deployed to help other students in first year.

No specific overlap with existing SE courses

CS3219 (patterns), CS4211 (formal), CS4218 (testing), ...

BASIC STRUCTURE (TENTATIVE)

- Foundations: 55%, Project: 45%
- Assessment scheme:
 - Midterm: 15%
 - Final exam: 40%
 - Project: 45%
 - Tentative plan: Assignment sheets: 12, Intermediate assessment: 6, Final report and presentation: 12, Final code: 15
- **Week by week schedule in**
 - **Luminus → Module Overview**

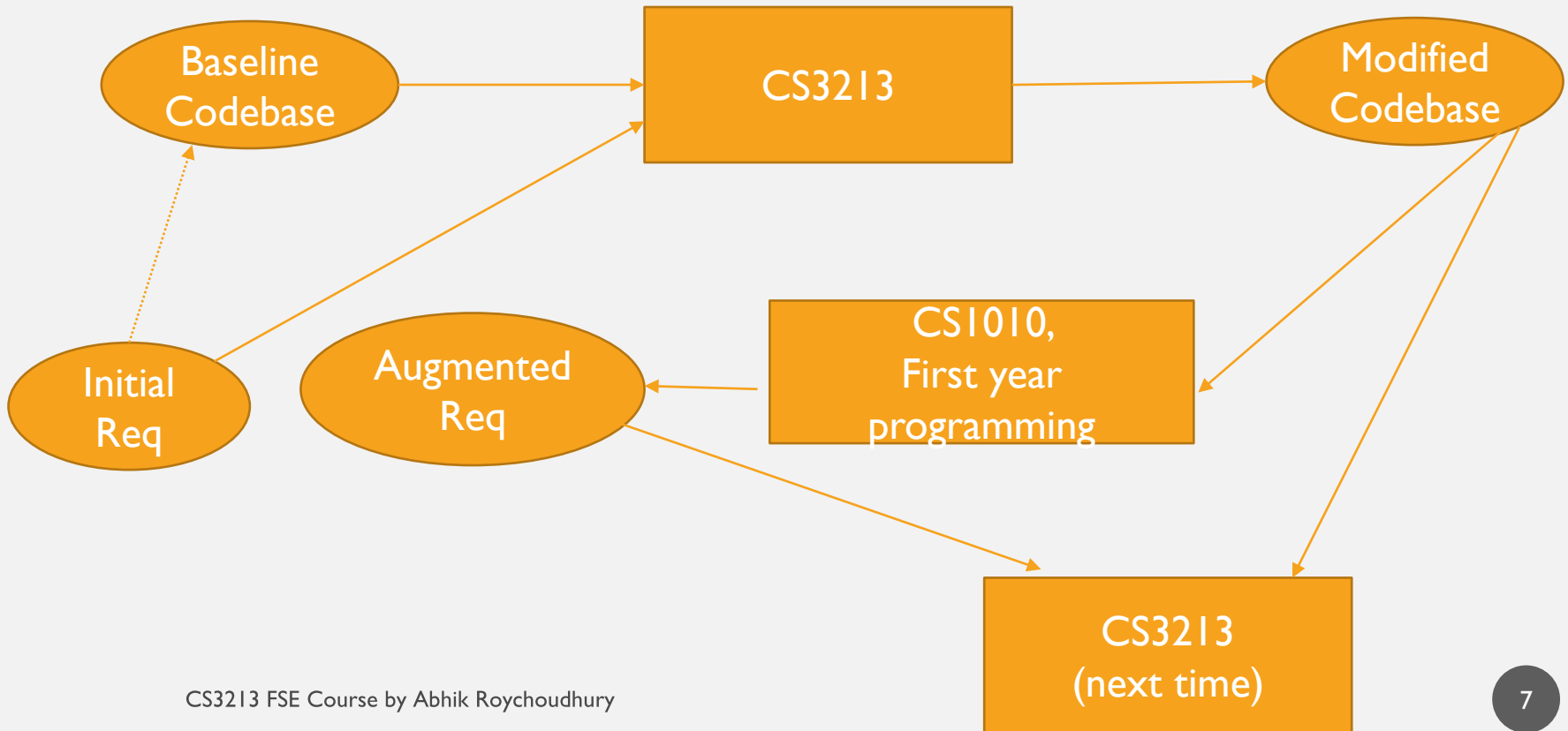
TOPICS

- Requirements, UML, Statecharts
 - *Requirements and Modeling*
- Discussion on Course Project – foundations
- Static Analysis, Test suite estimation, Test generation
 - *Testing and analysis*
- Performance, Security of software
 - *Extra-functional aspects*

COURSE PROJECT

- **Intelligent tutoring system**
 - Parser ...
 - Analyzer ..
 - Feedback module
 - Repair generation
 - ...
- Purpose: the system will provide feedback to struggling first year students.

VISION



TEAM AND TIMETABLE



Abhik
Wed 1-3



Yannic
Wed 3-4
Thu 10-11



Guo Ai
Thu 11-12



Kishore
Thu 12-1



Zhiyu
Thu 1-2



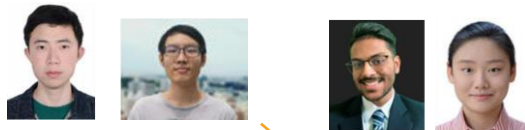
Jon
Thu 2-4

Labs start from week 2, no lab in week 13, due to NUS Well-being day on April 14.

Consultations start from week 2, Thursday 4:30 – 6 pm, continues to reading week in every week apart from week 13. Please book consultation slot in LumiNUS.

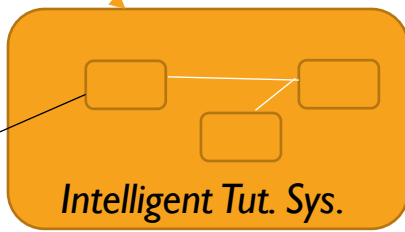
LONG-RUNNING SE PROJECT

Bootstrap: Baseline Codebase (2021)



Long running SE project- Manager

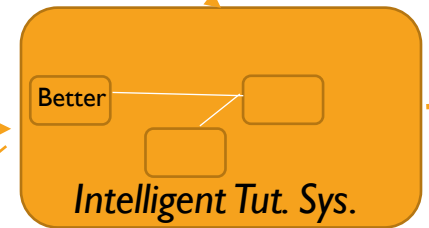
CS3213 (Jan22)



Project Group focusing on a module
(CS3213 = short-running SE project)



Oversee evolution



CS3213 (Jan 2023)

Deploy

Provide feedback
To students for
programming



Students in CS1010, ...

Requirements

SUPPLEMENTARY READING

https://abseil.io/resources/swe_at_google.2.pdf

This is for a general feel. It is *free* reading.

**Readings for each week are in
Luminus → Module Overview → Week 1, ...**

