

SSE1201 Building a Dynamic Singapore - Role of Engineers

Semester 1, 2016, Wednesdays, 1 pm – 4 pm

UTown SRC Global Learning Room

Prof. CC Hang

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Description

In becoming what she is today, Singapore had overcome many challenges and constraints. In many of these achievements which have created wealth, jobs and improved quality of life, engineers have played a pivotal role. Using examples such as Newater, Jurong Island and offshore jack-up rig, this module will present the challenges and achievements made over the years. The role of organizations such as JTC Corporation, LTA, and ASTAR in Singapore's engineering and technology development will also be discussed.

Tentative Outline and Schedule

Week (date/Wed)	Topics	Instructor/Resp.
Week 1 – 10 Aug	Introduction	CC Hang / Chai KH
Week 2 – 17 Aug	Jurong Island	Chai KH
Week 3 – 24 Aug	One-north	Chai KH
Week 4 – 31 Aug	Port of Singapore	Chai KH (guest speaker?)
Week 5 - 7 Sep	Land Transport in Singapore / Solid waste management in Singapore	Chai KH
Week 6 – 14 Sep	The SG Water story	Tan Kim Seng
Recess Week	No Class	
Week 7 - 28 Sep	The Marina Barrage - Engineering	Vladan Babovic
Week 8 – 5 Oct	Visit to Marina Barrage	Tan Kim Seng
Week 9 – 12 Oct	SIMTech	KW Lim Chai KH
Week 10 – 19 Oct	The R&D Story in Singapore	CC Hang
Week 11 – 26 Oct	No Class (to be confirmed)	
Week 12 – 2 Nov	Wrap-up	Chai KH
Week 13 – 7=9 Nov	Group Presentation	Chai KH Tan Kim Seng

Final Exam: 25 Nov, 2.30 pm (please double-check)

Grading (tentative)

<u>Component</u>	<u>Percentage</u>
Homework and class participation	20%
Group project	40%
Final examination (closed book)	<u>40%</u>
Total	<u>100%</u>

Group Project

This will involve groups of 6-7 students conducting a case study related to module. The final deliverable will be in the form of a project report and presentations in class lasting 10-12 minutes. There will be a peer-evaluation component. Details will be announced later.

Administrative Matters

Lecture notes, announcements etc will be communicated via <http://ivle.nus.edu.sg/>.

References

Case studies on Jurong Island, One North, Port of Singapore, R&D in Singapore, and selected publications from PUB, ASTAR and other sources.