ENGG 4930C Design for Global Health (3 Credits)
2019-2020 Spring

Course Details

SIGHT Teaching Team

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Faculty Advisors

Project Name	Faculty Advisor	Email
Anaemia in the Dang district of Gujarat - Gujarat, India	Prof. Sujata VISARIA	svisaria@ust.hk
	Prof. Marshal YS LIU	keysliu@ust.hk
Learning and playing aids for special needs students - Caritas Lok Kan School, Hong Kong	Prof. Rhea P LIEM	rpliem@ust.hk
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Eye health outreach and education - Hong Kong	Dr. Ngok LAM (Alex)	lamngok@cse.ust.hk
	Prof. May-yi SHAW	myshaw@ust.hk

Time slots: 3 hours per week

- Every Thursday, 18:00-19:30 (1.5 hours)
- Additional Team Time: 1.5 hours per week (based on each team members' and advisors' availability)

Course Outline

- The schedule may be subject to minor changes depending on the circumstances.

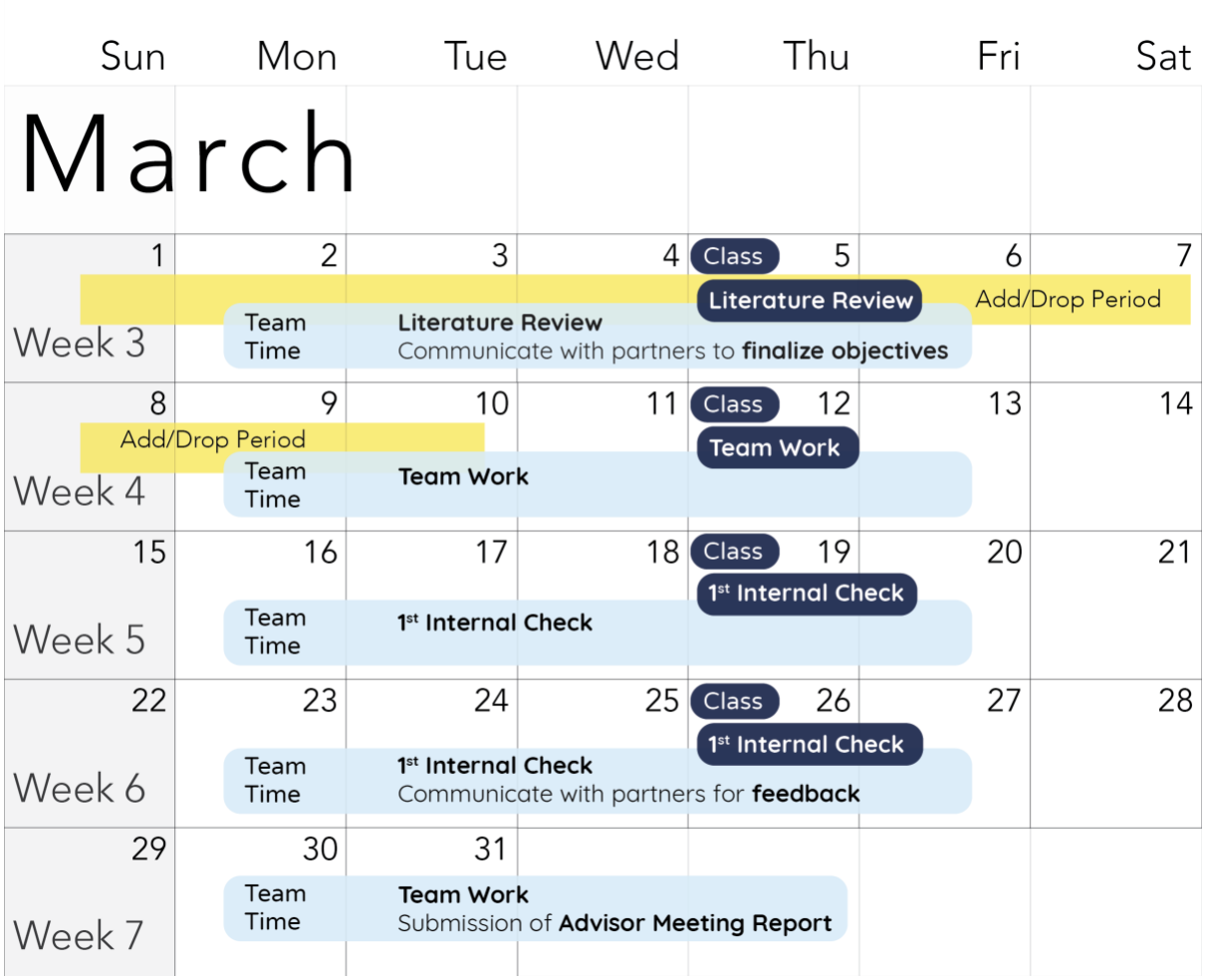
- The arrangements for different teams may vary slightly based on project nature.

Week 1

- Kickstart Meeting/Introduction to SIGHT ENGG 4930C project course – "Design for Global Health"
- Confirm team time
- Skills assessment for the team
- Finalize Project Objectives during the 1st Team Meeting

Week 2

- Team Work
- Prepare for Literature Review



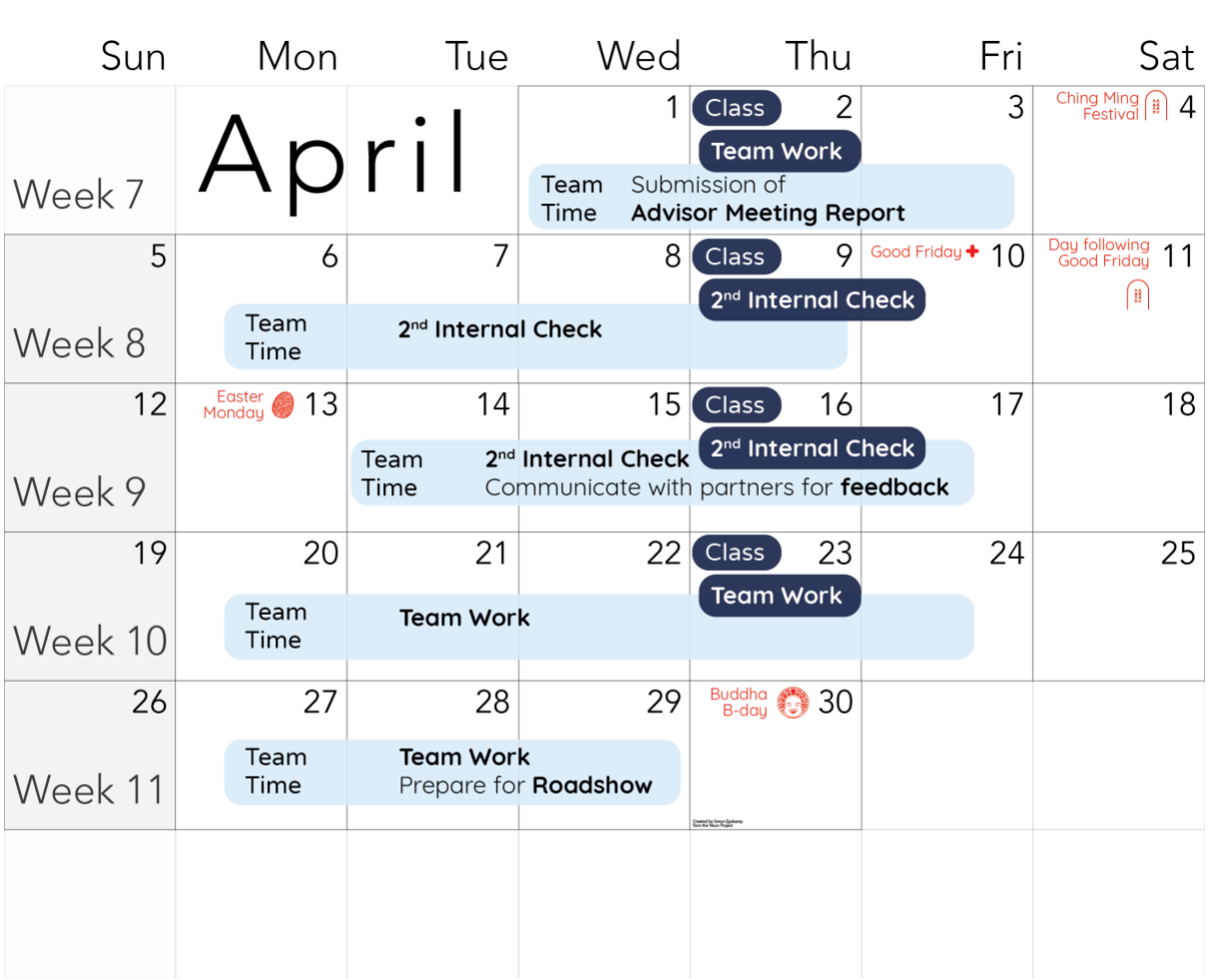
Week 3
- Extensive Literature Review on existing solutions/technologies & global market:
  - Each Team has to present for 1 hour plus 15 minutes of Q&A during their Team Meeting
- Communicate with partners and finalize project objectives

Week 4
- Team Work

Week 5
- 1st Internal Check for chosen teams

Week 6
- 1st Internal Check for chosen teams
- Communicate with partners and update the results/feedback of the 1st Internal Check

Week 7
- Submission of Advisor Meeting Report



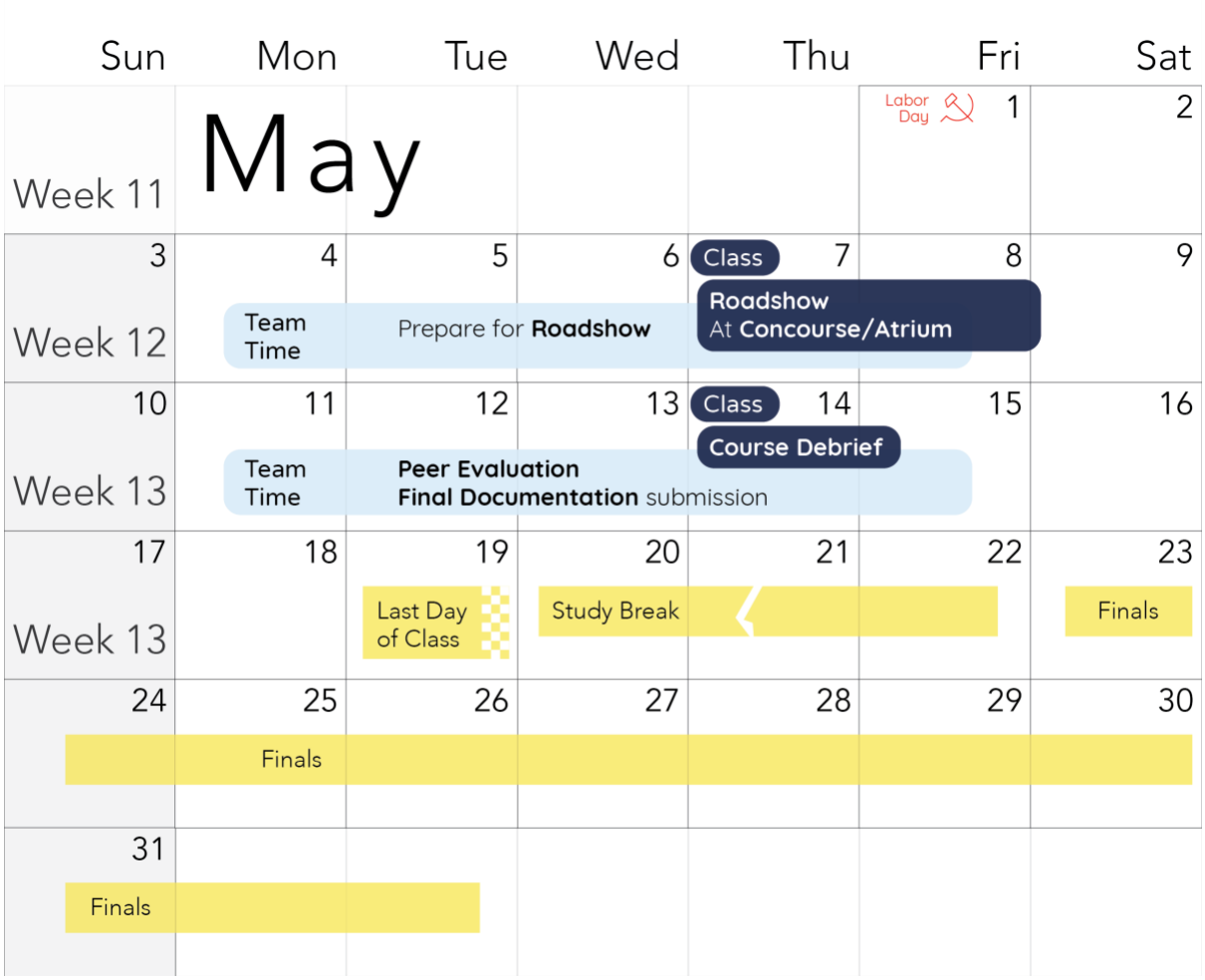
Week 7
- Submission of Advisor Meeting Report

Week 8
- 2nd Internal check for chosen teams

Week 9
- 2nd Internal check for chosen teams
- Communicate with partners and update the results/feedback of the 2nd Internal Check

Week 10
- Team Time

Week 11
- Prepare for Roadshow
- Submission of Roadshow posters



Week 12

- 2-Day Roadshow at Concourse/Atrium

Week 13

- Submission of Final Documentation
- Course debrief
- Peer Evaluation

Assessment scheme

Assessment components	Percentage
Literature Review: Presentation on existing solutions & global market	15%
Internal Check ×2	20%
Final Roadshow	20%
Final Documentation & Advisor Feedback Report	20%
Personal Reflection	5%
Communication with partner	10%
Peer Evaluation	10%

Literature Review: Presentation on existing solutions & global market

Each team will have a 60-minute presentation plus 15-minute Q&A. The content and presentation skills, such as coherence and use of visual aids, will be evaluated.

Information should be gathered from literature and other resources. An in-depth understanding and analysis of the potential users and existing solutions/products are expected. Students should be familiar with the situation and dynamics of the population and areas to be served. The review should also provide/identify:

- A solid background on the project problem
- Similar technologies/solutions currently used in other communities
- Strengths and weaknesses of existing solutions
- Any gaps in existing solutions, and
- Hence the opportunities to make your proposed solution distinctive to these existing solutions

Internal Check ×2

The prototypes will be tested on campus, in a setting simulating the real situation. The performance of prototype and the proficiency in collecting information from such testing will be evaluated.

Teaching team will design goals/milestones for each Internal Check, based on the initial objectives set by the team. Students are expected to obtain as much information as possible from the test, and incorporate the findings into the next round of iteration.

Final Roadshow

The Final Roadshow will be held at a public venue at HKUST to showcase your project to the UST community. The Roadshow should include the background and scope of the project, rationale and evolution of the design, demonstration of the prototype and introduction of the implementation plan. Guests with relevant expertise and experience would be invited, such as SIGHT advisors,

consultants, representatives from NGOs and social enterprises. The presentation is also open to UST community. For evaluation, each team will have 15 minutes for demonstration and 15 minutes for Q&A.

Final Documentation

This report will likely be the key (or even only) document where students can pick up where you have left off. So you need to pass over all related files to us to be uploaded to SIGHT's GitHub, such as detailed description of your prototype, software codes with comments (if coding was involved), design files (pictures and figures to illustrate your prototypes, 3D modelling files), user manuals, results of user tests, feedback from partners, etc.