

Common Accident in Modern Day City Life – Inevitable? Preventable?

一般意外在現代都市生活中
是否無可避免？或是可以預防？

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Reasons for Studying This Course:

- Daily life accidents are unavoidable but they can be minimized by acquiring the needed knowledge.
- Understanding of the potential dire consequences of accidents let students appreciate the importance of safety and health issues.

Course Aims

- *This course aims to provide students with good understanding of how and why accidents occur in our modern day city. It also aims to equip the students with a practical understanding of the science and engineering of accident prevention and investigation.*

Course Features

- No examination but two tests
- Large class contacting times.
- Student-centred activities (mini-project)
- Creative project presentation

Course Outline

- General concepts of accident occurrences
- General concept of accident prevention
- Case study of accident occurrences and prevention in public areas
- Science and engineering approach to accident prevention

General Concepts of Accident Occurrences

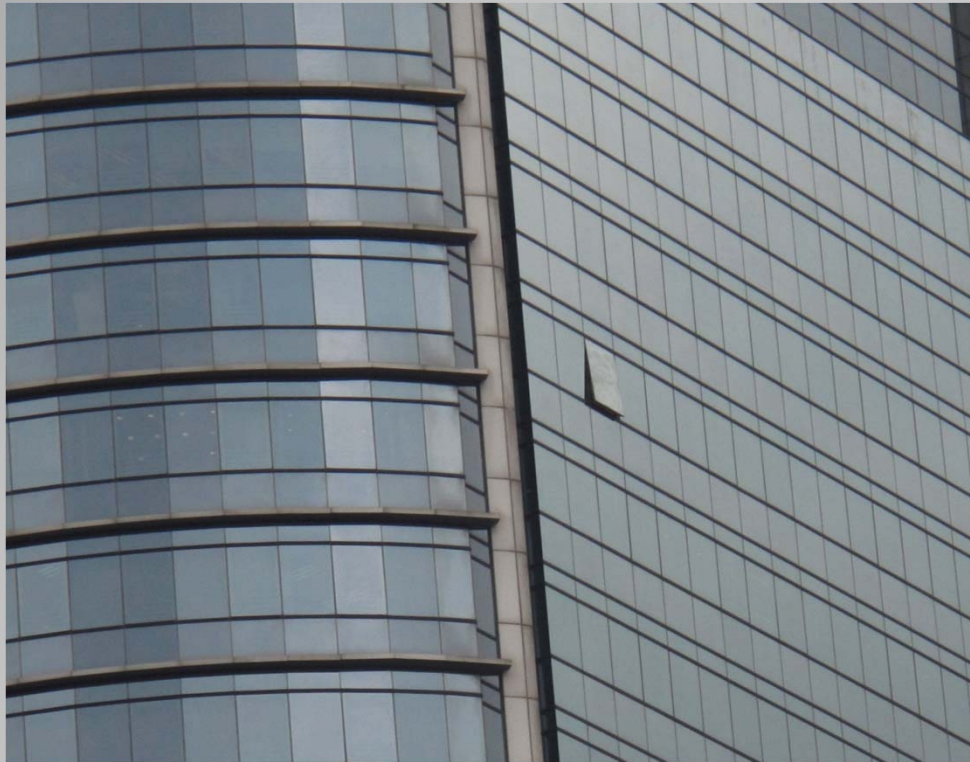
- Accident involves risk, which includes unknown elements
- If there is no unknown element, there is no accident occurrence.

General Concept of Accident Prevention

- Accident avoidance can be considered as unknown element elimination

Five Case Studies

- The window is kept open during typhoon time
- Riding bicycle in pavement
- Potential falling tree problem
- Force into the closing lift
- Didn't hold the hand-rail



Case Study 1

The window is kept open during typhoon time.

Window will be very weak when it is opened.

So windows should kept shut during typhoon time.



Case Study 2

Riding bicycle in pavement

It is dangerous to pedestrians.

It is illegal, and subject to a fine of \$500 and imprisonment of up to 3 months.



Case Study 3

Potential falling tree problem

It is dangerous to pedestrians

Pedestrians need to be careful when walk nearby a dangerous tree.



Case Study 4

Force into the closing lift

It is dangerous for people to force into the lift while the door is closing.



Case Study 5

Didn't hold the hand-rail

It is dangerous for passenger doesn't hold the hand-rail.

Once the escalator suddenly stops, the passenger will fall down.

Summary of the Case Study

- There will be many more cases to be studied in this course.
- They are interesting to students

Science and engineering approach to accident prevention:

Four Approaches to Minimize Accident

- The enforcement approach
- The psychological approach
- The engineering approach
- The analytical approach

Conclusion

- This course is meaningful to students
- Students will learn practical knowledge for their own and family good.