

GE1326: COMMON ACCIDENTS IN MODERN DAY CITY LIFE

Effective Term

Semester A 2023/24

Part I Course Overview

Course Title

Common Accidents in Modern Day City Life

Subject Code

GE - Gateway Education

Course Number

1326

Academic Unit

Systems Engineering (SYE)

College/School

College of Engineering (EG)

Course Duration

One Semester

Credit Units

3

Level

B1, B2, B3, B4 - Bachelor's Degree

GE Area (Primary)

Area 3 - Science and Technology

GE Area (Secondary)

Area 2 - Study of Societies, Social and Business Organisations

Medium of Instruction

English

Medium of Assessment

English

Prerequisites

Nil

Precursors

Nil

Equivalent Courses

Nil

Exclusive Courses

Nil

Part II Course Details**Abstract**

Accidents are seemingly unavoidable parts of modern day city life. In this course, students find out about how and why accidents occur in our living, working, learning and leisure environments. They will learn about the science and engineering of accident prevention and investigation. With this understanding, they can avoid being the causers or victims of accidents. Besides, the knowledge of the potential dire consequences of accidents will enable them to appreciate the importance of safety and health issues in daily life. This course combines Large Class Activities, i.e. lectures, with student-centred project (group work). Students have much opportunity of self-directed learning and team-work experience.

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 Intended Learning Outcomes (CILOs)

CILOs		Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Explain common types of accidents in modern city life and their consequences	30	x	x	
2	Explain why accidents occur and how they can be prevented	20	x	x	x
3	Apply knowledge learnt to accident prevention/investigation case studies and projects	30	x	x	
4	Communicate in writing and orally accident prevention/investigation case studies and project findings	10			
5	Demonstrate an ability to work effectively in a team	10			

A1: Attitude

Develop an attitude of discovery/innovation/creativity, as demonstrated by students possessing a strong sense of curiosity, asking questions actively, challenging assumptions or engaging in inquiry together with teachers.

A2: Ability

Develop the ability/skill needed to discover/innovate/create, as demonstrated by students possessing critical thinking skills to assess ideas, acquiring research skills, synthesizing knowledge across disciplines or applying academic knowledge to self-life problems.

A3: Accomplishments

Demonstrate accomplishment of discovery/innovation/creativity through producing /constructing creative works/new artefacts, effective solutions to real-life problems or new processes.

Teaching and Learning Activities (TLAs)

	TLAs	Brief Description	CILO No.	Hours/week (if applicable)
1	Large Class Activities	1. General concept of accidents, their occurrences, consequences, and prevention 2. Common accidents in daily life 3. Glass and the related hazards 4. Fire accidents 5. Traffic accidents 6. Escalator and lift accidents 7. Biological hazards 8. Presentation mishap, and Mid-term Test 9. Accident investigation 10. Project oral presentation (Part-1) 11. Project oral presentation (Part-2) 12. Project oral presentation (Part-3) 13. Conclusion of the course, and the final test	1, 2, 3, 4, 5	3 hours/week
2	Online Tutorial Discussion for Mini-project	Students need to form working groups of four to six members for conducting a mini-project. The topic should be related to any potential accident occurrence in a daily-life environment. The project objective is to propose means of accident prevention. All groups are needed to present their projects and submit their reports in the later part of the course.	3, 4, 5	1 hours/week
3	Consultation Hours	Consultation hours will be used to facilitate discussions of various issues related to the lecture materials.	1, 2, 3, 4, 5	1 hours/week

Assessment Tasks / Activities (ATs)

	ATs	CILO No.	Weighting (%)	Remarks
1	Assignment Assessment	1, 2	5	
2	Mid-term Test	1, 2, 3	15	

3	Mini-project Part-1 Assessment	3, 4, 5	10	
4	Mini-project Part-2 Assessment	1, 3, 4, 5	20	

Continuous Assessment (%)

50

Examination (%)

50

Examination Duration (Hours)

2

Additional Information for ATs

For a student to pass the course, at least 30% of the maximum mark for the examination should be obtained.

Assessment Rubrics (AR)**Assessment Task**

Assignment

Criterion

The assignment will cover the contents and concepts of the first part of the course. It aims to test both CILO-1 and CILO-2. The assignment assessment results will reflect student learning outcomes.

Excellent (A+, A, A-)

High

Good (B+, B, B-)

Significant

Fair (C+, C, C-)

Moderate

Marginal (D)

Basic

Failure (F)

Not even reaching marginal levels

Assessment Task

Mid-term Test

Criterion

The test will cover the contents and concepts of the teaching material in the lectures. They will be distributed with 55% to CILO-1, 35% to CILO-2 and 10% to CIL-3. The test assessment results will reflect student learning outcomes.

Excellent (A+, A, A-)

High

Good (B+, B, B-)

Significant

Fair (C+, C, C-)

Moderate

Marginal (D)

Basic

Failure (F)

Not even reaching marginal levels

Assessment Task

Mini-project Part-1 Assessment

Criterion

This assessment is based on the presentation quality of individual student doing his/her mini-projects. Each CILO- 3, 4 or 5, will be assessed independently. There are five grades for this assessment:

A grade means impressive presentation, completely clear and very persuasive.

B grade means clear presentation, well delivered, evident of good understanding in response to questions.

C grade means Satisfactory presentation, evident of fair understanding in response to questions.

D grade means Adequate presentation and answers to questions.

E grade means Poor presentation, incoherent, unclear; unable to answer questions satisfactorily

Students with C grade or above means they can achieve CILO-3, 4 and 5.

Excellent (A+, A, A-)

High

Good (B+, B, B-)

Significant

Fair (C+, C, C-)

Moderate

Marginal (D)

Basic

Failure (F)

Not even reaching marginal levels

Assessment Task

Mini-project Part-2 Assessment

Criterion

This assessment is based on the submitted project report. Each CILO, 3, 4 or 5, will be assessed independently. There are five grades for each CILO assessment:

A grade means Exemplary documentation, complete, professional or scholarly.

B grade means Good documentation, very well structured with few deficiencies.

C grade means Satisfactory presentation, evident of fair understanding in response to questions

D grade means Adequate documentation, comprehensible.

E grade means Poor documentation, incomplete or poorly structured.

Student with C grade of above means they can achieve the corresponding CILOs, in which the weighting is that 30% belongs to CILO-3, 40% belongs to CILO-4 and 30% belongs to CILO-5.

Excellent (A+, A, A-)

High

Good (B+, B, B-)

Significant

Fair (C+, C, C-)

Moderate

Marginal (D)

Basic

Failure (F)

Not even reaching marginal levels

Assessment Task

Exam

Criterion

The exam will cover the contents and concepts of the teaching material in lectures. They will be distributed with 55% to CILO-1, 35% to CILO-2 and 10% to CIL-3. The exam assessment results will reflect student learning outcomes.

Excellent (A+, A, A-)

High

Good (B+, B, B-)

Significant

Fair (C+, C, C-)

Moderate

Marginal (D)

Basic

Failure (F)

Not even reaching marginal levels

Part III Other Information

Keyword Syllabus

Accidence Occurrences, Accident Prevention, Accident Investigation, Common Accidents, Traffic Accidents, Roadside Accidents, Public Transportation Accident, Child Accident, Domestic Accident, Lift and Escalator Hazards, Glass Hazards, Biological hazards, Accident Cost Estimation, Electrocutation Hazard, Battery Hazard, and Fire Hazard

Reading List

Compulsory Readings

Title	
1	Nil

Additional Readings

Title	
1	Michaud P. A., Accident Prevention and OSHA Compliance, CRC Press, First Edition, 1995.
2	Lawson D. C., Safety & Accident Prevention, Guilford, CT: Dushkin Pub. Group, Second Edition, 2006.
3	Asfahl C. R., Industrial Safety and Health Management, Pearson Prentice Hall, Sixth Edition, 2009.
4	Hammer W. and Price D., Occupational Safety Management and Engineering, Prentice Hall, Fifth Edition, 2001.
5	Solomon M., O' Rourke J., Canavor N., and Meirowitz C., The Truth About Perfecting Your Presentation Skills (Collection), Pearson Education Inc., First Edition, 2010.
6	Bro P. and Levy S.C., Battery Hazards and Accident Prevention, Springer, First Edition, 1994.

Annex (for GE courses only)

A. Please specify the Gateway Education Programme Intended Learning Outcomes (PILOs) that the course is aligned to and relate them to the CILOs stated in Part II, Section 2 of this form:

Please indicate which CILO(s) is/are related to this PILO, if any (can be more than one CILOs in each PILO)

PILO 1: Demonstrate the capacity for self-directed learning

3

PILO 2: Explain the basic methodologies and techniques of inquiry of the arts and humanities, social sciences, business, and science and technology

2

PILO 3: Demonstrate critical thinking skills

3

PILO 4: Interpret information and numerical data

3, 4

PILO 6: Demonstrate effective oral communication skills

4

PILO 7: Demonstrate an ability to work effectively in a team

5

PILO 10: Demonstrate the attitude and/or ability to accomplish discovery and/or innovation

3

B. Please select an assessment task for collecting evidence of student achievement for quality assurance purposes. Please retain at least one sample of student achievement across a period of three years.

Selected Assessment Task

The assessment of the Mini-project Part-2 (Full report) is selected as an evidence of student achievement for quality assurance purpose.