



Instructor:

Engr Mohammad
Hamza Nasir

Occupational Health and Safety (CH161)

Ghulam Ishaq Khan Institute of Engineering Sciences & Technology



Engr. Mohammad Hamza Nasir (Lecturer)

Email: hamza.nasir@giki.edu.pk

Office: CS-03, New Academic Block, Third Floor.

Meeting Timing: 09:00-17:00 (Monday to Friday)

- ✓ **Introduce** occupational health & safety
- ✓ **Promote** culture of personal safety.
- ✓ **Awareness** of potential health & safety on workplace
- ✓ **Avoid** common mistakes
- ✓ **Reduce** illnesses, incidents and accidents
- ✓ **Consider** health & safety solutions and best practices
- ✓ **Improve**
 - Safe work processes & productivity
 - Early discovery of emerging events and issues
- ✓ **Encourage**
 - Communication & sharing
 - Innovative initiatives



Students will be able to:

1

Master the fundamentals of occupational health and safety, including hazard identification, risk assessment, and effective risk control measures.

2

Recognize and manage workplace hazards such as fire, electricity, machinery, construction, and chemicals while understanding the roles of employers and employees.

3

Develop expertise in accident response, health hazard management, acquire essential life-saving skills like CPR and first aid and explore engineering ethics and climate change.

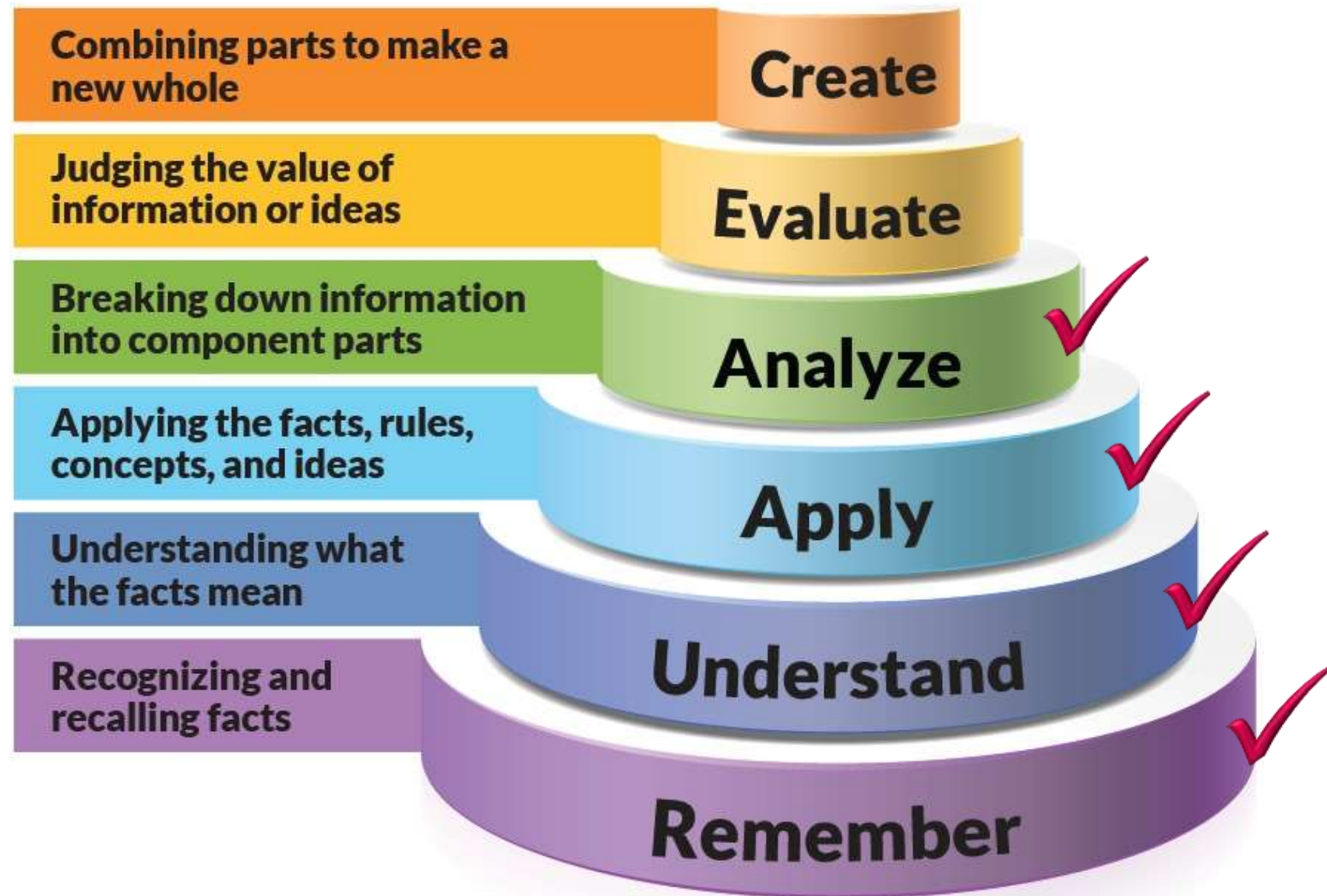
Programme Learning Outcomes

1. *Engineering knowledge*
2. *Problem Analysis*
3. *Design/Development of solutions*
4. *Investigation*
5. *Modern tool usage*
6. *The Engineer and Society*
7. *Environment and sustainability*
8. *Ethics*
9. *Individual and teamwork*
10. *Communication*
11. *Project management*
12. *Lifelong learning*

<https://www.pec.org.pk/wp-content/uploads/2021/04/Manual-of-Accreditation-Third-Edition-2019-Amended-Ver.-of-Manual-2014.pdf> (Page 22)

Bloom Taxonomy will be used to setup question paper for the Examination

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Textbook:

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1. Introduction to Health and Safety at Work By Phil Hughes, Ed Ferrett, 5th Edition, 2011

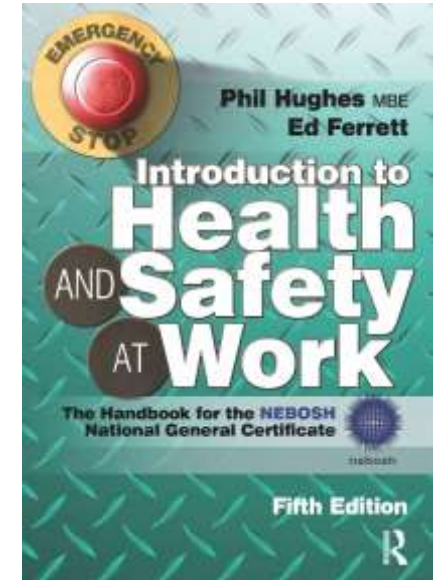
Reference Books:

1. Benjamin O. Ali, (2008) Fundamental Principles of Occupational Health and Safety, 2nd Edition
2. HSE Guide, Essential of Health and Safety, 4th Edition, 2006.
3. Management of international health and safety by Dr. J Phelpstead, PhD, CMIOSH & Mrs. Zoe Neasham CMIOSH, Dip2OSH SPRING 2013 Ed

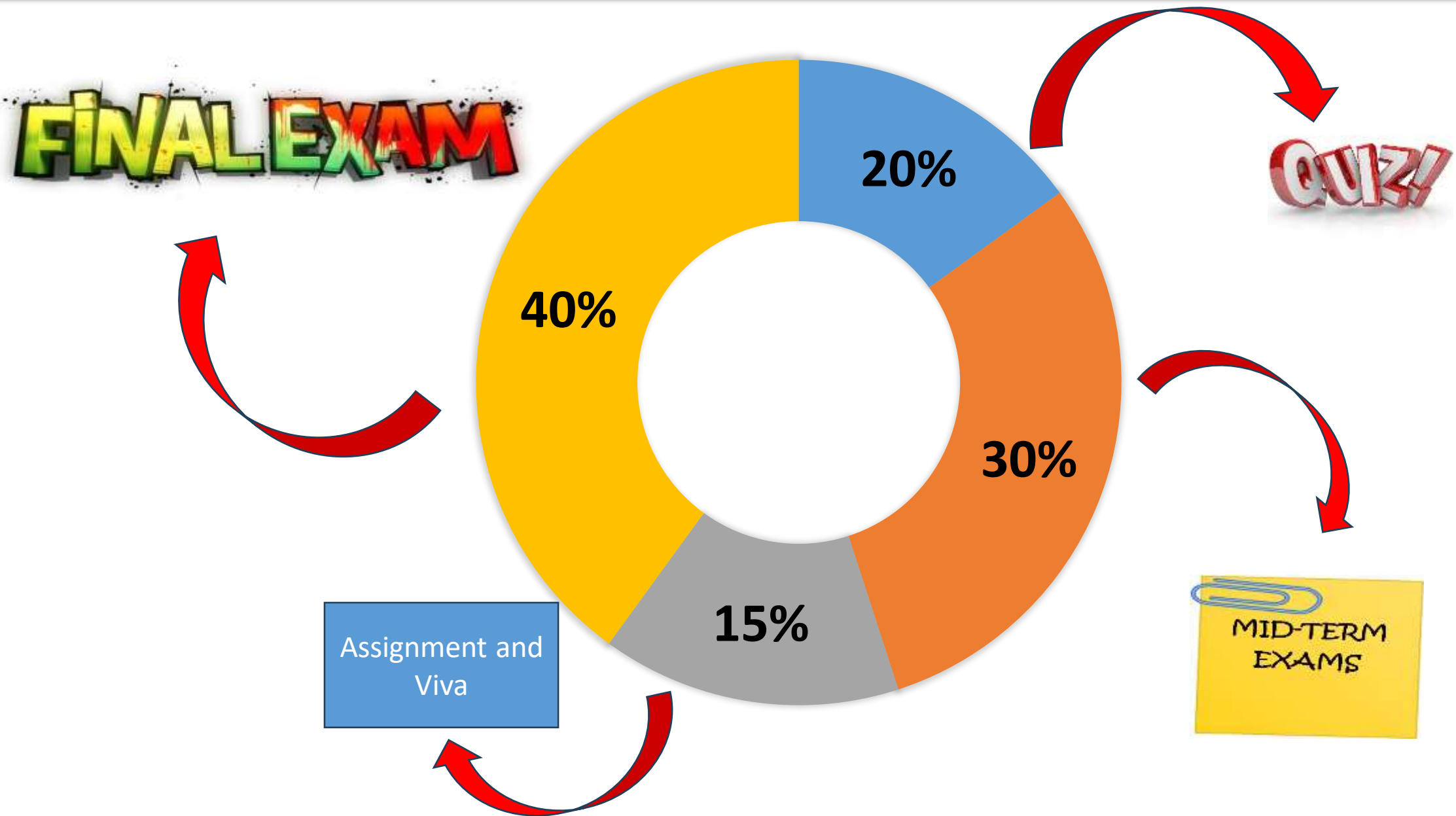
Reference sites:

1. <http://osha.gov>
2. <http://www.hse.gov.uk>
3. <http://www.ilo.org>

Textbook:



1. *Introducing Managing OH&S*
2. *Hazards identification & Risk Assessments*
3. *Risk Control Strategies*
4. *Fire safety and controls methods*
5. *Electrical safety and controls*
6. *Chemical hazards and safety procedures of chemicals handling*
7. *Construction Hazards and controls*
8. *Work Equipment Hazards, Machines Safety and Control*
9. *Accident Investigation procedures & permit to work system (PTW)*
10. *Physical and Biological Health Hazards and Risk Controls*
11. *CPR and First Aids Procedures*
12. *Engineering Ethics*
13. *Climate Change*



Safety: *The protection from physical injury and mental well-being of the individual*

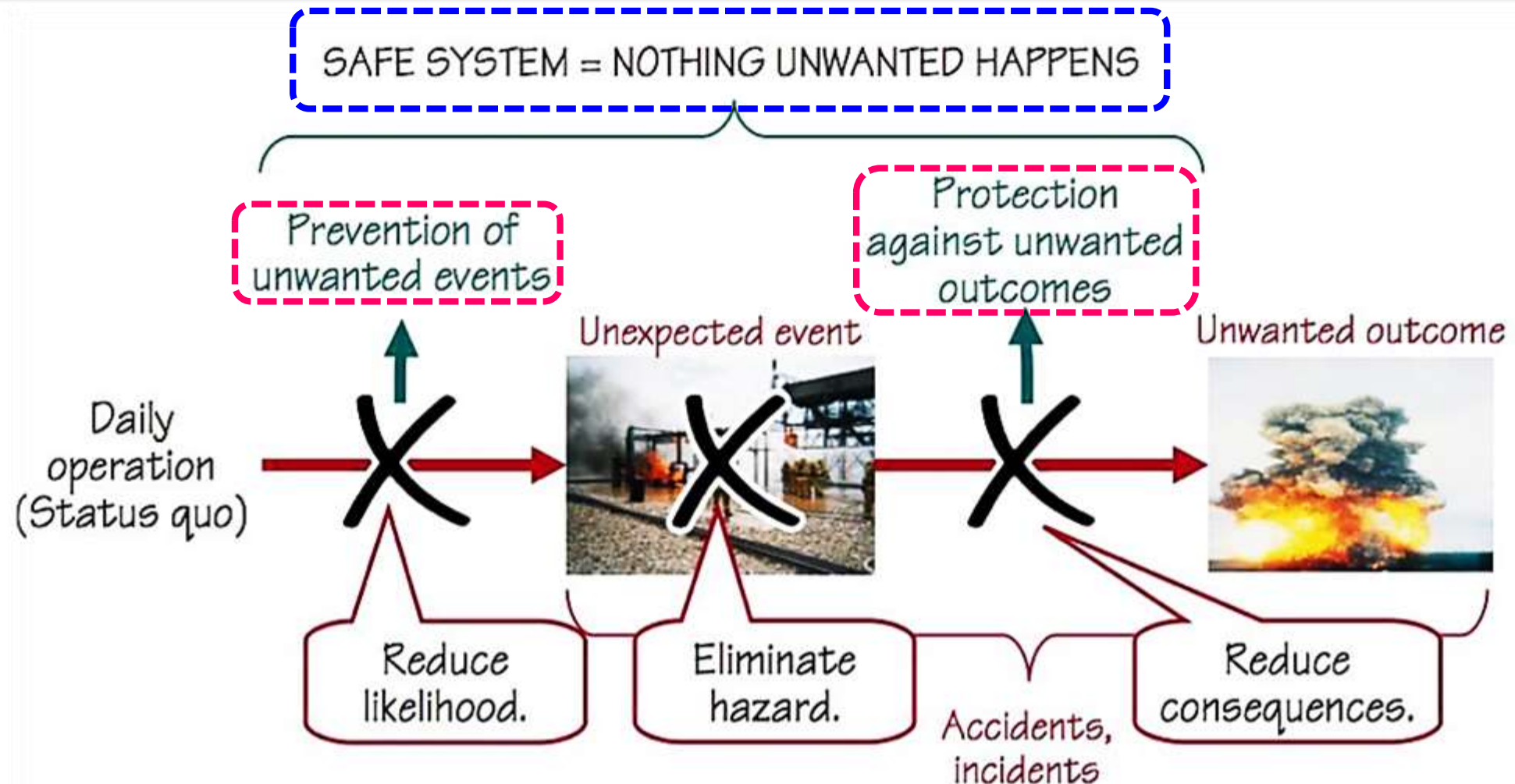
Health: *The protection of body and mind from illness. It has been defined as "a state of complete physical, mental and social well-being and not merely the absence of disease."*

- According to World Health Organization (WHO); "occupational health deals with all aspects of health and safety in the workplace and has a strong focus on primary prevention of hazards."

"Occupational health and safety encompasses the physical, mental and social well-being of workers in all occupations"

What Is Safe System ?

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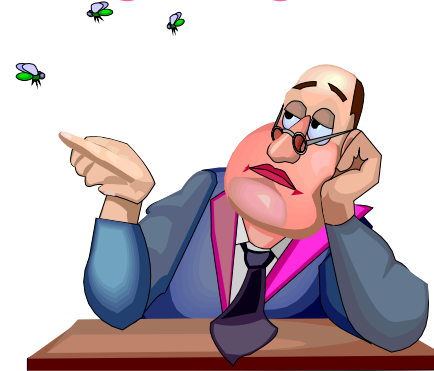
We can guard against everything that we can imagine. But we cannot imagine everything. Therefore we cannot guard against everything.

Why Manage HS?

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We need health and safety to prevent ourselves or the people around us from getting injured. Also, to prevent the objects near us from getting damaged or broken.

⇒ **Moral**



⇒ **Financial**



⇒ **Legal**



Where Do We Need Safety ?

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- Living Place
- Unknown Place
- Working Place
- Labs



Machine Safety



Electrical Safety



Chemical Safety

Common Safety Signs

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ARE YOU PROTECTED?



- *Hand Protection*
- *Foot Protection*
- *Face Protection*
- *Nose Protection*
- *Skin Protection*
- *Eye Protection*
- *Hearing/Ear Protection*



Personal Protective Equipment (PPEs)



Thank You