# Week 1: Fundamentals of Software Testing

## What is Software Testing

It is an investigation conducted to provide stakeholders with information about the quality of the product under test – *wiki.org*

It is a process consisting of all life cycle activities both static and dynamic concerned with planning, preparation and evaluation of software products to determine that they satisfy specified requirements, and to demonstrate that they are fit for purpose – *Foundations of Software Testing*

## Software Engineering History

* History of Software development pre-QA
* The role of software in today’s society: Software in phones, cars, shops, stores, planes, watches etc

## Why is Software Testing Necessary?

* To verify the requirements that guided software design and development
* To ensure software performs its function within an acceptable time
* To verify a software is sufficiently usable
* To satisfy stakeholders desire

## Testing and Software Development Lifecycle

* Waterfall
* V-Model
* Iterative/Agile

## The Mind of a Software Tester

* Logical Thinker
* Clear Objectives
* Emotional Intelligence
* Good communication skills
* Detective
* Independent Testing
* Organized

## Principles of Software Testing

* Testing shows presence of defects
* Exhaustive testing is impossible
* Early Testing
* Defect Clustering
* Pesticide paradox
* Testing is context dependent
* Absence of errors fallacy