Welcome !

ST0523 FOP Fundamentals of Programming

Common Core for all SOC Year One students

Hi, nice meeting all of you !
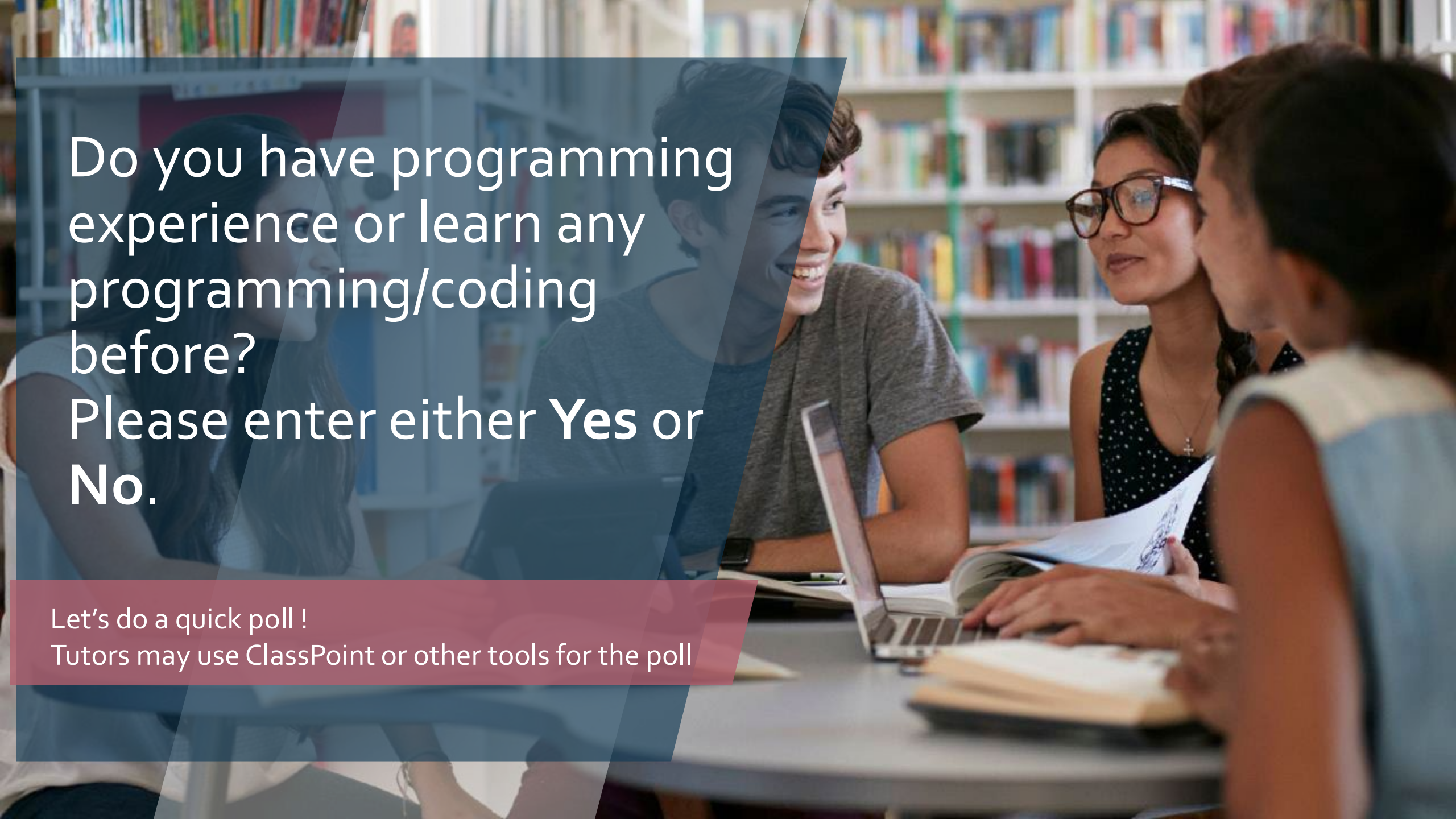....

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☎   SOC Main line 67721900

Module Objectives

Aims to teach students :
- Programming fundamentals and problem solving concepts
- Pick up their first programming language
- Solve and automate tasks through programming techniques
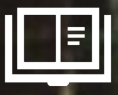- Use debugging tool, conduct testing and learn to document programs

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Common Core for all SOC Year One students

Do you have programming experience or learn any programming/coding before?
Please enter either **Yes** or **No**.

Let's do a quick poll !
Tutors may use ClassPoint or other tools for the poll

Which programming language do you know?

A: JavaScript
B : Python
C: Java Programming
D: C#/C++
E: Visual Basic
F: Others

Topic	Title
1	Problem solving skills
2	Intro to Computers, Programs & JavaScript
3	Data types and operators
4	Selections
5	Repetitions
6	Arrays
7	Functions
8	Objects and Classes

What's in FOP?

Why learn FOP?

- **1st Year Core module**

  - Required to progress in the curriculum

- **Programming Fundamentals**

  - Provides you the foundation to coding in areas such as Software & Applications, Cybersecurity, AI and Data Science/Analytics

- **Typical client-server application, i.e. Facebook**

Username / Password   Checks Record Exist

Display Graphics   Returns Details

<u>Client Application</u>
Web (HTML / JavaScript)
Mobile (React-JavaScript)

<u>Server Application</u>
NodeJS (JavaScript)

<u>Database System</u>
MongoDB (JavaScript)
MySQL (SQL)
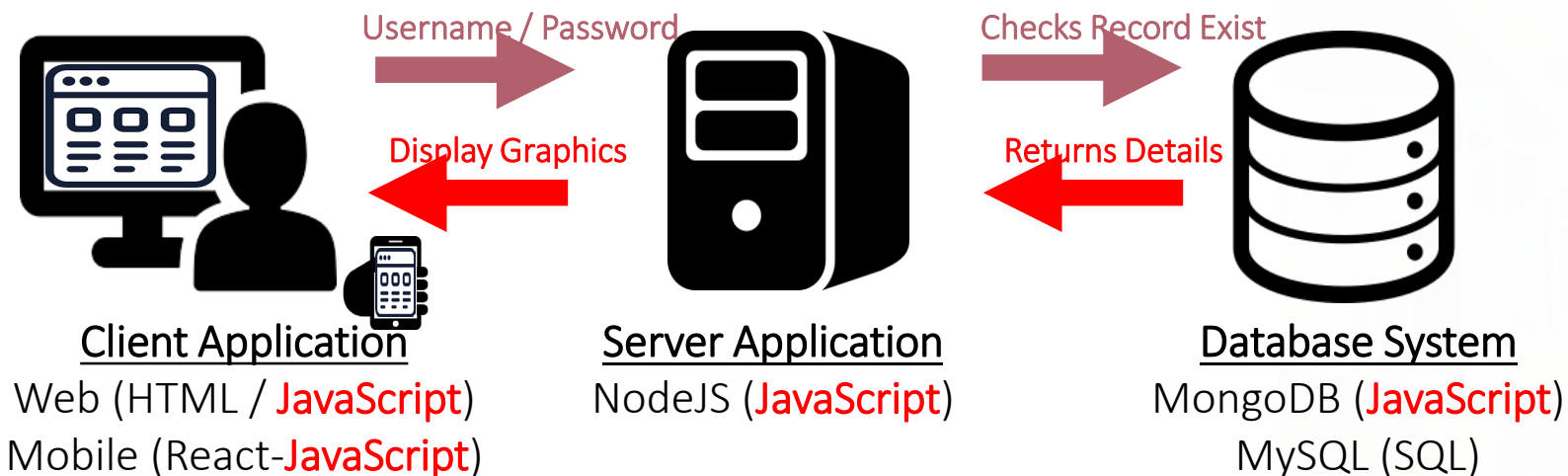
Assessments

Assessment	Weightage	Format
CA1	30%	3 online Quizzes CA1.1 : 30% CA1.2 : 30% CA1.3 : 40%
CA2	30%	An individual programming project : Stage 1 : 20 % Stage 2 : 80%
CA9	10%	First Attempt of all Topic Quizzes (50%) and General Performance (50%)
MST*	30%	Written Test (MST)* : Test on conceptual understanding of topics, ability to trace programs and write codes.
Total	100%	

For further details, please refer to BrightSpace > Continual Assessments Specifications

Plagiarism & Cheating

Plagiarism is a serious offence and disciplinary action will be taken against student. If a student is guilty of plagiarism, he/she may fail all modules in the semester, or even be liable for expulsion.
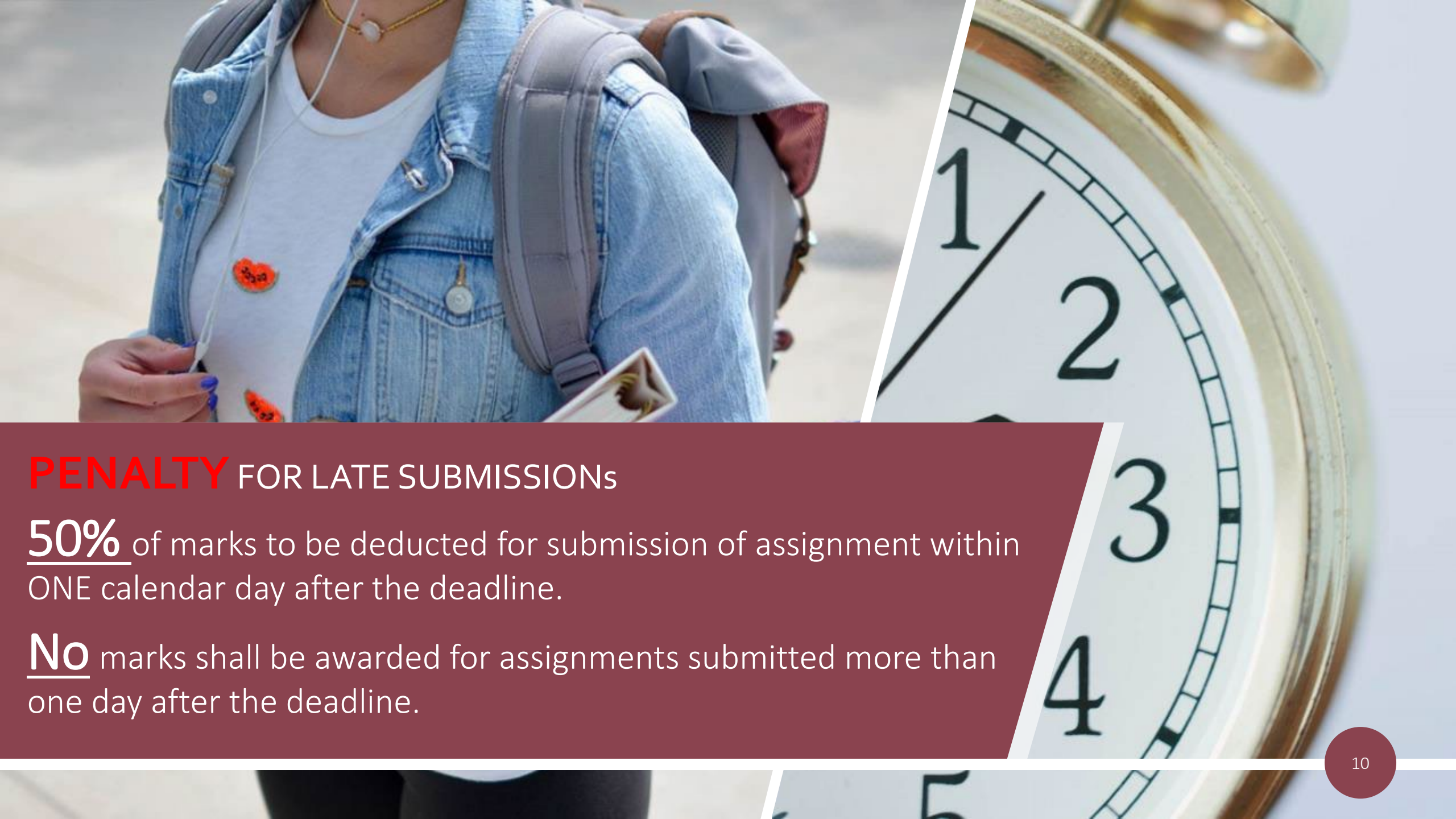
ALL FOP assessments are **individual assignments**, no group work.

If **student share** his/her assignments (for example CA2) with his/her friend(s), and they plagiarize his/her work, **both** student & his/her friend(s) will be deemed to have committed the offence and disciplinary action will be taken against all of them.

For further details, please refer to Student Handbook on SP website :

https://www.sp.edu.sg/sp/student-services/osc-overview/student-handbook/intellectual-property-copyright-and-plagiarism

PENALTY FOR LATE SUBMISSIONs

50% of marks to be deducted for submission of assignment within ONE calendar day after the deadline.

No marks shall be awarded for assignments submitted more than one day after the deadline.

How is FOP conducted?

How to score ? How to do well?

What is expected of FOP students?

FOP T&L Methodology:
Drill & Practice
Critiques
Flipped lessons
Self-Directed Learning

Topical Self Checks || Tutorials || Practicals||
MST || Quizzes || Assignments

TELL ME AND I FORGET

TEACH ME AND I REMEMBER

INVOLVE ME AND I LEARN

Benjamin Franklin

Drill & Practice ; Learn through doing Tutorial, Practicals, Topical Self Check quiz etc……

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Reading lecture notes ONLY will gurantee failing FOP

LATE FOR CLASSES ?

15 min grace - Students to enter their own attendance ie ATS

Ungraded if attendance falls below 75% for entire semester

What if students **FORGET to mark** attendance ?

Considered Absent! After 1st 15mins → also absent

Do **NOT** ask your Lecturer or send them email to override the absent record for you. They cannot without valid reason.

Do **NOT** ask your classmates to send you the ATS code.

It is students' responsibility to mark your own attendance.

You must track their attendance records in Student Portal.

This is part of SP's training for students to take charge of your own learning.

What's your goal for FOP grade by the end of this semester?

Option A: Grade A

Option B: Grade B

Option C: Grade C

Option D: Grade D

Option E : Distinction

Let's do a quick poll !

Tutors may use ClassPoint or other tools to conduct the poll.

Learning materials are available in BS

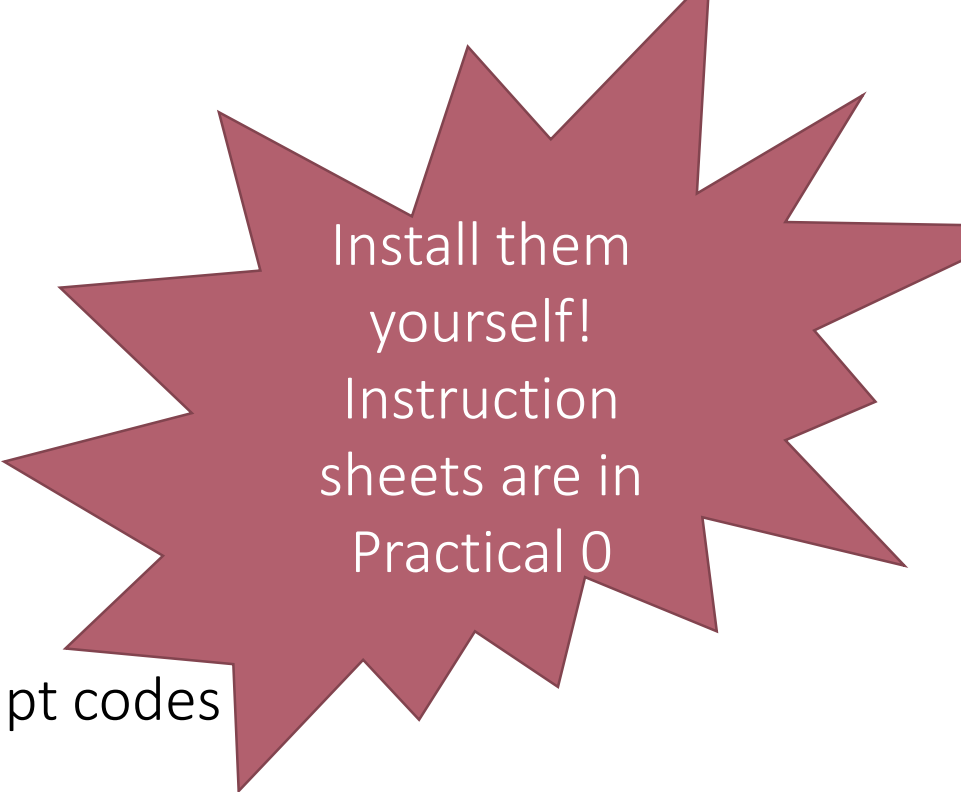Do explore other resources e.g SP libraries, W3 School website etc

What (Software) you need…

- **Microsoft Visual Studio Code**
  - Code Editor
  - https://code.visualstudio.com/
- **NodeJS**
  - Known as "Runtime Machine", to run your JavaScript codes
  - https://nodejs.org/en/download/

Install them yourself! Instruction sheets are in Practical 0

Have a fruitful learning journey in FOP!

Change is the end result of true learning.

Leo Buscaglia

THANK YOU

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🔗 www.sp.edu.sg

The
DIRECTION in
which EDUCATION
STARTS a man
will DETERMINE
his FUTURE
LIFE

- Plato