BASIS Curriculum Schools

COURSE SYLLABUS 2021-2022

Foundation CS Principles

Basis International School Shenzhen

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Student Hours: Mon. & Tues. 4:30 – 5:30, 6005
Parent Hours: Fri. 4:30 – 5:30

COURSE DESCRIPTION

The intention of this course is to cover the practical programming content (but not the theoretical content) of the full AP CS P syllabus. The speed of the course is therefore slightly flexible but if you do wish to take the full AP CS P course and AP exam later you should aim to complete half of the content of the full AP CS P syllabus at least by the time you start the full AP CS P course. You are also free to complete as many assignments as you wish to develop your skills and even try to follow the full AP CS P syllabus if you are interested in moving up to a full AP CS P course and sit the AP exam at the end of the year.

GRADING POLICY

General *(CJ completion/Following School Rules/Collaboration/Participation/Proof Reading Resources)*	**10%**
Minor: Classwork *(Programs)*	**40%**
Major: End of Unit Projects/Wrap Up Drills	**50%**

GRADING SCALE

All grades will correspond to the following scale:

A =	C+ =	D- =
A- =	C =	F =
B+ =	C- =	
B =	D+ =	
B- =	D =	

- Each program submitted will be graded as follows:
  - 1 mark per program requirement/specification.
  - 1 mark for elegant and efficient style.
    - Input data stored in variables which are then used in calculations (not contents of text boxes directly used in calculations).
    - Clear and organised code with related code blocks organized in groups (not scattered around and requiring unnecessary scrolling).
  - 1 mark for formatting:
    - Meaningful and correctly formatted names.
      - Variable & component names should begin with lower case letter and in case of multiple words each word after the 1st must begin with a capital letter.
        - e.g. costProd1, totalCost
      - Component names should also start with a 3 low case letter prefix indicating the component type.
        - e.g. txtCostProd1, butCalculateCost
      - Program & video names formatted as follows:
        - Unit Number.Section Number Meaningful Name Your Full English Name.
          - e.g. 2.7. I Have a Dream and Soundboard Projects Joe Bloggs
  - 1 mark for any comments if required.
  - 1 mark for your video content – organised and clearly understandable.
  - 1 mark for user friendly, clearly labelled and neat layout of components.

- Final Course Grade-
  - Each Trimester @ 25%
  - Mock Create Performance Tasks* @ 25%

INSTRUCTIONAL MATERIALS

The following instructional materials will be used for this course:

- Mobile CSP
- App Inventor
- Mobile CSP
- App Inventor
- You will need one of the following combinations:
  1. A laptop and an iPad.
  2. A laptop and a phone *(Android or ios)*.
     - Recommended.

3. An iPad and a phone *(Android or ios)*.
    - Not recommended as comments cannot be directly written into your code on a iPad so you will need to create screenshots and write comments in a word processor and then create a pdf *(basically more work for you)*.

- The phone/iPad will need the following installed:
    - **MIT AI2 Companion App** *(to test your apps)*:
        - iOS - Install from App Store.
        - Android - Install from Play Store.
            - Download .apk to sideload directly.
    - A Screen Recorder *(to record your apps)*:
        - iOS:
            - Use **iOS native Screen Recorder** *(preinstalled)*.
        - Android:
            - Install **AZ Screen Recorder** from Play Store.
                - Download .apk to sideload directly.
        - AZ Screen Recorder Instructions
        - How To Create an App Video
            - If you don't have access to a phone or other device, install the emulator on your laptop *(at the time of writing there is no working iOS emulator though, so Windows only at the moment)* and record videos using any video recording app e.g. OBS, etc..
    - **Flipgrid app** *(to upload videos)*:
        - iOS - Install from App Store.
        - Android - Install from Play Store.
            - Download .apk to sideload directly.
        - Join Code: 8ff93c98
            - You will then be asked for a unique Student ID which will be given to you individually.
    - **Teams**:
        - Download .apk to sideload directly.

4. A Google account.
5. Headphones
6. AP Computer Science Principles
    - Textbooks will not generally be used but if you require some recommendations:
        - https://apcentral.collegeboard.org/courses/ap-computer-science-principles/course-audit

CLASSROOM POLICIES

- Late work policy:1 letter grade lower for each day late.

- You can only resubmit work under the following conditions:
  - You can ONLY resubmit once, and your 2nd score will be recorded as a new score (your original score will not be changed).
    - Therefore, your final score will be an average of your original & 2nd scores.
    - You must explain your original logic, why your code is incorrect and why the correct corrected code is correct.
    - Your file name should have word "Corrections" before your name.
- Positive Collaboration:
  - Showing and explaining your work (code/questions) to your peers.
  - Advising your peers.
  - Using and adapting code from the web, acknowledging its use and explaining in detail how it works.
- Plagiarism:
  - Sending your work (code/questions) to your peers.
  - Copying code solutions from the web without adaptation and passing it off as your own (not acknowledging its use) and/or not explaining in detail how it works.
- Units and programs to submit are planned out in the Teams Calendar which uses units from Mobile CSP.
  - All programs should be submitted in private chat in Teams *(not through use of assignment "hand in")* in the following format:
    - How to submit programs

- Homework:
  - I don't intend to formally set separate work as homework.
  - Generally homework will be to finish what you can't complete in class – see Teams Calendar.

COURSE OUTLINE