Hardware/Software Requirements

In order to try out all the Programs and sample applications you need couple of hardware and software

1)

Hardware	Quantity	Note
STM32F407xx Discovery board by STM	1(+1 optional)	This board is used in this course

Note: The course is made so generic that, you can apply all the concepts and Programming details to any MCU you have at your hand. If you already have any Development board which runs with Cortex M3/M4 family of processor, I recommend you to continue using those boards . You may have to put some effort to port all the codes, but believe me it will be awesome experience and it makes you more confident.

In the course to try out all GPIO and USART related drivers and applications, you just need 1 board.

But to Try out SPI and I2C related drivers and sample application, you may require 2 boards because in these cases we configure one board as master and another board as slave.

But most of my students what they do is, instead of getting another board they buy an I2C or SPI compatible sensors and they try to communicate with one board and the sensor.

So, it's your choice to buy another additional board or not. !

Board details:
http://www.st.com/content/st_com/en/products/evaluation-tools/product-evaluation-tools/mcu-eval-tools/stm32-mcu-eval-tools/stm32-mcu-discovery-kits/stm32f4discovery.html

Buying suggestion :

https://www.amazon.com/STM32F4DISCOVERY-ST-STM32F407-Evaluation-Development/dp/B00CW9AKDY/ref=sr_1_2?ie=UTF8&qid=1469116740&sr=8-2&keywords=stm32f4+discovery

http://www.ebay.com/itm/STM32F4DISCOVERY-STM32F407G-DISC1-STM32F4-Discovery-Kit-/112020107367?hash=item1a14eb3067:g:CFoAAOSwuhhXVotQ

2)

Hardware	Quantity	Note
USB Logic Analyzer 24M 8CH	1	24Mhz, 8 channel

I would say, go and get this hardware if you work most of the time on embedded software development. This is a great tool to debug most of the protocols like I2C, SPI,USART,etc

Buying suggestion:

http://www.ebay.com/itm/USB-Logic-Analyzer-Device-Set-USB-Cable-24MHz-8CH-24MHz-for-ARM-FPGA-M100-/201541710029?hash=item2eecd270cd:g:8mUAAOSwl9BWIMdL

https://www.amazon.com/Logic-Analyzer-Device-Cable-24MHz/dp/B01417DON2/ref=sr_1_1?ie=UTF8&qid=1469116934&sr=8-1&keywords=usb+logic+analyzer

3)

Hardware	Quantity	Note
CP2102 USB 2.0 to TTL UART SERIAL CONVERTER MODULE	1	This is used in this course

Note: if you have any other USB To TTL UART Convertor, no need to buy this again

Buying suggestion:

https://www.amazon.com/CP2102-Module-Serial-Converter-Adapter/dp/B00SL0U3RG/ref=sr_1_1?ie=UTF8&qid=1469116963&sr=8-1&keywords=cp2102+usb+to+ttl+uart

4)

Hardware	Quantity	Note
Female to Female Breadboard Jumper Wires	12	

Buying suggestion:

https://www.amazon.com/s/ref=nb_sb_noss_2?url=search-alias%3Daps&field-keywords=Female+to+Female+Breadboard+Jumper+Wires

5)

Software	Note
KEIL-MDK-5 software	Explained in the lecture , how to download and install

Download: http://www.keil.com/download/product/

6)

Software	Note
Saleae USB Analyzer software	used along with USB logic analyzer hardware

Download: https://www.saleae.com/downloads

7)

Software	Note
Access port	This is a serial terminal monitoring software

Download: http://www.sudt.com/en/ap/

Note: All the links are valid at the time of writing this document and it is just a Suggested links. User may have to search further for better competitive price .