MPG Remote Level 1 Proposed Schedule - Fall Semester			
Class Number	**Soldering Stream**	**Non-Soldering Stream**	**Week Number**
0.1	**Classroom Announcements** *- Invite students to attend the info session 2-3 days prior to the info session*		Week 0
0.2	**Info Session - What is MPG?** *- Presentation on what MPG is, the schedule for the semester and how MPG benefits participants*		Week 0
1	**Ch 1 - Into to Embedded Systems** *- What are embedded systems, why are they used and how do we use them?* *- Cover software packages students need to install by the next class* *- Remind students to connect with Engenuics on Facebook to receive MPG updates* ***Reminder to bring money for hardware orders next week***		Week 1
2	**Ch 2 - The Fundamentals** *- Establish a foundation of hardware/circuitry knowledge - these concepts will be used extensively throughout the course* ***Hardware order deadline - submit order and money to Engenuics***		Week 2
3	**Ch 3 - Hardware Overview** *- finish Ch 2 material if needed* *- Look at development board schematics (particularly sheet1 - power supply & sheet5 - user interface)* *- Relate schematics to material from Ch 2* ***Provide hard copies of schematics (recommended) or ensure everyone has an electronic copy***		Week 3
4	**Hardware arrives!** *- Find the components discussed last week on the board* *- Relate the schematics to the physical board*		Week 4
5	**Ch 3 - Hardware Overview** *- finish Ch 3 material* *- let people catch up if behind* *- Optional: talk about SMT soldering and show the video for the course dev boards*	**Ch 4 - Onward Solderers!** *- Intro to soldering* *- Give tips, a demo, maybe a video and then practise*	Week 5
6	**Ch 5 - IAR IDE MCU PCB - OMG!** *- Self-directed lab day to work through IAR and learn debugging fundamentals*	**Soldering lab** *- Solder, solder, solder!*	Week 6
7	**Ch 6 - ARM Memory and Assembly Language** *- Introduce the processor and how it works* *- Cover physical memory and instruction sets*	**Soldering lab** *- Solder, solder, solder!*	Week 7

	- Allow time for independently working through the exercises in Ch 6.4 with IAR		
8	**Ch 6 - ARM Memory and Assembly Language** *- Review the material from last week* *- Go over problem areas* *- Give time for catching up or start Ch 7 material*	**Ch 5 - IAR IDE MCU PCB - OMG!** *- Self-directed lab day to work through IAR and learn debugging fundamentals*	Week 8
9	**Ch 7 - Assembly in Action - Hello World!** *- Discuss how a processor works(start up, initializations, timing)* *- Introduce coding basics* *- focus on how logic (code) translates to physical action (hardware)*	**Soldering lab** *- Solder, solder, solder!*	Week 9
10	**Ch 7 - Assembly in Action - Hello World!** *- Complete Ch 7 exercises* ***Confirm Winter MPG dates and times*** ***Submit classroom requests to the department***	**Soldering Competition/Final Soldering Lab** ***Confirm Winter MPG dates and times*** ***Submit classroom requests to the department***	Week 10
Winter Holidays: consider offering a day long catch up session. *****Ensure all MPG deliverables are submitted by January 1*****			

MPG Remote Level 1 Proposed Schedule - Winter Semester			
Class Number	**Soldering Stream**	**Non-Soldering Stream**	**Week Number**
11	**Ch 8 - A, B, Embedded C** *- Introduce high level concepts and conventions in C*	**Ch 7 - Assembly in Action - Hello World!** *- Discuss how a processor works(start up, initializations, timing)* *- Introduce coding basics* *- focus on how logic (code) translates to physical action (hardware)*	Week 11
12	**Ch 8 - A, B, Embedded C (Lab Day)** *- Give an overview of the exercises in section 8.5 and allow time for students to work through them*	**Ch 7 - Assembly in Action - Hello World!** *- Complete Ch 7 exercises*	Week 12
13	**Ch 8 - A, B, Embedded C** *- Ensure exercises are complete and well understood*	**Ch 8 - A, B, Embedded C** *- Introduce high level concepts and conventions in C* *- Allow time to work on the exercises in section 8.5*	Week 3
14	**Ch 9 - Don't mind the interruptions** *- Go over interrupts in depth!* *- Reading break homework: Students should complete up to the end of section 9.3*	**Ch 8 - A, B, Embedded C** *- Ensure exercises are complete and well understood* ***Students should devote 4-5 hours over Reading Break to look at Ch 9 and complete up to the end of 9.3***	Week 14
15	**Reading Week** *- Consider offering a half-day catch-up session*		Week 15
16	**Ch 9 - Don't mind the interruptions** *- Introduce the button functionality and complete the chapter exercise*		Week 16
17	**Ch 10 - PWM** *- Introduce pulse-width modulation concepts and cover the LED driver*		Week 17
18	**Ch 10 - PWM** *- Explain the audio driver* *- Competition/Exercise*		Week 18
19	**Competition work/ Catch-up**		Week 19
20	**Intra-school competition**		Week 20

21	**Ch 11 - 16 Preview** *- Provide a brief overview of the rest of the material* ***Inter-school competition posts due and judging begins*** ***Student bursary submissions due***	Week 21
22	**Introduce MPG Level 2** *- Provide a demo of the Blade board, focusing on the GPS and accelerometer* *- Announce inter-school competition and student bursary winners*	Week 22
Celebrate! *****Ensure all deliverables are submitted to Engenuics by May 1***** ***The MPG Leader bursary announcement will be made by May 15***		