Programming Subteam Topics List

\*Pre-test

* General Programming: (Small 5 qs. Quiz after every topic)
  + Objects
  + Inheritance
  + Modifiers
  + Operations
  + Loops and logic

\*Unit Test

\*Project 1: Simple algorithms and inheritance

\*\*From now on they \*could\* write code without a ton of compiler errors

* DOCUMENTATION SURPRISE
  + Method table
* WPI Lib: (Small quiz after every topic)
  + What is WPI Lib
  + Hardware
    - RobotMap.java
    - OI.java
  + Given Structure (Given abstract classes)
    - Init, interrupted, etc
  + Command Based Programming
    - Basics
      * RobotMap.java (Review)
      * Robot.java
      * OI.java
    - Sub Systems
      * DriveTrainSubsystem, GearSubsystem etc
    - Commands
      * Basic:
        + Very basic within Subsystem classes
      * Intermediate:
        + DriveDistance, time etc.
      * Advanced (Command groups):
        + Major commands such as autons
  + \*Unit Test
  + \*Project 2: Write your own auton that does specific movements

\*\*From now on, they are ready to program the robot

* Extended studies:
  + Flow and simplicity
    - Structure of a good program
    - Programming habits
    - How to document code
  + Mechanical and electrical integration
    - Basics of electronic components
    - Physics of the drivetrain and mech
    - Sensors and simple EE
  + Advanced programming
    - Ease of use of drivers and operators
  + TBD