**IB Physics**

Currents and Circuits - Chapter 18&19 Syllabus

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| **Block** | In class : | Due on this class: |
| **1****Dec** **5** | **GW**-Current, Voltage, Power**IW**-Circuit PHET Part 1 | **VF 18A, 18B, 18D, 18E**Turn in Electric Field Mapping (1), Millikan Oil Drop (4), and RC Circuits Labs (2) |
| **2****Dec** **9** | **GW**-Solving Series and Parallel circuits**IW**-Circuit PHET Part 2 | **VF 18F, 18G, 18H** |
| **3****Dec** **11** | **SA18.1 Currents (First 30 minutes)****VF**-18I Reducing Resistances**GW**-Single Popper Networks (18J1) | Turn in FA18.1 |
| **4****Dec****13** | **GW**-Solving Double Popping Networks**GW**-FA19.1 Series and Parallel | **VF 18I?****VF 18J1?****VF 18J2** |
| **5**Dec 17 | **SA19.1 Parallel and Series (First 30 minutes)****VF**-18L Kirchhoff's Laws**DI**-Kirchhoff's Laws | Turn in FA19.1 |
| **6**Dec 19 | **GW**-Kirchhoff's Laws**GW**-FA19.2 Network Reductions | **VF 18L** |
| 7Jan 6 | **SA19.2 Networks (First 30 minutes)****IW**-FA19.3 Kirchhoff's**GW**-Labs | Turn in FA19.2**VF Labs - R wire, LB+D, IRB, OSC** |
| **8**Jan 8 | **SA19.3 Kirchhoff's Laws (First 30 minutes)****IW**-VF 18C1, 18C2**GW**-Labs | Turn in FA19.3 |
| 9Jan 10 | **GW**-Labs | **VF 18C1 and 18C2**Turn in FA18.2 (Resistivity and drift) |
| **10**Jan 14 | **GW**-Labs | **VF 18N** Turn in FA19.4 (Adding Capacitors) |
| **Jan 14** **Jan 15** | IB Research Symposia |  |
| **11** **Jan** **16** | IB Test on Circuits | Turn in IB Questions |
| **12****Jan****21** | **MAGNETS!!!!!!!!!****DI**-Demos and the three right hand rules**GW**-20.1, 20.2a-d | **VF 20A, 20B, 20C** |
| **Finals** | Group IB Question Final |  |
| **1****Feb****6** | **DI**-Hysteresis Demo**GW**-20.2e**GW**-FA20.1, 20.2 | **VF 20D, 20E, 20F****Turn In:** Resistance of a Light bulb and Diode**Turn In:** Resistance of a Wire **Turn In:** Internal Resistance of a Battery/Circuit building **Turn In:** Oscilloscope Lab |

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| Assignments* 5 Labs/Pre Lab
	+ Resistance of wire – You design the DCP (30 pts)
	+ Resistance of light bulb and diode (30 pts)
	+ Internal resistance of a battery (20 pts)
	+ Oscilloscope Lab – Quick thing with the oscilloscope (20 pts)
* 4 summative/6 Formative Assessments
	+ 18.1 - Ohm’s law, current, power
	+ 18.2 - Resistivity and electron drift speed (No summative)
	+ 19.1 - Simple series and parallel circuits
	+ 19.2 - Networks of circuits
	+ 19.3 - Kirchhoff's Laws
	+ 19.4 - Capacitors in parallel and series (No Summative)
 | **Handouts** |