IB Physics

Electrostatics and Field Theory - Chapter 16 & 17 Syllabus

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| Block | In Class: | Due on this class: | If you miss this class: |
| **1****Nov** **6** | **GW**-Vector Forces (16.1)**DI**-Conductors/Stupid Van de Graaff tricks | **VF 16A, 16B, 16D1, 16D2 (Forces)** | **Watch Videos:****16A, 16B, 16 D1, 16 D2****Read:** 16.1-6 |
| **2****Nov** **8** | **GW**-Vector Fields (16.2, 16.1)**DI**-Charging | **VF 16E, 16F, 16G1, 16G2 (Fields)** | **Watch Videos:****16E, 16F, 16G1, 16G2****Read:** 16.7-8 |
| **3****Nov** **13** | **SA16.1 - Vector Force (First 30 minutes)****VF**-16H-Simple Voltage**DI**-Potential and distance (16I) | Turn in FA 16.1 - Vector Forces | **Watch Videos:****16H, 16I****Read:** 17.1-5 |
| **4****Nov** **15** | **GW**-Voltage (16.2, 17.1) | **VF 16K, 16L, 16M (Point voltages)** | **Watch Videos:****16K, 16L, 16 M****Read:** 17.7-9 |
| **5**Nov 19 | **SA-16.2 - Vector Fields (First 30 minutes)****VF**-16J-Accelerated Ions**DI**-Conservation of energy | Turn in FA16.2 - Vector Fields | **Watch Videos:****16J, 16Q** |
| **6****Nov** **21** | **GW**-Conservation of energy (17.1) | **VF 16Q** | **Watch Videos:****16Q** |
| **7****Nov** **27** | **SA17.1-Voltage (First 30 minutes)****VF**-16O-Capacitors**DI**-RC Circuits | Turn in FA 17.1 - Energy | **Watch Videos:****16O, 16P** |
| **8****Nov** **29** | **DI**-Millikan Prep**DI**-EFM lab, RC lab | **VF-Millikan Prep parts 1, 2, 3**Turn in Millikan Prep | **Watch Millikan Prep Videos** |
| **9****Dec****3** | Work on Labs/IA |  |  |
| **10****Dec** **5** | **DI**-CRT DemoWork on Labs/IA |  |  |
| **11****Dec** **7** | Work on Labs/IA | **VF-16N CRT problems** |  |
| **12****Dec** **11** | Work on Labs/IA | Turn in FA 17.2 - CRT |  |
| **1****Dec** **13** | **GW**-Current, Voltage, Power | **VF 19A, 19B, 19C, 19D, 19E**Turn in Electric Field Mapping (1), Millikan Oil Drop (4), and RC Circuits Labs (2) | **Watch Videos:****19A, 19B, 19C, 19D, 19E** |
| **2****Dec** **17** | **GW**-Solving Series and Parallel circuits | **VF 19F, 19G** | **Watch Videos:****19F, 19G** |
| **3****Dec** **19** | **SA-18.1 Currents (First 30 minutes)****VF**-19J Single Poppers**GW**-Single Popper Networks | Turn in FA18.1 |  |
| **4****Dec****21** | **IA Show and tell day** **Present your data graphs** |  |  |
| Assignments* 4 Labs:
	+ Electric Field Mapping – mapping with voltmeters (individual) /30 pts
	+ Millikan Prep – take home practical analysis (individual) /30 pts
	+ Millikan Oil Drop Lab – simulation on the computer (groups of 4) /40 pts
	+ RC Circuits Lab - a capacitor discharging (groups of 2) /30 pts
* 4 Formative/3 Summative Assessments:
	+ 16.1 – Coulomb’s law, electric field, net force
	+ 16.2 – Vector electric field
	+ 17.1 – Voltage due to point sources, work.
	+ 17.2 – CRTs and Capacitors (no summative)
 | Handouts |