

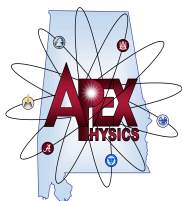
Alliance For Physics Excellence (APEX)
 Winter Weekend Workshop – Cohort 3
 Physics Teacher Institute (PTI) Activity Schedule
 Alabama A & M University



October 28-29, 2016 – Electrical Fields and Potential

Day 1 – Friday, October 28, 2016

8:00 to 8:15 AM	<input type="checkbox"/> Welcome/Greetings/Announcements	Mohan Aggarwal, AA&M Univ. and APEX Leadership
8:15 to 10:00 AM	<input type="checkbox"/> Activity #1: <i>Mapping a Gravitational Field</i> Page 3 <input type="checkbox"/> Four Squares of Gravitational Quantities Page 81 <input type="checkbox"/> Related Problems 1, 2, 3, 6, & 7 Page 6	Review: <i>Weight versus Mass</i> Jim & Jane Nelson, AAPT/PTRA (1 3/4 hour)
10:00 AM to Noon	<input type="checkbox"/> Activity #2: <i>Mapping an Electrical Field</i> Page 15 <input type="checkbox"/> Related Problems 1, 2, 3, 6, & 7 Page 19	Jim & Jane Nelson, AAPT/PTRA (2 hours) – Review: <i>Cathy Coulomb</i>
Noon to 1:00 PM	<input type="checkbox"/> In House Working Lunch: (Marius Schamschula 3/4 hour – <i>Learning Content Management Systems</i>)	
1:00 to 2:45 PM	<input type="checkbox"/> Activity #3: <i>How Can We Visualize Electrical Fields?</i> Page 31	Jim & Jane Nelson, AAPT/PTRA (1 3/4 hour)
2:45 to 4:15 PM	<input type="checkbox"/> Activity #4: <i>Visualizing an Electrical Field ... A Simulation</i> Page 49	Jim & Jane Nelson, AAPT/PTRA (1 1/2 hour)
4:15 to 4:45 PM	<input type="checkbox"/> Start Activity #6: <i>How Does The Electrical Potential Energy Vary With Distance?</i> Page 61	Jim & Jane Nelson, AAPT/PTRA (1/2 hour)
4:45 to 6:45 PM	<input type="checkbox"/> 1. Personal APEX Goal(s) <input type="checkbox"/> 2. Report on Specific Change(s) Implemented <input type="checkbox"/> 3. Sharing your APEX Experiences with Peers <input type="checkbox"/> 4. Assessment	Dennis Sunal, Tara Ray, and Justina Ogodo (2 hours)
<ul style="list-style-type: none"> • <u>Day 1 (Total = 10 1/4 hours)</u> • APEX Implementation = 2 hours • Pedagogy & Planning = 0 hour 		<ul style="list-style-type: none"> • PTRA Content = 7 1/2 hours • Technology = 3/4 hour



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Day 2 – Saturday, October 29, 2016



8:00 to 9:00 AM	<input type="checkbox"/> Students' Thinking and Responsive Teaching, Part I	Jim Minstrell Facet Innovations (1 hour)
9:00 to 10:00 AM	<input type="checkbox"/> Students' Thinking and Responsive Teaching, Part II	Jim Minstrell Facet Innovations (1 hour)
10:00 to 11:00 AM	<input type="checkbox"/> Students' Thinking and Responsive Teaching, Part III	Jim Minstrell Facet Innovations (1 hour)
11:00 AM to Noon	<input type="checkbox"/> Continue with Activity #6: <i>How Does The Electrical Potential Energy Vary With Distance?</i> Page 61 <input type="checkbox"/> Four Squares of Electrical Quantities Page 82	Jim & Jane Nelson, AAPT/PTRA (1 hour)
Noon to 1:00 PM	<input type="checkbox"/> In house Working Lunch: (Do Problem 2a, Activity #5 on Page 58 and Problem 3a, Activity #8 on Page 80)	
1:00 to 2:00 PM	<input type="checkbox"/> Whiteboard Problems: Even Tables do Problem 2a, Activity #5 on Page 58 and Odd Tables do Problem 3a, Activity #8 on Page 80	Jim & Jane Nelson, AAPT/PTRA (1 hour)
2:00 -2:15 PM	<input type="checkbox"/> Workshop Evaluation (HRI Survey) /Closing Remarks	Mohan Aggarwal, AA&M Univ. and APEX Leadership

- **Day 1 (Total = 10 1/4 hours)**
- **APEX Implementation = 2 hours**
- **Pedagogy & Planning = 0 hour**
- **PTRA & Engineering Content = 7 1/2 hours**
- **Technology = 3/4 hour**
- **Total for week-end = 15 1/4 hours**
- **APEX Implementation = 2 hours**
- **Pedagogy & Planning = 3 hours**

- **Day 2 (Total = 5 hours)**
- **APEX Implementation = 0 hours**
- **Pedagogy & Planning = 3 hours**
- **PTRA Content = 2 hours**
- **Technology = 0 hour**
- **PTRA Content = 9 1/2 hours**
- **Technology = 3/4 hours**