



**Alliance For Physics Excellence (APEX)  
Fall Weekend Workshop – Cohort 2  
Physics Teacher Institute (PTI) Activity Schedule  
Alabama A & M University**



**October 2-3, 2015**

**Day 1 – Friday, October 2, 2015**

|                  |  |  |   |
|------------------|--|--|---|
| 8:00 - 8:05 AM   | <input type="checkbox"/> Welcome/Greetings/Announcements (5 minutes)   | Mohan Aggarwal AA&MU and APEX Leadership         | Room 129<br>V. M.<br>Chambers<br>Building |
| 8:05 -8:55 AM    | <input type="checkbox"/> “ <i>Evaluating Physics Teaching in APEX</i> ” (50 minutes)   | Tara Ray; UA Graduate Research Assistant         |   |
| 8:55 - 9:45 AM   | <input type="checkbox"/> “ <i>Assessing Inquiry Teaching and Student Learning</i> ” (50 minutes)   | Marilyn Stephens; UA Graduate Research Assistant |   |
| 9:45 - 10:35 AM  | <input type="checkbox"/> “ <i>Elicitation on Electric Forces and Electric Fields</i> ” (50 minutes)  | Jim Minstrell, Facet Innovation                  |   |
| 10:35 - 10:45 AM | <input type="checkbox"/> Force Supplement Activity #1: Review, “ <i>Weight vs. Mass</i> ” from AAPT/PTRA Force Supplement (10 minutes)         | Jane & Jim Nelson<br>AAPT/PTRA                   |   |
| 10: 45 AM - Noon | <input type="checkbox"/> Electrical Field Activity #1: A Precursor Lesson, “ <i>Mapping a Gravitational Field</i> ” (75 minutes) Page 3        |  |   |
| Noon - 1:00 PM   | <input type="checkbox"/> <b>In House Working Lunch:</b> Start Assigned Problem(s) on page 6  |  |   |
| 1:00 - 1:30 PM   | <input type="checkbox"/> Electrical Field Activity #1: <i>Related Problems and Questions</i> (30 minutes) Page 6                               |  |   |
| 1:30 - 1:40 PM   | <input type="checkbox"/> Circuit Supplement Activity #1: Review, “ <i>Cathy Coulomb Story</i> ” from AAPT/PTRA Circuit Supplement (10 minutes) |  |   |
| 1:40 – 2:50 PM   | <input type="checkbox"/> Electrical Field Activity #2: “ <i>Mapping an Electrical Field</i> ” (70 minutes) Page 15                             |  |   |
| 2:50 - 3:20 PM   | <input type="checkbox"/> Electrical Field Activity #2: “ <i>Related Problems and Questions</i> ” (30 minutes) Page 19                          |  |   |
| 3:20 – 4:25 PM   | <input type="checkbox"/> Electrical Field Activity #3: “ <i>How Can We Visualize Electrical Fields?</i> ” (65 minutes) Page 31                 |  |   |
| 4:25 -5:30 PM    | <input type="checkbox"/> Electrical Field Activity #4: “ <i>Visualizing an Electrical Field ... A Simulation</i> ” (65 minutes) Page 47        |  |   |
| 5:30 - 6:30 PM   | <input type="checkbox"/> <i>Data Collection Using Diagnoser</i> (60 minutes)   | Jim Minstrell, Facet Innovation                  |   |

**Day 2 – Saturday October 3, 2015**

|                     |   |                                    |   |
|---------------------|---|------------------------------------|---|
| 8:00 - 8:15 AM      | <input type="checkbox"/> Electrostatics Activity #5: Review, “ <i>How Does The Electrical Force Vary With Distance?</i> ” from AAPT/PTRA Electrostatics Supplement (15 minutes) | Jane & Jim Nelson<br>AAPT/PTRA     | Room 129<br>V. M.<br>Chambers<br>Building |
| 8:15 – 9:00 AM      | <input type="checkbox"/> Electrical Field Activity #5: “ <i>Calculating Electrical Fields and Electrical Forces</i> ” (45 minutes) Page 55                                      |                                    |   |
| 9:00 – 10:15 AM     | <input type="checkbox"/> Electrical Field Activity #6: “ <i>How Does The Electrical Potential Energy Vary With Distance Between Two Point Charges?</i> ” (75 minutes) Page 59   |                                    |   |
| 10:15 - 11:00 AM    | <input type="checkbox"/> Electrical Field Activity #8: “ <i>Calculating Electrical Potential</i> ” (45 minutes) Page 67   |                                    |   |
| 11:00 - 11:10 AM    | <input type="checkbox"/> Gravitational Force : Field :: Energy : Potential Page 79 (10 minutes)   |                                    |   |
| 11:10 - 11:25 AM    | <input type="checkbox"/> Electrical Force : Field :: Energy : Potential Page 80<br>Chart for AP students (15 minutes)   |                                    |   |
| 11:25 - 11:45 AM    | <input type="checkbox"/> Introduction to Videos by Peter Bohacek (20 minutes)   |                                    |   |
| 11:45 AM - 12:30 PM | In House Working Lunch (Take data from Centripetal Force Video)   |                                    |   |
| 12:30 - 1:30 PM     | <input type="checkbox"/> <i>Analysis of a Centripetal Force Video</i> (60 minutes)  | Jane & Jim Nelson<br>AAPT/PTRA     | Room 129<br>V. M.<br>Chambers<br>Building |
| 1:30 - 2:00 PM      | <input type="checkbox"/> <i>Consensus Integration of Ideas</i> (30 minutes)   | Jim Minstrell, Facet<br>Innovation |   |

Possible Items for Future Follow-up Session(s):