



Alliance For Physics Excellence (APEX)
Summer 2014 Workshop
Physics Teacher Institute (PTI) Activity Schedule
Electricity (Fundamentals - CASTLE PROJECT, DC Circuits & Electrostatics)
Alabama A & M University
June 1 – 13, 2014



Sunday, Orientation Meeting – June 1, 2014

| TIME | TOPIC | ACTIVITY | LOCATION | RESOURCE | |
|-----------------------|---|--|---|---------------|------------|
| 6:00 p.m. – 6:10 p.m. | Welcome | Dr. Barbara Cady Alabama A & M University Announcements/Housekeeping | AAMU Ernest L. Knight Center- VIP Room | APEX Team | |
| 6:10 p.m. – 6:30 p.m. | Greetings - APEX New PI | Dr. Mohan Aggarwal, Chairperson, AAMU Department of Physics, Chemistry and Mathematics | AAMU Ernest L. Knight Center- VIP Room | APEX Team | |
| 6:30 p.m. – 7:00 p.m. | Buffet Dinner | ----- | AAMU Ernest L. Knight Center- VIP Room | | |
| 7:00 p.m. – 8:00 p.m. | Electricity | Pre Institute Assessment (Participants Can Bring a Calculator) | AAMU Ernest L. Knight Center- VIP Room | AIR | Assessment |
| 8:00 p.m. – 9:00 p.m. | White Board Elicitations (Ala Jim Minstrell) | Battery, Bulb & Wire (How many ways to light a bulb?) | AAMU Ernest L. Knight Center- VIP Room | J&J Nelson | PCK |

Monday, Day 1 – June 2, 2014

| TIME | TOPIC | ACTIVITY | RESOURCE | |
|-----------------------|---|--------------------------------------|------------|-----|
| 8:00 a.m. – 9:00 a.m. | Eliciting Student Thinking (Ala Jim Minstrell) | Battery, Bulb & Wire ---Light a bulb | J&J Nelson | PCK |
| 9:00 a.m. – Noon | Electricity | PTRA Activities | J&J Nelson | DCK |
| Noon – 1:00 p.m. | Lunch Break | Lunch On Your Own | | |
| 1:00 p.m. – 5:00 p.m. | Electricity | PTRA Activities | J&J Nelson | DCK |

Tuesday, Day 2 – June 3, 2014

| TIME | TOPIC | ACTIVITY | RESOURCE | |
|-----------------------|--------------|---------------------------------|--------------------|-------|
| 8:00 a.m. – Noon | Electricity | PTRA Activities | J&J Nelson | DCK |
| Noon – 1:00 pm | Lunch Break | Lunch On Your Own | | |
| 1:00 – 2:00 p.m. | TPACK | Classroom Presentation Software | Marius Schamschula | TPACK |
| 2:00 p.m. – 5:30 p.m. | Electricity | PTRA Activities | J&J Nelson | DCK |

Wednesday, Day 3 – June 4, 2014

| TIME | TOPIC | ACTIVITY | RESOURCE | |
|-----------------------|--------------|---------------------------------|--------------------|-------|
| 8:00 a.m. – Noon | Electricity | PTRA Activities | J&J Nelson | DCK |
| Noon – 1:00 pm | Lunch Break | Lunch On Your Own | | |
| 1:00 – 2:00 p.m. | TPACK | Classroom Presentation Software | Marius Schamschula | TPACK |
| 2:00 p.m. – 5:00 p.m. | Electricity | PTRA Activities | J&J Nelson | DCK |

Thursday, Day 4 – June 5, 2014

| TIME | TOPIC | ACTIVITY | RESOURCE | |
|-----------------------|--------------|---------------------------------|--------------------|-------|
| 8:00 a.m. – Noon | Electricity | PTRA Activities | J&J Nelson | DCK |
| Noon – 1:00 pm | Lunch Break | Lunch On Your Own | | |
| 1:00 – 2:00 p.m. | TPACK | Classroom Presentation Software | Marius Schamschula | TPACK |
| 2:00 p.m. – 5:00 p.m. | Electricity | PTRA Activities | J&J Nelson | DCK |

Friday, Day 5 – June 6, 2014

| TIME | TOPIC | ACTIVITY | RESOURCE | |
|-------------------|--------------|----------------------------|--------------------|------------|
| 8:00 a.m. – 9:00 | Electricity | Post Institute Assessment | AIR | Assessment |
| 9:00 a.m. – 10:00 | Magnetism | Pre Institute Assessment | AIR | Assessment |
| 10:00 a.m. - Noon | Magnetism | PTRA Activities | J&J Nelson | DCK |
| Noon – 1:00 pm | Lunch Break | Lunch On Your Own | | |
| 1:00 – 2:00 p.m. | TPACK | Content Management Systems | Marius Schamschula | TPACK |

WEEK 2- Cohort 1, Year 2**Monday, Day 6– June 9, 2014**

| TIME | TOPIC | ACTIVITY | RESOURCE | |
|-----------------------|--------------|-------------------|-----------------|-----|
| 8:00 a.m. – Noon | Magnetism | PTRA Activities | J&J Nelson | DCK |
| Noon – 1:00 pm | Lunch Break | Lunch On Your Own | | |
| 1:00 p.m. – 5:00 p.m. | Magnetism | PTRA Activities | J&J Nelson | DCK |

Tuesday, Day 7 – June 10, 2014

| TIME | TOPIC | ACTIVITY | RESOURCE | |
|-----------------------|---------------------------------|---------------------------------|-----------------|-----|
| 8:00 a.m. – Noon | Magnetism | PTRA Activities | J&J Nelson | DCK |
| Noon – 1:00 pm | Lunch Break | Lunch On Your Own | | |
| 1:00 – 2:00 p.m. | Why Attend to Student Thinking? | Video: Can We Believe Our Eyes? | Jim Minstrell | PCK |
| 2:00 p.m. – 4:30 p.m. | Magnetism | PTRA Activities | J&J Nelson | DCK |
| 4:30 p.m. – 5:30 p.m. | Why Attend to Student Thinking? | Video and Discussion | Jim Minstrell | PCK |

Wednesday, Day 8 – June 11, 2014

| TIME | TOPIC | ACTIVITY | RESOURCE | |
|-----------------------|---|--|-----------------|-----------------|
| 8:00 a.m. – Noon | Magnetism | PTRA Activities | J&J Nelson | DCK |
| Noon – 1:00 pm | Lunch Break | Lunch On Your Own | | |
| 1:00 p.m. – 2:00 p.m. | Assessing Physics Teaching and Learning | PTI and PTR Activities | Dennis Sunal | Action Research |
| 2:00 p.m. – 4:30 p.m. | Magnetism | PTRA Activities | J&J Nelson | DCK |
| 4:30 p.m.– 5:30 p.m. | Student Thinking about Electricity | Activities and Dialogue to Develop Student Ideas | Jim Minstrell | PCK |
| 5:30 p.m. – 7:00 p.m. | Dinner | Dinner On Your Own | | |
| 7:00 p.m. – 9:00 p.m. | Where are WE Now? | PTR Activities | Dennis Sunal | Action Research |

Thursday, Day 9 – June 12, 2014

| TIME | TOPIC | ACTIVITY | RESOURCE | |
|-----------------------|---|-------------------------------|-----------------|-----------------|
| 8:00 a.m. – Noon | Magnetism | PTRA Activities | J&J Nelson | DCK |
| Noon – 1:00 pm | Lunch Break | Lunch On Your Own | | |
| 1:00 p.m. – 3:00 p.m. | Changes in Student Thinking | Diagnoser for Data Collection | Jim Minstrell | PCK |
| 3:00 p.m. – 5:00 p.m. | Continuing our Professional Development | PTI and PTR Activities | Dennis Sunal | Action Research |

Friday, Day 10 – June 13, 2014

| TIME | TOPIC | ACTIVITY | RESOURCE | |
|----------------------|--------------|----------------------------|--------------------|------------|
| 8:00 a.m. – 11:00 am | Magnetism | PTRA Activities | J&J Nelson | DCK |
| 11:00 a.m. – Noon | Magnetism | Post Institute Assessment | AIR | Assessment |
| Noon – 1:00 pm | Lunch Break | Lunch On Your Own | | |
| 1:00 – 2:00 p.m. | TPACK | Content Management Systems | Marius Schamschula | TPACK |