PHY622 Summer 2005 Pre-arrival Assignments

Welcome to PHY622. My colleagues and I are looking forward to your arrival sometime on 5 July. We will host a pizza, salad and social introduction evening in the physics building from 6-9pm on Tuesday 5 July 2005. Your attendance is required but optional. Please RSVP to the email address below if you will attend. PHY622 class will commence promptly the following day at 8am in science 205. Parking permits are available from student accounts in Moot Hall unless you are staying on campus in residence, in which case you will receive a pass when you check in. Buffalo State is open for regular business hours on Tuesday 5 July 2005 for this administration.

Draft (regularly updated) PHY622 course schedule and curriculum can be found on the course homepage: <http://physicsed.buffalostate.edu/courses/05/summer/PHY622/>

If you intend to stay on-campus in a BSC dormitory, please check that you have emailed you full name and social security number to Dan MacIsaac for billing and reservations purposes.

Pre-arrival assignment: Two short 2-4 page essays. These essays are brief, double-spaced, 10-12 point, one inch margins, and submitted as emailed electronic document either by cut-and-pasting into an email or attaching as .doc, .pdf, .htm, .html or .txt formatted files.

Essay One:

*What are three readily observable characteristics that lead me to believe that high quality physics learning is taking place?* Respond to this question using examples from your own personal experiences learning physics, teaching physics or watching physics learning settings. Introduce your three characteristics, discuss your three observable characteristics with a brief example for each, and restate the three in a summary. If you have previously taken graduate PHY courses from SUNY-Buffalo State, describe in an additional two paragraphs how your opinions of what high quality physics learning has changed since you have started coursework at Buffalo State.

Essay Two:

*What are three topics concerning teaching electricity and magnetism that I would like to re-learn or learn about during the course of PHY622?* Respond to this question by briefly recapitulating your background in electricity and magnetism, and discussing what you feel your strengths and weaknesses are in understanding and teaching E&M. List topics that you have particular interest in so that we can try to accommodate your particular needs. For instance, you may feel that your knowledge of right hand rules, or electric motors or potential is incomplete, or you may want more demos for teaching Coulomb's Law etc. You may feel that you need additional conceptual help regarding Kirchhoff's Laws or conventional current though you are comfortable mathematically with these.

Please draft, proofread aloud, amend, have a friend proofread aloud, amend again and send your pre-arrival assignment essays electronically to <danmac@att.net> between now and 5 July. This is a for-credit assignment graded on completeness, due no later than 8am 6July 2005. Dan M