Heading:

Your name: Madhurima Nath

Field site: Office Hours, ROB 106

Instructor(s): GTAs - Donnavan, Riya Nandi and Adbhut Gupta

Date: Friday, 10/7/2016

Time of observations: 12-1pm

Number of students present: 8

Topics covered: Newton's laws and Electric Fields

General Observation:
The room looked busy compared to other days. There were already 4 students and 3 GTAs when I came in. All the GTAs were busy helping the students on different tables. One of the students left after some time and couple more came in. One of the students was working alone. I got to help two different students this time on kinematics and on E&M. It was good to go through both the basics. As usual the kinematics was easier to explain than E&M. It was a good week.

Narrative Description:
The GTAs appeared to be explaining mainly E&M problems. I first helped a student with kinematics problems. They were basic questions one finding the acceleration or the force for different cases. Another student needed help with friction problems. He seemed to be confused by the question. It was not clear to him as to how he would start. So we started by drawing free body diagrams. He was not clear about the static and the kinetic friction. It took some time, but it was solved. Next, I helped two students on problems on electric fields. They were working together and they had all their formulae. Working together allowed them to come up with solutions to few other questions themselves. One of the question involved calculating the charge given the flux. The other one took more time. It involved the charge densities and to calculate the field strength in a conducting shell. Since E&M is not that intuitive as the Newton's laws, I felt that it is difficult to give simple arguments or analogies to something in daily life. I think I should think about how to make the E&M little easier to understand.

Reflection:
I got to help couple of students on different questions in this session. Concepts of friction and electric fields took more time than the usual Newton's laws. Electric fields are generally not easily understood because it is more abstract topic. The open ended questions help, but I feel that I need to come up with better ideas to make the concepts of E&M more clear to students. Also in this session, I had two students working together and they would help each other understand what was going on. It was good to see that happen.

Field site: Office Hours, ROB 106

Instructor(s): GTAs - Donnavan, Riya Nandi and Adbhut Gupta

Date: Friday, 10/21/2016

Time of observations: 11.30am - 12.30pm

Number of students present: 8

Topics covered: E&M

General Observation:
The room looked busy. Today was there test day, so lot more students than usual. There was only one GTA when I went in at 11.30am. Later the other two came in. I saw the GTA present helping some students on one table and the other student seemed to be working in groups. When I asked around if someone needed any help, there was a student who said she was having trouble understanding few questions. I helped her almost for the whole hour. However, she seemed not at all interested in solving the problems, she needed only the answers. Overall, this session was not that productive or interesting.

Narrative Description:
When I entered, there were couple of students discussing some problems with a GTA on one table. I went in and asked if anyone needed any help, but didn't get any response for the last the first few minutes. When a student said she needed some help in her practice test, I started helping her. There were questions regarding electric fields and Gauss law. As usual, I decided to help her by asking open ended questions. However, she was least interested in answering my questions. Most of the times, she was on her phone. I tried to engage her but every time I would ask her any questions, she just said that she had no idea about anything. Worse, she didn't even have any notes or equations on her, that I could ask her to direct towards. So I suggested that we take help of the book, but again, she had no clue what had been taught or what she was supposed to do. Then I thought to go through the similar topics from the book, like Gauss law and the difference between electric potential and electric field, on which she had questions. But she had no interest in knowing the concepts. She just wanted to know the answers and it didn't matter to her, how I would get them. She seemed getting impatient because I was not directly giving her the answer, so I did help her step by step to solve one of the two questions she had. Again, I found that she didn't want to do the problems step-by-step, and it seemed to me that she wanted me to solve the whole problem and give her the answer. I don't think by the end of the hour, she was very happy with me, but she did get her answers and she left.

Reflection:
This was not a good session. I felt that the student was least interested and I hardly think I could help. I used open ended questions, tried to point to her to the similar problems in the books, went over the theory but she didn't seem at all interested. I don't know how to help such students. I even went over the steps that I did at last, but couldn't get her attention. I didn't think it was a productive session.

Field site: Office Hours, ROB 106

Instructor(s): GTAs - Donnavan, Riya Nandi and Adbhut Gupta

Date: Friday, 09/28/2016

Time of observations: 11.30am - 12.30pm

Number of students present: 3

Topics covered: Capacitors

General Observation:
The room was quiet. Same as the previous week, there was one GTA at 11.30am and the rest two came in later. There were 2 students and one more came in afterwards. Everyone was working separately. This was the week after the exams, so the less number of students. After some time one student went to one of the GTAs. I got to help one student on few questions on capacitors. It was an easy session.

Narrative Description:
The students and the GTAs were sitting separately. One of the students went on to ask a GTA some questions that seemed on kinematics. I asked around if someone needed help and waited to help some students. Eventually, I got to help 2 students on questions related to capacitors. There was a question that involved to find out the final velocity of a moving electron towards the other plate of the capacitor. They didn't seem to know that electric potential could be written using the electric field and the distance. Also, they forgot to take into account the initial velocity of the electron while calculating the kinetic energy. Another question was straight-forward. They also weren't very sure of units, so we quickly went over dimensional analysis, so that they themselves can check their units later. It was an easy session.

Reflection:
This session was not that hard. The open ended questions help a lot, as usual. I realized that sometimes it is necessary to look into their calculations, because they forget to take into account some small things and they get very confused that the answers are incorrect.