**EE400D (Teaching Engineering): Classroom Observation**

Faculty/Instructor: Payman Arabshahi Date/Time of Observation: 10/04/2019 11:30-12:50

Observer: Ziqiao Xu

Course Number (Course Title): EE 496

Format Observed (Lecture, Lab, Quiz Section): Lecture

Number of Students Enrolled: 73 Number of Students Attending: 74

**Instructions**

*This observation worksheet contains both close-ended (Likert Scale) questions and open-ended (descriptive) questions regarding what the instructor is doing during the observed time period (session) and what the students are doing. Not all behaviors or activities are covered in the close-ended questions; those activities that are not included in the close-ended questions can be integrated into the open-ended questions. Please highlight your answers in a different, but legible color, minimize white space, and provide clean and consistent formatted in the completed observation.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| During the Observed Session: | Not at All | Somewhat | Satisfactory | Outstanding |
| The instructor provides objectives for the class session (written, verbal, or both). |  |  | X |  |
| The instructor relates the session content to learning outcomes for the course. |  |  |  | X |
| The instructor uses visual aids that are clear, organized, and relevant. |  | X |  |  |
| The instructor uses practical, “real-world” examples to support teaching. |  |  | X |  |
| The instructor refers to the relevant portions of the textbook, reading, or other supplement. | X |  |  |  |
| The instructor uses humor effectively to promote student engagement and rapport. |  |  |  | X |
| The instructor answers questions well and demonstrates knowledge of the subject. |  | X |  |  |
| The instructor shows clear interest or enthusiasm in teaching. |  |  |  | X |
| The instructor uses student names. | X |  |  |  |
| The instructor asks specific questions. |  |  | X |  |
| The instructor pauses after asking a question. |  |  | X |  |
| The instructor asks questions of students that result in responses from students. |  | X |  |  |
| The instructor changes gears periodically from one style of teaching to another. |  |  | X |  |
| The instructor engages students periodically through think/pair/share, problem solving, or other active learning exercises. |  |  | X |  |
| The instructor uses guided notes. |  |  | X |  |
| The instructor involves students periodically in what is to be covered during the session. |  |  | X |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| During the Observed Session: | Not at All | Somewhat | Satisfactory | Outstanding |
| The instructor uses more than one way to explain problems or concepts. |  |  | X |  |
| The opening of the class session gets students’ attention. |  |  |  | X |
| The instructor provides a summary of what has been covered and accomplished at the end of the observed session. |  | X |  |  |
| The instructor provides a preview of the next session or ideas of what to consider for the next class at the end of the observed session. |  | X |  |  |
| The instructor could be easily heard. |  |  |  | X |
| The instructor moves around in the classroom and refrains from standing/sitting in one place. |  | X |  |  |
| The instructor uses analogies or metaphors to relate the concepts to students’ experience. |  |  |  | X |
| The instructor emphasizes key points throughout the observed session. |  |  | X |  |
| The instructor makes eye contact with students. |  |  | X |  |
| The instructor uses open (not closed) body language during the observed session. |  | X |  |  |
| The instructor engages in behaviors that develop rapport and trust with the students. |  |  | X |  |
| The instructor relates the material/concepts to personal or societal concerns. |  |  | X |  |
| The instructor is available before class. |  | X |  |  |
| The instructor is available after class. |  | X |  |  |

What types of visual aids (dry-erase board, chalkboard, powerpoint, etc) does the instructor use during the observed session? How are these visual aids used?

The professor uses a spring to perform a short experiment by the start of the lecture and uses power point to help explain in-depth concepts for the later half of the lecture.

In your opinion, what was the best/most effective teaching moment observed in this session?

For a concept that is very abstract like system engineering in this lecture, the professor uses multiple real-life examples and interesting metaphors in explaining the definition.

In your opinion, what was the most unique teaching moment observed in this session?

The professor devotes a few minutes to introduce mechanism of human memory, which is almost biology or psychology knowledge to better explain the idea of system engineering.

In an organized paragraph with complete sentences, describe what the instructor did throughout the session (150-250 words).

Different from the previous lecture, the professor changes his teaching style substantially. The content in this lecture focuses on introducing useful knowledge instead of details of a project like the last lecture. Maybe realizing that the pace of the first lecture was too fast and the content was too much, the professor uses a more interactive form while lecturing with more pauses. The professor does an excellent job in bringing in students’ attention at the beginning of the class by performing a little experiment, which requires the basic physics knowledge that every student in the class is familiar with, and invite the students to dig deeply into the mechanism of their thinking process. The professor also includes interactive questions for approximately every 15-minute period to keep the students active and involves most of the students by choosing students from different parts of the room to answer different questions. The professor also includes one long discussion before introducing the most crucial concept to give students a chance to think about the concept instead of simply absorbing it. The time arrangement for the balance between pair discussion, class discussion, and lecture on this topic is perfect that constantly motivates the students to think. Despite the content in this class is complex enough to support a complete course, the professor deliberately chooses the core concepts and ideas leading the industry to give the students a solid introduction to the content. Overall, the professor’s teaching style today is concise and effective in introducing new concepts.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| During the Observed Session: | None | Few | Some | Many | Most |
| Students maintain attention toward the instructor (for example – eye contact). |  |  |  | X |  |
| Students remain awake and alert during the observed session. |  |  |  |  | X |
| Students are using their cell phones or other electronic devices in activities unrelated to class. |  | X |  |  |  |
| Students are over one minute late to class. |  |  | X |  |  |
| Students pack up early at the end of class. |  |  | X |  |  |
| Students are reading the newspaper or doing other non-electronic activities unrelated to class. | X |  |  |  |  |
| Students interact with the instructor before class. | X |  |  |  |  |
| Students interact with the instructor after class. |  | X |  |  |  |
| Students initiate questions. |  | X |  |  |  |
| Students respond to questions posed by the instructor. |  |  | X |  |  |
| Students ask follow up questions. |  | X |  |  |  |
| Students participate in class when asked to do so by the instructor. |  |  |  | X |  |
| Students are taking notes. |  | X |  |  |  |

In your opinion, how would you best describe students’ interest in the observed session?

Most students are curious to know the concepts that covered in the session, but they clearly know that although the knowledge will benefit them eventually, they do not necessarily need it in the short term.

In your opinion, how would you best describe students’ affect (emotion) in the observed session?

I will use relaxed for students’ affect. The students quickly realize that this session is not about the details about the project but about knowledge that help them success, so instead of being nervous, they are generally more relaxed, for some in a way that they pay less attention, and for others in a way that they are more active and participate freely in class.

In an organized paragraph with complete sentences, describe what the students were doing during the observed session (150-250 words).

The students in this lecture show a mood apparently different from last lecture. As soon as the professor does the warm-up activity with the little experiment, the tension eases among the students that they know this lecture doesn’t closely relate to the imminent project and they don’t need to stay completely focused for every minute of the lecture. Realizing this fact creates diverse responses among the students. Some students start to do things unrelated to class, including working on other courses, texting on mobile phones, and sleeping. In extreme cases, there are students leaving as soon as 20 minutes into the session. On the other hand, the rest of the students are more active in this less stressful atmosphere. Students provide creative responses to the professor’s questions and almost all students are willing to form pairs and participate in the discussion. Generally, all students reach their expected goal for this lecture, that most students get the big picture of system engineering while a few opt out. One uncommon phenomenon that happen both this and last lecture is that number of students attend the lecture, excluding myself, exceed the number of students enrolled in the course. This indicates that even every student who registered the class attend the lecture, there are other students who wish to listen to the lecture without getting any credits. For an informative class that only has one lecture per week, this sounds reasonable for students with the curiosity.

Are there any items that you believe should be added to this classroom observations worksheet? If so, please describe.