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

Faculty/Instructor: Julia Jones Date/Time of Observation: 11-13-19

Observer: Victor Cannestro

Course Number (Course Title): ME 123 Visualization and CAD

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

Number of Students Enrolled: 111 Number of Students Attending: 94 (+15 late) = 109

## 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 (Briefly vocalized some objectives)		
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 (some slides were overloaded)	
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 (One picture in the beginning was explicitly referenced)		
The instructor uses humor effectively to promote student engagement and rapport.		X (One big joke at the end that got everyone laughing)		
The instructor answers questions well and demonstrates knowledge of the subject.		3 3		X (thoroughly answered questions and even

				provided calculation in some cases)
The instructor shows clear interest or		X (Mostly		
enthusiasm in teaching.		monotone)		
The instructor uses student names.	X			
The instructor asks specific questions.				X (Several specific questions that got student responses)
The instructor pauses after asking a question.		X (Average pause of 2 seconds)		
The instructor asks questions of students that result in responses from students.		X (Mostly one student responses)		
The instructor changes gears periodically from one style of teaching to another.			X (Twice in the form of guided notes)	
The instructor engages students periodically through think/pair/share, problem solving, or other active learning exercises.		X (2 active learning activities)		
The instructor uses guided notes.				X (Guided note group activities were the main focus)
The instructor involves students periodically in what is to be covered during the session.		X (Asked them if they wanted to move on to a new topic in the last 10 min)		,
During the Observed Session:	Not at	Somewhat	Satisfactory	Outstandina

During the Observed Session:	Not at All	Somewhat	Satisfactory	Outstanding
The instructor uses more than one way to		X (2-3		
explain problems or concepts.		different		
		explanations		
		provided)		

The opening of the class session gets students' attention.		X (Took some time to get started but <1min)		
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 (mic)
The instructor moves around in the classroom and refrains from standing/sitting in one place.				X (moved up and down the aisles during activities)
The instructor uses analogies or metaphors to relate the concepts to students' experience.		X		
The instructor emphasizes key points throughout the observed session.				
The instructor makes eye contact with students.			X (about half the time)	
The instructor uses open (not closed) body language during the observed session.		X (several examples observed)		
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 (10 minutes early)
The instructor is available after class.				X (engaged with 2 students for a while)

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?

PowerPoint was used to display pictures and tables that were explained during the lecture. Later, the slides were written on to fill out the answer of the guided notes group activities.

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

The best teaching moment was during the second guided notes group activity. Practically every student was engaged and lively and were much more obliging to answer her questions afterwards.

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

The most unique teaching moment was when she asked the students if they wanted to move on to a new topic in the last 10 minutes or leave early, to which everyone laughed and packed up.

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

The instructor arrived 10 minutes early and set up her laptop and slides. "Good afternoon. Can you hear the microphone?" She went into announcements. "Any questions on the lab exam or on HW7?" Then she moved into lecture displaying a picture from the textbook with reference pages explicitly stated. More slides with annotated pictures were displayed as she explained. "You don't have to memorize a lot of things. Just these few things." She gestured with her hands to touch the pictures she was talking about. Her voice was very steady, she made lots of eye contact, and she gestured with her hands a lot to illustrate fitting. "Any questions on those 3 fits?" The instructor answered the question and made a calculation on the relevant slide. She asked, "Other questions" and paused for 2 seconds. The pace was somewhat fast: less than a minute per slide and reached 25 slides in the first 10 minutes. She put her closed hand to her mouth and asked "Questions," paused for 2 seconds, and moved on to the next slide. She made a slight joke, "I can't do that math right now" and a few students smiled. Her hands were clasped in front of her. Then she said, "Let's try one". As students settled, she moved to the PowerPoint version of the worksheet, explained the procedure, and proceeded to fill it out step by step. She asked, "Does everybody have those numbers down" and paused for 2 seconds. She asked, "Looking at that table what's your tightest/loosest fit?" "Questions on how to use those tables?" "Any other questions?" She paused for 2 seconds and then gave them a graded, in-class assignment. She walked up the aisles and handed out the worksheet. She cautioned them about potentially tricky sections. As students discussed she walked up and down both aisles asking people questions at random. She asked, "Are you guys about done? No? Need more time? Okay a few more minutes." She asked students to reign it in and asked, "Can anybody tell me what you got as the limit?" "How about the inside diameter?" "How about the outside limits?" "How about the allowance?" She asked a rhetorical question, "What's allowance defined as?" Then she asked "Questions? Who wants to go on to a new topic today?" In the clamor as they left, she reminded them about their homework assignment.

Overall, her voice and pace made the lecture difficult to follow, not only regarding the expression of the content, but in the lack of pausing after asking questions during this period. The effect of it was obvious in the behavior of many of the students. However, her guided notes activities were a great success in generating engagement between students, content, and the instructor herself.

During the Observed Session:

None Few Some Many Most

(0%) (1, 2 (<10%) (10-50%) (>50%)

students)

Students maintain attention toward the instructor (for			X	
example – eye contact).				
Students remain awake and alert during the observed			Х	
session.				
Students are using their cell phones or other electronic			X	
devices in activities unrelated to class.				
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-			X	
electronic activities unrelated to class.				
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				Х
instructor.				
Students are taking notes.	X			

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

Students' interest during the session formed two clusters: during the lecture there was widespread boredom, evident though slouched posture and eyes on their phones; but during the activities, students looked curious while engaged in lively discussion.

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

Students' affect during the session formed two clusters: during the lecture there was widespread boredom and tiredness; but during the activities, students looked curious while engaged in lively discussion.

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

As students entered, one walked up and asked her a question and there was a lot of nodding between the two. Lively conversation ensued between students until class started. After a few slides had passed and they were asked if they had any questions, a student summarized her understanding and asked if it was correct. As the instructor discussed the 3 fits, about 24 students were distracted on laptops or phones from the middle to the back of the class. Some in the front were taking notes. As she reached the 26<sup>th</sup> slide, many students were touching their faces, sighing or slouching, and a few even had their hand folded behind their heads. A few students smiled at her slight joke. When prompted, about half the class went up to grab a group guided notes worksheet. After being asked about the first question, one student in the answer in front mumbled the answer. After being asked about the table, two students asked questions and she clarified. As she handed out the second worksheet, the lights came on and students burst into lively conversation. After being asked if they were finished or not, conversation

dwindled as students reasoned through the worksheets. At least 8 were on their phones waiting for her to discuss the answers. A different group responded each time she asked what the answer to a certain question was. Some students were having side conversations as the answers were being discussed. After being asked if they wanted to move to a new topic at the end of class, no one answered, and all the students laughed and packed up to leave class. It was 10 minutes early. Students handed in their worksheets and left. Afterwards, 2 students walked up and asked her questions.

Overall, many students were disinterested of disengaged during the actual lecture, but most worked vibrantly in their groups during the guided notes group activities. The former was partly due to the fast pace that the lecture slides were cycled through, and the monotone voice of the instructor. The students clearly wanted to do something hands-on in their CAD class and responded well when they got the chance to.

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

During the

During the Observed Session:	Not at All	Somewhat	Satisfactory	Outstanding
The instructor provides objectives for the class session (written, verbal, or both).	Nothing	Objectives not clear/too broad, barely mentioned (only 1-2 sentences). Not written down.	Mostly clear/observable. Written down + not discussed or not written down + discussed.	The instructor has visual + verbal objectives that are clear and observable. Give students a good idea what will happen.
The instructor relates the session content to learning outcomes for the course.	Nothing	Briefly mentions content will be helpful in the future.		Ties everything together step by step, clear explanation how it relates to future content.
The instructor uses visual aids that are clear, organized, and relevant.	legible; powerpoint slides are not overpowered or underwhelmed with text organized in that individual chunks of material (a single slide, single problem) are laid out such that the student can see a logical sequence in the material presented images are close to the concents they describe			

	relevant in that tangential equations and formulas are avoided; images reinforce the concepts and words as presented, and examples closely apply the concepts presented.			
	Visual aids contain none of the above elements as described	Visual aids contain one of the above elements as described	Visual aids contain two of the above elements as described	Visual aids contain three of the above elements as described
The instructor uses practical, "real-world" examples to support teaching.	No real world examples are provided.	One substantive real world example is provided.	More than two examples are provided during each 50 minute period but not all are relevant.	More than two examples are provided during each 50 minute period and all examples are relevant.
The instructor refers to the relevant portions of the textbook, reading, or other supplement.	Not referenced/no textbook used in the class.	Mentions what chapters/pages to read and nothing else.	Tells the students where the material is in the textbook and uses examples straight from it.	Tells the students where the material is in the textbook and uses examples straight from it, takes excerpts from the book and uses them during lecture. Specifically says what parts of the text to focus on.
The instructor uses humor effectively to promote student engagement and rapport.	No jokes.	1-2 jokes per session, that get students laughing.	3-5 jokes per session, that get students laughing.	5+ jokes per session, that get students laughing.
The instructor answers questions well and demonstrates knowledge of the subject.	No questions asked.	Answers the questions vaguely, student needs to ask additional questions.	Answers the question, but leaves the student somewhat confused.	Answers the questions clearly and easily explains it to the student.
The instructor shows clear interest or enthusiasm in teaching.	No enthusiasm/interest whatsoever.	Shows some enthusiasm, but is mostly bland and unenergetic.	Shows enthusiasms for the most of the class, but has moments in which the instructor is more bland.	Instructor smiles, seems excited about the topic, give students positive energy.
The instructor uses student names.	Doesn't use names.	Remembers less than 5 names and	Remembers 5-10 names and uses	Remembers over 10 names and

		uses them; doesn't ask for new names.	them, always asks for a new name.	actively tries to learn new names.
The instructor asks specific questions.	never ask any questions to students	ask ambiguous questions that are difficult for students to respond	ask at least one question that result in clear responses from students	ask questions periodically to lead students keep thinking during class session
The instructor pauses after asking a question.	No pause.	< 10 second pause.	< 20 second pause.	At least a 30 second pause.
The instructor asks questions of students that result in responses from students.	Not at all.	1-2 students	>2 students but less than half respond	>Over 50% respond
The instructor changes gears periodically from one style of teaching to another.	Not at all	The instructor changes gears to another form of teaching once during the session	The instructor changes gears to another form of teaching twice during the session	The instructor doesn't lecture for more than 15% of the allotted time before changing to another form of teaching
The instructor engages students periodically through think/pair/share, problem solving, or other active learning exercises.	Not at all.	1-2 active learning exercises per session.	3-4 active learning exercises per session.	5+ active learning exercises per session.
The instructor uses guided notes.	No guided notes	Guided notes are provided for the students, but the teacher doesn't use them during lecture.	Guided notes are provided for the students, and the teacher fills them out during the lecture but it's not his/her main focus.	Guided notes clearly provide the space to fill out, include necessary information; instructor spends majority of class filling them out.
The instructor involves students periodically in what is to be covered during the session.				

During the Observed Session:	Not at All	Somewhat	Satisfactory	Outstanding
The instructor uses more than one way to explain problems or concepts.	No explanation or just 1 way.	2-3 different explanations.	4-5 different explanations.	5+ different explanations.
The opening of the class session gets students' attention.	Takes over a minute to get students to quiet down and focus.	Takes 30-60 seconds to get students to quiet down and focus.	Takes 10-30 seconds to get students to quiet down and focus.	Takes less than 10 seconds to get students to quiet down and focus.
The instructor provides a summary of what has been covered and accomplished at the end of the observed session.				
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.	No objectives at all	Talks about what the next session will focus on	Talks about what the next session will focus on	Talks about what the next session will focus on + has a list on a slide that shows the objectives/what to consider
The instructor could be easily heard.	Not able to hear the instructor in the last row at all.	Barely able to hear the instructor in the last row – any other noise makes it almost impossible.	Instructor is heard in the last row without much problem, but other noise makes it significantly harder.	Instructor can be easily heard in the last row throughout the session, speaks clearly.
The instructor moves around in the classroom and refrains from standing/sitting in one place.	The instructor sits/stands in one place.	The instructor only moves if it's absolutely necessary.	The instructor moves around the classroom, but it's all within 5 feet of the same place.	The instructor moves around the classroom a lot and uses that to articulate some of the main points of the session/gives examples of how what he/she describes behaves in space.
The instructor uses analogies or				

metaphors to relate the concepts to students' experience.				
The instructor emphasizes key points throughout the observed session.				
The instructor makes eye contact with students.	No eye contact.	Looks at students only when asking/answering questions; otherwise looks at visual aids.	About 50 – 50 split between looking at students and visual aids.	Looks at different students for majority of the time; only looks at visual aids when explaining something.
The instructor uses open (not closed) body language during the observed session.	Closed body language.	Crosses his arms a lot, doesn't look at students; hands in the pockets.	Open body language majority of time, but has closed body language moments.	Open body language all the time.
The instructor engages in behaviors that develop rapport and trust with the students.				
The instructor relates the material/concepts to personal or societal concerns.				
The instructor is available before class.	Arrives < 1 minute before class.	Arrives 1-2 minutes before class.	Arrives 3-4 minutes before class.	Arrives 5+ minutes before class.
The instructor is available after class.	Instructor leaves early, or hurries away from class as soon as it ends.	Available for 1-2 minutes.	Available for 2-5 minutes.	Available for as long as necessary/talks with the student on his way out.
During the Observed Session:	None	Few	Some	Many

Students maintain attention toward the instructor (for example – eye contact).	0 students	1-2 students	5%-10%	10%-50%
•	U Students	1-2 Students	3 /0-10 /0	10 /0-30 /0
Students remain awake and alert				
during the				
observed session.	0 students	1-2 students	5%-10%	10%-50%
Students are				
using their cell				
phones or other				
electronic devices				
in activities unrelated to class.	0 students	1-2 students	5%-10%	10%-50%
Students are over	0 students	1-2 Students	3 /0-10 /0	10 /0-30 /0
one minute late to				
class.	0 students	1-2 students	5%-10%	10%-50%
Students pack up				
early at the end of				
class.	0 students	1-2 students	5%-10%	10%-50%
Students are reading the				
newspaper or				
doing other non-				
electronic				
activities	O atualanta	4.0 atualanta	F0/ 400/	400/ 500/
unrelated to class.	0 students	1-2 students	5%-10%	10%-50%
Students interact with the instructor				
before class.	0 students	1-2 students	5%-10%	10%-50%
Students interact	0 014401110	. 2 3.0001.13	370 1370	1070 0070
with the instructor				
after class.	0 students	1-2 students	5%-10%	10%-50%
Students initiate				
questions.	0 students	1-2 students	5%-10%	10%-50%
Students respond				
to questions				
posed by the instructor.	0 students	1-2 students	5%-10%	10%-50%
Students ask	o stauciito	i Z Students	J /0-10 /0	1070-0070
follow up				
questions.	0 students	1-2 students	5%-10%	10%-50%
Students				
participate in				
class when asked	0 students	1-2 students	5%-10%	10%-50%

to do so by the instructor.				
Students are taking notes.	0 students	1-2 students	5%-10%	10%-50%

During the Observed Session:	Not at All	Somewhat	Satisfactory	Outstanding	
The instructor provides objectives for the class session (written, verbal, or both).	None provided	Objectives aren't very clear or observable; are barely mentioned and not written down	Mostly clear and observable objectives that are either easily visible and somewhat discussed OR somewhat visible and discussed in some detail	List of clear and observable objectives that are easily visible and are discussed in some detail	
The instructor relates the session content to learning outcomes for the course.	None provided	Briefly mentions how the content will be helpful in the future	The instructor gives a clear explanation on how the session content relates to specific learning outcomes	The instructor gives a clear explanation of why they've done what they've done so far and how the current session's content relates to specific learning outcomes	
	A good learning objective is:  Clear — a student understands what it means and what he or she should be able to do as a result of the teaching at hand.  Observable — the instructor can observe whether the student has achieved the learning objective or not.				
The instructor uses visual aids that are clear, organized, and relevant.	<ul> <li>achieved the learning objective or not.</li> <li>Visual aids are:</li> <li>clear in that writing (on board, document camera, electronic is legible; PowerPoint slides are not overpowered or underwhwith text</li> <li>organized in that individual chunks of material (a single slide, problem) are laid out such that the student can see a logical sequence in the material presented, images are close to the concepts they describe, organized notes are readily construct</li> </ul>				

from the visual aids, and less relevant material is spoken rather than spoken and written.

 relevant in that tangential equations and formulas are avoided; images reinforce the concepts and words as presented, and examples closely apply the concepts presented.

	examples closely apply the concepts presented.					
	Visual aids contain	Visual aids contain one of	Visual aids contain two of	Visual aids contain all the		
	none of the	the above	the above	above elements		
	above	elements as	elements as	as described		
	elements as	described	described			
	described					
The instructor uses practical, "real-world" examples to support teaching.	No real- world examples are provided.	One substantive real-world example is provided.	More than two examples are provided, but some are toy-examples.	More than two examples are provided, and all examples are substantive.		
The instructor refers to the relevant portions of the textbook, reading, or other supplement.	Not at all	Instructor briefly mentions the text or supplements in an indirect or imprecise manner	Instructor clearly and directly refers to the text, etc.	Instructor refers to the materials directly and specifically, utilizing them in class		
The instructor uses humor effectively to promote student engagement and rapport.	Not at all	Humor is attempted 1+ times, but there is silence	Humor is attempted 1+ times, and a few students laugh	Many students laugh at the instructor's jokes and the atmosphere is light		
The instructor answers questions well and demonstrates knowledge of the subject.	Not at all	The answers leave the students confused even though knowledge of the subject was demonstrated	A clear verbal or visual explanation is given	Clear verbal and visual explanations are given, and students may even express appreciation in return		
The instructor shows clear interest or enthusiasm in teaching.	Not at all	Shows some enthusiasm but is mostly bland and unenergetic.	Shows enthusiasms for most of the class but has moments in which the instructor is bland.	Instructor smiles, seems excited about the topic, give students positive energy.		

The instructor uses student names.	1-2 students	5%-10%	10%-50%	Over half	
The instructor asks specific questions.	Not at all	asks ambiguous questions that are difficult for students to respond	asks at least one question that generates responses from students	asks leading questions periodically to keep students thinking during the class session	
The instructor pauses after asking a question.	Not at all	Pauses for less than 5 seconds	Pauses for 5-12 seconds	Pauses for 12+ seconds	
The instructor asks questions of students that result in responses from students.	Not at all	1-2 students	>2 students but less than half respond	Over 50% respond	
The instructor changes gears periodically from one style of teaching to another.	Not at all	The instructor changes gears to another form of teaching once during the session	The instructor changes gears to another form of teaching twice during the session	The instructor doesn't lecture for more than 15% of the allotted time before changing to another form of teaching	
The instructor engages students periodically through think/pair/share, problem solving, or other active learning exercises.	None provided	Think/pair/share, problem solving, or other active learning exercises occurred once during the session	Think/pair/share, problem solving, or other active learning exercises occurred 2 times during the session	Think/pair/share, problem solving, or other active learning exercises occurred 3+ times during the session	
The instructor uses guided notes.	None provided	Guided notes are provided for the students, but the teacher doesn't	Guided notes are provided for the students, and the teacher fills them out during	Guided notes clearly provide the space to fill out, include necessary	

		use them during lecture.	the lecture but it's not their	information; instructor spends
			focus.	majority of class filling them out.
The instructor involves students periodically in what is to be covered during the session.	Not at all	The instructor asks for student feedback on material to be covered but doesn't implement change	The instructor asks for student feedback on the material to be covered 1 time and follows through with the changes accordingly	The instructor asks for student feedback on the material to be covered 2+ times and follows through with the changes accordingly

During the Observed Session:	Not at All	Somewhat	ewhat Satisfactory C	
The instructor uses more than one way to explain problems or concepts.	Not at all	2-3 different explanations.	4-5 different explanations.	5+ different explanations.
The opening of the class session gets students' attention.	Low     energy     Picks up     where     they left     off in     lecture	Class announcements or objectives given OR Review of last session	Any two of:  Review of last session  Provided a visual demonstration to add context to the remainder of the session  An activity is given  Class announcements or objectives	Any three of:  Class announcements  Provides a visual demonstration/ presentation to add context to the remainder of the session  Reviews last session  An activity is given
The instructor provides a summary of what has been covered and accomplished at the end of the observed session.	None provided	A brief verbal summary is provided	A brief verbal and visual summary is provided	A clear verbal and visual summary of the content is provided and discussed in detail. (i.e. a roadmap)

The instructor	None			
provides a preview of the next session or ideas of what to consider for the next class at the end of the observed session.	provided	Talks about what the next session will focus on	Verbal and visual lists that preview the next session or of ideas of what to consider for the next class	The previous point + they included a thought-provoking graphic or demonstration
The instructor could be easily heard.	Not at all	Those from the middle to the back of the class struggle to hear the instructor	Those in the back struggle to hear the instructor	Voice is clear even from the back of the room
The instructor moves around in the classroom and refrains from standing/sitting in one place.	Not at all	The instructor moves to one other place during the lecture (e.g. white board to podium)	The instructor moves to 2-3 other places during the lecture	The instructor moves to 3+ places during the lecture (including up the aisles to check on students)
The instructor uses analogies or metaphors to relate the concepts to students' experience.	Not at all	The instructor uses analogies or metaphors that are hard to understand or don't really relate to students' experience	The instructor uses 1+ analogies or metaphors that are easy to understand OR relate to students' experience	The instructor uses 3+ analogies or metaphors that are easy to understand and relate to students' experience
The instructor emphasizes key points throughout the observed session.	Not at all			
The instructor makes eye contact with students.	Not at all	Makes eye contact for less than 25% of the session	Makes eye contact for 25%-50% of the session	Makes eye contact for over 50% of the session
The instructor uses open (not closed) body language during the observed session.	Not at all	Closed body language is observed 3+ times during the session	Closed body language is observed 1-2 times during the session	Closed body language is never observed during the session
The instructor engages in behaviors that develop rapport	Not at all			

and trust with the students.				
The instructor relates the material/concepts to personal or societal concerns.	Not at all			
The instructor is available before class.	Not at all	The instructor arrives 1-5 minutes early	The instructor arrives 5-10 minutes early	10+ minutes early OR Office hours are scheduled right before class
The instructor is available after class.	Not at all	The instructor can talk with students, but leaves after 1-5 minutes	The instructor can talk with students and leaves after 5-10 minutes	10+ minutes after OR Office hours are scheduled right after class

During the Observed Session:	None	Few	Some	Many	Most
Students maintain attention toward the instructor (for example – eye contact).	0 students	1-2 students	<10%	10%-50%	Over half
Students remain awake and alert during the observed session.	0 students	1-2 students	<10%	10%-50%	Over half
Students are using their cell phones or other electronic devices in activities unrelated to class.	0 students	1-2 students	<10%	10%-50%	Over half
Students are over one minute late to class.	0 students	1-2 students	<10%	10%-50%	Over half
Students pack up early at the end of class.	0 students	1-2 students	<10%	10%-50%	Over half
Students are reading the newspaper or doing other non-electronic activities unrelated to class.	0 students	1-2 students	<10%	10%-50%	Over half
Students interact with the instructor before class.	0 students	1-2 students	<10%	10%-50%	Over half
Students interact with the instructor after class.	0 students	1-2 students	<10%	10%-50%	Over half

Students initiate questions.	0 students	1-2 students	<10%	10%-50%	Over half
Students respond to questions posed by the instructor.	0 students	1-2 students	<10%	10%-50%	Over half
Students ask follow up questions.	0 students	1-2 students	<10%	10%-50%	Over half
Students participate in class when asked to do so by the instructor.	0 students	1-2 students	<10%	10%-50%	Over half
Students are taking notes.	0 students	1-2 students	<10%	10%-50%	Over half