

Wireless Revolution

Flipping Things Around



14:332:301

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Flipped Course Format and Requirements-1

Grading, Attendance and Mode of Instruction

- ❑ “Classwork”: 60% of grade
- ❑ 2 Midterm Exams: 40% of grade
 - Scheduled for Thursday, February 26 and Monday, April 6
- ❑ **Mode of Instruction:** In-Person Lectures in RWH-206
- ❑ Attendance and Student Participation are very important to achieving the goals of this course (**and also a good grade 😊**)

Flipped Course Format and Requirements -2

Prelecture Reading

- ❑ Consistent with the “Flipped” format, “Pre-Lecture Reading” **is required reading before each lecture.**
 - Reading for the following week will be Posted on Canvas on Thursdays. Pre-Lecture Reading for Lectures 2 and 3 are now posted.
- ❑ Your task before class is
 - Read ahead, prepare a written 3-4 sentence summary of the reading
 - Identify any questions you may have and also identify points you’d like to bring up for class discussion

Flipped Course Format and Requirements -3

"Classwork"

- ❑ At the beginning of each lecture, an "Assignment" will open on Canvas that you can write answers into.
- ❑ Typically, there will ~5 questions and the Assignment will close at the end of the lecture period.
- ❑ Question 1 on the assignment will always be:
 - ❑ Write a 3-4 sentence summary of the "Pre-Lecture Reading"
- ❑ At the beginning of each lecture, you will be given ~2-3 minutes to write in your answer
- ❑ An in-class discussion of the summary will follow
- ❑ Every student in the class should be prepared to be called upon to read out their summary (~4 students will be called upon each lecture)

Flipped Course Format and Requirements -4

"Classwork" Continued

- ❑ A review of the "Pre-Lecture Reading" with slides will then take up as much of the rest of the class as necessary
 - ❑ Focus will be on topics related to the remaining questions on the assignment as well as suggested by student questions
 - ❑ There will be appropriate pauses to allow students to answer the remaining questions that are part of the assignment
- ❑ Remarks on preparing the "Pre-Lecture Reading" summary
 - ❑ Clear concise summary that addresses all the salient points
 - ❑ OK to use AI tools for the summary but make sure you read the entire document before **"generating"** a summary and **IMPROVE** it
 - ❑ Please avoid writing lengthy paragraphs/essays
 - ❑ No more than 3-4 sentences

"I wrote you a long letter because I did not have the time"

Source: Blaise Pascal, Mark Twain, George Bernard Shaw and many others according to the Internet 😊

Flipped Course Format and Requirements -5

"Classwork"

- ❑ Meant **for only those who attend the lecture/class**
- ❑ If you are absent from the lecture, DO NOT SUBMIT THE CLASSWORK remotely
- ❑ If you are found submitting answers remotely, you will get docked negative points

Course Outline / Lecture Schedule

- ❑ Lecture 1: Introduction
- ❑ Lecture 2-9: The road to cellular and the decades that followed: a world of technology, politics, economics and competition that has changed the world
- ❑ Lecture 10: Movie and Discussion
- ❑ Lecture 11: Midterm Exam 1 (February 26)
- ❑ Lecture 12-15: The basics of Radio Communications- frequency, spectrum, capacity and coverage; Digital Radio
- ❑ Lecture 16-17: The Technology of the Gs (2G, 3G, 4G, 5G, 6G)
- ❑ Lecture 18-19: New spectrum and unintended consequences, Unlicensed spectrum- world of cordless, WiFi & Bluetooth
- ❑ Lecture 20: Midterm Exam 2 (April 6)
- ❑ Lectures 21-24: Stocks, bonds, and company growth
- ❑ Lecture 25-26: Case Studies- One2One and Iridium
- ❑ Lecture 27, 28: Personal Finance, Wrap-up & Survey