

**Instructor.** Dr. Fred Owens. Bliss #2010. Hours are 9 - 11, T/Th (depending on mobility - to be announced); usually available for walk-ins; always by phone (941-1855, voicemail) and email ( fowens@ysu.edu ).

**Instructor's (course) web page:** <http://cc.ysu.edu/~fowens>

**Text.** This semester, you will find all text materials either on the web or in libraries. Web-based materials will be mainly tutorials, product manuals, trade articles, or general interest "how-to's." In libraries you'll find basic books about technology as well as a range of encyclopedias.

Printed books have the advantage of being contained between the front and back covers. Hypertext documents are different because they can link you to an unlimited number of other web-based materials. One of your challenges in this course will be to learn how far to go beyond a particular site reference. As a rule of thumb, go to the specific directory to which you are linked, but do not link to other sites beyond that directory.

**Telecommunication Studies Majors:** Concepts and issues addressed in this course recur, so you should retain class notes. After completing this course, Tcom 1580 (Introduction) and English 1550 (Writing I) with grades of "C" or better in all three, then you may enroll in Tcom 2682 (Scriptwriting) and/or Tcom 2683 (Operations and Performance). Do not take advanced courses without having first completed their prerequisites: prerequisite courses taken out of order will not count toward your degree. Don't forget, you're required to establish and maintain an overall GPA of at least 3.0 to continue in the TCom program.

**Purposes of the Course.** Anyone who claims to have developed expertise in the media knows the basics of how the media work. That's why you should think of this course as an introduction to media technology for the non-engineering professional. It doesn't matter that you might see yourself in the future as a sales executive or a lawyer or a teacher -- knowing about the media means knowing about the technology. Actually, because each of our lives is affected directly by these technologies, you owe it to yourself to understand them. We assume you have done satisfactory work in high school algebra and physics, and that you remember the general principles.

Specifically, we aim **first** to review the basic principles of electricity and magnetism as they relate to electronic media. We will consider how they are produced, how they are manifest in electrical circuits, how they are used in everyday applications and, most importantly, how they are used in communication electronics. **Second**, we will review the technologies and technology systems -- as categories, such as "microphones" -- now in use in the electronic media industries. Our **third** aim is to enable you to study the key pieces of equipment which are normally found in a communication system, whether audio/radio, video/television, or computer/network -- such as the EV-635A microphone. This information will come mainly from product user manuals and manufacturer's websites as well as from hands-on study of

the equipment itself.

**Excluded** from the course will be study of studio operations and of the production process. That is, we won't study how to operate the gear. You'll do that in Tcom 2683. And we won't study how to use it to make something – like an audio webcast or TV game show. That all comes in Tcom 3780, 3781, 3782 and beyond. We will explore **what** the technologies are as well as **how** and **why** they work. You should find that understanding the technologies which you will later command will expand your knowledge, test your learning skill, and enhance your capacity to function in this discipline.

The Air Force does not strap new pilots into F16's, hurl them into the stratosphere, and then say, "Okay, Major. Let's talk about how the engine works." Pilots start in ground school. Then to simulators. Then to real airplanes. This course is TCOM's ground school. Tcom 2683 is the simulator/trainer, and advanced courses are real planes.

Of course, you can - *and should!* - volunteer to help out in the audio labs, in the TV Studio, or at any local radio or TV station. The opportunities for hands-on experience with technology are everywhere, and they await your initiative.

**Electronic Library.** We might collect technology-related documents and format them into a "Telecom Technology Handbook," depending on how your learning progresses. Early in the term we would agree to a table of contents and how to avoid copyright infractions. Then we would formulate a strategy for assigning topics to people and for collecting the whole set of files. For example, we might scan a 2-page diagram and description of a power supply or distribution amplifier. Or, we could do a photo album of file servers or radio transmitters. Grading would normally assess group accomplishment as well as individual contributions.

**Grading.** Course content divides up nicely into fourths:

Exam #1 (Signals, Audio, Radio)	25% or 33%
Exam #2 (Data, Video, TV, )	25% or 33%
Exam #3 (Cluster Applications)	25% or 33%
Tcom Tech Handbook (group & individual)	25% or 0%

Exam items will probably be "objective" format (such as multiple-choice), where 90-100% of knowledge-based points is an A, 80-89% is a B, and so on. A constant (k) will be added to all scores producing at least one high A, within reason. For a 100-item T/F exam, then, an A would be at least 95, a B at least 90, and so on (because J. Fred Muggs could get half of them right without knowing a microphone from a doorknob). For a 100-item multiple choice test where each item has 5 possible answers, an A would be at least 92, a B at least 84, and so on (again, because J. Fred Muggs could get 20 of them right). For a 100-item unaided recall test (essay), an A would be at least 90, a B at least 80, and so on (because J. Fred Muggs couldn't get any of them right solely by guessing). "Attendance and participation" will be relatively less important in terms of final grades. We use the "adult-centered" learning model, in which it's up to you to manage your progress.

**Missed Exams, Assignments.** Again, it's up to you to manage your progress. That means if there's something you don't understand, it's up to you to get it cleared up. You are to take

the initiative. You're also responsible for taking exams and turning in assignments. If something bad happens – which is beyond your personal control – and you miss an exam or assignment, relief might be extended. But you must demonstrate that the problem was beyond your realistic influence, such as a housefire, medical emergency, or automobile accident. These don't cut it: went deer hunting, went on vacation, went for a job interview, had to work, was too drunk, thought girlfriend was pregnant, couldn't open the garage door, thought I was pregnant, afraid of snow, overslept.

**Unscheduled tests.** Some “reading checks” might appear as unannounced quizzes. Points will be reassigned equally from exams. These cannot be made up if missed.

**Email Screen Names.** Always put “TCOM 1581” in the subject line of all email. Any email without this phrase in the subject line will be treated as virus-infected spam and **deleted immediately**. It's up to you to make sure you are receiving and reading email; if I am slow in responding to a change-of-address, pester me.

**Miscellaneous:** I might attend several conferences and assorted meetings during the term. Alternate arrangements will be made and announced in class, if necessary.

We will not meet if YSU classes are officially canceled. Nor will we meet if **BOTH** Rayen High School **AND** Ursuline High School are closed (but not “delayed”) because of weather conditions. Unless ... the scheduled activity cannot be made up, such as a final exam. Spend time thus liberated on your “Telecom Technology Handbook” or preparing for exams. If **EITHER** Rayen OR Ursuline close, check your email for last-minute information.

Introduce yourself to the people seated nearby. Exchange phone numbers. You should be able to contact a couple of classmates in case of unforeseen circumstances.

Much class information will be displayed by computer projector. Lines of text are difficult to read, so pick a seat that allows you to see clearly.

**Last exam will occur on the last regular class day of the term: Wednesday, May 3, 2-3 PM** ... if the class is ready for it. In past semesters, the class has opted not to have a “last exam,” but rather to have a “final exam” during the normally scheduled final exam period: **Monday, May 8, 1-3 PM**. If grades on the first two exams are high, this last/final exam will not be comprehensive. Specifics will be explained in class.