



THE UNIVERSITY OF  
**TENNESSEE**  
KNOXVILLE

**BIG ORANGE. BIG IDEAS.**

## **INSC 514 – Information Technology Foundations**

**Spring 2021**

University of Tennessee, Knoxville

**Course Section:** DE

**Meeting Time and Place:** Wednesday, 6:30 – 9:10 pm EST on [Zoom](#)

**Course Credit Hours:** 3 Credits

### **FACULTY CONTACT INFORMATION**

Instructor: Chris Cunningham, PhD

Office Hours: By appointment. Email me at [ccunni29@utk.edu](mailto:ccunni29@utk.edu) to schedule appointments.

Office Phone: 865-974-2148 Address: 1345 Circle Park Dr., St. 451, Communications Bldg.

### **COURSE DESCRIPTION**

Introduction to foundational concepts; theories, models, and frameworks for designing, adopting, learning, and using information technology (IT); analysis, evaluation and management of electronic tools and resources; trends, capabilities, and limitations of information technologies for accessing, managing, and applying information from service user and service provider perspectives in various information settings.

### **TEXTBOOK INFORMATION**

There is no required textbook for this course. Given the rate that technology changes, most technology textbooks are almost obsolete by the time they go to print.

### **LEARNING OUTCOMES**

Upon completion of the course, students will be able to:

- Demonstrate theoretical knowledge of designing, adopting, learning, and using IT.
- Demonstrate knowledge of emerging trends and technologies relevant to information environments.
- Demonstrate contemporary technology skills by conceptualizing and designing appropriate information and technology products and services.
- Demonstrate knowledge and skills of implementation and evaluation of web-based applications.
- Demonstrate, through completion of assignments and the project, the ability to identify, evaluate, compare and select applications appropriate for supporting delivery of information services and resources.
- Assess and implement information technologies, systems, sources and services that serve users effectively and efficiently.

- Analyze and apply information policies and information-related laws that influence the delivery of information resources throughout society.
- Manage a wide variety of information technologies including emerging technologies at work.
- Apply lessons learned from real-world IT case examples in all types of information environments.

<b>Class</b>	<b>Date</b>	<b>Topics</b>	<b>Assignments</b>
<b>1</b>	<b>Jan 20</b>	Introduction <ul style="list-style-type: none"> <li>• Ground rules and expectations</li> <li>• IT skills</li> </ul>	
<b>Module 1. Technology Assessment &amp; Planning</b>			
<b>2</b>	<b>Jan 27</b>	<ul style="list-style-type: none"> <li>• Writing Technology Plan for Libraries               <ul style="list-style-type: none"> <li>○ Social media policies</li> </ul> </li> <li>• Making Smart IT Choices: Government policies, organizational culture, business processes, and technology solutions</li> </ul> Theory <ul style="list-style-type: none"> <li>• Project Management Principles: Managing Scope, Time, Cost, Quality, HR, Communication, and Risks</li> </ul>	Assignment 1: IT Skills Assessment (5 points)
<b>Module 2. Environmental Scan of IT</b>			
<b>3</b>	<b>Feb 3</b>	Introduction to Computers <ul style="list-style-type: none"> <li>• Components of System Unit: Motherboard: Processor, A/V Cards, &amp; Memory, Power Supply: AC &amp; DC, Drive Bays, Ports &amp; Connectors, and Bus: Data &amp; Address</li> <li>• Storage: Capacity, Access time, &amp; Types of Storage</li> <li>• Input Devices</li> <li>• Output Devices</li> </ul>	

4	Feb 10	<p>IT Landscape for Information Agencies</p> <ul style="list-style-type: none"> <li>• OSS Concepts and ILS for Libraries <ul style="list-style-type: none"> <li>• 3-D Printers</li> <li>• RFID</li> <li>• Robots &amp; ChatBot</li> <li>• Makerspace</li> <li>• Assistive Technologies</li> <li>• E-Books</li> <li>• QR Codes</li> </ul> </li> </ul>	<p>Assignment 2: Social Media Plan (25 points)</p>
<b>Module 3. Designing and Developing IT</b>			
5	Feb 17	<p>Developing in-house IT solutions (I)</p> <ul style="list-style-type: none"> <li>• HTML basics</li> <li>• Writing sample pages</li> <li>• Embedding media</li> <li>• Adding tables</li> <li>• Anchors</li> <li>• Elements and Attributes</li> </ul>	
6	Feb 24	<p>Designing in-house IT solutions (II)</p> <ul style="list-style-type: none"> <li>• Requirement gathering for building customized DBMS</li> <li>• Entity-Relationship Diagram</li> <li>• Introduction to Relational DBMS</li> </ul>	
7	March 3	<ul style="list-style-type: none"> <li>• Usability</li> <li>• User Experience</li> <li>• User-Centered Design</li> </ul>	<p>Assignment 3: HTML Assignment (20 points)</p>
<b>Module 4. Training Users &amp; Staff for Using IT</b>			
8	March 10	<p>Broadcasting tools</p> <ul style="list-style-type: none"> <li>• Podcasting</li> <li>• Screencasting</li> </ul> <p>Theory</p> <ul style="list-style-type: none"> <li>• Situated learning</li> <li>• Technology self-efficacy</li> <li>• Learning new (IT) concepts</li> </ul>	

<b>Module 5. Deploying IT for Serving Patrons</b>			
<b>10</b>	<b>March 17</b>	Networking <ul style="list-style-type: none"> <li>• PAN, MAN, LAN, WAN</li> <li>• MAC, IP, and Port Addresses</li> <li>• Analyzing IPV4 addresses and IPv6 addresses</li> <li>• DOS commands for networking</li> <li>• Hardware for networking</li> </ul>	Assignment 4: Evaluating Mobile Apps (20 points)
<b>9</b>	<b>March 24</b>	Attend the Library 2.0 Conference March 25 & 26  Register at <a href="https://library20.com/">https://library20.com/</a>	
<b>11</b>	<b>March 31</b>	Theories on adoption and post-adoption of IT <ul style="list-style-type: none"> <li>• Technology acceptance model</li> <li>• Unified theory of acceptance and use of technology</li> <li>• Theory of planned behaviour</li> <li>• Diffusion of innovation</li> <li>• Expectation-Confirmation Model               <ul style="list-style-type: none"> <li>○ Extended Expectation-Confirmation Model of IT</li> </ul> </li> <li>• Technology–Organization–Environment</li> </ul>	
<b>Module 6. Managing IT</b>			
<b>12</b>	<b>April 7</b>	IT Security <ul style="list-style-type: none"> <li>• Protecting Technology and Technology Users</li> <li>• Security, Safety, Ethics, &amp; Privacy               <ul style="list-style-type: none"> <li>○ Vulnerability vs. Threat, Security Risks, &amp; Cybercrime</li> <li>○ Firewall, Antivirus, &amp; Intrusion Detection</li> <li>○ Encryption &amp; Digital Signature</li> </ul> </li> </ul>	Assignment 5: Podcast and Screencast (25 points)

13	April 14	Content Management Systems <ul style="list-style-type: none"> <li>• Concept</li> <li>• Examples: Drupal, SharePoint, and WordPress</li> </ul> Theory <ul style="list-style-type: none"> <li>• Knowledge management</li> </ul>	
<b>Module 7. Measuring Return on Investment (ROI) in IT</b>			
14	April 21	Web Analytics <ul style="list-style-type: none"> <li>• List of key social software and their management</li> <li>• Measuring ROI and metrics</li> <li>• Google Analytics</li> <li>• Search engine optimization</li> </ul>	
	April 28	No Class Day	Assignment 6: Reflection (5 points)

## COURSE DESIGN

This course adopts an active learning approach. Students are required to complete all readings, attend all class lectures, complete graded activities and assignments, and participate in all class activities, including instructor-led and student-led discussions, and small-group and individual activities. All readings will be uploaded on the course Canvas site.

## DISCOVERY LEARNING APPROACH

A learning strategy that you can use in this course is called the discovery frame. The discovery frame emphasizes learning from your own experiences – discovering new knowledge rather than only importing it from someone else's knowledge base. The key characteristics of this frame are: (1) All resources necessary for learning are resident in the individual. (2) It is learning through doing. (3) It is information gathering with evaluation. Ask yourself: "How did I do that? Can I do it again?" rather than "Did I do it right?" (4) It causes you to identify behavior patterns that make a difference for you. (5) It focuses on success and the use of feedback – you cannot succeed unless you stop and ask: "How did I succeed?" The use of the discovery frame highlights additional goals in this course: to help you learn how to learn, and to learn that learning can be fun. This course aims to teach you important concepts and procedures that will help you continue to learn about knowledge management from your own experiences. The amount of knowledge and skills you will gain from this course will depend on the amount of time and work you invest every week. Information sharing, interaction, and collaboration are essential components of this learning approach.

## MAPPING OF ASSIGNMENTS ON PROGRAM OUTCOME

Assignment	Total Points	Program Outcome
Assignment 1: IT Skills	5 points	4, 5
Assignment 2: Social Media Plan	25 points	3, 4
Assignment 3: HTML Assignment	20 points	6, 9
Assignment 4: Evaluating Mobile Apps	20 points	3, 4
Assignment 5: Podcast and Screencast	25 points	6, 7
Assignment 6: Reflection	5 points	3

### COMMUNICATION

- The course instructor is required to communicate with students through UTK email address. If you prefer to use another address, consult the [OIT Helpdesk](#) to obtain directions for forwarding your UTK mail to your preferred address if you don't wish to check both accounts.
- Feel free to contact me for questions or to share ideas! To ensure quick response, start your message subject line with **INSC 514**. I will reply to your messages within *48 hours*.
- This course is offered in a virtual mode using Canvas & Zoom. The delivery of the course content will include lectures, videos, discussions, live demonstrations, and hands-on training activities.
- All lecture slides will be posted on Canvas. Read the class announcement posted on Canvas to stay current with course matters.
- Submit assignments on Canvas. Do not email them to the instructor.
- For assistance at any time during class, please contact DE support at 865-974-3117.

### COMPUTING REQUIREMENTS

You must have adequate computing skills, including but not limited to use of word processing, Web browsers, e-mail, listservs, Canvas, and Collaborate software. You must learn how to submit your assignments using Canvas. The [Office of Information Technology \(OIT\)](#) provides training classes in using varied technologies for students at no charge (advance registration is required).

You must obtain a UT email account and UT Volweb (Linux) account and subscribe to the SIS student listserv. In addition, you must have the PowerPoint Reader or the regular PowerPoint software installed on your computer in order to download the lecture notes from Canvas.

### **CLASS ATTENDANCE POLICY**

It is assumed that each student be present and speak in class. Missing more classes or failing to participate will lower your grade; frequent participation will raise the grade.

Regular attendance is required and necessary. A substantial portion of your grade will be based on in-class work and participation. Unexplained absences will affect your grade. Contact me as soon as possible if you cannot attend class. If you will be absent from class, you must:

- Inform me in advance or as soon as possible after class
- Submit any work due from the missed class period
- Listen to class recording
- Obtain notes, handouts, etc. from Canvas
- Check with classmates for notes, announcements, etc.

*Acceptable reasons for absence from class include:*

- Illness
- Serious family emergencies
- Special curricular or job requirements (e.g., judging trips, field trips, professional conferences)
- Military obligation
- Severe weather conditions
- Religious holidays
- Participation in official university activities such as music performances, athletic competition or debate
- Obligations for court imposed legal obligations (i.e., jury duty, subpoena)

Missing more than one class meeting for reasons other than those listed above will have a negative impact on your course participation grade.

### **INCLEMENT WEATHER**

*“The chancellor (or appointed representative) may officially close or suspend selected activities of the university because of extreme weather conditions. When a decision to close is made, information is distributed to the campus community, shared with local media, and posted on the front page at <http://utk.edu>. (Hilltopics, p. 55)( <http://hilltopics.utk.edu/files/Hilltopics%202015-16.pdf> ). SIS will cancel classes when UT is closed. Please check the SIS student listserv (UTKSIS-L@LISTSERV.UTK.EDU) for messages about closing.*

## **DISABILITIES THAT CONSTRAIN LEARNING**

Any student who feels s/he may need an accommodation based on the impact of a disability should contact Student Disability Services in Dunford Hall, at 865-974-6087, or by video relay at, 865-622-6566, to coordinate reasonable academic accommodations.

## **CIVILITY**

Civility is genuine respect and regard for others: politeness, consideration, tact, good manners, graciousness, cordiality, affability, amiability and courteousness. Civility enhances academic freedom and integrity, and is a prerequisite to the free exchange of ideas and knowledge in the learning community. Our community consists of students, faculty, staff, alumni, and campus visitors. Community members affect each other's well-being and have a shared interest in creating and sustaining an environment where all community members and their points of view are valued and respected. Affirming the value of each member of the university community, the campus asks that all its members adhere to the principles of civility and community adopted by the campus: <http://civility.utk.edu/>.

## **CCI DIVERSITY STATEMENT**

The College of Communication and Information recognizes that a college diverse in its people, curricula, scholarship, research, and creative activities expands opportunities for intellectual inquiry and engagement, helps students develop critical thinking skills, and prepares students for social and civic responsibilities. All members of the College benefit from diversity and the quality of learning, research, scholarship and creative activities is enhanced by a climate of inclusion, understanding and appreciation of differences and the full range of human experience. As a result, the College is committed to diversity and equal opportunity and it recognizes that it must represent the diversity inherent in American society. The College is acutely aware that diversity and fairness are foundations that unite the College's faculty, staff, students, and the larger communication and information community.

## **UT ODS DISABILITY STATEMENT**

Any student who feels he or she may need an accommodation based on the impact of a disability should contact the Office of Disability Services (ODS) at 865-974-6087 in 100 Dunford Hall to document their eligibility for services. ODS will work with students and faculty to coordinate reasonable accommodations for students with documented disabilities."

## **ACADEMIC INTEGRITY**

Students should be familiar and maintain their *Academic Integrity* described in <http://hilltopics.utk.edu/files/Hilltopics%202015-16.pdf> , p. 15 as: "*Study, preparation and presentation should involve at all times the student's own work, unless it has been clearly specified that work is to be a team effort. Academic honesty requires that the student present his or her own work in all academic projects, including tests, papers, homework, and class presentation. When incorporating the work of other scholars and writers into a project, the student must accurately cite the source of that work.*"

Students should abide by the **Honor Statement** described in the same Hilltopics, p. 73:

*"An essential feature of The University of Tennessee is a commitment to maintaining an atmosphere of intellectual integrity and academic honesty. As a student of the University, I*



*pledge that I will neither knowingly give nor receive any inappropriate assistance in academic work, thus affirming my own personal commitment to honor and integrity.”*

## **PLAGIARISM**

Plagiarism in any of its several forms is intolerable, and attention to matters of documentation in all written work is expected and required. Inadvertence, alleged lack of understanding, or avowed ignorance of the various types of plagiarism are not acceptable excuses.

### ***Specific examples of plagiarism are:***

1. Copying without proper documentation (quotation marks and a citation) written or spoken words, phrases, or sentences from any source;
2. Summarizing without proper documentation (usually a citation) ideas from another source (unless such information is recognized as common knowledge);
3. Borrowing facts, statistics, graphs, pictorial representations, or phrases without acknowledging the source (unless such information is recognized as common knowledge);
4. Collaborating on a graded assignment without the instructor’s approval;
5. Submitting work, either in whole or in part, created by a professional service and used without attribution (e.g., paper, speech, bibliography, or photograph).

Students who may be unsure of the nature of plagiarism should consult the instructor or a guide for writing research reports. (Additional resources are available at <http://www.lib.utk.edu/instruction/plagiarism>.)

Infractions of academic integrity are penalized according to the severity of the infraction but **may include a course grade of "XF."**

## **ASSIGNMENTS AND GRADING**

Student work is assigned a grade based on quality of thought and writing style, thoroughness of research and of references, appropriateness of length, and originality. Only exceptional work will receive an "A" grade. Deliverables that are received after the due date will be assigned a lower grade than would otherwise be received. All sources must be cited, quotations must be in quotation marks and attributed correctly. Not doing so constitutes plagiarism.

## **DUE DATES AND LATE ASSIGNMENTS**

Assignments should be submitted to the “assignments” area of Canvas and are due (officially) at 11:59 p.m. EST on the due date listed on the syllabus. I will download the submissions from Canvas early the next morning. I will download course deliverables from Canvas ONCE.

- 15% of total grade will be deducted for every 24 hours the deliverable (e.g., assignments, online discussion entries, etc.) is not turned in.
  - You will also lose points for submitting a wrong file.
- In case of emergency, please contact the instructor before the due date to avoid losing points for the late submission.

**INCOMPLETES**

Based on adopted University of Tennessee-Knoxville and SIS policy, a grade of / (Incomplete) is reserved for emergencies that prevent the student from completing the course on time. Incompletes are granted only under "the most unusual of circumstances" and solely at the discretion of the instructor. Plan your semester’s course of study carefully to insure sufficient time to complete the required work.

For students who simply "disappear" without contacting the instructor and without completing the required form, an "F" is submitted.

**ASSIGNMENTS**

Assignments	Total Points	Due Date
1. IT Skills	5 points	27-Jan
2. Social Media Plan	25 points	10-Feb
3. HTML Essay	20 points	3-Mar
4. Reviewing Mobile Apps	20 points	17-Mar
5. Podcast and Screencast	25 points	7-Apr
6. Reflection	5 points	28-Apr

**EVALUATION**

- You will be responsible to check if you have received any feedback from me on the course Canvas site.
- You will also be responsible to check if your submission is graded.
- Semester grades will be assigned according to the following scale.

A	90≤	(4 quality points per semester hour) superior performance.
A-	87-89.99	(3.7 quality points per semester credit hour) intermediate grade performance.
B+	85-86.99	(3.5 quality points per semester hour) better than satisfactory performance.
B	80-84.99	(3 quality points per semester hour) satisfactory performance.
B-	77-79.99	(2.7 quality points per semester credit hour) intermediate grade performance.
C+	75-76.99	(2.5 quality points per semester hour) less than satisfactory performance.
C	70-74.99	(2 quality points per semester hour) performance well below the standard expected of graduate students.
D	60-69.99	(1 quality point per semester hour) clearly unsatisfactory performance and cannot be used to satisfy degree requirements.
F	59.99≥	(no quality points) extremely unsatisfactory performance and cannot be used to satisfy degree requirements.

I	(no quality points) a temporary grade indicating that the student has performed satisfactorily in the course but, due to unforeseen circumstances, has been unable to finish all requirements. An I is not given to enable a student to do additional work to raise a deficient grade. The instructor, in consultation with the student, decides the terms for the removal of the I, including the time limit for removal. If the I is not removed within one calendar year, the grade will be changed to an F. The course will not be counted in the cumulative grade point average until a final grade is assigned. No student may graduate with an I on the record.
S/NC	(carries credit hours, but no quality points) S is equivalent to a grade of B or better, and NC means no credit earned. A grade of Satisfactory/No Credit is allowed only where indicated in the course description in the <u>Graduate Catalog</u> . The number of Satisfactory/No Credit courses in a student's program is limited to one-fourth of the total credit hours required.
P/NP	(carries credit hours, but no quality points) P indicates progress toward completion of a thesis or dissertation. NP indicates no progress or inadequate progress.
W	(carries no credit hours or quality points) indicates that the student officially withdrew from the course.

**COURSE EVALUATION**

You will be invited to evaluate the course at the end of the term. Please participate in this valuable process. I also invite your comments throughout the course and read all comments, suggestions, and recommendations.

***The instructor reserves the right to revise, alter or amend this syllabus as necessary. Students will be notified in writing / email of any such changes.***

Last updated on Dec 30, 2020