Course: ICT/IS 202-201
Technologies for Information Services

Term: Spring 2023
Credit hours: 3
Meeting days/time/location: asynchronous online via Canvas

Instructor Information
Name: Deloris J. Foxworth
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Office phone: (859) 562-2948
Office hours: Fridays 12-1 pm via Zoom or by appointment

Instructor will respond to student communication within 24-48 hours. Weekend responses may be delayed.

Course Description
This course is designed to teach the fundamental concepts of information technology in ways relevant to professional practice in informatics and the information professions. It explores applications of computers and networks to information problems. Included are features of hardware, types of software, commercial systems, and search engines.

Required Materials
CompTIA A+ Certification All-in-One Exam Guide, Tenth Edition,
Mike Meyers
(ISBN: 978-1260454031)

Google Cloud account to set up virtual machine* OR Raspberry Pi 400 Personal Computer Kit**

* This class lasts longer than 90 days, so there will be a small cost (which should be less than $10 and probably even less than $5) associated with this virtual computer after your free trial expires. However, claiming this credit will reduce the cost you have to pay for this class, and you may even be able to complete all fourteen required application activities (of the total of sixteen) within the 90 days of this free trial. Even if that's the case, though, we're going to go ahead and upgrade your account to a paid account so that you don't have to deal with this later in the semester. During the set up assignment, it will be recommended to go ahead and upgrade your account to a paid account so that you don't have to deal with this later in the semester. You'll get to keep your Google Cloud credits, and you'll save yourself some work during a busier time of the semester.

**The Raspberry Pi 400 kit is the official required material to purchase for this course. However, due to short supply these kits may be challenging to find. This semester, the class has been adjusted so that students can instead set up virtual machines through Google Cloud, which will be cheaper and easier to acquire. *If you elect to purchase and use a Raspberry Pi 400 Personal Computer Kit this semester then you should contact me since assignments have been adjusted to use virtual machines through Google Cloud.*

Activities Outside of Regular Class Meetings

Not applicable.

Skill and Technology Requirements

For technical/account help, students can contact Information Technology Services by phone 859-218-HELP (4357) and via the [ITS Customer Services](https://www.uky.edu/its/customer-support-student-it-enablement/customer-services) page. (https://www.uky.edu/its/customer-support-student-it-enablement/customer-services)

Student Learning Outcomes

Although we will be covering lots of important information in this class, many of the specific details are less important than the general skills and abilities you acquire from this class. As you proceed through the class, you should be working toward these outcomes:

• Students will be able to evaluate and employ software and hardware.

• Students will be able to reflect on the history of information communication technologies, their importance in contemporary society, and their relationship with policy.

• Students will be able to retrieve, evaluate, and process information to complete software and hardware tasks.

Course Details

Tentative Course Schedule

Week (all items due each week by 11:59 pm Sunday)	Module	Readings and Quizzes (must complete 14 out of 15 quizzes)	Reflection Activities (complete 7 out of 15)	Application Activities (complete 13 out of 15) Those with * are required.
January 9-13	Introduction	- read course syllabus - read Ch.1: Safety and Professionalism - take quiz	- reflect on your goals for the class (and introduce yourself!)	- describe your main computer*
January 16-20	Computers	- read Ch.2: The Visible Computer - read Ch.26: Printers and Multifunction Devices - take quiz	- reflect on the history of computers	- describe your main computer operating system*

January 23-27	Virtualization	- read Ch. 22 - take quiz	- reflect on the social power of cloud computing companies	- set up a virtual machine for ICT 202*
January 30-February 3	Mobile Devices	- read Ch.24: Understanding Mobile Devices - read Ch.25: Care and Feeding of Mobile Devices - take quiz	- reflect on access to computers (of all sizes)	- access your virtual machine from a mobile device
February 6-10	Fundamental Hardware	- read Ch.3: CPUs - read Ch.4: RAM - take quiz	- reflect on technical constraints and culture	- check on your virtual machine's CPU and RAM use
February 13-17	Fundamental Connections	- read Ch.5: Firmware - read Ch.6: Motherboards - take quiz	- reflect on technology and power	- label your main computer's motherboard
February 20-24	Mass Storage	- read Ch.8: Mass Storage Technologies - read Ch.9: Implementing Mass Storage - take quiz	- reflect on data storage in fiction	- examine partitions on your virtual machine
February 27-March 3	Other Hardware	- read Ch.7: Power Supplies - read Ch.10: Essential Peripherals - take quiz	- reflect on peripherals and accessibility	- list ports on your computer and associated peripherals
March 6-10	Building Computers	- read Ch.11: Building a PC - read Ch.23: Portable Computing - take quiz	- reflect on environmentalism and building and repairing computers	- build a hypothetical custom virtual machine setup

March 6-10	take midterm exam (due March 12 @ 11:59 pm)			
March 13-17	Spring Break			
March 20-24	Windows	- read Ch.12: Windows Under the Hood - read Ch.13: Users, Groups, and Permissions - take quiz	- reflect on the importance of authentication and authorization	- manage user accounts, groups, and permissions in in Debian
March 27-31	Operating Systems	- read Ch.14: Maintaining and Optimizing Operating Systems - read Ch.16: Troubleshooting Operating Systems - take quiz	- reflect on operating systems and control	- update Debian on your virtual machine
April 3-7	Command Lines and Displays	- read Ch.15: Working with the Command-Line Interface - read Ch.17: Display Technologies - take quiz	- reflect on command line interfaces in fiction	- complete the "Pac-Man treasure hunt"
April 10-14	Networks	- read Ch.18: Essentials of Networking - read Ch.19: Local Area Networking - take quiz	- reflect on benefits and downsides of networks	- access the command line of your virtual machine over a network
April 17-21	The Internet	- read Ch.20: Wireless Networking - read Ch.21: The Internet - take quiz	- reflect on the social importance of internet access	- create and host a web page on your virtual machine

| April 24-28 | Working with Computers | - read Ch.27: Securing Computers
- read Ch.28: Operational Procedures
- take quiz | - reflect on dangers and social engineering | - back up your virtual machine |
| May 1-4 | Take the final exam (submit by May 4, 2023 @ 11:59 pm) | | | |

Course Activities and Exams

These 100 points come from the following assessment activities, which should all be completed honestly and individually on Canvas:

Practice Quizzes: 14 points (14 of 15 possible one-point practice quizzes)
One of the goals for this class is to prepare you for the CompTIA A+ certification exam. While taking the exam is not a part of the course, it may be a helpful qualification for you to pursue after ICT 202 (depending on the ICT career you have in mind). Our course readings and these practice quizzes are meant to help you learn the material that you will need to know for the certification exam.

During every module you will have the opportunity to take a multiple-choice practice quiz made up of questions taken from your readings for that module. You will need to take fourteen of the fifteen quizzes over the course of the semester. In other words, you can skip one quiz.

For each quiz, your score will not be based on your answers, and you will not be timed. Instead, you will get one point just for completing the quiz. However, the course exams (and A+ certification exam) are based on similar material, so you should use these practice quizzes as opportunities to assess your understanding of the course material and study accordingly.

Reflection Activities: 14 points (7 of 15 possible two-point reflection activities)
Information communication technologies are not just technical—they are also closely connected to society, culture, diversity, equity, politics, and even pop culture. Whatever ICT career you have in mind, it's important (as a professional and a citizen) to understand the ways that technology connects with the world that we live in. These activities are meant to help you reflect on how the concepts we're studying this semester have importance beyond technology itself.

Every module, you will have the opportunity to complete a reflection activity that connects the material in your readings for that module to the real world (or to pop culture). You will need to complete seven of the fifteen reflection activities over the course of the semester. In other words, you should complete a reflection activity roughly every other module.

For each reflection you will watch, read, or listen to a video, article, or podcast and then respond to two prompts. Your score will be based on how completely and thoughtfully you respond to the two prompts (one point per prompt). Because these reflection prompts are as connected to social

and cultural issues as they are to technology, it is critical that you be respectful and considerate in your responses. All responses should be academic in nature including the use of proper punctuation, spelling, sentence structure, and paragraphs.

Application Activities: 52 points (13 of 15 possible four-point application activities)
Knowing about information communication technologies is important, but being able to work with them is even more so. Many ICT careers require you to work directly with hardware and software, and even those that don't usually benefit from the ability to tinker with tech. These activities are meant to give you experience with applying the concepts we're studying to actual tech situations.

Every module, you will have the opportunity to complete an application activity that shows you how the material in your readings for that module applies computer technologies. You will need to complete thirteen of the fifteen reflection activities over the course of the semester. In other words, you can skip two application activities.

For each activity, you will follow prompts to carry out an activity involving your virtual machine (or other technology) and then submit a written, video, or other report to answer specific questions about your experience. Your score will be based on how well you follow the prompts and answer the questions.

Exams: 20 points (one 5-point midterm exam and one 15-point final exam)
As important as reflection and application are, both are dependent on your long-term recollection of knowledge about ICTs. The exams in this course are meant to promote retention of the material from our readings and quizzes.

At midterm, you will take a 5-point midterm exam that draws from the quizzes and activities from the first nine modules. At the end of the course, you will take a 15-point final exam that draws from the quizzes and activities from all the modules.

Unlike the practice quizzes, both exams will be timed, and your score will depend on your correct answers to the questions.

Grading Scale
Your grade for this course will be based on 100 points:
90 points – 100 points = A
80 points – 89 points = B
70 points – 79 points = C
60 points – 69 points = D
 0 points – 59 points = E

Midterm Grades
For undergraduates, midterm grades will be posted in myUK by the deadline established by the University Senate and published in the Academic Calendar. (http://www.uky.edu/registrar/content/academic-calendar)

Attendance Policy/Acceptable Documentation

This class is a community whose success depends on *everyone's* participation. It is vital, particularly for an online class, for you to participate in order to be successful. In the event that you are unable to submit an assignment due to an emergency, you will be asked to provide official written documentation for excused absences in order for your absence to be excused and receive an extension or makeup assignment. **Students have 48-hours to notify the professor of an emergency.** For any emergency situation that arises, email your instructor as soon as you know about the situation when possible. Students are generally given one week to complete makeup assignments due to an excused absence upon their return without penalty.

If you know ahead of time that you will be unable to participate in the weekly requirements, please discuss this with your instructor and arrange to turn in any assignments or approved alternative assignments ahead of time. Excuses for university-sponsored activities must be made prior to such absences.

Students need to notify the professor of absences prior to class when possible. *Senate Rules 5.2.4.2* defines the following as acceptable reasons for excused absences: (a) serious illness, (b) illness or death of family member, (c) University-related trips, (d) major religious holidays, and (e) other circumstances found to fit "reasonable cause for nonattendance" by the professor.

Students anticipating an absence for a major religious holiday are responsible for notifying the instructor in writing of anticipated absences due to their observance of such holidays no later than the last day in the semester to add a class. Two weeks prior to the absence is reasonable, but should not be given any later. Information regarding major religious holidays may be obtained through the Ombud (859-257-3737, http://www.uky.edu/Ombud/ForStudents_ExcusedAbsences.php.

Students are strongly encouraged to withdraw from the class if more than 20% of the scheduled classes for the semester are missed per university policy. Please reference the definition of excused absences in the current edition of *Student Rights and Responsibilities* or on the web at http://www.uky.edu/Faculty/Senate/rules_regulations/Rules%20Versions/MASTER%20RULES%20from%20February%202012_clean.pdf

Assignment Policies

Assignment Submissions
All assignments should be submitted through Canvas unless otherwise noted.

Returning Assignments to Students
All feedback on submissions will be shared with students through Canvas. Students can expect feedback within 7-14 days of the final due date.

Students who have grade or exam concerns must request an appointment with the instructor.

Questions related to individual grades should not be posed through Canvas.
Students who wish to discuss grades or scores earned have one week from the date grades are posted to do so. Grades will not be addressed after this time period has expired. Students need to contact the professor for an appointment to discuss the issue. Students must provide a written explanation of their dispute when requesting the appointment. If the matter is unresolved after meeting with the instructor,

students need to contact the director of School of Information Science. Students that do not fulfill these requirements will not be addressed and the original grades will be final.

Late Assignments
Assignments are to be submitted online on Canvas. Assignments are due by 11:59 pm on the date listed in Canvas. Practically speaking, I will grade without penalty and provide feedback for any assessment that is turned in by the time I begin looking over that assessment, usually within the week following the due date. Late submissions should not expect any feedback unless you have made other arrangements with me. Submissions received after grades have been posted will be subject to a late penalty of 50% unless other arrangements have been made with the instructor.

(Per the University Senate Rules, within some guidelines late assignments must always be accepted for excused absences. (https://www.uky.edu/universitysenate/rules-regulations).

Assignments Due during Prep Week
There will be able time prior to the designated reading days to complete any coursework due during that week.

Academic Policy Statements
Here is a link to the University Senate-approved Academic Policy Statements. (https://www.uky.edu/universitysenate/acadpolicy).

Academic Offenses (Cheating, Plagiarism, and Falsification or Misuse of Academic Records)
Here is a link to the University Senate-approved Rules Regarding Academic Offenses. (https://www.uky.edu/universitysenate/ao).

Resources
Distance Learning Library Services
Tutoring and Coaching Resources
Resources Available to Students

Diversity, Equity, and Inclusion
College Statement
The College of Communication and Information will build a collaborative environment for creativity, curiosity, and excellence grounded in the core values of diversity, justice, and equity. We are enriched by the diversity of cultures, perspectives, and talents in our community. We thrive together when we work to provide an equitable and welcoming experience that respects and empowers the unique contributions and circumstances of students, faculty, and staff from every race and ethnicity, nationality, gender identity and expression, sexual orientation, religion, citizenship status, age, veteran status, pregnancy and parenting status, and disability or health status. We are committed to ensuring every member of our College feels welcomed, well-served, and included. Please join us.

University Statement
The University of Kentucky is committed to our core values of diversity and inclusion, mutual respect and human dignity, and a sense of community (Governing Regulations XIV). We acknowledge and respect the seen and unseen diverse identities and experiences of all members of the university

community (https://www.uky.edu/regs/gr14). These identities include but are not limited to those based on race, ethnicity, gender identity and expressions, ideas and perspectives, religious and cultural beliefs, sexual orientation, national origin, age, ability, and socioeconomic status. We are committed to equity and justice and providing a learning and engaging community in which every member is engaged, heard, and valued.

We strive to rectify and change behavior that is inconsistent with our principles and commitment to creating a safe, equitable, and anti-racist environment. If students encounter such behavior in a course, they are encouraged to speak with the instructor of record or the college's diversity officer, who is charged with addressing concerns about diversity, equity, and inclusiveness (uky.edu/inclusiveexcellence/college-diversity-inclusion-officers). Students may also contact a faculty member within the department, program director, the director of undergraduate or graduate studies, the department chair, or the dean. To submit an official report of bias, hatred, racism, or identity-based violence, visit the Bias Incident Support Services website (https://www.uky.edu/biss/report-bias-incident).

DEI Resources
Please also consider the following resources related to diversity, equity, and inclusion:

Bias Incident Support Services
Bias Incident Support Services (BISS) provides confidential support and advocacy for any student, staff, or faculty member impacted by bias, hatred, and/or an act of identity-based violence. BISS staff aid impacted parties in accessing campus and community resources, including the Bias Incident Response Team, the University's official reporting system for acts that negatively impact a sense of belonging. Campus and community consultation and educational opportunities centered on inclusion, diversity, equity and belonging is a resource also provided by BISS. For more detailed information please visit the BISS website (uky.edu/biss) or contact them via email (biss@uky.edu).

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Student Resources
Counseling Center
The UK Counseling Center (UKCC) provides a range of confidential psychological services to students enrolled in 6 credit hours or more, psychoeducational outreach programming (including QPR suicide prevention), and consultation to members of the UK community (students, faculty, staff, administrators, parents, concerned others). Please visit the UKCC's website (uky.edu/counselingcenter) for more detailed information or call (859) 257-8701.

Disability Resource Center
If you have a documented disability that requires academic accommodations, please inform your instructor as soon as possible during scheduled office hours. In order to receive accommodations in this course, you must provide your instructor with a Letter of Accommodation from the Disability Resource Center (DRC). The DRC coordinates campus disability services available to students with disabilities. It is located on the corner of Rose Street and Huguelet Drive in the Multidisciplinary Science Building, Suite 407. You can reach them via phone at (859) 257-2754, via email (drc@uky.edu) or visit their website (uky.edu/DisabilityResourceCenter).

Martin Luther King Center

The Martin Luther King Center (MLKC) supports an inclusive learning environment where diversity and individual differences are understood, respected, and appreciated as a source of strength. The MLKC's year-round programs and activities that focus on the importance of cultural awareness and cross-cultural understanding support its three primary goals: 1) sponsoring cultural and educational programming; 2) offering opportunities for student support and development; and 3) through programmatic linkages with a wide variety of civic and community agencies, promoting community outreach, engagement, and collaboration. Students can reach the MLKC via phone at (859) 257-4130, by visiting them in Gatton Student Center Suite A230, via email (mlkc@uky.edu), and by visiting the MLKC website (uky.edu/mlkc).

If there are aspects within your experience here at UK that result in barriers to your inclusion or accurate assessment of achievement, please notify the instructor as soon as possible and/or email the Office for Institutional Diversity via email (vpid@uky.edu).

Non-Discrimination / Title IX

In accordance with federal law, UK is committed to providing a safe learning, living, and working environment for all members of the University community. The University maintains a comprehensive program which protects all members from discrimination, harassment, and sexual misconduct. For complete information about UK's prohibition on discrimination and harassment on aspects such as race, color, ethnic origin, national origin, creed, religion, political belief, sex, and sexual orientation, please see the electronic version of *UK's Administrative Regulation 6:1* ("Policy on Discrimination and Harassment") (https://www.uky.edu/regs/ar6-1). In accordance with Title IX of the Education Amendments of 1972, the University prohibits discrimination and harassment on the basis of sex in academics, employment, and all of its programs and activities. Sexual misconduct is a form of sexual harassment in which one act is severe enough to create a hostile environment based on sex and is prohibited between members of the University community and shall not be tolerated. For more details, please see the electronic version of *Administrative Regulations 6:2* ("Policy and Procedures for Addressing and Resolving Allegations of Sexual Assault, Stalking, Dating Violence, Domestic Violence, and Sexual Exploitation") (https://www.uky.edu/regs/ar6-2). Complaints regarding violations of University policies on discrimination, harassment, and sexual misconduct are handled by the Office of Institutional Equity and Equal Opportunity (Institutional Equity), which is located in 13 Main Building and can be reached by phone at (859) 257-8927. You can also visit Institutional Equity's website (https://www.uky.edu/eeo).

Faculty members are obligated to forward any report made by a student related to discrimination, harassment, and sexual misconduct to the Office of Institutional Equity. Students can confidentially report alleged incidences through the Violence Intervention and Prevention Center (https://www.uky.edu/vipcenter), Counseling Center (https://www.uky.edu/counselingcenter), or University Health Service (https://ukhealthcare.uky.edu/university-health-service/student-health).

Reports of discrimination, harassment, or sexual misconduct may be made to Institutional Equity here.

Office of LGBTQ* Resources

UK is committed to supporting students and upholding the University's efforts to promote inclusion among our community. UK faculty and staff employees support inclusion and diversity throughout the University, including the ways in which faculty structure classroom conversations and manage those dynamics. To assist in these efforts, students are welcome to provide the names and pronouns they prefer. One easy way to do this is by using the pronoun feature of UK's Name Change Form. (More information about the form can be found on the Office of LGBTQ*'s website (uky.edu/lgbtq/forms-and-resources).) Otherwise, students can provide this information to instructors directly.

Discrimination based on sexual orientation, gender expression, and gender identity is prohibited at UK. If you have questions about support, advocacy, and community-building services related to sexual orientation, gender expression, or gender identity, students are encouraged to visit the website of the Office of LGBTQ* Resources (uky.edu/lgbtq/forms-and-resources).

Veterans Resource Center (VRC)

Being both a member of the military community and a student can bring some complexities. If you are a member of the military or a military veteran or dependent, please let instructors know when these challenges arise. Drill schedules, calls to active duty, mandatory training exercises, issues with GI Bill disbursement, etc. can complicate your academic life. Let your instructor know if you experience complications.

The VRC is a great resource for members of our military family. If you have questions regarding your VA benefits or other related issues, the VRC has a full complement of staff to assist you. The VRC also provides study and lounge space, as well as free printing. Please visit the VRC website (uky.edu/veterans), email the VRC (vetcenter@uky.edu), visit them in the basement of Erikson Hall, or call the director, Colonel Tony Dotson, at (859) 257-1148.

If you are a military student serving in the National Guard or Reserve, it is in your best interest to let all of your instructors know that immediately. You might also consider sharing a copy of your training schedule.

If you are a military student who is a member of the National Guard or Military Reserve and are called to duty for one-fifth or less of this semester, provide a copy of your military orders to the Director of the Veterans Resource Center (contact information above) once you become aware of the call to duty. (Please also provide the Director with a list of all your current courses and instructors.) The Director will verify the orders with the appropriate military authority and will, on the military student's behalf, notify their instructors as to the known extent of the absence.

Your absences will not be penalized and instructors will work with military students to create reasonable accommodations for making up missed assignments, quizzes, and tests.

Violence Intervention and Prevention (VIP) Center

If you experience an incident of sex- or gender-based discrimination or interpersonal violence, we encourage you to report it. While you may talk to a faculty member or TA/RA/GA, understand that as a "Responsible Employee" of the University these individuals MUST report any acts of violence (including verbal bullying and sexual harassment) to the University's Title IX Coordinator in the Institutional Equity Office. If you would like to speak with someone who may be able to afford you confidentiality, you can visit the Violence Intervention and Prevention (VIP) Center's website (uky.edu/vipcenter/content/faq)

(offices located in Bosworth Hall, 1st Floor; (859) 257-3574), the Counseling Center's (CC) website (uky.edu/counselingcenter/student-resources), and the University Health Services (UHS) website (uky.edu/university-health-service/student-health/our-student-services). The VIP Center, CC, and UHS are confidential resources on campus. **The VIP Center accepts Zoom, phone, and walk-in appointments.**

Classroom Behavior Policies

To help facilitate a positive and productive learning atmosphere for everyone in class, I encourage you to participate in classroom discussions. There may be situations in the class where you disagree about the kinds of policies that should exist. Constructive discussion about the merits of different approaches is an important part of the policy making process. Remember, however, to ensure you are respectful of your peers at all times as you contribute.

Course Copyright

All original instructor-provided content for this course, which may include handouts, assignments, and lectures, is the intellectual property of the instructors of this course. Students enrolled in the course this academic term may use the original instructor-provided content for their learning and completion of course requirements this term, but such content must not be reproduced or sold. Students enrolled in the course this academic term are hereby granted permission to use original instructor-provided content for reasonable educational and professional purposes extending beyond this course and term, such as studying for a comprehensive or qualifying examination in a degree program, preparing for a professional or certification examination, or to assist in fulfilling responsibilities at a job or internship; other uses of original instructor-provided content require written permission from the instructor(s) in advance.