

**University of Kentucky**  
**School of Information Science (SIS)**  
**ICT 610 Research Methods for ICTs**

Information and Communication Technologies (ICTs) are embedded in our increasingly global society. Thus, this online course will provide students with a sophisticated understanding of the philosophy, theory, design, and analysis of qualitative and quantitative research in ICT.

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## COURSE DESCRIPTION

This course is intended for graduate students interested in conducting empirical social science research about humans, society, and ICTs. It is designed to prepare them to develop and conduct their own research in applied settings. Students will create, evaluate, and critique methodologically sophisticated research design by creating a research manual and a mixed-methods research prospectus throughout the semester.

This seminar will start exploring contemporary debates in the philosophy of science. Then students will learn how theory and methods inform each other. They will study techniques, uses, strengths, and limitations of various research methods. They will also explore alternative research designs and research examples from different foundational disciplines. While the research process includes research design, data collection, analysis, and discussion; this course will mostly focus on research design. We will briefly discuss the other elements.

In sum, students will learn the language of research and plan methodologically sound studies that have the potential to yield new insights about the relation of ICTs and society and contribute to the existing body of literature.

### Student Learning Outcomes

After taking this course, students will be able to:

- Compare and discern quantitative and qualitative methodologies
- Demonstrate understanding of research ethics
- Conceptualize a study from beginning to end including research questions, rationale, research design, recruitment, and data analysis
- Conduct rigorous data analysis.
- Write, review, and present scholarly research

### Teaching Approach

The class will be mostly asynchronous; however, there will be strict deadlines and some synchronous teamwork. This class is designed using a constructivist approach, meaning that students have an active role in their learning. Students will participate in setting goals, contextualizing content through discussions, team collaborations, and a variety of self-guided learning activities.

This course also employs the "Flipped Classroom" methodology because it favors the application of conceptual knowledge over factual recall. Thus, each week, students are expected to independently familiarize themselves with the learning material (i.e., readings, videos, etc.). Then they will apply and analyze it through graded in-depth discussion, problem-solving, peer reviews, collaborations, and workshops. Students should choose a research topic before the first day of class, as they will start working on it right away.

Teaching techniques will be adapted based on the course content and individual student learning styles; thus, some elements of this syllabus might be subject to change. Whenever it does, students will be notified in advance, and the newest version will be posted on CANVAS.

### **Course Format and Structure**

This class will take place online and is **highly interactive**. That is, this is not one of those classes where log into CANVAS one or two days before assignments are due. There are both synchronous and asynchronous components you must engage in through the week. In other words, even though we will not meet face to face, you will meet online with teammates and you will work on your own time while abiding to the course meetings, deadlines, and participation expectations.

To have a fruitful interactive learning experience, you must **engage** with the course material, activities, instructor, and with your classmates **throughout the week, not just before deadlines**. You are expected to spend at least three hours each week on coursework (i.e., lectures, readings, exercises, and assignments).

There are **15 modules**, one per each week of the semester, each module covers a new topic. Each module has (1) a **module overview** with instructions for the week, (2) **learning material** you must read or watch and (3) **activities and assignments** you must do.

**Always** start each module by reading the **“Module Overview”** for instructions on how to engage with that week’s content.

The course content is structured in several parts through which students will develop their own personalized research manual and prospectus.

#### ***Philosophical Foundations***

We will start the course with an overview of the philosophy of science. While exploring this epistemological groundwork, the seminar will examine essential core issues in research design (e.g., triangulation and validity).

#### ***The Research Question and Problem Statement***

In this section, we will learn to describe the problem and to ask the right questions correctly. We will learn about the importance of context as well as the research obstacles like data availability, time or resources, etc.

#### ***The Role of the Literature and Theory***

Students will learn to select and critique relevant literature, what are their deficiencies, and how they contribute to understanding the researched problem. They will also discern and evaluate theories and conceptual frameworks' limitations and contributions.

#### ***Ethics in Research***

We will examine ethical issues when people and ICTs are involved in the research. Students will weigh the potential research benefits versus their costs. We will place particular emphasis on internet research ethics issues such as consent, data privacy, confidentiality, security and integrity of data, and intellectual property.

#### ***Methods***

Students will learn the basics of several research methods and will critique examples of research selected based on their interests.

### ***Research Design, Analysis, and Communication***

Students will develop a strategy for doing research. They will learn to configure mixed-method design approaches that complement each other and answer their research question. Students will determine a data analysis plan, including schedule and software.

### ***Constructs, Operational Definitions, and Measurement***

Students will learn to employ methodological tools to observe, describe, and measure social phenomena. They will define and operationalize constructs and identify units of and levels of analysis, degree of error, and replicability. Data Collection

Students will be exposed to a variety of data collection techniques and instruments and determine the best way to collect data for their study. They will establish how to choose participants or events to study as well as the possible hurdles to data collection. They will formulate mechanisms to protect participants from harm.

### **Participation, and Attendance**

Student participation in online courses is crucial to enhance the learning experience. Participation will be measured in the extent to which students log into Canvas and engage with the course activities **several times a week**. Expect to work on this course a **minimum of three hours** through the week. So, plan accordingly. Be aware that there will usually be more than one deadline every week. **Do not** wait until the last minute to log in and do the assignments. There may be syllabus and schedule changes, so, check Canvas **often** for class updates or additional information. All announcements and information about the class will be posted there.

## **REQUIRED LEARNING MATERIAL**

### **Textbook and Readings:**

We will use **Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approach***. (You can purchase it at any of the online book retailers. Any of the last three editions are acceptable). There will be additional readings, which will be available on Canvas.

### **Technology**

Students should have an internet-ready (wi-fi enabled or cellular data connection) device such as a laptop, or tablet to class participate in lecture polls, access readings, and take exams. Students will also need to have online access to:

- UK Google Account. (Get it here: [www.uky.edu/google](http://www.uky.edu/google).)
- Word processing software,
- Excel spread sheets,

- PowerPoint, and an
- Internet browser.
- Canvas through their UK ID.

Students are encouraged to download the Canvas app to their devices. Students may also need access to [Zoom](#) (which they should already have with their link blue username and password). Please note, however, that electronic devices will be used **only** during specific class activities. Minimum technical requirements for UK courses and suggested hardware, software, and internet connections are available at [ITS Student Hardware & Software Guidelines](#). For account help, contact UK's [Information Technology Customer Services online](#), by [email](#), or by phone at 859-218-HELP (4357).

### ASSIGNMENTS

The constructivist and flipped methodologies require students to engage in reflections, discussion, peer reviews, and the creation of artifacts where they apply learned theoretical concepts. The same way, the research process is creative, reiterative, reflective, and peer-reviewed.

Students will create a Research Manual and a Prospectus Poster. They will both start in the first week of class and develop them over the semester. They will build these two projects in a series of installments and through a variety of synchronous and asynchronous learning activities. Thus, early and regular engagement through the week is crucial.

1. Research methods manual: Students will write and evaluate a personalized research manual using the material provided and the material they researched. They will write the manual so it will help them design research in the future. The manual will be submitted for peer-review in several installments through the semester. Instructions will be provided on Canvas.
2. Prospectus poster: Students will present a poster during an online poster session at the end of the semester (date TBD). The prospectus should include a mixed methodology (i.e., at least two different data collection designs) and should carefully document, justify, and harmonize different methods.
3. In-Class Activities include but are not limited to:
  - Collaborative projects
  - Peer-reviews
  - Video Presentations
  - Podcasts
  - Discussions
  - Debates
  - Workshops

Detailed instructions for assignments will be provided through Canvas, the same way all assignments should be submitted to Canvas

### ASSESSMENT AND EVALUATION

Students will be evaluated through participation, peer-evaluations, and tangible deliverables. Each type of assignment has its own rubric; however, overall, students must apply the principles learned in class in each assignment. Grades will be roughly distributed as follows:

	Approximate Value
Individual Exercises	35 %
Group Assignments	35%
Prospectus Poster Presentation	15 %
Research Manual	15 %
TOTAL	100 %

The total number of points may change, but the percentages will remain the same. Note that achieving an A in this course requires a minimum of 90%. Students should perform at the highest level to get an "A." There will be no extra credit projects, extra credit for attendance, good citizenship, or related reasons because these evaluation components already appear in the grading system.

Minimum Percent	Letter Grade	
90%	A	Exceptional work, outstanding effort, great attention to detail.
80%	B	Good work. As expected.
60%	C	Needs substantial improvement
<60%	F	Unable to meet the expectations of the program.

**GENERAL COURSE AND UNIVERSITY POLICIES**

ICT610 is a graduate-level class in a professional master's program. We hope to create an engaging learning community. Thus, students should approach it with professionalism. Which implies being punctual, participating actively in all activities, presenting high-quality work, doing readings, and maintain an open, yet respectful, and engaged attitude. We strive to build a respectful atmosphere; thus, interactions should remain professional, supportive, and focused on learning.

**Written Work**

This course requires students to have strong writing skills, willingness to receive criticism, and a positive attitude towards improving their writing skills. Graduate students are expected to have a strong foundation in writing. The writing style, mechanics, and content are equally important.

**Oral Presentations and Videos**

The same way, graduate students are expected to have developed a strong foundation in verbal communication skills. Throughout the course, students will have multiple opportunities to demonstrate their oral communication competencies (e.g., video recordings and presentations). Oral presentations should consider the purpose, topic, audience, and message to create shared meaning clearly and concisely. Presentations should adhere to the time allotted. PowerPoints should have a minimal amount of text while including graphs, figures, charts, and diagrams to illustrate your point. Provide detailed notes (with citations) for each slide in the notes section of the PowerPoint presentation. Include a slide with your APA style references at the end.

### **Assignment Submission**

All assignments should be submitted via Canvas. The assignment should be attached as a Word file (.doc or .docx only). You **MUST** confirm that the assignment was sent and that it will open. Any file that is attached, but unable to be opened, will be treated as if it were not submitted. All assignments due date will be posted clearly on Canvas.

### **Late/ Makeup Work**

Students are responsible for informing the Instructor about excused absences in advance and no later than one week following the period of the excused absence. Late work from an excused absence will only be accepted upon discussion with the instructor.

Unexcused late work submitted within 24 hours will receive a 40% penalty.

Unexcused late work submitted within 48 hours will receive a 50% penalty.

No unexcused work will be accepted after 48 hours.

### **Turnitin**

This class may use the plagiarism detection and prevention system Turnitin (through Canvas). Turnitin compares submitted documents against documents on the Internet and student papers submitted to Turnitin at UK and other colleges and universities. Students will have the option to submit papers to Turnitin early to check that all sources have been appropriately acknowledged and cited. I will take your knowledge of the subject matter of this course and your writing level and style into account in interpreting the originality report. Keep in mind that all papers submitted for this class will become part of the Turnitin.com reference database solely to detect plagiarism of such papers.

### **E-mail Policy**

Please allow 24 hours for your instructor to respond to your e-mail during the school week. On weekends, responses may not be made until Monday. Before you e-mail with questions, please read your assignment information and syllabus carefully. If you have not heard from your instructor within 24 hours, please send a follow-up e-mail or speak with her in person after class.

Please adhere to the following rules when sending an email.

<b>Always</b>	<b>Example</b>
Include the class code and a description of the email topic in the subject line.	Subject: ICT550 Team project question
Include an appropriate salutation. Begin with a greeting and address your professor by her appropriate title and last name.	Good afternoon, Professor Espinoza, Or Hello, Dr. Espinoza
Include an appropriate signature with your full name, class code, and section	Jane Doe IST550 Section 001
Use standard punctuation, capitalization, spelling, and grammar.	Instead of writing "idk what 2 rite about in my paper can you help??" try something like, "I am writing to ask about the topics you discussed in class yesterday."

### **Inclusion and Diversity**

My experience as a minority instructor in the United States' multicultural classrooms has shaped my teaching style. Thus, I embrace and foster the creation of an intellectual community enriched and enhanced by diversity along many dimensions, including race, ethnicity and national origins, gender and gender identity, sexuality, class, and religion.

Acknowledging the multiple dimensions of diversity in the classroom means implementing several measures for student participation, learning, and evaluation. I plan my courses so that students from diverse backgrounds and perspectives be well- served. I work so that students' learning needs be addressed both in and out of class. I view diversity as a resource, strength, and benefit. I intend to present materials and activities that are respectful of diversity: gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture. Your suggestions are encouraged and appreciated. Please let me know ways to improve the effectiveness of the course for you personally or for other students or student groups. Also, if any of our class meetings conflict with your religious events, please let me know so that we can make arrangements. I am especially committed to increasing the representation of those that have been historically excluded from participation in U.S. higher education. Thus, in my classes, students are safe and will encounter new experiences.

### **Plagiarism**

Part II of Student Rights and Responsibilities (6.3.1; online at <http://www.uky.edu/StudentAffairs/Code/part2.html>) states that all academic work, written or otherwise, submitted by students to their instructors or other academic supervisors, is expected to be the result of their own thought, research, or self-expression. In cases where students feel unsure about a question of plagiarism involving their work,, they are obliged to consult their instructors on the matter before submission. When students submit work purporting to be their own, but which in any way borrows ideas, organization, wording or anything else from another source without appropriate acknowledgment of the fact, the students are guilty of plagiarism.

Plagiarism includes reproducing someone else's work, whether it is published article, chapter of a book, a paper from a friend or some file, or another source, including the Internet. Plagiarism

also includes the practice of employing or allowing another person to alter or revise the work which a student submits as his/her own, whoever that other person may be. Plagiarism also includes using someone else's work during an oral presentation without adequately citing that work in the form of a verbal footnote.

Whenever you use outside sources or information, you must carefully acknowledge precisely what, where and how you have employed them. If the words of someone else are used, you must put quotation marks around the passage in question and add an appropriate indication of its origin. Plagiarism also includes making simple changes while leaving the organization, content and phraseology intact. However, nothing in these Rules shall apply to those ideas which are so generally and freely circulated as to be a part of the public domain.

## Questions

If students have questions of a personal nature regarding grades, attendance or other issues, the classroom or email is not the appropriate platform for that discussion. Students should contact the instructor to schedule an appointment to discuss.

## Reference Librarians

There is a librarian specialized in ICTs. Her name is Stacey Greenwell, her phone number is 218-1322, and her email is [stacey@uky.edu](mailto:stacey@uky.edu). I encourage you to contact her for help finding the resources for this class.

Also, the reference librarians on the 2nd floor, North Wing of W.T. Young Library are more than happy to help you with your research for this class and any class you have. Please feel free to visit, call (859-218-2048), e-mail ([refdesk@uky.edu](mailto:refdesk@uky.edu)), or chat (<http://libraries.uky.edu/libchat.html>) with them, unless your assignment requests that you do not seek their assistance. See the Libraries' Homepage for more information.

## Other University Resources

### [Distance Learning Library Services](#)

**Carla Cantagallo, Distance Learning Librarian,**  
859-218-1240

**University of Kentucky Writing Center**  
<https://uky.mywconline.com/>

### **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 website <https://www.uky.edu/counselingcenter/> for more detailed information, or call 859.257.8701.

### **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](#), and by visiting [the MLKC website](#).

### ***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](#).) Otherwise, students can provide this information to faculty members 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](#).

### ***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 IEEO 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](#) (offices located in Frazee Hall, lower level; [email them](#); or call (859) 257-3574), [the Counseling Center's \(CC\) website](#) (106 Frazee Hall; (859) ), and the [University Health Services \(UHS\) website](#); the VIP Center, CC, and UHS are confidential resources on campus. **The VIP Center accepts walk-in appointments.**

### **Non-Discrimination Statement and Title IX Information**

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 \("Policy on Discrimination and Harassment"\)](#). 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 \(“Policy and Procedures for Addressing and Resolving Allegations of Sexual Assault, Stalking, Dating Violence, Domestic Violence, and Sexual Exploitation”\)\*](#). Complaints regarding violations of University policies on discrimination, harassment, and sexual misconduct are handled by the Office of Institutional Equity and Equal Opportunity (IEEO), which is located in 13 Main Building and can be reached by phone at (859) 257-8927. You can also visit [the IEEO’s website](#). Faculty members are obligated to forward any report made by a student related to IEEO matters to the Office of Institutional Equity and Equal Opportunity. Students can *confidentially* report alleged incidences through the Violence Intervention and Prevention Center, Counseling Center, or University Health Services.

### ***Academic Ombud***

Dr. Joe McGillis, the Academic Ombud will assist you with a variety of issues, including grade disputes. She is in 109 Bradley Hall, and her number is 859-257-3737. You can e-mail her at [ombud@uky.edu](mailto:ombud@uky.edu).

### ***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](#) or contact them [via email](#).

### ***Accommodations due to Disability***

If you have a documented disability that requires academic accommodations, please see me as soon as possible during scheduled office hours. In order to receive accommodations in this course, you must provide me with a Letter of Accommodation from the Disability Resource Center (DRC). The DRC coordinates campus disability services available to students with disabilities. Visit the [DRC website](#), [email the DRC](#), contact them by phone at (859) 257-2754, or visit their office on the corner of Rose Street and Huguelet Drive in the Multidisciplinary Science Building, Suite 407.

<http://www.uky.edu/DisabilityResourceCenter>.

### ***Sustainability Statement***

This is a sustainable classroom. Here your instructors aim

- (1) to create the healthiest, most collaborative and innovative learning environments possible,
- (2) to reduce your costs and improve your intellectual development through thoughtful resource conservation and waste reduction,

- (3) to foster a culture of involvement in sustainability through education and engagement, and
- (4) to enable UK students, faculty, our campus, and our Commonwealth to become more sustainable through the use of University resources.

Sustainability starts with you taking care of yourself so that you can be at your best in this class. Do the readings and homework assignments. Come to class. Join in the discussion. Get enough sleep, water, and food, beforehand. If you are facing challenges securing classroom materials, food, or housing, and this is affecting your performance in class, please contact the Dean of Students, Nicholas Kehrwald, at [nkehrwald@uky.edu](mailto:nkehrwald@uky.edu) or 859-257-3754. Furthermore, please notify your instructor if you are comfortable doing so. This will enable her to provide any resources that she may possess.

### COURSE SCHEDULE

Readings will be available on Canvas; they are the basis for all exercises and assignments. Note: the course schedule might subject to change based on student needs.

Week	Topic
1	What are Social Movements?
2	Social Movement Theories I. The structures that constraint social movements
3	Social Movement Theories II. Organizational Structures and Repertoires of Contention
4	Social Movement Theories III. Culture, framing, and identity
5	ICTs, Inequality, and Power
6	ICTs, Public Sphere and Digital Democracy
7	Researching Social Movements
8	ICT Infrastructures: A New Sociotechnical Fabric
9	Organizational infrastructures and sociotechnical repertoires.
10	Information Behavior: Framing and disseminating discourses, and Narratives.
11	Regime Response: Retaliation, surveillance, and civic participation
12	Global Movements and Transnational Movements
13	Case Study Reports
14	Mini Conference/PosterSession