

COVER PAGE

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Urban Planning Program

Course Title:

UBPL 741: Quantitative Methods I (a.k.a. Using Research to Foster Compassionate Planning)

Course Topic and Subtopics:

UBPL 741 is the first half of a two-part series (with UBPL 742 in the spring) that introduces students to the application of research methods in the field of urban planning and policy. The course is taught through the lens of using research to understand issues of diversity, equity, and inclusion. The course is designed around six modules - each about two weeks long - that address:

1. Why Diversity, Equity, and Inclusion?
2. Research? For Planning?
3. Data – What is it? How do we get it?
4. Using Numbers: Measures of Central Tendency and Dispersion
5. Under the Statistics Hood: Normality, Estimation and Hypothesis Testing
6. Are You Two Related? Measures of Association and Significance Testing

Course Learning Goals

I structure this course around two overarching learning goals and five learning objectives. I phrase the goals as aspirations of how I hope the students view themselves in the future. I phrase the objectives as activities I hope they will be able to take in the rest of their courses and in their professional work.

Learning Goals:

Upon completing UBPL 741 I will

- 1) apply research thinking and methods in my work to improve the communities in which I work, and,
- 2) feel motivated and prepared to steadfastly engage in a life-long process of reflection, learning, and action to promote diversity, equity and inclusion in my community.

Learning Objectives:

Upon completing UBPL 741 I will confidently be able to:

- 1) Remember and Understand approximately 50 core research methods concepts for urban planning, *and*
- 2) Apply research methods concepts and techniques to solve applied planning problems, *and*
- 3) Analyze planning data, decisions, and processes using research methods concepts and techniques, *and*
- 4) Evaluate the success or failure of planning decisions and processes to consider diversity, equity, and inclusion issues, *and*
- 5) Create, Design, and Plan original research projects to inform planning problems and decisions.

Primary Audience for Course:

The primary audience is first-year graduate students in the Masters of Urban Planning program. The course is required for all MUP students. Engineering graduate students sometimes take the course.

Prerequisite Knowledge for the Course:

There is no prerequisite knowledge.

Brief Summary of Learning Objectives, Instructional Methods, Materials, and Assessments

This course prepares students to be producers and critical consumers of research and analysis in their academic and professional careers by overcoming core emotional and cognitive barriers to learning. Students in the class demonstrate the ability to digest, evaluate, produce, and communicate quantitative data and analysis, rather than simply learning how to plug and chug formulas.

Learning Objectives: The five learning objectives build through Bloom's taxonomy sequentially and extend directly from the course learning goals. Notable aspects of the objectives begin include a clear focus on ~50 core concepts I hope that students will remember not just during finals week, but for the duration of their academic training and beyond into the professional work. The concepts are highlighted for students through each learning modality (i.e. tests, team exercises, and assignments). Also, everything in class is connected to real-world planning issues to actively engage students and help them build competency and confidence in being critical consumers (and producers) of research and analysis. The objectives emphasize that research and analysis are not strictly technical, derivative endeavors; instead, creativity and communication are crucial as well, especially when working on complex and value-laden issues like combatting urban poverty and climate change. Additionally, I articulate learning objectives for each of the six modules and even for specific in-class team exercises.

Instructional Methods: Team Based Learning (TBL) is the core instructional method (see p. 5-6). TBL offers an integrated, theoretically grounded and empirically informed pedagogical approach consistent with leading edge recommendations from the Association of American Universities, National Science Foundation reports, and university centers for teaching excellence. The TBL approach is especially well suited for educating and training students for careers in planning. Utilizing two-stage tests, in-class team exercises, mini-lectures, and individual assignments and scaffolded projects offers opportunities for individual and group learning, collaboration and team-building skill development, communication across multiple mediums, and shared evaluation of learning outcomes.

Materials: We use a wide-range of materials in and out of the classroom. For each module students complete readings from traditional research and statistical textbooks. To prepare for in-class team exercises, they engage with multiple types of materials, including peer-reviewed journal articles, the US Census, the AICP Code of Ethics, datasets compiled from planning research projects, and current news articles. In class, I utilize short presentations and online videos, as well as short 'chalk-talks.' Also, I provide students with detailed instructions for in-class team exercises (Course Deliverables C and D).

Assessments: I aim to assess student learning and engagement with core concepts, as opposed to students' test-taking ability, comfort with math or statistical software, or ability to stuff their short-term memory. As such, I use multiple, varied forms of assessment in lines with contemporary research on assessing student learning.

- Two-stage tests are low-stakes, efficient learning activities. By the end of a module's first class period, all students have had four modalities of learning: 1. individual reading and note-taking before class, 2. applying concepts through an individual test (Course Deliverable B), 3. discussing and learning the concepts by completing the same test as a team, and 4. clarifying any remaining questions and reinforcing learning through an instructor led mini-lecture. This high-impact approach opens up

the three remaining course periods in the module for high-impact active learning in-class team exercises.

- Assignments, such as Course Deliverables E and F, challenge students to individually and independently apply core concepts. Examples include: 1) completing the CITI Human Subjects Research training program to demonstrate understanding of ethical issues in research, 2) working with a real planning dataset to apply data collection and analysis, such as sampling methods, and 3) performing descriptive and inferential statistical analyses, such as using t-Tests and Chi-Squared tests to assess whether neighborhood are receiving equitable resources from the city.
- The Semester Project, shown in Course Deliverable G, challenges students to develop a novel research proposal that merges their career aspirations, understanding of diversity, equity and inclusion, and the core research and statistical concepts from class. The project is built sequentially over the semester through a series of smaller assignments that fit together. I aim to provide students feedback on the smaller assignments within 48 hours, as well as create short presentations showing high-quality and/or intriguing student examples to the whole class. This process: 1) helps students build their skills in breaking major projects into pieces, 2) fosters peer exchange, 3) reduces late-semester stress, 4) subtly forces completion of a full draft of the project and subsequent revision, and 5) provides students with a product worthy of sharing with potential employers.

Statement of How Course Fits into Broader Program of Study

UBPL 741 is central to our curriculum and directly impacts every student. It is a core required course and the first in a two-part research and quantitative methods sequence and is foundational for a two-part economic analysis course sequence and the methods and implementation courses in each of our specializations (i.e. housing/community development, sustainable land use, or transportation). Moreover, it is literally the first course students take in the program, starting at 9:00 am on the first Monday. We view UBPL 741 as tone-setting for our students intellectually and socially.

Intellectual aims

Broadly, UBPL 741's core learning goals of preparing students for applying research thinking and methods to applied planning problems and engaging in a lifelong process of reflection and engagement with diversity, equity, and inclusion align with the broader aims of graduate planning education.

Specifically, it provides foundational understanding of the epistemology, ethics, process, and methods of applied research in planning. Students build on these skills in the second quantitative methods course, which moves into the realm of multivariate analysis. Each of our three specializations requires one 'techniques' class that has explicit quantitative analysis dimensions (e.g. real estate analysis, transportation demand modeling, environmental planning techniques). Additionally, each student takes a capstone implementation class that often requires collaborative research question formation and primary data collection, as well as descriptive and inferential statistical analysis, all of which must be communicated to a lay audience.

Beyond what happens in the classroom, students frequently apply the understanding and skills developed through UBPL 741 in their paid professional internships. KU MUP students and alumni have a reputation in our region for strong research and quantitative skills, making them highly marketable and valuable immediate contributors. UBPL 741 plays an important role in this track record of successful practice, high levels of job placement, and career development.

Social aims

As the first course in our curriculum, UBPL 741 also helps set the tone for the culture of the program. The team-based approach of UBPL 741 intentionally supports cohort building among students, who come from a diverse array of backgrounds with the US and beyond. This role is important because when students learn with and from each other, it provides a tremendous complement and extension of learning with and from faculty. Additionally, cohorts of students form a network of colleagues that often lasts over an entire career.

UBPL 741 also sets a tone of fostering professional relationships between students and faculty. I strive to engage and empower each student to seek guidance for me, as well as question and challenge me (in a professional way in accordance with AICP guidelines) as well so they will feel comfortable doing the same in their careers.

Finally, many students bring high levels of ‘statistics anxiety’ to planning education. The team-based approach and my personal engagement efforts in UBPL 741 are designed to foster habits and confidence for facing intellectual challenges, engaging in ongoing learning, and taking risks for personal growth. Altogether, these aspects of UBPL 741 create a cooperative learning environment.

Course Alignment with the Institute’s Key Issues and Explanation of How Innovative Approaches Remove Barriers to Learning

The foundational role of UBPL 741 in the urban planning curriculum aligns the course with each of the Institute’s four key issues. More specifically, UBPL 741 directly engages students with topics including heat waves and other natural hazards exacerbated by climate change, urban growth boundaries, tax abatements, state mandates for local land use planning, land use factors that influence inequitable distribution of wealth and poverty, and environmental justice topics like siting toxic water incinerators.

The widespread failure in the academy to recognize that learning arises out of interaction between emotional and cognitive processes results in two key barriers to student learning: 1) unengaged and disempowered students and 2) an environment unsuited for learning by all students. My longstanding use of a Team Based Learning (TBL) format and my more recent framing of the course around diversity, equity, and inclusion (DEI) address these barriers.

Team-Based Learning (TBL)

The TBL approach consists of an integrated system of two-stage tests, in-class team exercises, mini-lectures, and individual assignments and scaffolded projects. Key features of TBL include 1) students working in semester-long teams created through a transparent and equitable process; 2) applying a diverse array of learning modalities and using each modality strategically to reduce anxiety and foster engagement; and 3) simulating a collaborative, professional work environment.

Collaboration is core to planning and active learning in teams can foster better learning outcomes. Yet, students often associate group work with personality conflicts, divergent learning and performance goals, conflicting work styles, and resentment over free-riding and/or domineering behaviors. This core barrier is overcome with TBL because all teamwork occurs during scheduled class periods, students must come to class prepared and actively engage with their peers, and like a professional supervisor I am able to monitor the interactions among team members, answer questions as they arise, and model behaviors that support collaboration and team success. Students become aware of their peers' and their own personalities and work styles, which in turn foster facilitation and leadership skills for the future.

The variety of active learning modalities in UBPL 741 fosters multiple ways to learn and apply the core concepts. Successful applied research requires analysis, understanding, and communication through narrative, images, and quantities. Both the major teaching modalities of TBL – two-stage tests and in-class applied team exercises - require conceptual application, peer debate and consensus building, and communication through narrative, images, and quantities. Notably, recent research demonstrates active learning improves student learning for all students, but especially so for traditionally marginalized students from under-represented populations like low-income students, students of color, and first generation students.

Diversity, Equity, and Inclusion (DEI)

Understanding DEI issues is critical to address the equity dimensions of sustainability, which are discounted compared to economic and environmental issues.

On the professional level, learning materials in UBPL 741 are framed around issues that link land use to social justice. For example, students have to apply measures of central tendency to determine whether additional facilities are needed to help homeless people cope with heat waves exacerbated by climate change, assess variations in statistical distributions to make a decision about siting a toxic waste incinerator, and apply bivariate statistical tests to determine if local resources like fire service and park facilities are equally distributed within a city. In every learning exercise, students must not only do the math to find the 'right' answer, but translate their findings into policy recommendations and also provide explanations of the assumptions and gray areas that should condition quantitative methods used to inform policy decisions.

On the personal level, the first two weeks of the semester begin with a period of personal reflection and assessment. Students first privately complete externally validated personal assessment tools (e.g. publicly available personality typology tests and social identities worksheets) to engage in self-reflection and learning. Then, team-level and class-wide facilitated activities foster discussion of how our particular characteristics, skills, experiences, privileges, and limitations can enhance or encumber our academic learning and practice as a planner. This introspection is complemented by readings on diversity, equity, and inclusion that highlight key approaches for grappling with emotions, biases, tribalism, and power. We apply the readings during in-class team exercises (see p.37-43).

Notably, this process is conducted in collaboration with Dr. Bonnie Johnson, who teaches our history and theory course directly after UBPL 741. For the first week, we co-teach the middle

hour of our three-hour block. This experience explicitly and implicitly demonstrates how the presumably divergent topics of the courses intersect and how collaboration is central to the culture of our department.

Academic year(s) in which it was offered

I have taught this course every fall since 2013. The version of the course described in this submission, which is the first to explicitly be framed around DEI issues, was taught in the fall semester of 2017.

I first taught the course in the fall of 2013, using the Team Based Learning approach from the outset. At the end of the 2013 semester, and thereafter at the each fall semester, I revisited student feedback and my own reflections to continually refine the RAP tests, the in-class team exercises, the assignments, and the semester project.

Throughout 2016 and 2017, I redesigned the course to have an explicit and major focus on diversity, equity, and inclusion. This wholesale reconsideration of the course was facilitated by participation in the inaugural class of the University of Kansas' Diversity Scholars Program, a group of twelve faculty and instructors who worked with three faculty facilitators to learn about how to foster increased learning for all students and serve as campus-wide catalysts for more attention to diversity, equity, and inclusion in the classroom.

Course Deliverable A - Syllabus

Course Syllabus
University of Kansas
Graduate Program in Urban Planning
Fall 2017
9:00-10:15 a.m. Monday and Wednesday



UBPL 741: Quantitative Methods I (a.k.a. Using Research to Foster Compassionate Planning)

Overview

Instructor

Ward Lyles

OFFICE HOURS: Monday and Wednesday 12:00-1:00 and by appointment. I am very open to meeting with you any time it works for both of us. Email is the quickest and easiest way to schedule a meeting with me.

Course Summary

UBPL 741 is the first half of a two-part series (with UBPL 742) that introduces students to the application of research methods in the field of urban planning and policy. The course is taught through the lens of using research to understand issues of diversity, equity, and inclusion. For Urban Planning Masters Students, UBPL 741 is a required core course.

A Brief Note About My Teaching Philosophy

Dear UBPL 741 Student,

All my teaching and mentoring extends from a desire to engage you in your professional and personal development.

I structure my courses to engage you with academic content, with your peers, with the world beyond campus, with me as instructor, and with your own personality, values, and approach to learning and action.

I firmly believe – and have experienced in the classroom – that students learn more deeply through active learning in a safe, respectful environment that challenges everyone to engage socially and emotionally, as well as intellectually.

I also firmly believe each student enters the classroom as a complex, unique person with different experiences, skills, and personalities – each student is so much more than a receptacle to be filled with planning knowledge. As such, I aim to function more as a learning guide and companion and less as a source of information.

I am in the process of continually learning about issues of diversity, equity, and inclusion (DEI). I have participated in a year-long Diversity Scholars Faculty workgroup through the Center of Teaching Excellence (CTE), have completed KU's Safe Zone training around gender and sexual diversity, and regularly participate in continuing education activities related to teaching and mentoring through CTE. I aim to bring what I learn to my work with you.

I look forward to the opportunity to learn with you this semester!

Best regards,

Ward

PS - There is no prerequisite for the course other than a willingness to grow as a professional and person.

Learning Goals and Objectives

I structure this course around two overarching learning goals and five learning objectives. I phrase the goals as aspirations of how I hope you view yourself in the future. I phrase the objectives as activities I hope you will be able to take in the rest of your courses and in your professional work.

Learning Goals:

Upon completing UBPL 741 I will

- 3) apply research thinking and methods in my work to improve the communities in which I work, and,
- 4) feel motivated and prepared to steadfastly engage in a life-long process of reflection, learning, and action to promote diversity, equity and inclusion in my community.

Learning Objectives:

Upon completing UBPL 741 I will confidently be able to:

- 6) Remember and Understand approximately 50 core research methods concepts for urban planning, *and*
- 7) Apply research methods concepts and techniques to solve applied planning problems, *and*
- 8) Analyze planning data, decisions, and processes using research methods concepts and techniques, *and*
- 9) Evaluate the success or failure of planning decisions and processes to consider diversity, equity, and inclusion issues, *and*
- 10) Create, Design, and Plan original research projects to inform planning problems and decisions.

Core Themes and Motivating Questions

Planners – practitioners and scholars alike – have many different definitions of planning. For now, I want you to consider **four core themes** that cross essentially all definitions and theories of planning.

- 1) **Future** – as planners, we influence current actions to shape an uncertain future.
- 2) **People** – as planners, we engage the full diversity of people in our communities.
- 3) **Learning** – as planners, we generate and apply knowledge to solve problems.
- 4) **Process** – as planners, we inform and shape decision-making, which means we must tackle power and conflict if we want to be effective.

With these four themes in mind, in this course we will develop answers to these motivating questions:

- 1) *Why do we struggle so much with “us” vs. “them?” Why does it matter for planning?*
- 2) *How do we know what we know? How do we learn more?*
- 3) *What is data? What distinguishes good data from bad data? How do we get good data?*
- 4) *How should we use numbers to make complicated issues easier to understand?*
- 5) *Which ‘under the hood’ concepts in statistics do we really need to understand?*

6) *How do we know and show that two things we care are about related to each other?*

Course Climate and Pedagogy

Climate

Course climate refers to the shared experience of students and instructors in the classroom. A positive course climate can greatly enhance learning; a negative course climate can constrain, impede, or even undermine learning. My goals for the climate in this course are:



Pedagogy

The format of the course is based on the principles of Team-Based Learning (TBL), which is an approach to collaborative learning that motivates students to hold themselves and each other accountable (see Michaelson, Knight and Fink 2004 or Sibley and Ostafichuk 2014 for more information). It involves strategically ordered individual work and teamwork with immediate feedback. TBL shifts the focus of classroom time from the instructor conveying course concepts to the **application of course concepts** by student learning teams.

Modules

The course is designed around six modules, each about two weeks long, that address:

- | | |
|--|---|
| 7. Why DEI? | 11. Under the Statistics Hood: Normality, Estimation and Hypothesis Testing |
| 8. Research? For Planning? | 12. Are You Two Related? Measures of Association and Significance Testing |
| 9. Data – What is it? How do we get it? | |
| 10. Using Numbers: Measures of Central Tendency and Dispersion | |

Readiness Assurance Process (RAP)

For each of the modules, students will acquire fundamental knowledge through readings completed before the module begins (Required Readings.) Students will be held accountable for their preparation through the completion of a Readiness Assurance Process (RAP) on the first day of the module. The RAPs will proceed as follows:

1. **READING:** Students read required materials prior to class. Students are also required to complete reading summaries for each reading as part of their E-Portfolio.
2. **INDIVIDUAL READINESS ASSURANCE TEST:** Each student will complete an in-class test with 5-10 multiple-choice questions covering assigned readings. These tests hold students accountable for acquiring

foundational knowledge from the readings that will prepare them for team problem solving in subsequent classroom time.

3. **TEAM READINESS ASSURANCE TEST:** Each team will then complete the same test that was completed by individual students. By the time of completion of the team test, every student will know the correct answer to every question.
4. **DISCUSSION:** The instructor will facilitate a discussion of test questions that were most problematic for individual students and teams, and of the assigned readings for the day.

In-Class Applications

Following the RAP (which we'll complete at the beginning of each module and also at the end of the semester), the bulk of class time will be used to practice applying knowledge from readings in a series of team application exercises that will require teams to discuss and solve relevant, significant problems. The exercises will be based on the following 4 S's:

1. **SIGNIFICANT PROBLEM:** problems are intended to be interesting and relevant, requiring students to use course concepts to solve them.
2. **SAME PROBLEM:** each team will be given the same problem.
3. **SPECIFIC CHOICE:** each team will be required to make a specific choice among a specified set of solutions.
4. **SIMULTANEOUS REPORT:** each team will report its choice simultaneously for other teams to view.

Following the simultaneous reporting process, time will be allocated for discussion across teams that will center on why teams made the decisions they made, what factors they considered, and what is most important to learn from the exercises. In some cases, teams will be required to submit written products from the exercises for credit. While there will be no required readings for the in-class exercises, resources will be made available before the exercises and groups may find it beneficial to review the materials before class meets.

Logistical Information

Readings:

All readings are available through the course blackboard page except the two required textbooks:

- *Social Statistics for a Diverse Society, Sixth Edition* by Chava Frankfort-Nachmias and Anna Leon-Guerrero (2011) and
- *Deep Diversity: Overcoming Us vs. Them* by Shakil Choudhury (2015)

Grading:

Grades will be calculated based on the following components.

	Points Toward Final Grade (100 Total Possible)
1) Individual Performance	70
a) Class attendance and attentiveness	10
b) Readiness assurance tests	10
c) Assignments	10
d) E-Portfolio/Semester Project	40
2) Team Performance	20
a) Readiness assurance tests	20
3) Team Maintenance	10
a) Peer Evaluation	10

* A general grading rubric is provided in the Assignments folder on Blackboard. It summarizes the expectations I have for your work and the associated grade.

E-Portfolio

You will share and collate your work by creating an E-Portfolio using Weebly (www.weebly.com) over the course of the semester. During the semester the E-Portfolio will allow us to share our work with each other in an easy-to-access and update format. I hope that by the end of the semester you will be able to share your E-Portfolio with potential employers to demonstrate what you are learning and have done. I also hope that working with the E-Portfolio tool will give you the skills and motivation to develop and maintain an E-Portfolio of all your UBPL work to share with potential employers.

For Each Module – 18 points total (3 points for each of 6 modules)

- *Reading summaries* – 1 point
 - Before the RAP, post your notes on the readings for the module. This task challenges you to read critically, take organized notes, and be prepared for in-class Readiness Assurance Tests and in-class team exercises. Reading guides that include questions pointing towards the core concepts are provided for each module on Blackboard.
- *Progress on Semester Project* – 2 Points
 - Each Module will have an associated part of the semester project to complete. Details are provided below in the Course Schedule.

End of Semester Project – 22 points total as organized below

More detail on the End of Semester Project is provided in the Assignments folder on Blackboard.

1. Ideal First Job Description - 1 point
2. How DEI might arise? (People, Issues, Relevance of E,B,T, and P) – 2 points
3. Research Questions – Descriptive and Explanatory – 2 points
4. Data Collection Plan – 2 points
5. Hypotheses – 2 points
6. Data Analysis Plan – 2 points
7. Limitations – 1 points

Also part of evaluation:

- Organization – 5 points
- Writing – 5 points
- Creativity – up to 3 bonus points possible

Additional Statements and Resources

At the end of this syllabus you will find a lot of useful information about resources at the University of Kansas that can greatly enhance your learning experience here at KU. These resources range from Counseling and Psychological Services to The Writing Center to the Academic Access and Achievement Center. Brief descriptions of the resources, their services, and their contact information are included. Please look over the list of resources. If you ever have any questions about one of the resources, please do not hesitate to ask me!

Attendance

In a team-based class, attendance is essential for individual, team, and class success. Because unexpected situations do arise, one unexcused absence will not be penalized. However, an escalating scale will be used for 2, 3 or more absences. That is, the more classes one misses, the greater the deduction on the final grade for each missed class.

Students with Disabilities

Any student who has a disability that may prevent the fullest expression of abilities should contact me personally as soon as possible so that we can discuss accommodations necessary to ensure full participation and to facilitate the educational opportunity.

Religious Holidays

If any scheduled assignment or exam conflicts with a mandated religious observance, a student should contact me immediately to arrange a make-up assignment or exam on a mutually acceptable date.

Course Schedule

The following schedule is subject to change. Notification will be provided as soon as possible regarding any changes.

Note: Under each date is a set of bullet points summarizing tasks for you to complete BEFORE class on that date.

MODULE 1: WHY DEI? DIVERSITY, EQUITY, AND INCLUSION IN PLANNING

Topics to be covered in Module 1 include:

1. Deep Diversity
2. Emotions, Biases, Tribes, and Power
3. Inner Skills for Compassionate Planning

Learning objectives for Module 1 include being able to:

1. Explain the general features and terminology of diversity, equity, and inclusion
2. Explain the role of emotions, biases, tribes, and power in shaping how we interact with others
3. Begin to identify and examine the role of emotions, biases, tribes, and power in planning
4. Cultivate inner skills for compassionate planning

Reading:

- Deep Diversity - Chapter 1 (pgs 1-20) and 7 (pgs 155-176), Inner Skills (pgs 41-45; 70-74; 91-95; 128-129; 147-153); skim the rest
- The Prospect of Compassionate Planning – Lyles, White, and Lavelle

M 8/21

Course Overview, Team Formation, E-Portfolio Introduction

- Complete the survey handed out at Orientation and bring to class (if you missed orientation, the survey is available in Course Documents on Blackboard)
- Set up Weebly account and start build your E-Portfolio (weebly.com – choose the free version)

- W 8/23 **Syllabus RAP, Social Identities Worksheet, Personality Type Review**
- Re-read syllabus and be prepared for RAP
 - Complete the Social Identities Worksheet (in Blackboard Module 1); bring your notes to class.
 - Complete one of the free online Meyers-Briggs tests and be ready to share your personality type with your teammates on Wednesday. A couple of sites at which you can take the test and learn how to interpret your results are: (<http://www.16personalities.com/free-personality-test> and <http://www.truity.com/test/type-finder-research-edition>)
- M 8/28 **Emotions, Bias, Tribes, and Power in AICP Code of Ethics**
- Review Deep Diversity Readings – Chapter 1, Chapter 7 and Inner Skills (see above)
 - Read AICP Code Ethics Section A: Principles to Which We Aspire (<https://www.planning.org/ethics/ethicscode.htm>); also available on Blackboard in Module 1 folder
 - In your E-Portfolio Module 1 make notes on Section A of the AICP Code of Ethics to show where you see connections to Emotions, Bias, Tribes and Power
- W 8/30 **Emotions, Bias, Tribes, and Power in Planning Education**
- Read *Teaching Equity and Advocacy Planning in a Multicultural “Post-racial” World* by Lung-Amam, Harwood, Sandoval, and Sen
 - Read *Commentary: Diversity in Urban Planning Education and Practice* by Sweet and Etienne
 - For both readings, pick a quote of less than three sentences and copy it into a new section of your E-Portfolio Module 1. Then, for each quote, write a question related to the quote you feel would prompt good in-class discussion.
- M 9/4 No Class – Labor Day
- W 9/6 **Contemporary Planning Issue Analysis**
- Using Planetizen (<https://www.planetizen.com/>), the Lawrence Journal-World (<http://www2.ljworld.com/>) or another news source to find an article related to the planning specialization you are most interested in and related to DEI issues. Read the article and complete the following task in your E-Portfolio Module 1 section.
 - Produce a summary of 200 words maximum that explains how diversity, equity, or inclusion is addressed in the article and if and how DEI is measured.
 - Print 3 hard copies of your summary (on separate sheets of paper) for use in class. Do not put your name on your summaries.
- S 9/9 **Module 1 E-Portfolio Complete on Blackboard (5:00 PM)**
- Reading Notes for Module 1
 - Contemporary Planning Issue Analysis
 - Pick and carefully read a planning-related article with a DEI dimension to it. Link to the article. In 200 words or less, briefly summarize its main points and then apply key concepts from Module 1 to analyze the article.

MODULE 2: RESEARCH? FOR PLANNING? RESEARCH DESIGN AND ETHICS

Topics to be covered in Module 2 include:

1. Research and Causality
2. Experiments, Quasi-Experiments, and Non-experimental Designs
3. Data and Levels of Measurement
4. Research Ethics

Learning objectives for Module 1 include being able to:

1. Explain the general features and terminology of quantitative social science research
2. Restate the necessary conditions for establishing causality in relationships between and among variables

3. Identify, differentiate, and evaluate alternative design approaches for establishing causality in quantitative research
4. Identify independent and dependent variables and levels of measurement of variables

Readings:

- Quantitative Research and Causality
 - Frankfort-Nachmias, C. and A. Leon-Guerrero. (2011). Social Statistics for a Diverse Society, 6th Ed. Los Angeles, Pine Forge Press.
 - Chapter 1 (pp. 1-20)
 - Lewis-Beck, M. S. (1995). Data analysis: An introduction. Thousand Oaks; London; New Delhi, Sage Publications
 - pp. vii, 1-8
 - Dane, F. C. (2011). Evaluating research: Methodology for people who need to read research. Los Angeles; London; New Delhi; Singapore; Washington D.C., Sage Publications, Inc.
 - pp. 1-12
- Experiments, Quasi-Experiments, and Non-Experimental Designs
 - Shadish, W. R., Cook, T. D., & Campbell, D. T. (2002). Experimental and quasi-experimental designs for generalized causal inference. Boston, New York, Houghton Mifflin Company.
 - pp. 1-7
 - Dane (2011)
 - pp. 161-5, 178-183, 197-9.

M 9/11 Readiness Assurance Process for Module 2

W 9/13 Team Application Exercise – Research Questions and Types of Research

- Read before class: Four abstracts in Module 2 folder – take notes on what type of research question the abstract addresses and, if identified, what the dependent and independent variables are

M 9/18 Team Application Exercise – Research Design

- Reading before class: Jun, M. (2006). "The effects of Portland's urban growth boundary on housing prices." Journal of the American Planning Association 72(2): 239-240

W 9/20 Team Application Exercise – Research Ethics

- **Before Class turn in Assignment 1:** complete IRB Certification before class – Email Ward Lyles pdf documenting completion (https://rgs.drupal.ku.edu/human_subjects_compliance_training)

S 9/23 **Module 2 E-Portfolio due on Blackboard (5:00 PM)**

- Reading Notes for Module 2 RAP
- Contemporary Planning Issue Analysis
 - Pick and carefully read a planning-related article with a DEI dimension to it. Link to the article. In 200 words or less, briefly summarize its main points and then apply key concepts from Module 2 to analyze the article.

MODULE 3: DATA – WHAT IS IT? HOW DO WE GET IT?

Topics to be covered in Module 2 include:

1. Data types and organization
2. Graphical representation of quantitative data
3. Data collection methods, with special attention to surveys

Learning objectives for Module 2 include being able to:

1. Understand and apply concepts of frequency, percentage, proportions, and distributions
2. Identify, differentiate, and evaluate alternative approaches for selecting a sample from a population

3. Describe the types of variables that are available from the Census for different geographical units
4. Select an appropriate graphic method for representing quantitative data
5. Graphically represent quantitative data using Excel

Readings:

Organization of Information

- Frankfort-Nachmias, C. and A. Leon-Guerrero. (2011). *Social Statistics for a Diverse Society*, 6th Ed. Los Angeles, Pine Forge Press.
 - Chapter 2 (pp. 27-45)

Graphic Representation

- Frankfort-Nachmias, C. and A. Leon-Guerrero. (2011). *Social Statistics for a Diverse Society*, 6th Ed. Los Angeles, Pine Forge Press.
 - Chapter 3 (pp. 63-83)

Surveys

- Dillman, D.A., J.D. Smith and L. M. Christian. (2008) *Internet, Mail, and Mixed-Mode Surveys: The Tailored Design Method*
 - pp. 22-29; 65-79; 105-106; 148-150; 151-229 (read the section introductions and skim the specific guidelines) 230-236; 270-298; skim 237-270;

M 9/25

Readiness Assurance Process for Module 3

W 9/27

Team Application Exercise – Data and Graphic Representation

M 10/2

Team Application Exercise – Sampling

- Before class: Bunnell, G. and E. Jepson. (2011). " The Effect of Mandated Planning on Plan Quality: A Fresh Look at What Makes a ‘Good Plan’." *Journal of the American Planning Association* 77(4). Read pages 338-346.
- Before class: Olonilua, Oluponmile O., and Olurominiyi O. Ibitayo. 2011. Toward multihazard mitigation: An evaluation of FEMA-approved hazard mitigation plans under the Disaster Mitigation Act of 2000. *Journal of Emergency Management* 9 (1). Read pages 37-41.
- Before class: Wheeler, Stephen M. 2008. State and municipal climate change plans. *Journal of the American Planning Association* 74 (4):481-483.

W 10/4

Team Application Exercise – Data Collection Methods

M 10/9

Team Application Exercise – Survey Design and Administration

W 10/11

No Class – Ward at Association of Collegiate Schools of Planning Conference

S 10/14**Module 3 E-Portfolio due on Blackboard (5:00 PM)**

- Reading Notes for Module 3 RAP
- Semester Project Part 1:
 - *Motivation:* It’s good to be thinking about your future professional aspirations from day one in graduate school.
 - *Task:* In 1-2 paragraphs describe your ideal first job upon graduation. The more specific your description, the better. Topics to consider addressing include: area of planning (e.g. transportation), type of employer (e.g. public, private, non-profit), size and setting of community (e.g. small city in Midwestern US), the type of tasks you will do (e.g. public outreach, policy analysis, modeling, etc.), the type of co-workers/partners you work with, and what makes it your ideal FIRST job.
- Semester Project Part 2:
 - *Motivation:* Planning, in all its form, can and should deal with DEI issues.
 - *Task:* In 1-2 paragraphs address the following prompts. In what obvious and perhaps subtle ways do you anticipate DEI issues arising in your work? What are some of the

reasons they are likely to arise? How has planning succeed and failed in dealing with those issues historically?

MODULE 4: DATA EXPLORATION: MEASURE OF CENTRAL TENDANCY AND MEASURES OF DISPERSION

Topics to be covered in Module 4 include:

1. Measures of Central Tendency (mode, median, mean)
2. Measures of Dispersion (range, interquartile range, variance and standard deviation)

Learning objectives for Module 4 include being able to:

1. Interpret commonly-used univariate statistics and distributions
2. Calculate commonly-used univariate statistics and chart distributions using Excel

Readings

Measures of Central Tendency and Measures of Dispersion

- Frankfort-Nachmias, C. and A. Leon-Guerrero. (2011). Social Statistics for a Diverse Society, 6th Ed. Los Angeles, Pine Forge Press.
 - Chapters 4 and 5 (pp. 94-121 and 132-156)
- Lewis-Beck (1995)
 - pp. 8-18

M 10/16 No Class – Fall Break

W 10/18 Readiness Assurance Process for Module 4

S 10/21 ** Assignment 2 due on Blackboard by 11:59 PM ******

M 10/23 Team Application Exercise – Measures of Central Tendency

W 10/25 Team Application Exercise – Measures of Dispersion

S 10/28 Module 4 E-Portfolio due on Blackboard (5:00 PM)

- Reading Notes for Module 4 RAP
- Semester Project Part 3:
 - *Motivation:* In your ideal job, you will likely be asked to do research.
 - *Task:* Develop a set of 4 DEI-related research questions (2 that are exploratory/descriptive and 2 that are predictive/explanatory) that might arise in your ideal job. For each research question, write out the question and in 1-2 sentences explain the motivation for the question.
- Semester Project Part 4
 - *Motivation:* If you are asked to answer a research question, you will need data. And, you will need a plan to collect that data.
 - *Task:* Develop a data collection plan for each of the variables for each of your research questions. Your data collection plan should identify, at a minimum, the following: whether you will use primary or secondary data sources, what data collection method(s) is most appropriate, specifically how you will measure the variable, the level of measurement your approach will enable, and what resources (tools, time, money) you anticipate needing.
- Reflection Response
 - In a single-spaced, 12-point, 2-page maximum piece, please reflect on the DEI readings, the social identities exercises, and the discussions we've had in class so far this semester. Prompts you might consider:
 - How have these issues been relevant in your life before graduate school?

- How has our work together so far this semester caused you to rethink or think more deeply on these issues?
- How do you anticipate these issues being relevant in your career (as a graduate student and beyond)?

MODULE 5: DATA EXPLORATION: NORMALITY, ESTIMATION, AND HYPOTHESIS TESTING

Topics to be covered in Module 5 include:

1. Normality and Z-scores
2. Estimation and confidence intervals
3. Hypothesis Testing

Learning objectives for Module 5 include being able to:

1. Recognizing, describing and using the normal distribution; transforming raw scores into Z-scores
2. Understanding and utilizing the concept of estimation; estimating confidence intervals
3. Defining and applying the components of hypothesis testing

Readings:

Normality:

- Frankfort-Nachmias, C. and A. Leon-Guerrero. (2011). *Social Statistics for a Diverse Society*, 6th Ed. Los Angeles, Pine Forge Press.
 - Chapter 6 (pp. 169-183)
- Frankfort-Nachmias, C. and A. Leon-Guerrero. (2011). *Social Statistics for a Diverse Society*, 6th Ed. Los Angeles, Pine Forge Press.
 - Chapter 7 Part II (pp. 206-218)

Estimation:

- Frankfort-Nachmias, C. and A. Leon-Guerrero. (2011). *Social Statistics for a Diverse Society*, 6th Ed. Los Angeles, Pine Forge Press.
 - Chapter 8 (pp. 227-239)

Hypothesis Testing:

- Frankfort-Nachmias, C. and A. Leon-Guerrero. (2011). *Social Statistics for a Diverse Society*, 6th Ed. Los Angeles, Pine Forge Press.
 - Chapter 9 (pp. 256-276)

M 10/30	Readiness Assurance Process for Module 5
W 11/1	Team Application Exercise – Normality and Z-Scores
S 11/4	**** Assignment 3 due on Blackboard by 11:59 PM ****
M 11/6	Team Application Exercise – Estimation and Confidence Intervals
W 11/8	Team Application Exercise – Hypothesis Testing / Semester Project Work Time
S 11/11	Module 5 E-Portfolio due on Blackboard (5:00 PM) <ul style="list-style-type: none"> • Reading Notes for Module 5 RAP • Semester Project Part 5: <ul style="list-style-type: none"> ○ <i>Motivation:</i> You may never be asked to formally state your hypotheses when tasked with doing research. Doing so, however, helps sharpen your thinking and may even reveal biases you bring to the research.

- *Task:* For each of your 4 DEI-related research questions write out a hypothesis and in a few sentences explain what the variables are for each question and for the explanatory/predictive questions whether the variable is dependent/independent.
- Semester Project Part 6
 - *Motivation:* So you will have data. But, how will you analyze it?
 - *Task:* For each of your four research questions, present a data analysis plan. The plan should, at a minimum, identify: what variable(s) you will use, what measures of central tendency and dispersion, as well as what types of graphs, you will use to summarize the data, where applicable, what measures of bivariate relationship you will use, and, how you will know if there is a statistically significant relationship.

MODULE 6: DATA EXPLORATION: BIVARIATE RELATIONSHIPS AND MEASURES OF ASSOCIATION

Topics to be covered in Module 6 include:

1. Relationships between two variables (existence, strength and direction)
2. Measures of Association (Pearson's R correlation coefficient, tau, lambda)

Learning objectives for Module 6 include being able to:

1. Consider features of bivariate relationships to assess
2. Interpret commonly-used bivariate statistics
3. Calculate commonly-used measures of bivariate relationships using Excel

Readings:

Bivariate Relationships

- Frankfort-Nachmias, C. and A. Leon-Guerrero. (2011). *Social Statistics for a Diverse Society*, 6th Ed. Los Angeles, Pine Forge Press.
 - Chapter 10 (pp. 304-320)

Measures of Association

- Lewis-Beck (1995)
 - pp. 19-30, 35-38
- Frankfort-Nachmias, C. and A. Leon-Guerrero. (2011). *Social Statistics for a Diverse Society*, 6th Ed. Los Angeles, Pine Forge Press.
 - Chapter 11 (pp. 338-349)

M 11/13 Readiness Assurance Process for Module 6

W 11/15 Team Application Exercise – Bivariate Relationships

S 11/18 ** Assignment 4 due on Blackboard by 11:59 PM ******

M 11/20 Team Application Exercise – Bivariate Relationships

W 11/22 No Class – Thanksgiving Break

M 11/27 Team Application Exercise – Chi-Squared

W 11/29 Team Application Exercise – Correlation

S 12/2 Module 6 E-Portfolio due on Blackboard (5:00 PM)

- Reading Notes for Module 5 RAP
- Semester Project Part 6 (continued – revise and extend from Module 5 E-Portfolio)
 - *Motivation:* So you will have data. But, how will you analyze it?
 - *Task:* For each of your four research questions, present a data analysis plan. The plan should, at a minimum, identify: what variable(s) you will use, what measures of

central tendency and dispersion, as well as what types of graphs, you will use to summarize the data, where applicable, what measures of bivariate relationship you will use, and, how you will know if there is a statistically significant relationship.

- Semester Project Part 7
 - *Motivation:* No one has ever done the perfect research project. It is important to understand and acknowledge the limitations of our research.
 - *Task:* In 1-2 paragraphs identify the limitations of your research project, as outlined so far. The limitations may relate to the scope of the research questions, the available data, the analysis techniques you know so far, and more. (It may be helpful to think back to the three conditions for causality.)

M 12/4 Catch-up

W 12/6 Peer Evaluation and Review for Exam

S 12/9 ** Assignment 5 due on Blackboard by 11:59 PM ******

T 12/12 7:30-10:00 AM - Final Readiness Assurance Process (Final Exam)

- To prepare for the final exam, please do the following:
 - Read through the list of concepts from the semester handed out the last week of class; put a check by the ones you definitely know well; circle the ones that you can barely or not at all remember; for the ones in the middle, jot down a brief description of the concept
 - Print off, re-read, and bring to class the 2-page maximum reflection piece from earlier this semester.

T 12/12 ** Semester Project due by 7:30 AM ******

Resources for Students:

KU Counseling and Psychological Services (CAPS) – CAPS can help students with issues related to adjusting to college and other psychological, interpersonal, and family problems. Individual and group sessions are available. You can find more information at <https://caps.ku.edu/> Phone is 785-864-2277 and hours are M, W, F 8-5 and T, H 8-6. CAPS is located in Watkins Memorial Health Center

KU Office of Multicultural Affairs (OMA) – OMA provides direction and services for current and prospective students from underrepresented populations. In addition, through collaborative partnerships it offers diversity education programs that foster inclusive learning environments *for all students*. OMA's programs and services enhance the retention of successful matriculation of students, while supporting their academic and personal development. You can find more information at: <https://oma.ku.edu/about> Phone is 785-864-4350 OMA is located in the Sabatini Multicultural Resources Center next to the Union.

KU Academic Access and Achievement Center (AAAC) – AAAC offers many services and programs to assist students in their academic success and to enhance their collegiate experience at KU. Choose from learning strategy consultations, group workshops or general or course-specific academic assistance, by appointment or on a walk-in basis. Feel free to talk with AAAC and ask for information or direction about academic and personal issues. You can find more information at: <https://achievement.ku.edu/> Phone is 785-864-4064 The AAAC is located in Rm 22 Strong Hall.

KU Public Safety – Public safety is dedicated to providing a safe and secure environment for the thousands of students, faculty, staff and visitors that are on campus each day. Public Safety's website (<https://publicsafety.ku.edu/>) contains practical information that can protect you from becoming a victim of a crime, help you recognize and report suspicious activity, and guide you in the event of an emergency.

KU Emily Taylor Center for Women & Gender Equity (ETC) – The ETC provides leadership and advocacy in promoting gender equity and challenge gender-related barriers that impede full access, inclusion, and success. The ETC provides services, assistance, advocacy and support to campus community members of all genders. We also provide consultation, information and resources to Edwards and KUMC campus members, parents of KU students and the community by request. Appointments are recommended, but not necessary. Services are private. In situations involving discrimination and violations of Title IX, ETC staff report information to campus authorities. Center programs and facilities are also accessible to individuals with disabilities. For those requesting accommodations, please contact KU [Student Access Services](#) at 785-864-4064 or achieve@ku.edu. The ETC is located in 4024 Wescoe Hall

KU Writing Center - The Writing Center offers a variety of ways for students and members of the community to get feedback on their writing. It offers face-to-face consultations, online appointments, and an eTutoring appointments. Information regarding each type of appointment and a tool for scheduling can be found at <http://writing.ku.edu/> The Writing Center has multiple locations on campus.

KU Student Involvement & Leadership Center (SILC) – SILC prepares students to become contributing members of society by providing meaningful co-curricular experiences. **SILC** is responsible for coordinating registered university organizations and providing leadership education experiences for students in addition to providing programs and services to specific target populations including fraternity/sorority members, non-traditional students, and students of all gender identities, gender expressions and sexual orientations. More information can be found at <https://silc.ku.edu/>. A notable program of SILC is the Safe Zone Training, which aims to reduce homophobia, transphobia, and heterosexism on our campus to make KU a safer and freer environment for all members of our community, regardless of sexual orientation, gender identity, or gender expression. By agreeing to become a Safe Zone ally, the participant agrees to undergo training and to serve as a resource for people seeking clarification on issues of sexuality and gender diversity. SILC is located in the Sabatini Multicultural Resources Center.

Sexual Assault CARE Coordinator - Watkins Health Services provides support to victims of sexual and domestic violence. [Merrill Evans](#), LCSW, is our CARE (Campus Assistance, Resource, and Education) Coordinator whose primary role is to coordinate support for individuals (both victim and alleged perpetrators) impacted by sexual violence including incidents of sexual assault, sexual battery, partner violence, dating violence and stalking. The CARE Coordinator is a confidential position and is not required to report incidents to University officials or organizations. If you or someone you know has been affected by any form of sexual violence, please do not hesitate to [contact Merrill](#) or stop by Watkins Health Center Room 2615 during normal business hours. If WHS is closed, the Sexual Trauma & Abuse Care Center is available 24 hours for victim assistance at [785-843-8985](tel:785-843-8985). <https://studenthealth.ku.edu/sexual-assault>

Sexual Assault Prevention and Education Center (SAPEC) - SAPEC promotes social change and the elimination of sexual violence through prevention education, inclusive programming, and campus-wide collaboration. SAPEC is located at 116 Carruth O'Leary; Phone 785-864-5879; email: sapec@ku.edu. <http://sapec.ku.edu/>

Institute of Institutional Opportunity & Access (IOA) - The Office of Institutional Opportunity and Access (IOA) is responsible for administering the University of Kansas equal opportunity and non-discrimination policies and procedures, as well as, encouraging a campus climate of respect and understanding of all aspects of the human experience. To accomplish these duties, the IOA offers assistance and protective measures to students, faculty, and staff who report acts of harassment, discrimination, sexual misconduct, sexual violence, and retaliation; provides information about health, safety, advocacy, and support resources for members of the Lawrence and Edwards campuses; performs formal investigations to detect, discontinue, and prevent violations of the Non-Discrimination Policy and Sexual Harassment Policy; and ensures University compliance with state and federal civil rights laws. IOA is located at 153A Carruth-O'Leary; Phone 785-864-6414; email: ioa@ku.edu; <http://ioa.ku.edu/>.

Formal KU Policies

You should be aware of KU's academic policies, available at the KU policy library: academic. While the policies are numerous, key policies to be aware of include:

Academic Misconduct (<http://policy.ku.edu/governance/USRR#art2sect6>),

Final Examination Schedules (<http://policy.ku.edu/governance/USRR#art1sect3>), and

The Grading System (<http://policy.ku.edu/governance/USRR#art2sect2para3>)

Course Deliverable B – Example Readiness Assurance Process (RAP) Test

INSTRUCTIONS: Be sure to read each question and response option carefully before selecting a response option.

- 1) If a researcher wants to study whether greenhouse gas emissions are a cause of climate change, which would be true:
 - a) Greenhouse gas emissions and climate change would both be independent variables
 - b) Greenhouse gas emissions and climate change would both be dependent variables
 - c) Greenhouse gas emissions would be a dependent variable and climate change would be an independent variable
 - d) Greenhouse gas emissions would be an independent variable and climate change would be a dependent variable
 - e) None of the above

- 2) Epistemology is the study of knowledge, and how we know what we think we know. It is common to categorize ways of knowing into four categories: a priori, authority, tradition, and science. Which set of words best completes this sentence: “Knowledge based on reason and common sense best reflects the ____ way of knowing; knowledge based on observing what happens in the world best reflects the ____ way of knowing.”
 - a) tradition; authority
 - b) tradition; science
 - c) a priori, tradition
 - d) a priori; science
 - e) authority; a priori

- 3) “_____ is a critical process for asking and attempting to answer questions about the world.” Which of the following terms BEST completes this sentence:
 - a) Research
 - b) Data cleaning
 - c) Regression analysis
 - d) Measurement
 - e) Compliance

- 4) In order to claim that Variable A is a cause of Variable B, which of the following must be true:
 - a) Variable B happened before Variable A
 - b) Variable A and Variable B do not appear to be related
 - c) The apparent relationship between Variable A and Variable B cannot be explained by other factors
 - d) All of the above
 - e) None of the above

- 5) In applied social science disciplines such as urban planning, researchers use quasi-experimental designs more often than experimental designs. Which of the following statements always distinguishes experimental and quasi-experimental designs:
 - a) Quasi-experimental designs do not include random assignment to conditions.
 - b) Quasi-experimental designs are less complicated and expensive.
 - c) Quasi-experimental designs involving human subjects are more ethically acceptable.
 - d) All of the above.
 - e) None of the above

- 6) “A set of procedures used by social scientists to organize, summarize, and communicate information” is a definition of which of the following terms?
 - a) Data
 - b) Statistics
 - c) Research
 - d) Theory
 - e) Analysis

- 7) In a study of experiences of discrimination when interaction with city planning officials among female residents of Wyandotte County, KS which could NOT serve as a variable?
- Neighborhood of residence
 - Income
 - Reason for interacting with planning officials
 - County of residence
 - Favorite color
- 8) There are many possible goals of research projects. Five common goals include exploration, description, prediction, explanation, and action. Which set of words best completes this sentence: “An attempt differentiate a phenomenon from other phenomena is ____ research while an attempt to examine a cause-effect relationship between two or more phenomena is ____ research.”
- exploratory; predictive
 - descriptive; explanatory
 - descriptive; action
 - explanatory; exploratory
 - action; explanatory
- 9) ‘We cannot actually observe a counterfactual.’ (Shadish, Cook and Campbell p. 5) This statement is MOST relevant to which of the following:
- Carefully following research procedures to avoid missing data
 - Demonstrating the advantages of quantitative data analysis over qualitative data analysis
 - Employing simple random sampling
 - Arguing that a cause and effect relationship exists between two variables
 - Refuting an claim of fact in a research report
- 10) Using the figure below, match the level of measurement to its definition.
- Nominal #1, Ordinal #2, Interval/Ratio #3
 - Nominal #1, Ordinal #3, Interval/Ratio #2
 - Nominal #2, Ordinal #1, Interval/Ratio #3
 - Nominal #2, Ordinal #3, Interval/Ratio #1
 - Nominal #3, Ordinal #2, Interval/Ratio #1

Definition	Example
#1 Numbers are assigned to rank-ordered categories ranging from low to high	‘I love planning.’ How much do you agree with this statement? Strongly agree, agree, disagree, or strongly disagree
#2 Numbers or other symbols are assigned to a set of categories for the purpose of naming, labeling, or classifying the observations	What is your favorite color? Choose one of red, blue, green, or yellow.
#3 Measurements for all cases are expressed in the same units	What is the rent price in Lawrence? \$475.00, \$850.00, or \$1,050.00

Course Deliverable C – Example 1 of In-Class Team Exercise (18 Total During Semester)**MODULE 3 EXERCISE 2, UBPL 741**

Learning Objectives

- Understand basic sampling concepts
- Critically evaluate peer-reviewed research articles to determine their strengths and weaknesses in regards to sampling

Core Concepts

- Sample
- Population
- Sampling approaches
- Simple random sampling
- Systematic random sampling
- Stratified random sampling
- Representation

Application

As a planner, and more immediately as a planning graduate student, you will digest and use the findings of sampling-based research conducted by others. To be a discerning consumer of research – whether from a peer reviewed journal, a public agency, a developer, or a citizens group, you need to understand the essential principles and terminology of sampling. With such an understanding, you can understand and judge the merits of claims made based on research and pinpoint and articulate the flaws in design or logic that might otherwise influence planning and policy.

This exercise is based on three recent research articles on the quality of plans in the United States. For the purposes of this exercise, we will focus on issues relating to sampling.

What distinguishes a good plan from a bad plan is a vital but vexing question for planning practitioners and scholars alike. In the last two decades there has been a dramatic increase in research aimed at identifying, measuring and comparing different characteristics – or principles – of plan quality. Recently Gene Bunnell and Edward Jepson argued that particular attention must be paid to the ‘communicative’ and ‘persuasive’ qualities of plans. That is, how well do plans communicate, influence and engage their readers. In their article – The Effect of Mandated Planning on Plan Quality: A Fresh Look at What Makes a ‘Good Plan’ – they use a sample of plans from four states to test their new ideas about how to assess the communicative and persuasive qualities of plans.

Based on your reading of Bunnell and Jepson’s article, your team should rank the following sampling elements from 1 (strongest) to 4 (weakest) with respect to how well each element has been described in the article to help address the study’s research question.

Clearly and thoroughly defining the target population:

(ranking) ____

Accurate statement of type of sampling approach taken: (ranking) ____

Detailed description of the sampling approach taken: (ranking) ____

Comparing relevant characteristics of the target population and the actual sample to ensure the sample is representative of the population: (ranking) ____

Now, do the same things for the Olonilua and Ibitayo article on hazard mitigation plans and the Wheeler article on climate change plans. [I've provided space in the table below for you to record the Bunnell and Jepson rankings as well. Please note that you are ranking the four elements within an article, not across articles. That is, you are not ranking the three articles as to which one did a best job on each element.]

Element	B&J	O&O	Wheeler
Clearly and thoroughly defining the target population			
Accurate statement of type of sampling approach taken			
Detailed description of the sampling approach taken			
Comparing relevant characteristics of the target population and the actual sample to ensure the sample is representative of the population			

Course Deliverable D – Example 2 of In-Class Team Exercise (18 Total During Semester)**Module 4, Team Exercise 1 - UBPL 741**

Applying Measures of Central Tendency

In many cities, numerous homeless people spend much of their day outdoors in public spaces. Being out of doors for extended periods of time can become perilous for their health during periods of weather extremes. This issue is becoming more and more of a public health concern in the summer, as urban heat island effects due to changing land use patterns and global climate change are making heat advisory days more and more common.

Suppose a local social services and public health task force focused on the health of homeless persons in Kansas City, MO would like to ensure that the typical public space (e.g. parks, plazas, and open spaces) in the greater downtown area provides enough shade to provide cool places for homeless persons to shelter during the hottest part of the day. The initial criterion for ‘enough shade’ is that more than 10% of the total surface area of a public space must be consistently in the shade between 1:00 PM and 6:00 PM to provide at least a minimum level of respite from the heat of the day. This criterion is reflective of an assumption that the initial goal should be a wide distribution of at least small parcels of shade distributed throughout the greater downtown area.

A team of planning, geographic information systems, and parks and recreation staff has been assigned to support the task force. Your GIS teammates used aerial images to estimate the percent of shade cover for 143 public spaces. Subsequently, parks and recreation staff used on-the-ground visual assessments of a sample of 15 public spaces to validate the GIS estimates. The on-the-ground validation process measurements aligned adequately enough with the aerial estimates to justify proceeding with analysis of the data.

This is where your role on the team comes into the picture. Your task is to use the shade data to answer an exploratory but action-oriented research question. Namely, does the typical public space in the greater downtown area meet the above 10% shade criterion? Your answer will likely be used to justify whether to include initiatives to increase the tree canopy and build new shelters in public spaces in the upcoming city budget.

To make your determination and decision use the dataset in the worksheet titled Task 1 in the file named Module4Exercise1_Dataset, which is posted on blackboard in the Module 4 folder. Here are the products that I expect to see in order for your team to provide a clear and compelling case for your decision:

- Three one-sentence talking points that you can provide to the social services and public health task force members.
 - Your conclusion: what is your answer to the central question?
 - Rationale: what is your justification for your finding, using the relevant course concept(s)?
 - Policy recommendation: what planning or policy decision is justified based on your finding(s)?
- A graphic representation that makes the main conclusions of your analysis clear. Start with a hand-drawn sketch of the graphic you want to make. Then, once you are clear about the story you want to tell, create the graphic using excel.
- An excel file that includes the following:
 - Evidence that you have determined the values for the measure of central tendency without using the pre-set Excel commands (i.e. AVERAGE, MEDIAN, and MODE); you can use the commands as double-checks, however.

Course Deliverable E – Example 1 of Individual Take-Home Assignment**MEMO****To: UBPL 741 Students****From: Ward Lyles****Date: August 21, 2017****RE: Assignment 1**

Background: Any time we undertake research involving human subjects, we need to take into consideration and prioritize the rights of the potential subjects of our research. The best way to learn about human subjects research is completing Institutional Review Board (IRB) training. An online IRB certification training is used at universities nationwide to ensure that all individual involved in human subjects understand the relevant rights, responsibilities and procedures.

The Task: you must complete the online IRB training by September 14th at the start of class. The training module is available at https://rgs.ku.edu/human_subjects_compliance_training. To document your completion of the training, please download a copy of the completion certificate in pdf format and email it to me. Please save the file as LastName_FirstName_IRB_Certification; for example, Lyles_Ward_IRB_Certification.

Course Deliverable F – Example 2 of Individual Take-Home Assignment**MEMO****To: UBPL 741 Students****From: Ward Lyles****Date: August 21, 2017****RE: Assignment 2**

Background: Economic losses from natural disasters like floods, hurricanes, and drought have been escalating for decades and billion-dollar catastrophes are increasingly common (Mileti 1999; Cutter 2001; Pielke et al. 2008, Peacock et al. 2008). Natural hazard mitigation is “advance action taken to reduce or eliminate the long-term risk to human life and property from natural hazards” (Godschalk et al. 1999, 4). In 2000, the US Congress adopted the Disaster Mitigation Act of 2000 essentially requiring all state and local jurisdictions to adopt future-oriented hazard mitigation plans. More than ten years out from passage, empirical research is just emerging to answer exploratory, descriptive and explanatory research questions about the DMA and its effectiveness in making the nation less vulnerable to natural hazards.

Beginning in 2008, a research team at the University of North Carolina at Chapel Hill began a multi-year policy evaluation research project funded by the US Department of Homeland Security. A core purpose of the project was to measure and compare the quality of state and local hazard mitigation plans using standardized principles of plan quality and to explain what factors lead to variation in plan quality. Multiple datasets were compiled using systematic content analysis of documents, surveys, interviews and secondary data sources (e.g. the US Census.) The most time consuming effort was systematically content analyzed the local hazard mitigation plans for 175 jurisdictions in six coastal states (California, Florida, Georgia, North Carolina, Texas and Washington), which took a team of eight graduate students more than 2,000 hours over an eighteen-month period. In terms of the comparative research design taken for the project, the six states were selected to vary in the types of land use and natural hazard mitigation planning mandates they have for local jurisdictions and the planning support the states provide for local governments. At the same time the states were selected to be similar in the sense that they all have major natural hazard risks and have been experiencing coastal population growth.

The Dataset: You will use the Local Hazard Mitigation Plan Quality dataset compiled by the UNC-CH research team in this exercise. The dataset you have in front of you includes mostly independent variables that were used to explain variations in plan quality. Sources for the independent variables include the plan content analysis, the US Census and the Presidential Disaster Declaration Database hosted by PERI. There are 175 observations (i.e. jurisdictions) in the dataset and more than two-dozen variables. To date, the data set has been used to 1) help FEMA consider and alter its mitigation-oriented policies and programs, 2) generate multiple research reports and peer reviewed journal articles (currently under review and accepted), 3) inform presentations and panels at national conferences, and 4) develop an online local mitigation planning guidebook to help local jurisdictions create higher quality local hazard mitigation plans.

Task 1: Familiarization with Excel function for Exploring and Presenting Quantitative Data

To complete this task, you will explore and use the Local Hazard Mitigation Plan Quality Dataset.

1. Open the data file – UBPL_741_Data_Confidential.xls – available on blackboard.
2. Save the file under a different name to serve as your working dataset. That way the original dataset will be there in case you accidentally make a mistake in your working dataset that you cannot repair (e.g. deleting a worksheet). This step is a great habit to get into as soon as possible!!!
3. Read the material the spreadsheet titled Codebook. A good codebook will provide all of the relevant ‘metadata’ about a dataset. That is, it will tell you who collected the data, when, from where, and other assorted broad-level information. It will also include a list of the variables and the information you need to be able to use the data associated with each variable in univariate, bivariate and multivariate analyses.
4. Open the spreadsheet LHMPQ Data (LHMPQ stands for Local Hazard Mitigation Plan Quality Data). Look at the column headers. These are the variable names. The observations (sometimes referred to as units or elements) are in Column A. In this case they are jurisdictions.
5. Spend a few minutes looking at the variables and the associated data. Toggle back and forth between the LHMPQ Data and the Codebook to ensure that you understand the basic differences between nominal, binary, ordinal, count and interval/continuous data.
6. Note that if you click on a cell anywhere in the dataset, the white box in the upper left will tell you the cells column and row (e.g. H16 for column H, row 16) and the formula bar will display the value of the entry in the cell (e.g. 2 is the value of H16). [This formula box will be where you often enter more complicated commands as the semester progresses.]
7. Now, if you are relatively new to Excel, explore the drop-down menus (File, Edit, etc.) to see the different types of commands available to you. Also, explore the options available when you click on the different tabs (Home, Layout, Tables, Charts, etc.). In particular, make sure to check out:
 - a. The Sort function under Data – see what happens when you sort one column at a time, two columns at a time, and all columns at once. You may need to use the Undo function under Edit a time or two. If you make a mess of your data using Sort, you can always delete the file, go back to the original file, and start over.

Task 2: Applying Sampling Concepts

For this task, you will need to complete a memo that summarizes your answers to these prompts and questions. You may include tables and/or graphics as needed in the memo. The memo is due 11:59 pm on Tuesday October 4th.

Part A: Calculate the mean (arithmetic average) population of coastal North Carolina municipalities (non-counties) in the sample. Use the 2000 population figure. Also calculate the means for population density and median house value. Fill the numbers in the table below.

	Municipalities
Population (2000)	
Population Density	
Median House Value	

You just calculated the population mean for a sample of coastal North Carolina municipalities. For the full set of 25 municipalities in coastal North Carolina that were in the target population for the study (also referred to as the sample frame sometimes), the mean population in 2000 was 11,811, the population density was 1,111, and the Median House Value was 116,444.

Do you think the sample of North Carolina municipalities is representative of the target population for the study, based on these three variables? (Yes or No and then justify in 100 words or less)

Part B: Now, suppose we want to create a sub-sample from the 175 jurisdictions in the LHMPQ sample. Your task is to fill in the table below by calculating the mean population (2000), mean number of years since the last presidentially declared disaster, and the mean population density for the overall sample and five different subsamples. The subsamples are:

- The 30 Jurisdictions in North Carolina only;
- Every other jurisdiction in the full 175 jurisdiction sample, when selected from an alphabetized list; start by including the first entry; and,
- Using a stratification approach that breaks the sample into three levels based on area:
 - Top Tier: jurisdictions with areas greater than 70 km²;
 - Middle Tier: jurisdictions with areas less than 70 km² but greater than 18 km²; and,
 - Low Tier: jurisdictions with areas less than 18 km².

	Overall Sample	North Carolina Only	Every other jurisdiction	Stratification Approach - Top Tier	Stratification Approach - Middle Tier	Stratification Approach - Low Tier
Population (2000 Census)						
Number of Years Since a Presidentially Declared Disaster						
Population Density						

Using the eyeball test, are any of the subsamples representative of the full 175 jurisdictions (Yes or No):

Which is the most representative? Why?

If you had to justify the three sampling procedures, what would be your justification for each?
Alternatively, if you can think of no justification, briefly explain why it is not useful.

- North Carolina only:
- Every other jurisdiction:
- Stratification by area:

Course Deliverable G – Semester Project Instructions**MEMO****FROM: Ward Lyles****TO: Urban Planning 741 Students****RE: UBPL 741: Quantitative Methods I Semester Project*****Purpose:***

My aims for this project are four-fold. First, I want you to reflect on and synthesize what you have learned over the course of the semester on the topics of quantitative methods and diversity, equity, and inclusion. Second, I want you to end up with a professional-quality product that represents what you've learned so that you can share your knowledge and insights with me, your peers, potential employers, and anyone else you wish. Third, I want you to build skills communicating through a multimedia platform. Fourth, I want you to have fun and express your creativity.

Tasks:

For each of these tasks, the prompts below focus on written products. However, in all cases you are free to (in fact, are encouraged to) draw on other mediums for communication (photos, charts, graphs, links to videos, etc.) to help make your points.

1. Ideal First Job Description

- *Motivation:* It's good to be thinking about your future professional aspirations from day one in graduate school.
- *Task:* In 1-2 paragraphs describe your ideal first job upon graduation. The more specific your description, the better. Topics to consider addressing include: area of planning (e.g. transportation), type of employer (e.g. public, private, non-profit), size and setting of community (e.g. small city in Midwestern US), the type of tasks you will do (e.g. public outreach, policy analysis, modeling, etc.), the type of co-workers/partners you work with, and what makes it your ideal FIRST job.
- *Grade portion:* 1 point

2. How might Diversity, Equity, and Inclusion (DEI) arise in your ideal job?

- *Motivation:* Planning, in all its form, can and should deal with DEI issues.
- *Task:* In 1-2 paragraphs address the following prompts. In what obvious and perhaps subtle ways do you anticipate DEI issues arising in your work? What are some of the reasons they are likely to arise? How has planning succeed and failed in dealing with those issues historically?
- *Grade portion:* 2 points

3. DEI Research Questions

- *Motivation:* In your ideal job, you will likely be asked to do research.
- *Task:* Develop a set of 4 DEI-related research questions (2 that are exploratory/descriptive and 2 that are predictive/explanatory) that might arise in your ideal job. For each research question, write out the question and in 1-2 sentences explain the motivation for the question.

- *Grade portion:* 2 points
4. Data Collection Plan
- *Motivation:* If you are asked to answer a research question, you will need data. And, you will need a plan to collect that data.
 - *Task:* Develop a data collection plan for each of the variables for each of your research questions. Your data collection plan should identify, at a minimum, the following: whether you will use primary or secondary data sources, what data collection method(s) is most appropriate, specifically how you will measure the variable, the level of measurement your approach will enable, and what resources (tools, time, money) you anticipate needing.
 - *Grade portion:* 2 points
5. Hypotheses
- *Motivation:* You may never be asked to formally state your hypotheses when tasked with doing research. Doing so, however, helps sharpen your thinking and may even reveal biases you bring to the research.
 - *Task:* For each of your 4 DEI-related research questions write out a hypothesis and in a few sentences explain what the variables are for each question and for the explanatory/predictive questions whether the variable is dependent/independent.
 - *Grade portion:* 2 points
6. Data Analysis Plan
- *Motivation:* So you will have data. But, how will you analyze it?
 - *Task:* For each of your four research questions, present a data analysis plan. The plan should, at a minimum, identify: what variable(s) you will use, what measures of central tendency and dispersion, as well as what types of graphs, you will use to summarize the data, where applicable, what measures of bivariate relationship you will use, and, how you will know if there is a statistically significant relationship.
 - *Grade portion:* 2 points
7. Limitations
- *Motivation:* No one has ever done the perfect research project. It is important to understand and acknowledge the limitations of our research.
 - *Task:* In 1-2 paragraphs identify the limitations of your research project, as outlined so far. The limitations may relate to the scope of the research questions, the available data, the analysis techniques you know so far, and more. (It may be helpful to think back to the three conditions for causality.)
 - *Grade portion:* 1 points

Additional Points:

Your project will also be graded for its writing (5 points), organization (5 points) and creativity (up to 3 bonus points). To review how I approach grading writing and organization, see the general grading rubric on Blackboard.

The project is due on Wednesday December 12 by 7:30, which is the start time for our exam

Course Deliverable H – Assessment (Grading Rubric for Assignments and Semester Project)

UBPL 741 Grading Rubric

Grade	Organization	Writing	Content	Analysis	Creativity
Seasoned Professional Quality (A)	Logical flow; excellent use of design/layout elements	Flawless; engaging pacing and word choice	Covers all requirements and more. Above and beyond.	High quality analysis plus original insight. Strong arguments based on reasoning and evidence enough to withstand most critiques.	Wow! Unique and Inspiring Feature(s)!
New Professional Quality (A-)	Logical flow; good use of design/layout elements	Flawless; adequate pacing and word choice	Covers all requirements. No complaints.	High quality analysis. Strong arguments based on reasoning and evidence enough to withstand most critiques.	Great! Really Engaging Feature(s)!
Intern Quality (B+)	Logical flow; adequate use of design/layout elements	Infrequent grammar and/or word choice problems; once per paragraph on average	Covers nearly all requirements. Any gaps are minor	Good quality analysis. Good arguments but minor gaps in reasoning and/or evidence.	Neat. Draws audience in nicely.
Student Quality (B)	Logical flow; limited to no use of design elements	Frequent poor grammar and/or word choice; twice per paragraph on average	Covers nearly all requirements. Gaps are substantial but not missing critical requirement.	Fair quality analysis. Some good arguments with minor gaps in reasoning and/or evidence with some poor arguments with major gaps in reasoning and/or evidence.	Nice try. Over-the-top, confusing, or otherwise distracting to the audience.
Low Quality / Redo (B- or lower)	Lacks logical flow	Pervasive poor grammar and/or word choice; more than twice per paragraph on average	Missing multiple requirements or missing critical requirement.	Poor quality analysis. Most arguments have major gaps in reasoning and/or evidence	Not Applicable.

The organization, writing, content, and analysis components are equally weighted. The creativity component allows for bonus credit.

For standards, tips, and suggestions on organization and writing, see Blackboard → Course Documents → Writing Resources

For guidance on content and analysis, see Syllabus instructions.

Course Deliverables I – Assessment - Student Evaluation Comments

Quantitative Scores

The University of Kansas collects quantitative feedback from students on 9 criteria on a scale from 1 (low) to 5 (high). The mean scores for 2013 through 2016 are shown here.

Content and Materials were useful and organized	4.74
Set and met clear goals and objectives	4.79
Expectations were well-defined and fair	4.70
Expectations were appropriately challenging	4.47
Teaching was clear, understanding and engaging	4.51
Encouraging, supportive, and involved in learning	4.91
Available, responsive, and helpful	4.93
Respected students and their points of view	4.92
Acquired knowledge and skills that the course promoted	4.34
Overall	4.70

General Comments:

“I’ve thoroughly enjoyed this class. This is my 4th stats class and it has made me realize where the others have fallen short. I now feel like I have a command over the majority of the concepts.”

“I actually really enjoyed statistics, which I never thought I would actually say.”

“I never dreaded coming to statistics.”

“... this course is awesome to me.”

“I appreciate your attempt to check on students learning and gauge success at any given point.”

“I really enjoyed this class and think that I learned a lot by being exposed to statistics in different ways.”

“Continue making parts of the final project due throughout the semester. Once the end of the semester started approaching, it was a good feeling knowing that I already had portions of the final project started.”

In regards to how Team Based Learning approach worked for students:

“Very well. It introduced me to a new way to learn that felt very applicable to real world planning.”

“Worked very well, especially the RAPs and understanding immediately what I missed and why.”

“I liked the team work. It gave me the opportunity to learn and review how others got the answer. It also gave me a group I knew in the class that could help me if needed.”

“It worked well for me. I felt engaged and more excited for class daily.”

“... a great experience. At first it was difficult but then it was great team work.”

“Loved it. We all worked well together and it gave us different points of view. If someone didn’t understand something we worked as a team.”

Detailed Information on Three Exemplary Aspects of the Course

1. The first exemplary module to showcase is Module 1 focused on Why Diversity, Equity, and Inclusion. This module builds directly on the first week of self-reflection and group discussion described above. As noted in the syllabus, the core learning objectives are for students to be able to:

1. Explain the general features and terminology of diversity, equity, and inclusion
2. Explain the role of emotions, biases, tribes, and power in shaping how we interact with others
3. Begin to identify and examine the role of emotions, biases, tribes, and power in planning
4. Cultivate inner skills for compassionate planning

Below (pages 38-43) I include the instructions for three in-class exercises I developed to help students apply DEI concepts to planning practice (Exercise 1), planning education (Exercise 2), and current issues in planning (Exercise 3). These exercises challenge students to critically assess strengths and weakness of treatment of DEI in these venues by providing them with a common conceptual framework to talk through issues that are often deeply personal and difficult to engage. The third exercise also pushes students to improve their writing and editing skills.

2. The second exemplary module to showcase is Module 4 focused on measure of central tendency and dispersion, the first statistical module in the course. Here the learning objectives are to build skills for:

1. Recognizing, describing and using the normal distribution; transforming raw scores into Z-scores
2. Understanding and utilizing the concept of estimation; estimating confidence intervals
3. Defining and applying the components of hypothesis testing

Below (pages 45-49) I include the RAP test used in the two-stage testing process, as well as the two in-class team exercises. The RAP and two exercises help students understand how basic summary measures and representations of data, particularly measures central tendency (i.e. mean, median, and mode) and dispersion (i.e. range, standard deviation, and distributions), can be used (or mis-used) to inform public policy decisions. They also help students understand that there are often gray areas in which the underlying assumptions built into statistical measures – even very simply measures - can provide potentially conflicting direction. These lessons are communicated to students through examples that tie together climate change and natural hazards, environmental justice, and poverty and equity.

3. Another exemplary aspect of the course is the thorough inclusion of diversity, equity, and inclusion (DEI) elements throughout the syllabus. As part of my participation in the University of Kansas' Diversity Scholars Program, I worked with a masters' student to consolidate what we learned in the program, including pre-existing resources, into a syllabus assessment tool (<https://cte.ku.edu/resources-inclusive-teaching>). The tool is designed to help instructors from any discipline evaluate their own syllabi and identify ways they can improve them to improve inclusive learning via the course climate, the pedagogical approaches (such as active learning), and the course content. I used the tool to guide revisions to the UBPL 741 syllabus for 2017 included here. In addition to being shared with the KU community through a variety of venues (the CTE website, a teaching summit, word of mouth), it has been shared with more than 1,000 planning educators through the Planners2040 Facebook group.

TEAM EXERCISE 1, UBPL 741

Learning Objectives

- Gain familiarity with the aspirational principles in the AICP Code of Ethics
- Understand the four pillars of deep diversity – Emotions, Biases, Tribes, Power
- Apply the four pillars of deep diversity to analyze the AICP Code of Ethics

Core Concepts

- AICP Code of Ethics
- Aspirational Principles
- Emotions
- Biases
- Tribes
- Power
- Deep Diversity

Practical Applications

- In your professional work, you will undoubtedly face situations in which the ‘right’ thing to do is not clear. In most cases, these situations will involve relationships with other people. For ethical guidance we can look to the AICP Code of Ethics. The American Institute of Certified Planners (AICP) – a program of the American Planning Association – requires its members to abide by a Code of Ethics. The Code of Ethics begins with a section on “aspirational principles that constitute the ideals to which we are committed. We shall strive to act in accordance with our stated principles. However, an allegation that we failed to achieve our aspirational principles cannot be the subject of a misconduct charge or be a cause for disciplinary action” (AICP Code 2016). This exercise challenges us to be critical consumers of the AICP Code of Ethics Aspirational Principles, using the four pillars of Deep Diversity as a framework for analyzing the Code of Ethics.
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Task 1 – Annotated Aspirational Principles

Take copy of AICP Code of Ethics Aspirational Principles provided in class and, as a team, annotate the copy to show where you see each of the four pillars of Deep Diversity reflected.

Task 2 – Ranking Prevalence of Four Pillars

For each of the three sections of Aspirational Principles – 1) Responsibility to the Public, 2) Responsibility to Clients and Employers, and 3) Responsibility to the Profession and Colleagues – your team must rank the four pillars from most prevalent (1) to least prevalent (4). Provide a brief 25-50 word explanation of the ranking for each section.

Public	Clients and Employers	Profession and Colleagues
1.	1.	1.
2.	2.	2.
3.	3.	3.
4.	4.	4.

Public:

Clients and Employers:

Profession and Colleagues:

Task 3 – Addressing Gaps in the Code of Ethics

As a team, use your annotations and ranking to brainstorm responses to the following questions:

What reasons might there be for the gaps in how the Code of Ethics addresses the pillars?

What are ways that the AICP Code of Ethics Aspiration Principles might better address the four pillars?

TEAM EXERCISE 2, UBPL 741

Learning Objectives

- Practice reading and critically analyzing peer-review journal articles
- Gain familiarity with contemporary debates and arguments in planning scholarship about diversity and pedagogy
- Apply the four pillars of deep diversity to analyze planning scholarship

Core Concepts

- Diversity
- Race
- Gender
- Pedagogy
- Equity
- Advocacy

Practical Applications

As a professional discipline with a strong academic foundation, planning involves a continuous dialogue between scholarship and practice. Sometimes scholarship follows trends innovated in practice and sometimes scholarship pushes new perspective and approaches into practice. One of the primary peer reviewed journals for planning scholars is the Journal of Planning Education and Research (JPER). It frequently includes articles and commentaries on trends and best practices in pedagogy (i.e. approaches to teaching), including topics of diversity and equity. Being able to critically consume journal articles is a key skill in graduate school [and, in theory, in practice as well, although from my experience few practitioners read journal articles after completing their graduate degree.]

Task 1 – Quote Sharing and Synthesis

Discuss each person's quote for each article. It probably makes sense to do all the quotes for one article first and then go through the second article. If you find discussion lagging, consider the following prompts:

- What drew you to this quote?
- How does the quote explain something important?
- Will the quote inform how you think and behave as a student in graduate school? How?
- How might the quote inform how an instructor creates a class climate, chooses a teaching style, and/or picks content to cover in class?

For your team, please type brief answers to the following questions. We will compile each team's responses on the board at the front of the room.

What are two key points planning students should take from the article? Why?

Lung-Aman et al:

1.

2.

Sweet and Etienne:

1.

2.

What are two key points planning instructors should take from the article? Why?

Lung-Aman et al:

1.

2.

Sweet and Etienne:

1.

2.

Task 2 – Discussion Questions

Please pick one of the discussion questions your team came up with in preparation for today's class. Your team will share the quote and question with the rest of the class and then your team will help me guide a class-wide discussion.

Some criteria you might use to select which quote and question to share:

- Does the quote touch on a core theme rather than a minor point?
- Does the question allow help refine our understanding of a core concept?
- Does the question foster a wide range of open-ended responses rather than 1) simple yes/no responses, 2) responses that recite a right/wrong fact, or 3) responses that are all the same?
- Does the question allow for different perspectives to be shared?
- If the question fosters debate, do you expect that the debate can be carried forward constructively?

TEAM EXERCISE 3, UBPL 741

Learning Objectives

- Practice reading and critically analyzing news articles on contemporary planning issues
- Gain familiarity with professional writing expectations
- Apply writing evaluation rubric to work of peers

Core Concepts

- Planning issues
- Organization
- Grammar and Word Choice
- Content
- Analysis
- Creativity

Practical Applications

Few skills are more important – and harder to develop - for a professional planner than effective communication. Graduate school is a wonderful opportunity to refine your communication skills, especially writing. You can assume that most people who read your professional writing are likely to be busy, distracted, impatient, and/or bored by abstractions and minor details. Your job is to capture and hold their attention.

Instead of worrying about page or word minimums, focus on page or word maximums. For better and worse, we live in a world of Tweets, Instagram posts, and short-attention span digital communication. You will be lucky to get more than 250 words in before your reader spaces out. (You are probably already spacing out as you read this brief description!)

Many graduate students in professional disciplines need to unlearn writing habits that are useful for writing term papers and essays (e.g. long sentences, flowery word choice, slowly building to a main point, etc.), but are counterproductive in professional settings. Well-organized, precise, and concise writing is critical in professional settings. So, too is making your main point early, clearly and with logical support of key information.

Task 1 – Applying the Grading Rubric Individually

Each team will break into two groups. Each group will be given three article summaries from another team and copies of the grading rubric. Individually, you will use the grading rubric to assign a score between A and B- for each of the criteria – organization, writing, content, analysis, and creativity – for each of the three summaries. You need to briefly write notes on your rationale for the grade you assigned. You may find it helpful to use a simple matrix like this:

Criteria	Grade	Rationale
Organization		
Writing		
Content		
Analysis		
Creativity		

Task 2 – Applying the Grading Rubric as a Group

Each group will compare their grades for each summary, one by one. You need to talk and come up with a consensus grade for each criterion for each article, along with a rationale for each grade. You will be provided a grading sheet for each summary.

Task 3 – Discussion and Returning Feedback

We will have a class-wide discussion about the grading criteria and professional writing. Questions we will explore include:

- Were your initial individual grades similar to other group members? Was it easy to resolve differences?
- On which criteria were the summaries strongest? Weakest?
- Any questions/comments/suggestions for changing/refining the grading rubric?

At the end of class, I will return the summaries with the feedback to each student so you can use the feedback to revise your summary before turning it in for grading by me.

INSTRUCTIONS: Be sure to read each question and response option carefully before selecting a response option.

- 11) A transportation planner conducts a survey of neighborhood residents living within 150 yards of an intersection with multiple 'near misses' between speeding cars and children walking to and from a local elementary school. The survey asks respondents to identify which of the following changes to the street design they would least like to see installed: speed bumps, a pedestrian bridge, a pedestrian tunnel, curb bump-outs, or a traffic circle. Which measure of central tendency would be most appropriate for the planner to use when summarizing the responses to this question?
- a) Mean
 - b) Median
 - c) Mode
 - d) None of the above
 - e) Not enough information to determine
- 12) To calculate the mean of a variable you divide the sum of the observed values by the _____. To identify the median of a variable you determine the ____ value. To identify the mode of a variable you determine the ____ value.
- a) number of observations; middle, most frequent
 - b) number of observations; most frequent, middle
 - c) minimum value; middle, most frequent
 - d) minimum value; most frequent, middle
 - e) maximum value; middle, most frequent
- 13) Suppose there are 764 single-family home parcels in the small municipality of Green Hills. The local planner has been asked to figure out a baseline house value for Green Hills. The baseline house value will allow the municipality to track whether new home development just completed in the adjacent community of Armadilloville drives up the house values in Green Hills in the next few years. Of the 764 single-family home parcels in Green Hills, most are modest homes on medium-sized lots in middle-class neighborhoods. However, 31 parcels are 20+ acres in size, surround a pristine lake, and contain a massive house. Each of the 31 parcels has an estimated value between \$5 million and \$10 million. Which of the following measures should the planner feel least comfortable using for summarizing the central tendency of single-family house values in Green Hills?
- a) mean
 - b) mode
 - c) median
 - d) a or c
 - e) b or c
- 14) When analyzing data for a single variable, looking solely at measures of central tendency can lead to _____. To address this issue, it is customary to also look at _____. Which pair of words or phrases best completes these sentences?
- a) variance; measures of association
 - b) overgeneralization; measures of variability
 - c) overgeneralization; measures of association
 - d) transformation; measure of association
 - e) variance; measures of variability
- 15) The more the standard deviation for a variable departs from zero, the more ____ there is in the data. Which of the following words or phrases best completes this sentence?
- a) measurement error

- b) variance
- c) skew
- d) concentration
- e) bias

16) An environmental planner is concerned that over the last few decades her city has seen an increase in flood events. She wants to compare the number of flood events per year between 1971 and 1990 to the number of flood events per year in her city between 1991 and 2010 for seven locations in her city. Looking at the data in the table below, which of the following can she conclude?

- a) The typical location sees more flood events per year in 1991-2010 than it did in 1971-1990.
- b) The typical location sees fewer flood events per year in 1991-2010 than it did in 1971-1990.
- c) The typical location sees the same amount of flood events per year in 1991-2010 as it did in 1971-1990
- d) Not enough information to conclude anything.
- e) Who cares?

	Number of Flood Events Per Year 1971-1990	Number of Floods Events Per Year 1991-2010
Location 1	7	12
Location 2	5	0
Location 3	6	6
Location 4	5	9
Location 5	7	3
Location 6	6	6
Location 7	6	6

17) The environmental planner is also interested in comparing the overall variation in the number of flood events per year in the period 1971-1990 and the overall variation in the number of flood events in the period 1991-2010. Using the data in the table above, which of the following can he conclude?

- a) The overall variation in the number of flood events per year was greater in 1971-1990 than in 1991-2010.
- b) The overall variation in the number of flood events per year was greater in 1991-2010 than in 1971-1990.
- c) The overall variation in the number of flood events per year in 1991-2010 was the same as in 1971-1990.
- d) Not enough information to conclude anything
- e) No really, who cares?

18) Ranges are most appropriate for ___ variables and are irrelevant for ___ variables. Ranges can provide qualitative insights into ___ variables. Which set of words best completes these sentences?

- a) ordinal, interval/continuous, nominal
- b) interval/continuous, ordinal, nominal
- c) ordinal, nominal, interval/continuous
- d) interval/continuous, nominal, ordinal
- e) nominal, ordinal, interval/continuous

19) Suppose you attend the annual Kansas Chapter of the American Planning Association and see a presentation that compares renter eviction rates for a sample of Great Plains cities to renter eviction rates for sample of Pacific Northwest cities. The presenter shows a table with multiple summary statistics for the cities in the two regions, including mean renter eviction rates, renter eviction rate ranges, and standard deviations of renter eviction rates. The presenter notes that some outliers were not included in determining the summary statistic values. As the presenter begins to draw conclusions about differences between the two samples and make policy recommendations, an audience member politely raises her hand and says, "Excuse me, but before you

interpret your data I have a concern about what you just said.” Which of the follow statements would you agree with if it were the next sentence out of the audience member’s mouth?

- a) You appear to have thrown out valuable information without a clear justification for why you did so.
- b) Your means, ranges, and standard deviations may be inaccurate representations of the characteristics of the two samples.
- c) You should have reported the variances of the renter eviction rates instead of the standard deviations.
- d) a and b only
- e) a, b and c

Module 4, Team Exercise 1 - UBPL 741

Applying Measures of Central Tendency

In many cities, numerous homeless people spend much of their day outdoors in public spaces. Being out of doors for extended periods of time can become perilous for their health during periods of weather extremes. This issue is becoming more and more of a public health concern in the summer, as urban heat island effects due to changing land use patterns and global climate change are making heat advisory days more and more common.

Suppose a local social services and public health task force focused on the health of homeless persons in Kansas City, MO would like to ensure that the typical public space (e.g. parks, plazas, and open spaces) in the greater downtown area provides enough shade to provide cool places for homeless persons to shelter during the hottest part of the day. The initial criterion for 'enough shade' is that more than 10% of the total surface area of a public space must be consistently in the shade between 1:00 PM and 6:00 PM to provide at least a minimum level of respite from the heat of the day. This criterion is reflective of an assumption that the initial goal should be a wide distribution of at least small parcels of shade distributed throughout the greater downtown area.

A team of planning, geographic information systems, and parks and recreation staff has been assigned to support the task force. Your GIS teammates used aerial images to estimate the percent of shade cover for 143 public spaces. Subsequently, parks and recreation staff used on-the-ground visual assessments of a sample of 15 public spaces to validate the GIS estimates. The on-the-ground validation process measurements aligned adequately enough with the aerial estimates to justify proceeding with analysis of the data.

This is where your role on the team comes into the picture. Your task is to use the shade data to answer an exploratory but action-oriented research question. Namely, does the typical public space in the greater downtown area meet the above 10% shade criterion? Your answer will likely be used to justify whether to include initiatives to increase the tree canopy and build new shelters in public spaces in the upcoming city budget.

To make your determination and decision use the dataset in the worksheet titled Task 1 in the file named Module4Exercise1_Dataset, which is posted on blackboard in the Module 4 folder. Here are the products that I expect to see in order for your team to provide a clear and compelling case for your decision:

- Three one-sentence talking points that you can provide to the social services and public health task force members.
 - Your conclusion: what is your answer to the central question?
 - Rationale: what is your justification for your finding, using the relevant course concept(s)?
 - Policy recommendation: what planning or policy decision is justified based on your finding(s)?
- A graphic representation that makes the main conclusions of your analysis clear. Start with a hand-drawn sketch of the graphic you want to make. Then, once you are clear about the story you want to tell, create the graphic using excel.
- An excel file that includes the following:
 - Evidence that you have determined the values for the measure of central tendency without using the pre-set Excel commands (i.e. AVERAGE, MEDIAN, and MODE); you can use the commands as double-checks, however.

Module 4 Exercise 2 – UBPL 741

Explaining Distributions

One of two municipalities with similar land areas and populations –Little Gully and Deep Creek– in the western portion of Madeup County will be the site for a new waste incinerator. But, neither municipality wants the incinerator located in its borders because of concerns about localized air pollution and its potential to negatively impact public health, particular for sensitive populations like children, the elderly and those with breathing difficulties. Like many jurisdictions nationwide, Madeup County has a history of locating landfills, industrial plants, and other land uses with potential health risks for adjacent neighbors in poorer areas. Numerous individual citizens, religious organizations and community groups have formed an advocacy organization - Madeup Environmental Justice – have come together to convince the county commissioners not to locate the incinerator in the municipality with the most poorer residents.

Your role, as the outside expert, is to look at income data for the two jurisdictions and determine which of the municipalities is least suited for the incinerator if the county goal is to avoid locating it in a municipality with a greater proportion of poor residents. Here poor residents are defined as those with incomes of \$25,000 or less. Use the data in the file ‘Module4Exercise2_Data’ to make your decision.

Here are the products that I expect to see in order for your team to provide a clear and compelling case for your decision:

- Three one-sentence talking points that you can provide to Madeup Environmental Justice members.
 - Your conclusion: what is your answer to the central question?
 - Rationale: what is your justification for your finding, using the relevant course concept(s)?
 - Policy recommendation: what planning or policy decision is justified based on your finding(s)?
- A graphic representation that makes the main conclusions of your analysis clear. Start with a hand-drawn sketch of the graphic you want to make. Then, once you are clear about the story you want to tell, create the graphic using excel.