SYLLABUS

Course description
This new course explores the issues and choices that public managers in local government encounter when acquiring technology to create an Internet of Things (IoT). No model exists on how to structure this course. This syllabus is a first attempt at providing boundaries to the emergence of smart communities and the use of information to improve their management and governance. Adjustments to the calendar in the syllabus may be necessary as additional issues, resources, or topics emerge.

With the emergence of the technical capabilities to acquire, archive, and analyze large amounts of data has come the recognition that this technology can improve local government operations, better engage citizens, and improve transparency. But these new capabilities also raise questions of accountability, accessibility, and fairness that are at the core of public administration. City governments are at the cusp of innovation in adapting this new technology to their needs. As such, they provide an opportunity to learn from their experiences and to develop policies and procedures that reduce the cost of introducing and integrating these innovations.

As instructors, we are resources but not experts. As such, outside experts will be invited to address relevant topics throughout the semester. We will also ask members of the class to investigate specific topics and present their findings.

Here are some tips for maximizing the benefits of this course: (1) devote adequate time to completing the readings and course projects; (2) since this is a new course, be flexible if changes to the syllabus are needed as the semester progresses; (3) class time will be largely devoted to articulating the management issues as cities embrace smart technology; (4) the more time and effort that you devote to preparing individual or group projects, the more you will gain from the class; and (5) don’t miss class.

Learning outcomes
Students will be able to

- identify and understand the potential applications of information technology to local governments;
- analyze the costs and benefits of acquiring new technology and identify those options where benefits exceed costs;
• develop a blueprint for local governments, universities, and nonprofits for acquiring and implementing information technology that best serves the needs of their organization;
• develop policies to guide in the acquisition and implementation of smart technology.

Class conduct
Students should conduct themselves professionally and with integrity. We expect students to attend all class sessions, complete all required readings prior to class, participate in class discussions, and complete the written assignments and examination. Use of a computer or other personal technology to take notes is acceptable; surfing the web or reading or sending emails during class time is not acceptable. Other expectations include:

➢ Respect for fellow students and the instructors;
➢ Promptness – please do not be tardy to class. (If delayed by traffic, come into class when you arrive);
➢ Please do not bring food or drinks into the classroom. University policy prohibits any food or drinks in a computer lab;
➢ Turn off cell phones and all electronic equipment. Laptops or lab PCs may be used only for taking notes. Any other use will mean loss of privilege to use a laptop for the duration of the semester;
➢ Please do not leave the classroom once class has started. If a break is needed, please ask. Normally, breaks are at 7:30 pm.

Course requirements
Reading Assignments: Accompanying each class session are reading assignments drawn from practitioner and academic sources. We have tried to select readings relevant to the unit topic, but there is likely some overlap among the readings. Additional readings may be added throughout the semester as appropriate. All readings are available on Blackboard. We recommend completing the readings in the order on the syllabus. Most topics are divided over two weeks. The more readings that you can complete prior to each two-week unit, the more you will benefit from class discussions.

Field project: The City of Lewisville has launched a smart community initiative and now needs a master blueprint to guide future expansion of this service. As a class project, we will prepare such a blueprint. Using the five modules outlined in the course calendar, each student will work as a member of a module team under the direction of a module leader, research a topic, and assist with preparation of the module report and its presentation to the class. Each module will become part of the final blueprint. Our intent is that the five modules will be compiled by the module leaders, with the assistance of the instructors, into a final comprehensive blueprint for presentation to city leaders on May 3.

Class presentations/participation: Because no one is an expert on this topic, we anticipate a high level of interaction among class participants to inform and educate each other. Students will be evaluated on class participation based on their recollection of the readings, contributions to the module report, and contribution to class discussions.
Final Exam: One final exam will be administered during the last week of the semester, and it will be a take-home exam that requires integrating the material covered in the course. Your exam should be organized as a report to a city government: an executive summary, an introduction, five sections organized around the modules of the course, and a conclusion.

Final course grade: Final grades for the course will be based on the following weights:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Class presentation</td>
<td>20</td>
</tr>
<tr>
<td>Field project</td>
<td>40</td>
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<tr>
<td>Final exam</td>
<td>40</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
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Course calendar

(Subject to change. We recommend completing the readings in the order they are listed.)

**JANUARY 18, 25**  **UNIT 1: INTRODUCTION TO COURSE**

Readings:
4. ICMA and the Institute for Building Technology and Safety, “Smart Solutions: Technology Serving Communities,” August 2017. (Read pp. 1-12.)
5. President’s Council of Advisors on Science and Technology, “Technology and the Future of Cities,” Executive Office of the President, February 2016. (Read pp. v-41.)

**FEBRUARY 1**  **UNIT 2: OVERVIEW OF A SMART COMMUNITY BLUEPRINT**

Readings:

Guest speakers: Gina Thompson (MPA ’91) and Jason Kirkland (MPA ’02), City of Lewisville.

FEBRUARY 8, 15 UNIT 3: (BLUEPRINT MODULE 1) IDENTIFYING DATA FOR INFORMATION AND INTELLIGENCE
Readings:

February 8 Guest Speaker: Dr. Jennifer Cowley, UNT Provost (MPA ’97)

February 15 Guest Speaker: Ali McCullough (MPA ’10), Senior Data Analyst, Data Analytics and Institutional Research, UNT

FEB 22 & MAR 1 UNIT 4: (BLUEPRINT MODULE 2) DATA COLLECTORS AND PROCESSING
Readings:

February 22 Guest Speaker: Melissa Kraft, Chief Technology Officer, City of Denton

February 22 student presentation: Module 1

March 1 Guest Speaker, Tom Bamonte, Program Manager, North Central Texas Council of Governments and expert on autonomous vehicles.

March 1 student presentation: Module 2

March 8 & 22 UNIT 5: (BLUEPRINT MODULE 3) MAKING DATA AVAILABLE
Readings:

March 8 Guest speaker on Legal Issues in Big Data for Public Organizations. Michael Rondelli, Associate Vice President for Innovation and Commercialization, UNT

March 15 SPRING BREAK

March 22 UNIT 5 (CONTINUED): (BLUEPRINT MODULE 3) MAKING DATA AVAILABLE
March 22 student presentation: Module 3

March 29, APR 5 UNIT 6: (BLUEPRINT MODULE 4) BUILDING A FUTURE-READY INFRASTRUCTURE
Readings:
1. Texas A&M, “Request for Information, Campus Transportation Technology Initiative”

Guest speaker: TBA (if needed)

April 5 student presentation: Module 4

APRIL 12, 19 UNIT 7: (BLUEPRINT MODULE 5) ORGANIZING AND PAYING FOR A SMART COMMUNITY
Readings:

Guest speaker: TBA (if needed)

April 19 student presentation: Module 5
April 19 student presentation: Decision matrix model
April 19 student presentation: Module #6

APRIL 16 – MAY 3 Complete course evaluation (SPOT: Student Perceptions of Teaching) at my.unt.edu.

APRIL 26 UNIT 8: RECAPITULATION - DESIGNING A SMART CITY BLUEPRINT
Readings:
1. ICMA and IBTS, “Smart Solutions: Technology Serving Communities,” Chapter 5, Smart Cities Case Studies, August 2017. (Read pp. 30-84.)
Draft module reports due. Finalize blueprint for City of Lewisville. Mock test of Webinar setup for MPA alumni.

Distribute final exam take-home questions.

**MAY 3**  
**STUDENT PRESENTATION OF BLUEPRINT TO CITY OF LEWISVILLE**  
Final blueprint due.  
Guests: City of Lewisville officials  
Webinar: for MPA alumni and North Texas area city managers.

**MAY 10**  
**TURN IN TAKE-HOME FINAL EXAM**
POLICY ON CHEATING AND PLAGIARISM
Notice of this policy shall be given in all public administration classes each semester, and written copies shall be available in the public administration office.

Definitions
The UNT Code of Student Conduct and Discipline defines cheating and plagiarism “as the use of unauthorized books, notes, or otherwise securing help in a test; copying other’s tests, assignments, reports, or term papers; representing the work of another as one’s own; collaborating without authority with another student during an examination or in preparing academic work; or otherwise practicing scholastic dishonesty.”

Penalties
Normally, the minimum penalty for cheating or plagiarism is a grade of “F” in the course. In the case of graduate departmental exams, the minimum penalty shall be failure of all fields of the exam. Determination of cheating or plagiarism shall be made by the instructor in the course, or by the departmental faculty in the case of departmental exams.

Cases of cheating or plagiarism on graduate departmental exams, papers, theses, or dissertations shall automatically be referred to the departmental Curriculum and Degree Programs Committee. Cases of cheating or plagiarism in ordinary course work may, at the discretion of the instructor, be referred to the Curriculum and Degree Programs Committee in the case of either graduate or undergraduate students. This committee, acting as an agent of the Department, shall impose further penalties, or recommend further penalties to the Dean of Students, if they determine that the case warrants it. In all cases, the Dean of Students shall be informed in writing of the case.

Appeals
Students may appeal and decision under this policy by following the procedure laid down in the UNT Code of Student Conduct and Discipline.

POLICY ON DISABILITY ACCOMMODATION
The Department of Public Administration, in cooperation with the Office of Disability Accommodation, complies with the Americans with Disabilities Act in making reasonable accommodations for qualified students with disabilities. Please present your written accommodation request during regular office hours before the 12th class day of regular semesters (4th class day of summer sessions).

POLICY ON LAPTOPS AND CELL PHONES IN THE CLASSROOM
The classroom setting at an institution of higher learning is intended to serve as a venue that permits the transfer of knowledge and facilitates the sharing of ideas. As such, it is imperative that any distractions from these stated objectives be avoided and kept to a minimum. Potential disruptions include modern electronic devices such as laptop computers and cell phones.

Students are allowed to take notes on personal laptop computers to enhance the learning process, but they should not activate their internet browsers during class or use computers for non-academic purposes (as this diverts attention from the lecture/discussion for both the student using it and others nearby). Students should also avoid using cell phones to search the Internet or text while class is in session.

Exceptions to this policy will be at the discretion of the faculty only and may occur if searching the Internet is necessary to find additional information or facts related to the subject being covered on that particular day.
POLICY ON STUDENT BEHAVIOR IN THE CLASSROOM
Student behavior that interferes with an instructor’s ability to conduct a class or other students' opportunity to learn is unacceptable and disruptive and will not be tolerated in any instructional forum at UNT. Students engaging in unacceptable behavior will be directed to leave the classroom and the instructor may refer the student to the Center for Student Rights and Responsibilities to consider whether the student's conduct violated the Code of Student Conduct. The university's expectations for student conduct apply to all instructional forums, including university and electronic classroom, labs, discussion groups, field trips, etc. The Code of Student Conduct can be found at www.unt.edu/csrr.

SEXUAL DISCRIMINATION, HARRASSMENT, & ASSAULT
UNT is committed to providing an environment free of all forms of discrimination and sexual harassment, including sexual assault, domestic violence, dating violence, and stalking. If you (or someone you know) has experienced or experiences any of these acts of aggression, please know that you are not alone. The federal Title IX law makes it clear that violence and harassment based on sex and gender are Civil Rights offenses. UNT has staff members trained to support you in navigating campus life, accessing health and counseling services, providing academic and housing accommodations, helping with legal protective orders, and more.

UNT’s Dean of Students’ website offers a range of on-campus and off-campus resources to help support survivors, depending on their unique needs: http://deanofstudents.unt.edu/resources_0. UNT’s Student Advocate can be reached through e-mail at SurvivorAdvocate@unt.edu or by calling the Dean of Students' office at 940-565-2648. You are not alone. We are here to help.