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OFFICE OF THE SENATE COUNCIL

1. General Information

1a. Submitted by the College of: COMMUNICATION AND INFORMATION

Date Submitted: 3/1/2016

1b. Department/Division: School of Information Science

1c. Contact Person

Name: Jeff Huber

Email: jeffrey.huber@uky.edu

Phone: (859) 257-2334

Responsible Faculty ID (if different from Contact)

Name: Youngseek Kim

Email: youngseek.kim@uky.edu

Phone: (859) 218-2295

1d. Requested Effective Date: Semester following approval

1e. Should this course be a UK Core Course? No

2. Designation and Description of Proposed Course

2a. Will this course also be offered through Distance Learning?: Yes [4]

2b. Prefix and Number: LIS 661

2c. Full Title: Introduction to Data Science

2d. Transcript Title:

2e. Cross-listing:

2f. Meeting Patterns

LECTURE: 3

2g. Grading System: Letter (A, B, C, etc.)

2h. Number of credit hours: 3

2i. Is this course repeatable for additional credit? No

If Yes: Maximum number of credit hours:

If Yes: Will this course allow multiple registrations during the same semester?

2j. Course Description for Bulletin: This course will provide a foundation in the area of data science based on data curation and statistical analysis. The primary goal of this course is for students to learn data analysis concepts and techniques that facilitate making decisions from a rich data set. Students will investigate data concepts, metadata creation and interpretation, general linear method, cluster analysis, and basics of information visualization. At the beginning, this course will introduce fundamentals about data and data standards and methods for organizing, curating, and preserving data for reuse. Then, we will focus on the inferential statistics: drawing conclusions and making decisions from data. This course will help students understand how to use data analysis tools, and especially, provide an opportunity to utilize an open source data analysis tool, R, for data manipulation, analysis, and visualization. Finally, in this course we will discuss diverse issues around data including technologies, behaviors, organizations, policies, and society.

2k. Prerequisites, if any:

2l. Supplementary Teaching Component:

3. **Will this course taught off campus?** No

   If YES, enter the off campus address:

4. **Frequency of Course Offering:** Spring,

   Will the course be offered every year?: Yes

   If No, explain:

5. **Are facilities and personnel necessary for the proposed new course available?:** Yes

   If No, explain:

6. **What enrollment (per section per semester) may reasonably be expected?:** 20

7. **Anticipated Student Demand**

   Will this course serve students primarily within the degree program?: Yes

   Will it be of interest to a significant number of students outside the degree pgm?: No

   If Yes, explain:

8. **Check the category most applicable to this course:** Relatively New – Now Being Widely Established,

   If No, explain:

9. **Course Relationship to Program(s).**

   a. **Is this course part of a proposed new program?:** No

   If YES, name the proposed new program:

   b. **Will this course be a new requirement for ANY program?:** No

   If YES, list affected programs:

10. **Information to be Placed on Syllabus.**

    a. **Is the course 400G or 500?:** No

b. The syllabus, including course description, student learning outcomes, and grading policies (and 400G-/500-level grading differentiation if applicable, from **10.a** above) are attached: No

Distance Learning Form

Instructor Name: Youngseek Kim

Instructor Email: youngseek.kim@uky.edu

Internet/Web-based: Yes

Interactive Video: No

Hybrid: No

1.How does this course provide for timely and appropriate interaction between students and faculty and among students? Does the course syllabus conform to University Senate Syllabus Guidelines, specifically the Distance Learning Considerations? Timely and appropriate interaction will be possible through Canvas, email and other online communication tools (i.e., Adobe Connect, Skype). Syllabus was designed with online instruction in mind. Syllabus conforms to Senate guidelines. Syllabus includes statement on timeliness of response to inquiries.

2.How do you ensure that the experience for a DL student is comparable to that of a classroom-based student's experience? Aspects to explore: textbooks, course goals, assessment of student learning outcomes, etc. Many aspects of face to face instruction are intact with this online course including items like course goals and learning objectives. Assessment will take place through items like discussion posts, tests, projects or papers. Additionally, course may make use of online tools such as discussion boards, email, video presentations and other communication methods to help improve the overall experience.

3.How is the integrity of student work ensured? Please speak to aspects such as password-protected course portals, proctors for exams at interactive video sites; academic offense policy; etc. Each student's Canvas account is tied to their myUK account. Assignments such as papers will be handled much the same as they would be in a face to face course in terms of being evaluated for possible issues in regards to the academic offense policy.

4.Will offering this course via DL result in at least 25% or at least 50% (based on total credit hours required for completion) of a degree program being offered via any form of DL, as defined above? No.

If yes, which percentage, and which program(s)? No.

5.How are students taking the course via DL assured of equivalent access to student services, similar to that of a student taking the class in a traditional classroom setting? We have tried to make student services as accessible as possible. Our program uses a listserv for program announcements and we employ a full-time student affairs officer who regularly communicates with our students, regardless or location. We also have a Blackboard organization to further assist in providing student services to remote participants. Additionally, we encourage students to use services such as Distance Learning Library Services when appropriate.

6.How do course requirements ensure that students make appropriate use of learning resources? In order to successfully complete assignments such as class participation, quizzes and projects, students will have to use their textbook, course readings and supplementary materials available through UK Libraries.

7.Please explain specifically how access is provided to laboratories, facilities, and equipment appropriate to the course or program. Students will not require access to equipment outside of a personal computer and appropriate software. Students will primarily use the services of UK's Distance Learning, UK Distance Learning Library and electronic access to UK Libraries.

8.How are students informed of procedures for resolving technical complaints? Does the syllabus list the entities available to offer technical help with the delivery and/or receipt of the course, such as the Information Technology Customer Service Center (http://www.uky.edu/UKIT/)? Students are informed via the syllabus and given contact information for technical issues.

9.Will the course be delivered via services available through the Distance Learning Program (DLP) and the Academic Technology Group (ATL)? YES

If no, explain how student enrolled in DL courses are able to use the technology employed, as well as how students will be provided with assistance in using said technology.

10.Does the syllabus contain all the required components? YES

11.I, the instructor of record, have read and understood all of the university-level statements regarding DL.

Instructor Name: Youngseek Kim

SIGNATURE|JTHU222|Jeffrey T Huber|LIS 661 NEW Dept Review|20160201

SIGNATURE|MSBEAC2|Megan B Sizemore|LIS 661 NEW College Review|20160302

SIGNATURE|ZNNIKO0|Roshan N Nikou|LIS 661 NEW Graduate Council Review|20160331

New Course Form

https://myuk.uky.edu/sap/bc/soap/rfc?services=

Open in full window to print or save

Generate F

Attachments:

Browse... Upload File

	ID	Attachment
Delete	6175	LIS 661.docx

First 1 Last

(*denotes required fields)

1. General Information

a. * Submitted by the College of: COMMUNICATION AND INFORMATION Submission Date: 3/1/2016

b. * Department/Division: School of Information Science

c.

* Contact Person Name: Jeff Huber Email: jeffrey.huber@uky.edu Phone: (859) 257-2334

* Responsible Faculty ID (if different from Contact) Youngseek Kim Email: youngseek.kim@uky.edu Phone: (859) 218-2295

d. * Requested Effective Date: ◉ Semester following approval OR ○ Specific Term/Year [1]

e.

Should this course be a UK Core Course? ○ Yes ◉ No

If YES, check the areas that apply:

☐ Inquiry - Arts & Creativity	☐ Composition & Communications - II
☐ Inquiry - Humanities	☐ Quantitative Foundations
☐ Inquiry - Nat/Math/Phys Sci	☐ Statistical Inferential Reasoning
☐ Inquiry - Social Sciences	☐ U.S. Citizenship, Community, Diversity
☐ Composition & Communications - I	☐ Global Dynamics

2. Designation and Description of Proposed Course.

a. * Will this course also be offered through Distance Learning? ◉ Yes [1] ○ No

b. * Prefix and Number: LIS 661

c. * Full Title: Introduction to Data Science

d. Transcript Title (if full title is more than 40 characters):

e. To be Cross-Listed [2] with (Prefix and Number):

f. * Courses must be described by at least one of the meeting patterns below. Include number of actual contact hours[3] for each meeting pattern type.

3	Lecture		Laboratory[1]		Recitation		Discussion
	Indep. Study		Clinical		Colloquium		Practicum
	Research		Residency		Seminar		Studio
	Other	If Other, Please explain:					

g. * Identify a grading system:

◉ Letter (A, B, C, etc.)
○ Pass/Fail
○ Medicine Numeric Grade (Non-medical students will receive a letter grade)
○ Graduate School Grade Scale

h. * Number of credits: 3

i. * Is this course repeatable for additional credit? ○ Yes ◉ No

If YES: Maximum number of credit hours:

If YES: Will this course allow multiple registrations during the same semester? ○ Yes ○ No

j. * Course Description for Bulletin:

This course will provide a foundation in the area of data science based on data curation and statistical analysis. The primary goal of this course is for students to learn data analysis concepts and techniques that facilitate making decisions from a rich data set. Students will investigate data concepts, metadata creation and interpretation, general linear method, cluster analysis, and basics of information visualization. At the beginning, this course will introduce fundamentals about data and data standards and methods for organizing, curating, and preserving data for reuse. Then, we will focus on the inferential statistics: drawing conclusions and making decisions from data. This course will help students understand how to use data analysis tools, and especially, provide an opportunity to utilize an open source data analysis tool, R, for data manipulation, analysis, and visualization. Finally, in this course we will discuss diverse issues around data including technologies, behaviors, organizations, policies, and society.

k. Prerequisites, if any:

l. Supplementary teaching component, if any: ○ Community-Based Experience ○ Service Learning ○ Both

3. * Will this course be taught off campus? ○ Yes ◉ No

If YES, enter the off campus address:

4. Frequency of Course Offering.

a. * Course will be offered (check all that apply): ☑ Fall ☑ Spring ☐ Summer ☐ Winter

b. * Will the course be offered every year? ◉ Yes ○ No

If No, explain:

5. * Are facilities and personnel necessary for the proposed new course available? ◉ Yes ○ No

If No, explain:

6. * What enrollment (per section per semester) may reasonably be expected? 20

7. Anticipated Student Demand.

a. * Will this course serve students primarily within the degree program? ◉ Yes ○ No

b. * Will it be of interest to a significant number of students outside the degree pgm? ○ Yes ◉ No

If YES, explain:

8. * Check the category most applicable to this course:

☐ Traditional – Offered in Corresponding Departments at Universities Elsewhere
☑ Relatively New – Now Being Widely Established
☐ Not Yet Found in Many (or Any) Other Universities

9. Course Relationship to Program(s).

a. * Is this course part of a proposed new program? ○ Yes ◉ No

If YES, name the proposed new program:

b. * Will this course be a new requirement for ANY program? ○ Yes ◉ No

If YES, list affected programs::

10. Information to be Placed on Syllabus.

a. * Is the course 400G or 500? ○ Yes ◉ No

If YES, the *differentiation for undergraduate and graduate students must be included* in the information required in **10.b.** You must include: (i) identification of add assignments by the graduate students; and/or (ii) establishment of different grading criteria in the course for graduate students. (See SR 3.1.4.)

b. ☐ * The syllabus, including course description, student learning outcomes, and grading policies (and 400G-/500-level grading differentiation if applicable, from **10** attached.

Distance Learning Form

This form must accompany every submission of a new/change course form that requests distance learning delivery. This form may be required when changing a course already approved for DL

fields are required!

Introduction/Definition: For the purposes of the Commission on Colleges Southern Association of Colleges and Schools accreditation review, ***distance learning*** is defined as a fo educational process in which the majority of the instruction (interaction between students and instructors and among students) in a course occurs when students and instructors the same place. Instruction may be synchronous or asynchronous. A distance learning (DL) course may employ correspondence study, or audio, video, or computer technologies

A number of specific requirements are listed for DL courses. **The *department* proposing the change in delivery method is responsible for ensuring that the requiremer are satisfied at the individual course level.** It is the responsibility of the instructor to have read and understood the university-level assurances regarding an equivalent expe students utilizing DL (available at http://www.uky.edu/USC/New/forms.htm).

Course Number and Prefix:	LIS 661	Date:	9/17/2015
Instructor Name:	Youngseek Kim	Instructor Email:	youngseek.kim@uky.edu

Check the method below that best reflects how the majority of the course content will be delivered.

Internet/Web-based ☑ Interactive Video ☐ Hybrid ☐

Curriculum and Instruction

1. How does this course provide for timely and appropriate interaction between students and faculty and among students? Does the course syllabus conform to University Syllabus Guidelines, specifically the Distance Learning Considerations?

   Timely and appropriate interaction will be possible through Canvas, email and other online communication tools (i.e., Adobe Connect, Skype). Syllabus was designed with online instruction in mind. Syllabus conforms to Senate

2. How do you ensure that the experience for a DL student is comparable to that of a classroom-based student's experience? Aspects to explore: textbooks, course goals, of student learning outcomes, etc.

   Many aspects of face to face instruction are intact with this online course including items like course goals and learning objectives. Assessment will take place through items like discussion posts, tests, projects or papers.

3. How is the integrity of student work ensured? Please speak to aspects such as password-protected course portals, proctors for exams at interactive video sites; academ policy; etc.

   Each student's Canvas account is tied to their myUK account. Assignments such as papers will be handled much the same as they would be in a face to face course in terms of being evaluated for possible issues in regards to the

4. Will offering this course via DL result in at least 25% or at least 50%* (based on total credit hours required for completion) of a degree program being offered via any f as defined above?

   No.

   Which percentage, and which program(s)?

   No.

   *As a general rule, if approval of a course for DL delivery results in 50% or more of a program being delivered through DL, the effective date of the course's DL delivery months from the date of approval.

5. How are students taking the course via DL assured of equivalent access to student services, similar to that of a student taking the class in a traditional classroom setting

   We have tried to make student services as accessible as possible. Our program uses a listserv for program announcements and we employ a full-time student affairs officer who regularly communicates with our students,

Library and Learning Resources

6. How do course requirements ensure that students make appropriate use of learning resources?

   In order to successfully complete assignments such as class participation, quizzes and projects, students will have to use their textbook, course readings and supplementary materials available through UK Libraries.

7. Please explain specifically how access is provided to laboratories, facilities, and equipment appropriate to the course or program.

   Students will not require access to equipment outside of a personal computer and appropriate software. Students will primarily use the services of UK's Distance Learning, UK Distance Learning Library and electronic access to UK

Student Services

8. How are students informed of procedures for resolving technical complaints? Does the syllabus list the entities available to offer technical help with the delivery and/or r the course, such as the Information Technology Customer Service Center (http://www.uky.edu/UKIT/)?

   Students are informed via the syllabus and given contact information for technical issues.

9. Will the course be delivered via services available through the Distance Learning Program (DLP) and the Academic Technology Group (ATL)?

   ◉ Yes
   ○ No

   If no, explain how students enrolled in DL courses are able to use the technology employed, as well as how students will be provided with assistance in using said techn

10. Does the syllabus contain all the required components, below? ☑ Yes

    - Instructor's ***virtual*** office hours, if any.
    - The technological requirements for the course.
    - Contact information for Distance Learning programs (http://www.uky.edu/DistanceLearning) and Information Technology Customer Service Center (http://www.uky.edu/UKIT/Help/; 859-218-HELP).
    - Procedure for resolving technical complaints.
    - Preferred method for reaching instructor, e.g. email, phone, text message.
    - Maximum timeframe for responding to student communications.
    - Language pertaining academic accommodations:

- "If you have a documented disability that requires academic accommodations in this course, please make your request to the University Disability Resoun The Center will require current disability documentation. When accommodations are approved, the Center will provide me with a Letter of Accommodatior details the recommended accommodations. Contact the Disability Resource Center, Jake Karnes, Director at 859-257-2754 or jkarnes@email.uky.edu."

- Specific dates of face-to-face or synchronous class meetings, if any.
- Information on Distance Learning Library Services (http://www.uky.edu/Libraries/DLLS)
  - Carla Cantagallo, DL Librarian
  - Local phone number: 859 257-0500, ext. 2171; long-distance phone number: (800) 828-0439 (option #6)
  - Email: dllservice@email.uky.edu
  - DL Interlibrary Loan Service: http://www.uky.edu/Libraries/libpage.php?iweb_id=253&llib_id=16

11. I, the instructor of record, have read and understood all of the university-level statements regarding DL.

Instructor Name:
Youngseek Kim

Abbreviations: DLP = Distance Learning Programs ATG = Academic Technology Group Customer Service Center = 859-218-HELP (http://www.uky.edu/UKIT/Help)

Revised 8/09

[1] Courses are typically made effective for the semester following approval. No course will be made effective until all approvals are received.

[2] The chair of the cross-listing department must sign off on the Signature Routing Log.

[3] In general, undergraduate courses are developed on the principle that one semester hour of credit represents one hour of classroom meeting per week for a semester, exclusive of any laboratory meeting. La meeting, generally, represents at least two hours per week for a semester for one credit hour. (from SR 5.2.1)

[4] You must also submit the Distance Learning Form in order for the proposed course to be considered for DL delivery.

[5] In order to change a program, a program change form must also be submitted.

Rev 8/09

University of Kentucky
School of Library & Information Science (SLIS)

LIS 661: Introduction to Data Science

Fall/Spring 20## (Month ## to Month ##)

Instructor
Youngseek Kim
Assistant Professor
Office: 331 Little Library Building
Phone: (859) 218 – 2295
Email: youngseek.kim@uky.edu and Canvas Course Messages (Preferred)
Response Time: Within 24 hours during weekdays (expect a delay during weekends and holidays)

Office Hours
Mondays & Wednesdays: ## – ##
and by appointments
Virtual office hours are available during the regular office hours via Adobe Connect

Course Information
This is an online course. Please visit uk.instructure.com (Canvas) for course homepage.

COURSE DESCRIPTION

This course will provide a foundation in the area of data science based on data curation and statistical analysis. The primary goal of this course is for students to learn data analysis concepts and techniques that facilitate making decisions from a rich data set. Students will investigate data concepts, metadata creation and interpretation, general linear method, cluster analysis, and basics of information visualization. At the beginning, this course will introduce fundamentals about data and data standards and methods for organizing, curating, and preserving data for reuse. Then, we will focus on the inferential statistics: drawing conclusions and making decisions from data. This course will help students understand how to use data analysis tools, and especially, provide an opportunity to utilize an open source data analysis tool, *R*, for data manipulation, analysis, and visualization. Finally, in this course we will discuss diverse issues around data including technologies, behaviors, organizations, policies, and society.

COURSE OBJECTIVES

Upon successful completion of this course, students should have developed some or all of the following areas of skills and knowledge:

- An understanding of how the nature of the data collection, the data itself, and the analysis processes relate to the kinds of inferences that can be drawn
- Understand the limitations of data sets based on their contents and provenance
- Knowledge of data organization, management, preservation, and reuse
- Knowledge of what statistical analysis techniques to choose, given particular demands of inference and available data
- Knowledge of general linear models and cluster analysis methods for statistical analysis
- Skills and knowledge in preparing data for analysis, including cleaning data, manipulating data, and dealing with missing data
- Skills in actually analyzing data using open source data analysis tools
- Skills in scripting for data manipulation, analysis, and visualization using *R*, *R-Studio*, and a variety of add on packages.

COURSE MATERIALS

Required Textbook:
Jeffrey M. Stanton (2013). Introduction to Data Science. Available for free in the iTunes bookstore or as a PDF download at http://surface.syr.edu/istpub/165/.

Additional readings:
For some weeks, there will be additional readings to the textbook, and they will be made available on the Canvas course site.

COURSE CONDUCT

The course includes *online* lectures (PPT slides), *online* discussions and exercises, case studies, assignments, and project. As this is an online course with no set meeting times, the question arises when are assignments due each week. For the purposes of this class we will treat Monday as the first day of class each week. Also, readings should be completed by at least Wednesday in order to participate in online discussions. I will put up course notes (PPT slides) no later than midnight on Sunday of each week. Regarding the weekly discussion, you need to answer some discussion questions and discuss them (see more information below). The discussion board is asynchronous, meaning that you can join in the discussion whenever it is convenient for you to do so.

Canvas as the Main Platform of the Course
This class uses Canvas as a required and main part of the course. Teaching materials (syllabus, course notes, discussions, assignments, resources, etc.) will be made available in Canvas. All assignments should also be submitted to Canvas. Students can check grading status and progress in Canvas. Please visit the Canvas Information Pages at https://www.uky.edu/canvas/ to learn about Canvas. For technical support, call the UKIT Service Desk at (859) 218-HELP (4357) or email helpdesk@uky.edu.

Communications:
All course related communications (online discussions, queries on assignments, etc.) will occur within Canvas. Please post your questions on the Canvas discussion board because other students may have the same questions and receive the benefits from answers. Important announcements will be made inside Canvas. Students thus are required to check Canvas on a regular basis. Failure to receive such announcements cannot be used as an excuse for not being informed.

I welcome emails sent to my UKY.EDU email account and/or Canvas Course Messages account. I prefer to use the Canvas Course Messages in order to keep all course related emails in one place to facilitate communication; however, please feel free to send me any email message to my UKY.EDU email account. Please do not expect an immediate response on your email message. However, in ordinary circumstances, it is expected that the instructor will respond within 24 hours during weekdays. Please expect a delay during weekends and holidays.

METHODS OF ASSESSMENT

Your final grade is determined by your performance on the items in the table below. Assignments and individual project will be assigned as the course continues. Lastly, we will have a weekly online discussion.

Each assignment will be posted at least two weeks before its due date. Please submit your assignments and project through Canvas assignment drop-box. The table below shows the list of assignments, project, and participation and the points for each component.

Type	Topic	Points	Sub Total
Assignments	Assignment #1: Metadata Standards	5.0	40.0
	Assignment #2: Basic Statistics	5.0	
	Assignment #3: Data Analysis with R	10.0	
	Assignment #4: Case Study (with R)	10.0	
	Assignment #5: Data Visualization	10.0	
Project	Final Project: Data Analysis Report	30.0	30.0
Participation	Online Discussions (2 points per each week)	30.0	30.0
		Total: 100.0	

Online Discussions:
Students are expected to participate in the weekly discussion (or exercise) via the Canvas Discussions. I will pose several discussion questions (and/or one or two exercises), so you can have the discussions based on the questions (and/or exercises). In addition, there will be a course content discussion thread, where you can talk about each week's course material.

The discussion will start on Monday morning, and it will end on the following Sunday night. I will leave the discussion forum open later, but I am going to evaluate your postings during the week ONLY. You can earn up to 2.0 points for each week's discussion (and/or exercises). You can earn up to 0.5 point for any valuable posting regarding the discussion questions which are posed for each week, your own question regarding each week's course content, answers for the questions posed by other students. This means that you need to post at least 4 posting a week in order to get 2.0 points for that week.

A valuable posting or quality posting includes a substantive and thoughtful contribution to each week's discussion topics, during that week. No credit will be given for posts that occur after the week. A quality posting is both substantive (in most instances this means at least 100 words) and thoughtful ("I agree with the author" only is not a credit-worthy response). Also, please write each discussion posting concisely (100 to 200 words – 1 or 2 paragraphs). I encourage you to complete your discussion posts and other work in Word and then paste it to Canvas. If you compose online and there is a technology-related failure, you will likely lose your work.

Grade Expectations:
Grades are based on the quality of the submitted work, not upon how well others performed. The following are grade expectations and divisions.

Grade	Score (Percentage)	Expectation
A	90% - 100%	Exceptional Achievement
B	80% - 89%	High Achievement
C	70% - 79%	Average Achievement
E	0% - 69%	Failing

Late assignment policy:
Some of the assignments will be discussed in following week's online discussions after the assignments are due. Most assignments will help build a base for future assignments and the project. Thus all assignments should be turned in on time as specified. An overdue assignment will get a penalty of 20% of total points for each day late. No assignment and project will be accepted after five days except 'excused

absences' (see more information in Ethics & Policies below).

RE-GRADING REQUESTS

The grade for each assignment is recorded in Canvas before the assignment is returned to the student. It is a student's responsibility to ask questions or request re-grading of an assignment within five business days from the time the assignment is returned. No re-grading requests will be accepted after the five business day period.

ETHICS & POLICIES

Excused Absences and Verification: Please refer to Student Rights and Responsibilities, Part II, Section 5.2.4.2 (http://www.uky.edu/StudentAffairs/Code/part2.html) for UK's policy on excused absences. You can request verification for excused absences.

Excused absences include (as defined at the web site above):

- Significant illness of student or serious illness of household member or immediate family
- Death of a household member or immediate family
- Trips for members of student organizations, class excursions or participation in intercollegiate athletic events
- Major religious holidays
- Any other circumstance that the instructor finds reasonable cause for nonattendance

Academic Accommodations: If you have a documented disability that requires academic accommodations, please see me as soon as possible. In order to receive accommodations in this course, you must provide me with a Letter of Accommodation from the Disability Resource Center (Room 2, Alumni Gym, 257-2754, jkarnes@uky.edu) for coordination of campus disability services available to students with disabilities. We can then collaborate on the best solution.

Academic Integrity, Cheating and Plagiarism: You are expected to submit your own original work for all assignments in this course. See the home page for the Office of Academic Ombud Services (http://www.uky.edu/Ombud) for a definition of plagiarism, how to avoid plagiarism and UK's new academic offense policy. Please refer to Student Rights and Responsibilities, Part II, Section 6.3 (http://www.uky.edu/StudentAffairs/Code/part2.html) for UK's policy on academic integrity.

Classroom Behavior, Decorum and Civility: Please be respectful to others in the class and engage in civil discourse when we discuss topics that have a diversity of perspectives. Please help me maintain the most courteous environment by using a little peer pressure if necessary.

TECHNOLOGY INFORMATION & RESOURCES

Distance Learning Students are expected to have a minimum level of technological acumen and the availability of technological resources. Students must have regular access a computer with a reliable Internet connection and audio capabilities. Internet Explorer 7 (IE) or Firefox 2.x are the recommended browsers for those using a Windows-based PC. Those using Firefox 3.x may encounter problems with assignment uploads. Those using an Apple computer with MAC OS X (10.5.x) may use Firefox 3.x or Safari 3.x.

Please be certain that your computer and/or browser allow you to view Adobe Reader documents (.pdf). Microsoft Office and other software products are free for students: https://iweb.uky.edu/MSDownload/.

As your instructor, I am your first go-to person for technology problems. If you need more immediate assistance, please contact UKIT.

Information Technology Customer Service Center (UKIT)
http://www.uky.edu/UKIT/; 859-218-4357

Library Services
Distance Learning Services
http://www.uky.edu/Libraries/DLLS

- Carla Cantagallo, DL Librarian
- Local phone number: (859) 257-0500, ext. 2171; long-distance phone #: (800) 828-0439 (option #6)
- Email: dllservice@email.uky.edu
- DL Interlibrary Loan Service: http://www.uky.edu/Libraries/libpage.php?lweb_id=253&llib_id=16

GENERAL COURSE POLICIES

Policies concerning academic integrity, excused absences and academic accommodations due to disability are available online at:
http://ci.uky.edu/lis/sites/default/files/policies.pdf

Military Members and Veterans
We recognize the complexities of being a member of the military community and also a student. If you are a member of the military or a military veteran or dependent, please inform your instructor if you are in need of special accommodations. Drill schedules, calls to active duty, mandatory training exercises, complications with GI Bill disbursement, and other unforeseen military and veteran related developments can complicate your academic life. If you are aware of a complication, we will work with you and put you in contact with university staff members who are trained to assist you. Please contact the Coordinator of the University of Kentucky Veterans Resource Center at (859) 257-1148 for additional assistance. Visit http://www.uky.edu/veterans for more available resources.

TENTATIVE CLASS SCHEDULE (AS OF ##)

Week	Date	Topic	Reading	Assignments & Project
1	##/##	Course Introduction and Definition of Data Science	SR 1*	
2	##/##	Essential Concepts of Data	Ch. 1 & SR 2	
3	##/##	Description and Representation of Data	Ch. 2 & SR 3	Assignment #1: Metadata Standards
4	##/##	Collection and Identification of Data	Ch. 8 & SR 4	
5	##/##	Introduction to Basic Statistics	Ch. 5 & 6	Assignment #2: Basic Statistics
6	##/##	Getting Started with R	Ch. 3	
7	##/##	Sampling and Inferential Statistics	Ch. 7	
8	##/##	Data Analysis with R	Ch. 9	Assignment #3: Data Analysis
9	##/##	General Linear Method	Ch. 16	
10	##/##	Thanksgiving/Spring Break – Enjoy!		
11	##/##	Cluster Analysis	Ch. 11 & 12	Assignment #4: Case Study
12	##/##	Data Preservation and Storage	Ch. 14 & SR 5	
13	##/##	Data Manipulation with R	Ch. 10	
14	##/##	Data Visualization	Ch. 13 & 15	Assignment #5: Data Visualization
15	##/##	Data Mining/Vector Analysis	Ch. 17 & 18	
16	##/##	Relevant Issues in Data Science	Ch. 4 & SR 6	Final Project: Data Analysis Report

SR* Supplement Reading

SUPPLEMENT READING LIST

[SR 1] Week 1: Course Introduction and Definition of Data Science

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[SR 2] Week 2: Essential Concepts of Data

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[SR 3] Week 3: Description and Representation of Data

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[SR 4] Week 4: Collection and Identification of Data

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[SR 5] Week 12: Data Preservation and Storage

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[SR 6] Week 16: Relevant Issues in Data Science

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