

Argosy University
COURSE SYLLABUS
PA6014
Data Driven Decision-Making

Faculty Information

Faculty Name:

Campus:

Contact Information:

Office Hours:

Short Faculty Bio:

Course description:

This course provides students statistical and analytical tools necessary to structure, generate, and evaluate information for public policy decision making. Students learn to interpret and communicate statistical data to multiple stakeholders concerning public policy issues. They analyze qualitative and quantitative measures necessary for specific decisions.

Course Pre-requisites: PA6010 Government , Citizenship, and Society

Required Textbook/Readings:

Salkind, N. J. (2009). *Statistics for people who (think they) hate statistics: The excel 2007 edition*. SAGE Publications. ISBN-10: 1-4129-7102-0

Additional Suggested Reading:

Bardach, E. (2000). *A practical guide for policy analysis: The eightfold path to more effective problem solving*(2nd ed.). CQ Press. ISBN-10: 0872899527

Course length: 7.5 Weeks

Contact Hours: 45 Hours

Credit Value: 3.0




Program Outcomes:



1. Communication:
 - a. Communicate the roles and limitations of government at any level (federal, state, local) in specific circumstances. (direct measures)
 - b. Deliver oral, visual, or written presentations to educate or promote projects to diverse audiences. (direct measures)
2. Analytical problem solving: Gather information, discern gaps, develop, and evaluate possible solutions and alternatives regarding political, social, and financial costs and benefits of public sector initiatives. (direct measures)
3. Leadership and motivation:
 - a. Generate shared goals and lead internal and external stakeholders toward those goals. (indirect measures)
 - b. Motivate employees and other stakeholders to perform consistent with the mission of the relevant work unit. (indirect measures)
4. Tactical Management: Execute duties and responsibilities such as: evaluate and supervise employees, reinforce organizational mission, and manage unit budgets. (indirect measures)
5. Interpersonal Effectiveness:
 - a. Establish, build, and sustain effective working relationships with relevant parties to achieve organizational goals. (direct measures)
 - b. Exemplify and teach ethical values and behavior (direct measures)




Course Objectives:

1. Analyze a specific opportunity or problem given the availability of dependable data. (Program Outcomes: 2,4)
2. Evaluate data, however imperfect or incomplete, surrounding a particular initiative to recommend a viable course of action. (Program Outcomes: 2,4,5)
3. Communicate a decision based on qualitative information that contradicts or modifies a course of action suggested by available quantitative information. (Program Outcomes: 1, 2, 4)
4. Structure an analysis or study to provide data that can be accepted by competing stakeholders. (Program Outcomes: 1, 2, 4)

Assignment Table

Unit	Topics	Resources
1	Introduction to Data <ul style="list-style-type: none"> Qualitative & Quantitative Data Informing Intuition with Data 	<ul style="list-style-type: none"> Reading Resources TBD Lecturette (<i>Click on Document Link Below</i>) <ul style="list-style-type: none">  M2 Lecturette.doc Participation Assignment <ul style="list-style-type: none"> Write a one-page memo suggesting a course of action using both quantitative and qualitative data
2	Common Data Tools and Types of Quantitative Data <ul style="list-style-type: none"> Microsoft Excel as a Decision-Making Tool Levels of Data 	<ul style="list-style-type: none"> Reading Resources <ul style="list-style-type: none"> Salkind Chapter 1 “Statistics or Sadistics? It’s Up to You” Salkind Chapter 6 “Just the Truth: An Introduction to Reliability and Validity” – “All About Measurement Scales” section only Salkind Appendix A “Excel-erate Your Learning: All You Need to Know About Excel” Lecturette (<i>Click on Document Link Below</i>) <ul style="list-style-type: none">  M2 Lecturette.doc Participation Assignments: <ul style="list-style-type: none"> Salkind Chapter 1 Selected “Time to Practice” Exercises Salkind Appendix A – Complete practice / exercises
3	Data Sources <ul style="list-style-type: none"> Identifying Data Sources Primary and Secondary Data Evaluating Data Sources 	<ul style="list-style-type: none"> Reading Resources <ul style="list-style-type: none"> Salkind Chapter 19 “The Ten (or More) Best (and Most Fun) Internet Sites for Statistics Stuff” Salkind Chapter 20 “The Ten Commandments of Data Collection” Lecturette (<i>Click on Document Link Below</i>) <ul style="list-style-type: none">  M3 Lecturette.doc Participation Assignment: <ul style="list-style-type: none"> Salkind Chapter 19 - Explore at least five of the listed websites LASA 1: (CO 1 & 4) <ul style="list-style-type: none"> Compile quantitative data on a topic of interest from one federal government, one state government, one local government and two advocacy organization data sources and evaluate the strength and weakness of each source’s data. Your evaluation will also address what would be compelling about each data source to allow for acceptance of data by competing stakeholders.

		<ul style="list-style-type: none"> ▪ Create a chart of data sources for each information source. In addition, submit your strength and weaknesses evaluation and data source acceptance evaluation via a narrative paper.
4	<p>Descriptive Statistics</p> <ul style="list-style-type: none"> • Measures of Location or Central Tendency • Measures of Dispersion or Variability 	<ul style="list-style-type: none"> • Reading Resources <ul style="list-style-type: none"> ○ Salkind Chapter 2 “Computing and Understanding Averages: Means to an End” ○ Salkind Chapter 3 “Vive la Difference: Understanding Variability” • Lecturette (<i>Click on Document Link Below</i>) <ul style="list-style-type: none">  M4 Lecturette.doc • Participation Assignment: <ul style="list-style-type: none"> ○ Salkind Chapter 2 Selected “Time to Practice” Exercises • LASA 2: (CO2) <ul style="list-style-type: none"> ○ Find a blog, newspaper article, or government agency analysis (CBO, OMB, GAO) that mentions how an “average” household is affected by an existing or proposed government policy. Write a one-page memo discussing whether the representation of an “average” household impact accurately portrays the impact of the policy on households in general. Discuss both measures of central tendency and dispersion.
5	<p>Relationships Among Variables</p> <ul style="list-style-type: none"> • Dependent and Independent Variables • Measures of Association • Linear Regression • Correlation v. Causality 	<ul style="list-style-type: none"> • Reading Resources <ul style="list-style-type: none"> ○ Salkind Chapter 5 “Ice Cream and Crime: Computing Correlation Coefficients” ○ Salkind Chapter 6 “Just the Truth: An Introduction to Understanding Reliability and Validity” ○ Salkind Chapter 15 “Predicting Who’ll Win the Super Bowl: Using Linear Regression” • Lecturette (<i>Click on Document Link Below</i>) <ul style="list-style-type: none">  M5 Lecturette.doc • Participation Assignments: <ul style="list-style-type: none"> ○ Salkind Chapter 5 Selected “Time to Practice” Exercises ○ Salkind Chapter 6 Selected “Time to Practice” Exercises ○ Salkind Chapter 15 Selected “Time to Practice” Exercises

<p>6</p>	<p>Optimization and Decision-Making</p> <ul style="list-style-type: none"> • Decision Matrix • Microsoft Excel Solver • Policy Analysis Process 	<ul style="list-style-type: none"> • Reading Resources TBD • Lecturette (<i>Click on Document Link Below</i>) <ul style="list-style-type: none">  M6 Lecturette.doc
<p>7</p>	<p>Data Presentation</p> <ul style="list-style-type: none"> • Microsoft Excel Charts • Written and Oral Data Presentation 	<ul style="list-style-type: none"> • Reading Resources <ul style="list-style-type: none"> ○ Salkind Chapter 4 “A Picture Really is Worth a Thousand Words” • Lecturette (<i>Click on Document Link Below</i>) <ul style="list-style-type: none">  M7 Lecturette.doc • Participation Assignment: <ul style="list-style-type: none"> ○ Salkind Chapter 4 Selected “Time to Practice” Exercises • LASA 3 (CO3) <ul style="list-style-type: none"> ○ Make an oral presentation recommending a course of action on a public policy issue that conveys both qualitative and quantitative data and incorporates Excel charts into the presentation <ul style="list-style-type: none"> ▪ If the qualitative and quantitative data suggests different courses of action or are not clearly consistent with one another, determine what basis you will use to determine the most appropriate course of action.
<p>8</p>	<p>Uncertainty in Decision-Making</p> <ul style="list-style-type: none"> • Dealing with Uncertainty 	<ul style="list-style-type: none"> • Reading Resources <ul style="list-style-type: none"> ○ Salkind Chapter 8 “Are Your Curves Normal? Probability and Why It Counts” • Lecturette (<i>Click on Document Link Below</i>) <ul style="list-style-type: none">  M8 Lecturette.doc

Grading Criteria

Grading Scale

A	100 – 93 %
A-	92 – 90 %
B+	89 – 88 %
B	87 – 83 %
B-	82 – 80 %
C+	79 – 78 %
C	77 – 73 %
C-	72 – 70 %
F	69 and below

Grading Requirements

<i>Discussion Participation</i>	<i>25%</i>
<i>LASA 1</i>	<i>20%</i>
<i>LASA 2</i>	<i>20%</i>
<i>LASA 3</i>	<i>35%</i>
	<i>100%</i>

Library

All resources in Argosy University's online collection are available through the Internet. The campus librarian will provide students with links, user IDs, and passwords.

All resources in Argosy University's online collection are available through the Internet. Students can access the online collection by logging into the student portal and clicking on the library link. Library Resources: Argosy University's core online collection features over 48, 889 full-text journals and 23,000 electronic books and other content covering all academic subject areas including Business & Economics, Career & General Education, Computers, Engineering & Applied Science, Humanities, Science, Medicine & Allied Health, and Social & Behavior Sciences. Many titles are directly accessible through the Online Public Access Catalog at <http://library.argosy.edu>.

In addition to online resources, Argosy University's onsite collections contain a wealth of subject-specific research materials searchable in the Online Public Access Catalog. Catalog searching is easily limited to individual campus collections. Alternatively, students can search combined collections of all Argosy University Libraries. Students are encouraged to seek research and reference assistance from campus librarian.

Academic Policies

Academic Dishonesty/Plagiarism: In an effort to foster a spirit of honesty and integrity during the learning process, Argosy University requires that the submission of all course assignments represent the original work produced by that student. All sources must be documented through normal scholarly references/citations and all work must be submitted using the current edition of the *Publication Manual of the American Psychological Association*. Students are encouraged to purchase this manual and become familiar with its content as well as consult the Argosy University catalog for further information regarding academic dishonesty and plagiarism.

Scholarly writing: The faculty at Argosy University is dedicated to providing a learning environment that supports scholarly and ethical writing, free from academic dishonesty and plagiarism. This includes the proper and appropriate referencing of all sources. You may be asked to submit your course assignments through "Turnitin," (www.turnitin.com), an online resource established to help educators develop writing/research skills and detect potential cases of academic dishonesty. Turnitin compares submitted papers to billions of pages of content and provides a comparison report to your instructor. This comparison detects papers that share common information and duplicative language.

Americans with Disabilities Act Policy

It is the policy of Argosy University to make reasonable accommodations for qualified students with disabilities, in accordance with the Americans with Disabilities Act (ADA). If a student with disabilities needs accommodations, the student must notify the Director

of Student Services. Procedures for documenting student disability and the development of reasonable accommodations will be provided to the student upon request.

Students will be notified by the Director of Student Services when each request for accommodation is approved or denied in writing via a designated form. To receive accommodation in class, it is the student's responsibility to present the form (at his or her discretion) to the instructor. In an effort to protect student privacy, the Department of Student Services will not discuss the accommodation needs of any student with instructors. Faculty may not make accommodations for individuals who have not been approved in this manner.

The Argosy University Statement Regarding Diversity

Argosy University prepares students to serve populations with diverse social, ethnic, economic, and educational experiences. Both the academic and training curricula are designed to provide an environment in which students can develop the skills and attitudes essential to working with people from a wide range of backgrounds.