

RSKA 5340-01 Audit Data Analytics

Class Schedule: 6:00 PM to 8:40 PM Wednesday Starting Sep. 9, 2020 to Nov. 18, 2020

All Classes will be conducted on Zoom. Students should load and use Zoom to participate and earn a grade

Faculty: Steve Mar, Teaching Assistant: Gabriela Elwell and Arshdeep Brar

Course Overview

So much data. What does it all mean? Is it reliable? Is it accurate? Today, we see data used in business, social, non-profit, and government organizations. Big Data gets collected and analyzed in ways we don't even realize.

Organizational leaders and Internal Auditors need to better understand how data gets used. Internal Auditors especially need to recognize that using data analytics to perform audit work represents the next wave of skills and value add to organizations. Auditors or professionals need to understand the power of data analytics. Auditors must recognize how it helps assess governance, risk, and controls. The individuals who learn to be data savvy will become the most sought after and most value resource to any organization.

Required Text Book:

Data Analytics Made Accessible: 2020 Edition Dr. Anil Maheshwari – Only available as Kindle Book via Amazon. Cost is \$9.99 plus tax. You can read with a Kindle app on phone, iPad, or PC device.

Sorry there is no Seattle U Bookstore edition available.

Course Learning Objectives:

1. Discover what Students want to learn and analyze in Business Risk Data
2. Prepare Students for possible future Data Analytics careers and align with skills that organizations seek.
3. Introduce Key Data Analytic (DA) Concepts and General Tools to allow Business, Finance, Audit, and Accounting Users to quickly adopt and deploy Business Intelligence and Accounting Insights.
4. Plan Team and Personal Data Analytics Project and Programs that are impactful.
5. Develop an understanding of the business process model and mine the key performance data points and indicators.
6. Gather and clean data to solve significant Business and Accounting Problems.
7. Analyze “clean” data to discover and answer Business and Accounting Questions.
8. Present and visualize Accounting, Audit, Financial, and Business Risk Insights.

Students will learn, plan, and perform Team and Personal data analytic projects to deliver reports that visualize information, so management can make insightful decisions. We will focus on key principles, business process frameworks, and powerful data tools given the course schedule. Specifically, Students will learn to use EXCEL, Alteryx, Power BI, and Tableau to plan, mine, gather, and analyze, and visualize business and accounting data.

Students will plan, gather data, perform analysis, and deliver key insights on the following proposed project data:

1. Accounting – Review and analyze different College Procurement Account data to determine if transactions comply with existing Accounting Policies.
2. Audit – Analyze one of the highest technology process risks, Cyber Security data.
3. Finance – Review publicly available real estate property data, budget financial data, and government data

High Level Course Syllabus:

Weeks	Topic/ Learning Objective	Reading Homework and Chapter Questions	Accounting, Audit, and Financial Problems to Analyze	Data Analytics Project Framework, Project Management, Ethics, and Emotional Intelligence	Tools
0	Pre-Class Reading and Survey	Chapter 1 Wholeness of Data Analytics			
1- 2	<ol style="list-style-type: none"> 1. Introduce Data Analytics (DA) Concepts and Tools. Plan DA Projects/ Programs. 2. Cover risk assessment approach and APQC business process frameworks. Learn how to identify highest risk and greatest value. 3. Link data to business processes using APQC to measure risk and value. 4. Determine what data is needed. 	<p>Chapter 2 Business Intelligence Concepts and Applications</p> <p>Chapter 3 Data Warehousing</p>	<p>Learn and Analyze College Purchasing Card Process.</p> <p>How to audit key Cyber Security Controls & Compliance.</p> <p>Select and plan Personal Data Analytics Project.</p>	<p>Discuss how to use Data Analytics Planning Framework.</p> <ol style="list-style-type: none"> 1. What is the highest risk and greatest value? 2. What data tells me about the highest risk/ value? 3. What data do I need? 4. Who do I get the data from? 	<p>Learn or refresh EXCEL and introduce Alteryx skills.</p> <p>Practice EXCEL and Alteryx.</p>

Weeks	Topic/ Learning Objective	Reading Homework and Chapter Questions	Accounting, Audit, and Financial Problems to Analyze	Data Analytics Project Framework, Project Management, Ethics, and Emotional Intelligence	Tools
	5. Identify who grants data access and provides metadata. Learn to clean, normalize, and model data.				
3-4	<p>6. Understand Business Process to identify greatest value or risk assessment.</p> <p>7. Confirm data accuracy and completeness.</p> <p>8. Cover data analytic methods such as Probability, Statistics, Correlation, and Regression.</p> <p>9. Create Impactful Business Intelligence and Accounting Insights.</p>	<p>Chapter 4 Data Mining</p> <p>Chapter 5 Data Visualization</p>	<p>Analyze accounting data to gain insights</p> <p>Review and analyze ProcureSU related data to identify risks and controls.</p> <p>Perform Personal Data Analytics Project.</p> <p>Discuss Personal Data Analytics Project with Advisors and Mentors.</p>	<p>5. What do we know about the business process?</p> <p>6. How do we confirm data accuracy?</p> <p>7. What can we analyze and learn from this data?</p> <p>8. How will we generate and communicate insights?</p>	Continue Alteryx practices

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5 - 6	<p>10. Work on Project Analytics discuss project findings and challenges with Advisors.</p> <p>11. Present Personal Data Analytics Projects- The 3 Minute Pitch – Two Sessions</p>	<p>6 Decision Trees</p> <p>Chapter 7 Regression</p>	<p>Understanding key financial problems to solve using data analytics.</p> <p>Cover data completeness and accuracy.</p> <p>Discuss data insight, root cause analysis, and critical thinking.</p> <p>Develop and present Personal Data Analytics Project conclusions and insights.</p>	Review DAP Framework	<p>Introduce and practice Tableau skills</p> <p>Introduce and practice Power BI</p>
7- 8	<p>12. Complete and Document Data Analytics Project.</p> <p>13. Deliver Data Analytics Insights, Ethics, and Value.</p>	Chapter 20 Data Science Careers	<p>Discuss Data Science, Data Analyst, and Business Intelligence Careers</p> <p>Prepare and rehearse Data Visualization Report on Team Data Analytics Project.</p>	<p>Cover Ethics in Data Analytics</p> <p>Discuss Emotional Intelligence in Data Analytics</p>	Use Data Visualization tools: Tableau or Power BI in Personal Presentation

Weeks	Topic/ Learning Objective	Reading Homework and Chapter Questions	Accounting, Audit, and Financial Problems to Analyze	Data Analytics Project Framework, Project Management, Ethics, and Emotional Intelligence	Tools
	14. Cover Emotional Intelligence in Data Analytics				
9 – 11	15. Practice Presentation and receive Peer Feedback 16. Present Final Project Report to Professional Data Analysts and Leaders. 17. Hold Lessons Learned.		Students present their final Team Data Analytics Project to a panel of Industry Professionals.		Use Data Visualization tools: Tableau or Power BI in Final Presentation

Grades

Grading will be based on project work, homework assignments, attendance, and in class participation.

Points	Grade
900-1000	A
800-899	B
700-799	C
600-699	D

Adjustments may be considered depending upon overall class performance and points distribution.

Other important information

Academic Resources:

- Library and Learning Commons (<http://www.seattleu.edu/learningcommons/>)
(This includes: Learning Assistance Programs, Research [Library] Services, Writing Center, Math Lab)
- Academic Integrity Tutorial (found on Canvas and SU Online)

Academic Policies on Registrar website

[Academic Policies - Redhawk Service Center - Seattle University](#)

- Academic Integrity Policy
- Academic Grading Grievance Policy
- Professional Conduct Policy (only for those professional programs to which it applies)

Notice for students concerning Disabilities

If you have, or think you may have, a disability (including an 'invisible disability' such as a learning disability, a chronic health problem, or a mental health condition) that interferes with your performance as a student in this class, you are encouraged to arrange support services and/or accommodations through Disabilities Services staff located in Loyola 100, (206) 296-5740. Disability-based adjustments to course expectations can be arranged only through this process.

Office of Institutional Equity

Title IX of the Education Amendments of 1972 (Title IX) prohibits discrimination based on sex in educational programs or activities that receive Federal financial assistance. This prohibition includes sexual misconduct, which encompasses sexual harassment and sexual violence. Seattle U remains committed to providing a safe and equitable learning, living, and working environment. Seattle U offers emergency, medical, and other support resources, as

well as assistance with safety and support measures, to community members who have experienced or been impacted by sexual misconduct.

Seattle U requires all faculty and staff to notify the University's Title IX Coordinator if they become aware of any incident of sexual misconduct experienced by a student.

For more information, please visit <https://www.seattleu.edu/equity/>. If you have any questions or concerns, you may also directly contact the Title IX Coordinator in the Office of Institutional Equity (email: oiie@seattleu.edu; phone: 206.296.2824) University Resources and Policies.

Student Code of Conduct

Please review and read the updated Seattle U Student Code of Conduct. [SU Student Code of Conduct](#)

Seattle U COVID-19 Response

Please review and be alert to the Seattle U COVID-19 Response. See link below for more details. Students and Faculty should understand and follow the guidance and instructions to keep safe and healthy.

Link to: [Seattle U COVID-19 Response](#)