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|  | Data Analytics for Accounting 4320 Spring 2024  Dr. Gary G. Berg 106 Sam Wilson Hall 439-5336 E-mail: [BERGG@MAIL.ETSU.EDU](mailto:BERGG@MAIL.ETSU.EDU) Homepage: <Https://BERGG.ETSU.EDU> | Introduction to Data Analytics for Accounting |

Time: 9:45 – 11:05, MW Section 001

4:00 – 6:50, M Section 201

Room: SW 209 Section 001

SW 315 Section 201

Office Hours: (7:30 - 8005, 11:15 – 12:45 M, W) (3:15-3:45 M)

T, R: I am usually in the office in the morning if you need to see me

**Other**: as arranged

**Note:**

This is a **tentative syllabus** and **subject to revision** as deemed necessary by the instructor **(exam dates and grade weightings included)**. Some items may be added, and some items may be deleted. These revisions, if necessary, will be announced in class and/or posted on my web site. Absent students bear the responsibility for determining if revisions have been made and are responsible for incorporating these revisions in the class material.

**Prerequisite:**

1. ACCT 3010, 3320
2. Grade of C or better in each accounting course
3. junior/senior standing (55 credit hours),
4. If you meet all of the requirements, you need to apply for admission to the accountancy major.

**Required Text:**

1. **Introduction to Data Analytics for Accounting -** Richardson, Teeter, Terrell: 2e
   1. I will not be using the online Connect for Data Analytics component
2. Additional handouts that may be posted during the term

**Student responsibilities:**

You are preparing for a career as an accounting professional. You need to develop, now, the habits that will benefit you in your future career as an accounting professional. These habits include:

1. Taking responsibility for your learning.

1. Come to class prepared (do assigned readings and exercises prior to class).
2. Turn assignments in on time
3. As a future accounting professional, missing deadlines for your employer/client is unacceptable and is not tolerated. This class is conducted the same way. **Late assignments will not be accepted.**
4. Ask questions if you do not understand
5. The only way to learn accounting is to keep up with the assignments; the only way to keep up is to attend class. **Do NOT get behind; "cramming" does not work in accounting.**
6. Taking responsibility for your professional development.
7. Become involved in professional organizations such as the IMA and Tennessee Society of CPA's
8. Become involved in student organizations (BETA ALPHA PS, Delta Sigma Pi).
9. Read professional journals and business publications

3. Conduct yourself in a professional manner.

**COURSE OVERVIEW**

Organizations create and collect large amounts of data (“Big Data”) from their daily operations. The ability of an organization to analyze the large amounts of data collected to identify opportunities, problems and to improve decision making is critical to an organizations success. As a future accounting professional, it is important that you

1. know how data is created, collected, stored, and accessed
2. understand and implement controls over the storage and use of the organization's data
3. know how to use this vast source of data to make better business decisions and identify potential risks

In order to help management make better decisions, it is important that you develop the necessary skill set to analyze the large amounts of data that are collected. Use of data analytics can be:

1. Descriptive
2. Diagnostic
3. Predictive
4. Prescriptive

This course will expose you to various techniques that are used to analyze the data collected. The course will also expose you to some of the common software packages currently used in organizations.

**COURSE GOAL AND OBJECTIVES:**

1. Develop a decision making framework.
2. Understand how data is collected, created, stored, and shared by technology
3. Understand the processes need to develop, report, and analyze business data.
4. Understand how managers use business analytics to formulate and solve business problems.
5. Understand and identify business risks and ethical issues related to data collection, storage, and use.

**Computer Technology**

1. This is a technology intensive class. There will be a number of assignments during the semester. Most of the assignments will require the use of one of the following applications:
   1. Excel
      1. The Excel assignments are based on using the latest version of Excel for the Windows O/S
      2. Earlier versions of Excel for windows and versions of Excel for the MAC are not as feature rich as the current version of Excel for Windows.
         1. You may need to do some of the Excel assignments in the lab.
   2. Tableau
      1. Tableau is a data visualization tool and will be available on twelve or thirteen computers on the library fourth floor.
         1. They will be located in the Individual study rooms
      2. If you have your own personal computer
         1. Students will be able to download and install Tableau on their personal computers
         2. I will provide you with the necessary instructions for downloading and the activation key.
         3. You should back up your computer before installing Tableau
      3. Tableau is available for the Windows OS and the Mac OS.
         1. Click on link to see system requirements
         2. [All Technical Specifications (tableau.com)](https://www.tableau.com/products/techspecs)
   3. Access data base
      1. May be used for one or two assignments to demonstrate relational database concepts.

**ADDITIONAL Notes**

1. **Classroom basics**
   * **Attendance:** I do not take role. Keep in mind that **Students** that attend on a regular basis and stay on top of work will perform better than those that do not. **If you choose not to put forth the effort, have the decency to take responsibility for your actions**
   * **Class Arrival/departure:** If you cannot arrive to class on time, or if you need to leave early, you have an obligation to minimize classroom disruption.
   * **Cell Phones:** **Turn them off and put them away in your pocket/purse**. **There is to be no social networking, texting, etc., during class**. **Cell phone usage during class is a distraction to your colleagues that are serious about their development as a future accounting professional and will not be tolerated**. **Anyone using their cell phone during class will be asked to leave.**
   * **Tobacco**: **There is to be no tobacco product usage in this class. Anyone caught using tobacco products during class will be asked to leave.**
2. **Resources Available/Assignments**

* Assignments will be posted on my class web site at <https://bergg.etsu.edu/index.html>
* **Power point lecture outlines** will be available **on D2L** for download.
  + For printout purposes, select the slide handout option in PowerPoint of 2, 3 or 6 slides to a page.
  + Set print option to pure black and white to save on toner/ink cartridges.

1. **Grading Basis** (subject to change)
   1. **Exams (number subject to change)**

Exam #1

Exam #2 ‑‑‑> 65%

Exam #3

* Exams are designed to test your understanding of the material, not what you have memorized. Not all exam problems/questions will be a mirror image of homework assignments. In some cases exam problems will be similar to, but not exactly like homework assignments.
* There will be **NO** individual make-up exam. In the event of an **excused** absence from an exam, the **grade achieved on** a **comprehensive final** will be substituted. Unexcused absences will receive an exam grade of **zero. Missing exam due to work is not a valid excuse.**
* **Failure to contact me personally prior to exam will be considered an unexcused absence. Voice mail and email are not acceptable contacts.**
* **Any student athlete or student who will miss an exam for University purposes must let me know prior to the exam and provide appropriate documentation. Failure to do so will be considered an unexcused absence.**
* **Cell phones are to be put away during exams. Anyone caught with cell phone out during exam will receive an automatic zero on that exam**

1. Assignments ( ? ) 35%

**Grading Scale**

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| --- | --- | --- | --- |
| A >=93  A- >=90 <93 | B+ >=87 <90  B >=83 <87  B- >=80 <83 | C+ >=77 <80  C >=73 <77  C- >=70 <73 | D+ >=67 <70  D >=60 <67  F <60 |

1. **Assignments**
   1. Most assignments will be submitted electronically
      1. Assignments will most likely be submitted using the D2L dropbox or the ETSU dropbox if the assignment file is large.
      2. Instructions for each assignment will contain submission requirements.
      3. **All assignments** will have a **submission deadline** (**date and time**)
      4. **Failure** to follow submission requirements and/or **missing submission deadline** will result in **a grade of 0**
      5. Sending the wrong file will result in a **grade of 0**
      6. **Submission to the wrong dropbox will result in a grade of zero**
      7. **Do not wait until the last minute to do the assignments.** 
         1. **Late assignments will not be accepted**
            1. **Date time stamp is determined by the D2L server, not your computer**
         2. **No deadline extensions will be granted for such things as power outages, computer crashes, ISP service interruptions, work, etc.**
   2. These assignments **are not** group projects. Students should work independently.
   3. **Copying/plagiarism** will result in a **grade of 0** for all parties involved.
   4. Make sure file is **Virus free**. Any file received with a virus will receive a **grade of 0**.
2. **Academic misconduct** will not be tolerated. Any incident of academic misconduct will be dealt with in accordance with Departmental, College, and University Regulations.

Important dates to remember:

1. Last day to drop a class Tuesday March 5
2. Last day to withdraw Wednesday April 24

**4320 CLASS SCHEDULE**

**(Tentative - Changes Are Highly Likely)**

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| **WEEK** | **Week of Date** | **Chapter** | **Topic** | **Assignments** |
| **1** | **Jan 16** |  | **Intro** | **All TBA** |
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| **2** | **Jan 22** | **1** | **Data Entry Controls**  **Data Security**  **Pivot Table Basics**  **Using Data Analytics** |  |
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| **3** | **Jan. 29** | **2**  **3** | **Master the Data: Introduction to Accounting Data**  **Accounting Data: Types of data and How They are Used** |  |
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| **4** | **FEB 5** | **4** | **Mastering the Data: Preparing Data for Analysis**  **SQL intro**  **Query Joins** |  |
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| **5** | **Feb 12** | **5** | **Exam 1?????**  **Perform the Analysis: Type of data Analytics** |  |
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| **6** | **Feb 19** | **5** | **Exam 1?????**  **Perform the Analysis: Type of data Analytics** |  |
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| **7** | **Feb 26** | **6** | **Perform the Analysis: Descriptive Analytics** |  |
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| **8** | **March 4** | **6** | **Perform the Analysis: Descriptive Analytics** |  |
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| **9** | **March 11-17** |  | **Spring Break** |  |
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| **10** | **March 18** | **7** | **Perform the Analysis: Diagnostic Analytics** |  |
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| **11** | **March 25** |  | **EXAM 2 ?????** |  |
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| **12** | **April 1** | **8** | **Perform the Analysis: Predictive Analytics** |  |
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| **13** | **April 8** | **8** | **Perform the Analysis: Predictive Analytics**  **Regression basics** |  |
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| **14** | **April 15** | **9**  **10** | **Perform the Analysis: Prescriptive Analytics**  **Share he story** |  |
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| **15** | **April 22** | **10** | **Final Exam ????** |  |
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| **16** | **May 1**  **May 1** |  | **Final Exam ???**  **Section 001 (8:00 a.m. – 10:00 a.m.)**  **Section 201 (normal class time if no time conflict, 6:00 p.m. if conflict** |  |