Chair: Tracy Christofero

GC#6: Course Addition

Request for Graduate Course Addition

1. Prepare one paper copy with all signatures and supporting material and forward to the Graduate Council Chair.
2. E-mail one identical PDF copy to the Graduate Council Chair. If attachments included, please merge into a single file.
3. ***The Graduate Council cannot process this application until it has received both the PDF copy and the signed hard copy.***

College: LCOB Dept/Division: Accountancy & LE Alpha Designator/Number: ACC 620 (●) Graded ( ) CR/NC

Contact Person: Susan W. Lanham Phone: 304-696-2666

NEW COURSE DATA:

New Course Title: Analytic Modeling in Accounting

Alpha Designator/Number: A C C 6 2 0

Title Abbreviation: A n a l y t i c M o d e l i n g A c c t

(Limit of 25 characters and spaces)

Course Catalog Description: (Limit of 30 words)
Students will learn how to build accounting analytic models and analyze accounting data to increase profitability, reduce costs, and improve operational control.

Co-requisite(s): NONE First Term to be Offered: Fall 2019

Prerequisite(s): NONE Credit Hours: 3

Course(s) being deleted in place of this addition (*must submit course deletion form*): NONE

Signatures: if disapproved at any level, do not sign. Return to previous signer with recommendation attached.

Dept. Chair/Division Head Nancy K Lanham	Date 1/24/19
Registrar Sonya GC 4P 520301	Date 1/24/19
College Curriculum Chair [signature]	Date 29 JAN 19
Graduate Council Chair	Date

Request for Graduate Course Addition - Page 2

College: LCOB Department/Division: Accountancy & LE Alpha Designator/Number: ACC 620

Provide complete information regarding the new course addition for each topic listed below. Before routing this form, a complete syllabus also must be attached addressing the items listed on the first page of this form.

1. FACULTY: Identify by name the faculty in your department/division who may teach this course.

Susan W. Lanham

2. DUPLICATION: If a question of possible duplication occurs, attach a copy of the correspondence sent to the appropriate department(s) describing the proposal. Enter "***Not Applicable***" if not applicable.

Not Applicable

3. REQUIRED COURSE: If this course will be required by another deparment(s), identify it/them by name. Enter "***Not Applicable***" if not applicable.

Not Applicable

4. AGREEMENTS: If there are any agreements required to provide clinical experiences, attach the details and the signed agreement. Enter "***Not Applicable***" if not applicable.

Not Applicable

5. ADDITIONAL RESOURCE REQUIREMENTS: If your department requires additional faculty, equipment, or specialized materials to teach this course, attach an estimate of the time and money required to secure these items. (Note: Approval of this form does not imply approval for additional resources.) Enter "***Not Applicable***" if not applicable.

Not Applicable

6. COURSE OBJECTIVES: (May be submitted as a separate document)

1. Use Microsoft Excel to summarize, visualize, and analyze accounting data;
2. Compute and interpret key statistical measures;
3. Develop analytical skills necessary to build and evaluate accounting related models;
4. Understand the relationship between big data and prediction models;
5. Analyze the relationship between two financial variables and develop forecasts for values outside the data set;
6. Understand the relationship between ratio analysis and forecasting;
7. Describe different methods of analyzing accounting data and when each method should be used.

7. COURSE OUTLINE (May be submitted as a separate document)

Submitted as separate document.

8. SAMPLE TEXT(S) WITH AUTHOR(S) AND PUBLICATION DATES (May be submitted as a separate document)

Microsoft Excel 2016 Data Analytics and Business Modeling, by Wayne L. Winston, Publication Date: 2016
ISBN 978-1-5093-0421-9

9. EXAMPLE OF INSTRUCTIONAL METHODS (Lecture, lab, internship)

Lecture

Request for Graduate Course Addition - Page 4

10. EXAMPLE EVALUATION METHODS (CHAPTER, MIDTERM, FINAL, PROJECTS, ETC.)

Assignments
Projects
Exams

11. ADDITIONAL GRADUATE REQUIREMENTS IF LISTED AS AN UNDERGRADUATE/GRADUATE COURSE

None

12. PROVIDE COMPLETE BIBLIOGRAPHY (May be submitted as a separate document)

Submitted as separate document.

Request for Graduate Course Addition - Page 5

Please insert in the text box below your course summary information for the Graduate Council agenda. Please enter the information exactly in this way (including headings):

Department:
Course Number and Title:
Catalog Description:
Prerequisites:
First Term Offered:
Credit Hours:

Department: LCOB Division of Accountancy & Legal Environment
Course Number and Title: ACC 620 Analytic Modeling in Accounting
Catalog Description: Students will learn how to build accounting analytic models and analyze accounting data to increase profitability, reduce costs, and improve operational control.
Prerequisites: None
First Term Offered: Fall 2019
Credit Hours: 3

Course Outline

Class Schedule:

Week 1	Aug 26, 2019	**Chapter 1: Basic Spreadsheet Modeling** **Chapter 26: Tables** **Chapter 28: The Analytics Revolution** *Homework Week 1:* Due by September 8, 2019 at midnight. A link to the homework assignment can be found in Blackboard under your Week 1 content item.
Week 2	Sept 2, 2019	**Chapter 2: Range Names** **Chapter 3: Lookup Function** **Chapter 4: The INDEX Function** *Homework Week 2:* Due by September 15, 2019 at midnight. A link to the homework assignment can be found in Blackboard under your Week 2 content item.
Week 3	Sept 9, 2019	**Chapter 5: The Match Function** **Chapter 6: Text Functions** *Homework Week 3:* Due by September 22, 2019 at midnight. A link to the homework assignment can be found in Blackboard under your Week 3 content item.
Week 4	Sept 16, 2019	**Chapter 12: IF Statements** **Chapter 25: Sorting in Excel** **Chapter 39: Importing Data from a Text file or Document** *Homework Week 4:* Due by September 29, 2019 at midnight. A link to the homework assignment can be found in Blackboard under your Week 4 content item.
Week 5	Sept 23, 2019	**EXAM 1**
Week 6	Sept 30, 2019	**Chapter 41: Summarizing Data by Using Histograms and Pareto Charts** **Chapter 42: Summarizing Data by Using Descriptive Statistics** *Homework Week 6:* Due by October 6, 2019 at midnight. A link to the homework assignment can be found in Blackboard under your Week 6 content item.

Week 7	Oct 7, 2019	**Chapter 29: An Introduction to Optimization with Excel Solver** **Chapter 30: Using Solver to Determine the Optimal Product Mix** **Chapter 33: Using Solver for Capital Budgeting** *Homework Week 7:* Due by October 13, 2019 at midnight. A link to the homework assignment can be found in Blackboard under your Week 7 content item.
Week 8	Oct 14, 2019	**Chapter 14: The Paste Special Command** **Chapter 44: The Data Model** *Homework Week 8:* Due by October 20, 2019 at midnight. A link to the homework assignment can be found in Blackboard under your Week 8 content item.
Week 9	Oct 21, 2019	**Chapter 43: Using Pivot Tables and Slicers to Describe Data** **Chapter 45: Power Pivot** *Homework Week 9:* Due by October 27, 2019 at midnight. A link to the homework assignment can be found in Blackboard under your Week 9 content item.
Week 10	Oct 28, 2019	**EXAM 2**
Week 11	Nov 4, 2019	**Chapter 24: Conditional Formatting** *Homework Week 11:* Due by November 10, 2019 at midnight. A link to the homework assignment can be found in Blackboard under your Week 11 content item.
Week 12	Nov 11, 2019	**Chapter 46: Power View and 3D Maps** **Chapter 47: Sparklines** *Homework Week 12:* Due by November 17, 2019 at midnight. A link to the homework assignment can be found in Blackboard under your Week 12 content item.
Week 13	Nov 18, 2019	**Chapter 48: Summarizing Data with Database Statistical Functions** **Chapter 49: Filtering Data and Removing Duplicates**

		Homework Week 13: Due by November 27, 2019 at midnight. A link to the homework assignment can be found in Blackboard under your Week 13 content item.
Week 14	Nov 25, 2019	**Fall Break – Enjoy your time off!**
Week 15	Dec 2, 2019	**Chapter 50: Consolidating Data** *Homework Week 15:* Due by December 8, 2019 at midnight. A link to the homework assignment can be found in Blackboard under your Week 15 content item.
Week 16	Dec 9, 2019	**Final Exam**

Note: This syllabus is tentative and subject to change as conditions warrant.

Bibliography

Bibliography

Microsoft Excel 2016 Data Analysis and Business Modeling, by Wayne L. Winston. Publication Date: 2016 | ISBN-978-1-5093-0421-9

Shinn, S., & Grundy, P. (2018). WHEN ACCOUNTING MET ANALYTICS: KPMG partners with b-schools to create master's programs that update a traditional field with the latest technology MET ANALYTICS. *BizEd*, *17*(3), 18–22.

Jure Leskovek, Anand Rajaraman and Jeffrey Ullman. Mining of Massive Datasets. v2.1, Cambridge University Press. 2014. (free online)

Kevin P. Murphy. Machine Learning: A Probabilistic Perspective. ISBN 0262018020. 2013.

Foster Provost and Tom Fawcett. Data Science for Business: What You Need to Know about Data Mining and Data-analytic Thinking. ISBN 1449361323. 2013.

Trevor Hastie, Robert Tibshirani and Jerome Friedman. Elements of Statistical Learning, Second Edition. ISBN 0387952845. 2009. (free online)

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Mohammed J. Zaki and Wagner Miera Jr. Data Mining and Analysis: Fundamental Concepts and Algorithms. Cambridge University Press. 2014.

Jiawei Han, Micheline Kamber and Jian Pei. Data Mining: Concepts and Techniques, Third Edition. ISBN 0123814790. 2011.

Data Science for Business, Provost and Fawcett: O'Reilly

Data Mining for Business Intelligence, Concepts, Techniques and Applications, Shmueli, Patel, and Bruce: Wiley

Management Science: The Art of Modeling with Spreadsheets, Powell and Baker: Wiley

Data Mining for Business Intelligence, 2nd Edition, by Galit Shmueli, Nitin R. Patel, and Peter C. Bruce (Wiley: 2010).

Dean, J., 2014. Big Data, Data Mining, and Machine Learning: Value Creation for Business Leaders and Practitioners. John Wiley & Sons.

Marr, B., 2016. Big Data in Practice: How 45 Successful Companies Used Big Data Analytics to Deliver Extraordinary Results. John Wiley & Sons.

Few, S., 2006. Information Dashboard Design: The Effective Visual Communication of Data.

Jensen, C.S., Pedersen, T.B. and Thomsen, C., 2010. Multidimensional databases and data warehousing. Synthesis Lectures on Data Management, 2(1), pp.1-111.

Kaplan, R.S., 2009. Conceptual foundations of the balanced scorecard. Handbooks of management accounting research, 3, pp.1253-1269.

Syllabus

Course Title/Number	**ACC 620 – Analytic Modeling in Accounting**
Semester/Year	**Fall 2019**
Days/Time	Online
Location	Online
Instructor	Susan W. Lanham, PhD, MAFF, CDFA
Office	Corbly Hall, Room 223
Phone	(304) 696 - 2666
E-Mail	Lanham53@marshall.edu
Office/Hours	Wednesday, 1:00AM – 4:00PM, and Thursday 3:30PM – 6:30PM, & By Appointment
University Policies	By enrolling in this course, you agree to the University Policies listed below. Please read the full text of each policy by going to www.marshall.edu/academic-affairs and clicking on "Marshall University Policies." Or, you can access the policies directly by going to http://www.marshall.edu/academic-affairs/?page_id=802 Academic Dishonesty/ Excused Absence Policy for Undergraduates/ Computing Services Acceptable Use/ Inclement Weather/ Dead Week/ Students with Disabilities/ Academic Forgiveness/ Academic Probation and Suspension/ Academic Rights and Responsibilities of Students/ Affirmative Action/ Sexual Harassment

Required Text

Microsoft Excel 2016 Data Analysis and Business Modeling, by Wayne L. Winston. Publication Date: 2016 | ISBN-978-1-5093-0421-9

Course Description

Students will learn (3 credit hours)

How to Succeed in This Class

Learning is an active process! You will not learn the material if the only work you do is coming to class. To succeed in this class YOU must do the following: read the book BEFORE coming to class, ask questions about material you do not understand, do ALL of the assigned problems and verify that you have done them correctly! Do not allow yourself to fall behind.

Special Services

Services are available to help Marshall students who have special needs. If you have a cognitive disability such as ADD, or a learning difference, or a physical limitation, accommodations can be made to help you. I am glad to cooperate in making adjustments for you. However, you must initiate the process. For more information: www.marshall.edu/disabled. Contact the Disabled Student Services Office: 117 Prichard Hall, 304-696-2271.

Academic Dishonesty

Familiarize yourself with the Academic Rights and Responsibilities section of the Marshall University Student Handbook. Note that in a situation of academic dishonesty involving the inappropriate transfer of information, providing such information to others is an offense comparable to receiving such information. Academic dishonesty includes securing or giving unfair assistance during examinations or required work of any type. This policy applies to exams and all other work that earns points toward your grade in this course, unless indicated by the instructor.

Cell Phone Policy

All cell phones must be silenced and stowed away during class to prevent class disruptions.

Make-Up Policy

All make-up exams are at the discretion of the instructor and will require a university excused absence. The instructor reserves the right to double count the final exam for any exam that a student may have missed during the semester. **Please note there will be no make-up exam given for the final exam. Students must take the final exam during finals week.**

Attendance Policy

Class will be held on the days indicated. As an instructor, I expect you to be in class. Attendance is important to the learning process and role will be taken each time the class meets. It is your responsibility to make sure that the attendance sheet has been signed and to submit proper documentation for university excused absences.

Late Work

Late work will be accepted for one week following the assignment due date with a 10% automatic deduction for each day it is late. **No work will be accepted more than one week after the assignment due date.**

STUDENT LEARNING OUTCOMES, PRACTICE & ASSESSMENTS:

Student Learning Outcomes	How Practiced in this Course	How Assessed in this Course
Language of the Discipline: Students will learn Excel functions and techniques to effectively summarize, analyze, and visualize accounting data.	Problem-based and discovery learning	Assignments, projects and exams
Reasoning: Students will compute and interpret key statistical measures related to accounting.	Problem-based and discovery learning	Assignments, projects and exams
Reasoning: Students will develop analytical skills necessary to build and evaluate accounting related models.	Problem-based, discovery, active, and project learning	Assignments and projects
Reasoning: Students will understand the relationship between big data and prediction models	Inductive, problem-based, active, and project learning	Assignments, projects and exams
Representation: Students will understand how to communicate their findings to clients.	Problem-based, active, and project learning	Assignments and projects
Reflection: Students will understand the different methods of analyzing accounting data and reflect on when each method should be used.	Project based learning	Assignments, projects and exams
Information Literacy: Students will demonstrate proficiency in using Excel to perform calculations, analyze data for red flags, and evaluate accounting information. Students will apply and enhance their computer spreadsheet and word processing skills.	Problem-based and inquiry learning	Assignments, projects and exams

Course Requirements

HOMEWORK EXERCISES: Read the chapters thoroughly and complete the assignments as directed by your instructor prior to the due dates. Read the chapters prior to class. When you come to class prepared, you ask better questions and give the instructor the needed direction to fill in the gaps for you.

IN-CLASS ASSIGNMENTS: These assignments will be given during regularly scheduled class time and submitted at the end of class for grading. You must be present in-class to get and receive credit for these assignments.

There will be no make-up of in-class assignments unless you have a university excused absence.

INDIVIDUAL PROJECT: You will analyze real world big data and present a report telling a story of what the data shows. The report must be detailed and professional and must contain data visualization techniques. You'll present the story and data to the class in a 7-minute presentation.

EXAMINATIONS: There will be three exams during the semester covering material presented in class and in the textbook. All make-up exams are at the discretion of the instructor and will require a university excused absence. Please note there will be no make-up exam given for the final exam. Students must take the final exam during finals week.

Additional Reading

Shinn, S., & Grundy, P. (2018). WHEN ACCOUNTING MET ANALYTICS: KPMG partners with b-schools to create master's programs that update a traditional field with the latest technology MET ANALYTICS. *BizEd*, *17*(3), 18–22.

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Grading Policy

Requirement	Description	Points	% of Total
Assignments	You will be required to complete a variety of data analytics problems every week during the semester in an effort to reinforce the material presented.	200	33%
Projects	You'll be required to complete various small projects analyzing real world data.	100	17%
Exams I, II, & III	Three exams will be given throughout the semester covering information from each chapter and material presented in Blackboard class.	300	50%
Total		***600***	***100%***

Your final grade will be based on the following scale:
90.00% and up = A, 80.00 – 89.99% = B, 70.00 – 79.99% = C, 60.00 – 69.99% = D, below 60% = F

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