

University of Southern Maine School of Business
Syllabus: BUS241-0002, Applied Business Modeling

- Spring 2023, Tuesdays & Thursdays, 11:00 a.m. – 12:15 p.m.
 - Live, in-person; **attendance required**
- Instructor: Frank Hines
- **frank.hines@maine.edu**
- **Office Hours:** Before and after class or by appointment via Zoom
- **Prerequisites:** MAT 210 or MAT 120 (with a C- or higher grade) or other approved statistics course (see usm.maine.edu/school-of-business/stats for other approved courses)
- **Class Location:** Wishcamper 133 (*subject to change*)
- **Attendance Required:** Students are responsible for all material covered during class.

Course Description & Objectives: Applied Business Modeling is designed to help you think about structuring varied business situations for quantitative analysis using Excel. Since the course is focused on thinking and doing, we will spend less time on learning the tools. We will use several advanced features of Excel which are seldom known to Excel users. It will cover a wide range of Excel functions for business case analysis using Look Up functions, Database functions, Excel Tables, Array formula's, Data Analysis Tool Pack, Statistical Analysis functions, and Regressions.

Learning Outcomes: Though the course title may appear highly technical, the focus is more on business decision making through the use of statistical models. Outcomes include:

1. Understanding the role of technology as tool in aiding managerial decisions.
2. Harnessing power of computer tool to gain insights in managerial problems.
3. Introducing spread sheets to model managerial problems.
4. Developing skills to create algorithms and its application in decision making.
5. Understanding basic concepts of handling large amount of business data.

Attendance & Punctuality

The USM School of Business is committed to student success. Because there is a direct correlation between academic performance and class attendance, attendance is required and punctuality is expected. Classes will begin and end on time. Poor attendance may result in a reduction of your final grade.

Course Materials: BrightSpace, Mindtap & Cengage. The textbook for this is *Modern Business Statistics with Microsoft Excel*. This complete textbook, practice problems, quizzes and tests are provided entirely online in a system called Mindtap, which will be accessible to you through BrightSpace. There is also a hardcopy version of the textbook available as a supplement to the online system; it is highly recommended to obtain the hardcopy textbook because you will need to read most of the text. **You are required to purchase the *online* textbook for this course.** The text book is published by Cengage, which has offered us three versions of the Mindtap/textbook bundle:

- **Option 1 Bundle: Modern Business Statistics with Microsoft Excel, Loose-leaf Version, 7th + MindTap, 1 term Printed Access Card**
- by Anderson/Sweeney/Williams/Fry/Ohlmann
- Edition: 7th
- ISBN: 9780357531051
- Format: Loose-leaf w/ Access Card
- Pub. Date: 5/2/2020
- **\$245.71**

- **Option 2 Cengage Unlimited 1 Term Subscription**
- by Cengage
- ISBN: 9780357700037
- Pub. Date: 3/8/2018
- This option will provide access to all Cengage materials in digital format. If you choose this option and wish to have a physical textbook, you can rent a copy from Cengage for about \$8 plus shipping & handling.
- **\$145.99**

If you choose option 2, the Professor recommends you rent the paper copy of the book. It is cumbersome to read the text online and, particularly, to go back and forth between the assigned problems (there will be MANY) and the relevant portions of the textbook. ***Students without printed versions did complain*** about this when asked.

Pricing subject to change. Beware of sites that are selling discounted codes. These sources are likely unauthorized sellers who have acquired access codes illegally, and transactions with such sources may pose a risk to your personal information.

Computer Integration & Student PC Skills

All students enrolled in School of Business courses are expected to be computer literate and demonstrate this literacy by passing the ABU-190 Spreadsheets and Problem-Solving class or the SB computer proficiency examination.

Email Communications

The instructor uses email as a primary means of communicating with students. Communications other than assignments scheduled and submitted through BrightSpace / Mindtap should be managed through email. **All students are expected to use and regularly check their email accounts.** If you are not in the habit of accessing your email every day, you will need to “on-the-job” after you graduate, so please get into the habit now!

BrightSpace

Every student is required to have a BrightSpace. If you need help with BrightSpace, please contact the USM IT help desk helpdesk@usm.maine.edu. All students are expected to log in to the course BrightSpace area frequently.

Grading and Assessment. Most assignments will be issued through Mindtap. Your online graded material will include “Assignments” (weekly homework that is graded) and Quizzes/Tests.

- **Grades will be determined** through an average of the following:
 - Graded Assignments (homework), 30%
 - Quizzes and Tests, 70%
 - Quizzes will be weighted differently than Tests within this category; the actual weights are still TBD.
 - There will be one “WHO Case Study” assigned outside of Mindtap late in the semester. This will count as one Test.
 - **Class Participation, (points may be added to or deducted from your final grade at the instructor’s discretion)**
 - Attendance
 - Willingness to participate in any group discussion
 - The quality of your preparation and contribution
 - Professionalism - attendance, punctuality & responsiveness
 - Handing in requested work in a timely manner
- **Flexibility.** The Professor reserves the right add or eliminate assignments and to modify this grade schedule.

Class schedule (below) is *subject to change* due to class adjustments, weather cancellations, etc.; please check course BrightSpace area regularly for updates.

Class Schedule, Chapters & Topics	
Dates (<i>Tu-Th</i>)	Chapter(s) / Topics
1/17 – 1/19	1. Data and Statistics.
1/24 – 1/26	2. Descriptive Statistics: Tabular and Graphical Displays.
1/31 – 2/2	3. Descriptive Statistics: Numerical Measures.
2/7 – 2/9	4. Introduction to Probability.
2/14 – 2/16	5. Discrete Probability Distributions.
2/21 – 2/23	6. Continuous Probability Distributions.
2/28 – 3/2	<i>Data Visualization, Excel Tips & Shortcuts (2 lectures, not in text).</i>
3/7 – 3/9	7. Sampling and Sampling Distributions.
3/14 – 3/16	<i>Spring break, No Class.</i>
3/21 – 3/23	8. Interval Estimation.
3/28 – 3/30	9. Hypothesis Tests.
4/4 – 4/6	10. Statistical Inferences About Means and Proportions with Two Populations.
4/11 – 4/13	19. Statistical Methods for Quality Control.
4/18 – 4/20	17. Time Series Analysis and Forecasting. WHO Case Study.
4/25 – 4/27	14. Simple Linear Regression. Course in Review.
w/o 5/1	Finals – No Final Exam for BUS 241

Final Examination

There is no “Final Examination” for this class. There may be a test, however, during the last day of regularly scheduled classes.

UNIVERSITY POLICIES AND RESOURCES

Below you'll find information for our most crucial student services and supports. For USM's most complete and current information on services available to students, as well as academic policies, see [The Academic Services & Policies Overview webpage](#).¹

- **Request disability accommodations** | (207) 780-4706 | dsc-usm@maine.edu
- **Report Interpersonal violence** | (207) 780-5767 | usm.titleix@maine.edu
- **Report On-Campus Emergencies and Safety Concerns** | (207) 780-5211 or your local police agency.
- **Get academic help** | mycampus.maine.edu/group/usm/learning-commons1
- **Get technology help** | usm.maine.edu/computing/helpdesk
- **Meet with an Advisor** | usm.maine.edu/advising



Scan the QR Code to go to the [Academic Services & Policies webpage](#)²

¹ <https://mycampus.maine.edu/group/usm/common-syllabus>

² <https://mycampus.maine.edu/group/usm/common-syllabus>