Course Number

IEE 320

Course Title

Extreme Excel

Credits

1

Faculty

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Prerequisites

- Minimum of 45 hours of completed courses.
- Should have access to a Windows PC or Apple Mac with Microsoft Office 2010 or later installed.
- Knowledge of basic Excel and Microsoft Office software.
- Mac users will need to download the Analysis Tool Pack from the following source:
  http://www.analystsoft.com/en/products/statplusmacle/

Computer Requirements

This course requires a computer with Internet access and the following:
- Web browsers (Chrome, Internet Explorer, Mozilla Firefox, or Safari)
- Adobe Acrobat Reader (free)
- Adobe Flash Player (free)
- Microphone (optional) and speaker
- Microsoft Excel Windows version 2010 or later
- Microsoft Excel Mac version 2015 or later
- Mac users with Excel versions older than 2015 will need to download the Analysis Tool Pack from the following source: http://www.analystsoft.com/en/products/statplusmacle/

Catalog Description

This is a Microsoft Excel class based on practical skills needed by engineers and business people in industry.

Course Overview

Today's workplace environment for engineers demands advanced skills in using worksheet applications such as Microsoft Excel. This one credit course addresses this important gap in the curriculum to provide support for students who are in need of training on the various capabilities of the software. In particular, students will become familiar with various functionalities that are critical for performing their jobs as Engineers.

Learning Outcomes

At the completion of this course, students will be able to:
- Navigate through the Excel software
- Identify and effectively use important Excel formulas for engineers
- Use Excel data analysis functions to analyze large data sets
- Make, copy, and edit charts and graphs
- Properly structure a spreadsheet and workbook for engineering purposes including reuse and continuation
- Manage large quantities of data using advanced Excel functionality
- Use key shortcuts to rapidly solve engineering problems in Excel
- Learn Excel beyond the materials covered in this class

Readings, Special Materials, Assignments, and Exams

This class consists of 30+ voice over computer lectures that are approximately 10 to 40 minutes in length. This format allows students to watch the lectures while following along with Excel on their own computer. These short lectures make it easy for students to find and redo lectures on key topics. Assignments are due at the end of each week of lectures (beginning with Week 2) allowing the students to apply the various tools that are covered in this class.

Exams

There are no exams in this class.

Assignments

Seven assignments will be presented during the semester. Some of the assignments are worth 10 points, others are worth 20 points. One assignment includes 5 extra credit points. Each student will have a unique set of data to work the assignments. The data is traceable. Although students may wish to study the class topics in small groups to help facilitate the learning of Excel, the assignments are to performed and submitted individually. All assignments are due on Friday of that week, no later than 10:00pm Arizona Time. I will accept assignments up to 2 days late; however, I will take 20% off for one day late, and 40% off for two days late. Because the assignments are available on the first day, and can be submitted early, I will not accept any excuses for late assignments. Because there are only 7 assignments, missing one assignment will severely impact the final grade in the class.

I urge students to complete this course in three to four weeks rather than taking the entire 7 or 8 weeks. All of the recorded lectures and assignments are available on the first day. Students should try to complete the course and submit all of the assignments before their other courses' exams begin.

Written Assignment Integrity

Each student will have unique and traceable data for their assignments. Copying is not permitted.

Grading

Grade	Percentage	Points Range
A	90 – 100%	90– 105
B	80 – 89%	80 – 89
C	70 – 79%	70 – 79
D	60 – 69%	60 – 69
E/F	Below 60%	59 and below

Grading Procedure

Grades reflect your performance on assignments and adherence to deadlines. Graded assignments will be available within 48 hours of the due date via the Gradebook.

Communicating With the Instructor

This course uses a discussion board called "Hallway Conversations" for general questions about the course. Prior to posting a question, please check the syllabus, announcements, and existing posts. If you do not find an answer, post your question. You are encouraged to respond to the questions of your classmates.

Email questions of a personal nature to your instructor or assigned TA. You can expect a response within 48 hours.

Online Course

This is an online course. There are no face-to-face meetings. You can log into your course via MyASU or https://my.asu.edu.

Email and Internet

ASU email is an official means of communication among students, faculty, and staff. Students are expected to read and act upon email in a timely fashion. Students bear the responsibility of missed messages and should check their ASU-assigned email regularly.

All instructor correspondence will be sent to your ASU email account.

Course Time Commitment

This one-credit course requires approximately 40 hours of work. Please expect to spend around 5 hours each week preparing for and actively participating in this course.

Late or Missed Assignments

Notify the instructor **BEFORE** an assignment is due if an urgent situation arises and the assignment will not be submitted on time. Published assignment due dates (Arizona Mountain Standard time) are firm. Please follow the appropriate University policies to request an accommodation for religious practices or to accommodate a missed assignment due to University-sanctioned activities.

Submitting Assignments

All assignments, unless otherwise announced, MUST be submitted to the designated area of Blackboard. Do not submit an assignment via email.

Drop and Add Dates/Withdrawals

This course adheres to a compressed schedule and may be part of a sequenced program, therefore, there is a limited timeline to drop or add the course. Consult with your advisor and notify your instructor to add or drop this course. If you are considering a withdrawal, review the following ASU policies: Withdrawal from Classes, Medical/Compassionate Withdrawal, and a Grade of Incomplete.

Grade Appeals

Grade disputes must first be addressed by discussing the situation with the instructor. If the dispute is not resolved with the instructor, the student may appeal to the department chair per the University Policy for Student Appeal Procedures on Grades.

Student Conduct and Academic Integrity

Academic honesty is expected of all students in all examinations, papers, laboratory work, academic transactions and records. The possible sanctions include, but are not limited to, appropriate grade penalties, course failure (indicated on the transcript as a grade of E), course failure due to academic dishonesty (indicated on the transcript as a grade of XE), loss of registration privileges, disqualification and dismissal. For more information, see http://provost.asu.edu/academicintegrity. Additionally, required behavior standards are listed in the Student Code of Conduct and Student Disciplinary Procedures, Computer, Internet, and Electronic Communications policy, and outlined by the Office of Student Rights & Responsibilities. Anyone in violation of these policies is subject to sanctions.

Students are entitled to receive instruction free from interference by other members of the class. An instructor may withdraw a student from the course when the student's behavior disrupts the educational process per Instructor Withdrawal of a Student for Disruptive Classroom Behavior.

Appropriate online behavior (also known as *netiquette*) is defined by the instructor and includes keeping course discussion posts focused on the assigned topics. Students must maintain a cordial atmosphere and use tact in expressing differences of opinion. Inappropriate discussion board posts may be deleted by the instructor.

Students cannot share their assignments with anyone. The assignments can not be uploaded to websites or given to tutoring services. The assignments are copyright protected.

The Office of Student Rights and Responsibilities accepts incident reports from students, faculty, staff, or other persons who believe that a student or a student organization may have violated the Student Code of Conduct.

Prohibition of Commercial Note Taking Services

In accordance with ACD 304-06 Commercial Note Taking Services, written permission must be secured from the official instructor of the class in order to sell the instructor's oral communication in the form of notes. Notes must have the notetaker's name as well as the instructor's name, the course number, and the date.

Course Evaluation

Students are expected to complete the course evaluation. The feedback provides valuable information to the instructor and the college and is used to improve student learning. Students are notified when the online evaluation form is available.

Syllabus Disclaimer

The syllabus is a statement of intent and serves as an implicit agreement between the instructor and the student. Every effort will be made to avoid changing the course schedule but the possibility exists that unforeseen events will make syllabus changes necessary. Please remember to check your ASU email and the course site often.

Accessibility Statement

In compliance with the Rehabilitation Act of 1973, Section 504, and the Americans with Disabilities Act as amended (ADAAA) of 2008, professional disability specialists and support staff at the Disability Resource Center (DRC) facilitate a comprehensive range of academic support services and accommodations for qualified students with disabilities.

Qualified students with disabilities may be eligible to receive academic support services and accommodations. Eligibility is based on qualifying disability documentation and assessment of individual need. Students who believe they have a current and essential need for disability accommodations are responsible for requesting accommodations and providing qualifying documentation to the DRC. Every effort is made to provide reasonable accommodations for qualified students with disabilities.

Qualified students who wish to request an accommodation for a disability should contact the DRC by going to https://eoss.asu.edu/drc, calling (480) 965-1234 (480) 965-1234 or emailing DRC@asu.edu. To speak with a specific office, please use the following information:

ASU Online and Downtown Phoenix Campus University Center Building, Suite 160 602-496-4321 602-496-4321 (Voice)	**Polytechnic Campus** 480-727-1165 480-727-1165 (Voice)
West Campus University Center Building (UCB), Room 130 602-543-8145 602-543-8145 (Voice)	**Tempe Campus** 480-965-1234 480-965-1234 (Voice)

Technical Support

This course uses Blackboard to deliver content. It can be accessed through MyASU at http://my.asu.edu or the Blackboard home page at https://myasucourses.asu.edu

To monitor the status of campus networks and services, visit the System Health Portal at http://syshealth.asu.edu/.

To contact the help desk call toll-free at 1-855-278-5080 1-855-278-5080 FREE.

Student Success

This is an online course. To be successful:
- check the course daily
- read announcements
- read and respond to course email messages as needed
- complete assignments by the due dates specified
- communicate regularly with your instructor and peers
- create a study and/or assignment schedule to stay on track

Recommended Timing for the Semester

Lecture	Topic	Windows Menu	Mac Menu
1	Introduction		
2a	Windows Overview		
2a	Windows Load Analysis ToolPak		
2b	Mac Overview		
2b	Mac Load StatPlus from AnalystSoft		
3	Basic Math	Home	Edit/Home
4	Copy and Paste	Home	Edit/Home
5	Right Click Features	Home	Edit/Home
5	Basic Shortcuts	Home	Edit/Home
5	Copy Down	Home	Edit/Home
6	Spreadsheet Structure	Home	Edit/Home
6	Freeze Panes	View	Window/Layout
7	Formatting	Home	Home
7	Format Painter	Home	Home
7	Conditional Formatting	Home	Home
8	General Formulas	Formulas	Formulas
9	Financial	Formulas	Formulas
9	Be careful, always validate!	Formulas	Formulas
10	Statistical	Formulas	Formulas
11	Text	Formulas	Formulas
12	Date & Time	Formulas	Formulas
13	Linear Algebra and Matrices	Formulas	Formulas
14	Lookup and Reference	Formulas	Formulas
15	Logical	Formulas	Formulas
16	Information	Formulas	Formulas
17	Multiple Functions	Formulas	Formulas
18	Sort	Data	Data
19	Filter	Data	Data

19	Advanced Filter	Data	Data
20	Text to Columns	Data	Data
21	Pivot Table	Insert	Data
22	Charts	Insert	Charts
22	Editing Charts	Insert	Charts
23	Data Analysis - Correlation Matrix	Data	StatPlus
23	Data Analysis - Covariance Matrix	Data	StatPlus
24	Data Analysis - Descriptive Statistics	Data	StatPlus
24	Data Analysis - Histogram	Data	StatPlus
25	Data Analysis - Regression	Data	StatPlus
26	Data Analysis - t-Test	Data	StatPlus
27	Data Analysis - ANOVA	Data	StatPlus
28	Data Analysis - Random Number Generation	Data	StatPlus
29	Alternate Random Number Generation		
30	Inserting New Comments	Review	Review
30	Protect Sheet	Review	Review
31	McCarville's Favorite Shortcuts		
32	Workbook Structure		
33	Introduction to VBA Macro Recording	View	Tools
34	Modifying VBA in Recorded Macros	View	Tools
35	Writing basic VBA commands	View	Tools
36	Data Cleanup		
37	Closing Remarks		

See the Teach Plan for the module dates and assignments.