



## Syllabus-Spring 2024

Title of Course-Section:	<b>MATH 1350-502/503 (Introduction to Statistics - STAT 145)</b>
Name of Department:	Mathematics, Engineering, & Computer Science (MECS)
Instructor:	Andisheh Dadashi, Assistant Prof. of Mathematics (andisheh@unm.edu)
Credit Hours :	3 credit hours
Class Days/Times:	T/TH 12 p.m. - 1:15 p.m.
Class Location:	VAAS-127 (Hybrid: Simultaneous Zoom and face-to-face)
Office Location:	VAAS-105
Office Hours:	In-person & Zoom: TH 7:30 a.m. - 11:30 a.m. (or by appointment)

Note 1: Zoom links related to this course or office hours can be found on Canvas.

Note 2: The instructor reserves the right to change the syllabus at any point of time during the semester.

Note 3: MECS Division Chair Dr. Ariel Ramirez (aramirez8@unm.edu)

## Table of content

- [How to be successful in this course?](#)
- [Evaluation/Grading Methods](#)
- [Teaching Materials](#)
- [Online Assignments](#)
- [Learning Objectives and Outcomes](#)
- [Technology Requirements](#)
- [\\*\\* Course Structure \\*\\*](#)
- [Late Assignments](#)
- [QRcodes/Attendance/Absence](#)
- [Student Behavior & Collegial Behavior](#)
- [Student Responsibility](#)
- [General Support for this course!](#)
- [Disabilities Policy](#)
- [The Center for Academic Learning](#)
- [Academic Dishonesty](#)
- [UNM Valencia Title IX Representative](#)
- [Important Links](#)
- [UNM Deadlines & Academic Calendar](#)
- [Chapters of Book](#)
- [Course Schedule](#)

## HOW TO EMAIL



When emailing me, in the subject of your email, please write down your course name, course number, and section number. For example, the subject of your email to me should be: **MATH1350-502/503**. You must only contact me with your **UNM e-mail**. Check your **UNM email frequently**. You are responsible for missing any announcement I send via email or posted on Canvas. Failure to identify your message with the class number, and not using your UNM email will result in no response at all.

### **Instructor Response Time:**

- The best way of contacting me will be via email (with proper subject mentioned **\*\*Above\*\***).
- In all cases please, be patient and give me 24 hours to 48 hours to reach back to you.
- I will be available via email during the weekday until 5 p.m.
- I may not be able to respond to any email on Saturday and Sunday.

Get to know your instructor:



Andisheh Dadashi is an Assistant Professor of Mathematics and Computer Science in the Department of Mathematics within the Engineering and Computer Science Division (MECS) at the University of New Mexico-Valencia. She earned her Bachelor's degree in Mathematics and Statistics in Iran, followed by her first Master's degree in Mathematics in India. Andisheh obtained a second Master's degree in Statistics from the University of New Mexico (UNM) in 2016, marking the beginning of her teaching career as a visiting Lecturer II at UNM-Gallup, where she initiated the implementation of the Critical Technology Studies Program (CTSP) from the main campus. Since then, Andisheh has prepared student scholars for careers in the Intelligence Community (IC) and other related national security fields.

Currently, Andisheh is a Ph.D. candidate in the UNM Computer Science Department. Her research interests encompass computational biology, genetics, and metabolic networks. At present, her research is centered on the development of theoretical frameworks, computational methods, and statistical tools aimed at uncovering the mechanisms of rapid polygenic adaptation in response to environmental changes.

To know **Andisheh** watch this video <https://youtu.be/t4ryQfdrSEo>

## WHAT IS INTRODUCTION TO STATISTICS?

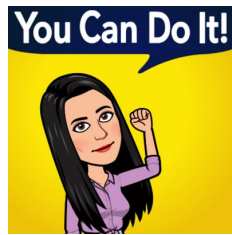
This course is an introductory course in statistics intended for students in a wide variety of areas of study. Topics discussed include displaying and describing data, the normal curve, regression, probability, statistical inference, confidence intervals, and hypothesis tests with applications in the real world. Students also have the opportunity to analyze data sets using technology in their weekly laboratory discussions.

### Why Studying Statistics??

Studying Introduction to Statistics can provide college students with numerous benefits that extend beyond the classroom. Here are eight main reasons why college students should consider studying Statistics:

1. **Critical Thinking Skills:** Statistics involves analyzing and interpreting data, which requires critical thinking. It helps students develop the ability to assess information, draw conclusions, and make informed decisions based on evidence.
2. **Data Literacy:** In an increasingly data-driven world, being literate in statistics is essential. Understanding statistical concepts enables students to interpret and evaluate data, making them better equipped to navigate information in various fields.
3. **Research Skills:** Many academic disciplines and professional fields rely on research. A solid foundation in statistics equips students with the skills to design experiments, collect data, and analyze results, contributing to their ability to conduct meaningful research.
4. **Problem-Solving Abilities:** Statistics provides a framework for solving real-world problems. Students learn to identify patterns, analyze trends, and make predictions, enhancing their problem-solving skills applicable in diverse contexts.
5. **Career Opportunities:** Proficiency in statistics is highly valued in numerous professions, including business, finance, healthcare, social sciences, and technology. Many employers seek candidates who can analyze data to inform decision-making and solve complex problems.
6. **Statistical Software Proficiency:** Introductory statistics courses often involve hands-on experience with statistical software. Learning to use tools like R or Python for statistical analysis enhances students' technical skills and prepares them for roles requiring data manipulation and interpretation.
7. **Quantitative Literacy:** Statistics fosters quantitative literacy, helping students become comfortable with numbers and quantitative information. This is crucial for understanding research findings, interpreting surveys, and making sense of numerical data in everyday life.
8. **Informed Citizenship:** In an era of misinformation, statistical literacy empowers individuals to critically evaluate claims and data presented in various contexts. A basic understanding of statistics enables students to be informed citizens who can assess the validity of arguments and make sound decisions based on evidence.

In summary, studying Introduction to Statistics provides students with valuable skills applicable in both academic and professional settings, fostering critical thinking, data literacy, and problem-solving abilities that are increasingly essential in today's world.



To be successful in an introductory statistics course, you should focus on understanding the fundamental concepts and building a strong foundation in statistical thinking. Here are some tips to help you excel in your introductory statistics course (**What to do**):

1. **Attend Classes Regularly:** - Attend all lectures and actively participate in class discussions. Pay close attention to your instructor's explanations and examples.
2. **Review Course Materials:** - Read the textbook and supplementary materials provided by your instructor. Try to understand the concepts before they are covered in class.
3. **Take Good Notes:** - Take organized and thorough notes during lectures. Writing down key concepts and examples will help reinforce your understanding.
4. **Seek Help When Needed:** - Don't hesitate to ask questions during or after class if you're confused about a concept. Visit your instructor during office hours or reach out to them via email for clarification. If you find yourself struggling consistently, consider seeking additional help from a tutor or academic support center. Don't wait until you're too far behind.
5. **Practice Regularly:** - Practice is essential for mastering statistics. Work through practice problems and exercises from the textbook and any additional resources provided by your instructor.
6. **Utilize Online Resources:** - There are many online resources, including tutorials and videos, that can help you grasp statistical concepts. Websites like Khan Academy and Coursera offer free statistics courses.
7. **Form Study Groups:** - Join or create study groups with classmates. Discussing concepts and solving problems together can enhance your understanding and provide different perspectives on challenging topics.
8. **Manage Your Time:** - Stay organized and manage your time effectively to allocate sufficient study time for statistics. Create a study schedule and stick to it.
9. **Practice Problem Solving:** - Focus on problem-solving techniques, as statistics often involves complex calculations and data interpretation. Practice solving a variety of statistical problems to build your skills.
10. **Understand the Logic:** - Try to understand the underlying logic behind statistical concepts rather than just memorizing formulas. This will help you apply your knowledge to different scenarios.
11. **Review Regularly:** - Continuously review previous material to reinforce your understanding and ensure you retain the knowledge you've gained throughout the course.
12. **Stay Positive and Persistent:** - Statistics can be challenging, but maintaining a positive attitude and being persistent in your efforts can make a significant difference in your success.

Remember that success in statistics often depends on understanding the concepts and applying them to real-world problems. By following these tips and staying dedicated to your studies, you can increase your chances of doing well in your introductory statistics course.

Your final grade in this class is based on the following components:

In-class work, attendance, and participation credit	10 %
Online Post-class activities	10 %
Online Homework	30 %
Online Quizzes	15 %
Exams (3 midterms and 1 final)	35 %
<hr/>	
Overall	100 %

**YOUR  
OVERALL  
GRADE**



Passing grade is 70% or better. F is a grade lower than 60%

Overall Grades: pluses and minuses may or may not be added to letter grades at the instructor's discretion. Grades of A+ are not rare and will only be awarded for exceptional work.

Grade	From	To	Grade	From	To	Grade	From	To
A+	98	100	B+	87	89.99	C+	77	79.99
A	93	97.99	B	83	86.99	C	73	76.99
A-	90	92.99	B-	80	82.99	C-	70	72.99



**Pre-requisites/Co-requisites:** \*MATH 1130 is NOT a prerequisite for MATH 1350. Successful completion of MATH 1170/MATH 1215/MATH 1220/MATH 1230/MATH 1240/MATH 1250/MATH 1430/MATH 1440/MATH 1512/MATH 1522/MATH 2530. Minimum ACCUPLACER score  $\geq 262$  (QRAS)  $\geq 233$  (A&F). ACT score  $\geq 20$ . SAT score  $\geq 520$ .

**Course Description:** This course discusses the fundamentals of descriptive and inferential statistics. Students will gain introductions to topics such as descriptive statistics, probability and basic probability models used in statistics, sampling and statistical inference, and techniques for the visual presentation of numerical data. Techniques for the visual presentation of numerical data, descriptive statistics, introduction to probability and basic probability models used in statistics, introduction to sampling and statistical inference illustrated by examples from a variety of fields.

**Goals:** The goal of an introductory statistics course is typically to provide students with a foundational understanding of statistics. Here are some common goals and objectives associated with such courses:

1. **Statistical Literacy:** To develop statistical literacy, which includes understanding basic statistical concepts and terms such as mean, median, standard deviation, probability, hypothesis testing, and confidence intervals.
2. **Critical Thinking:** To foster critical thinking and problem-solving abilities, enabling students to evaluate and interpret data critically, draw valid conclusions, and make informed decisions based on statistical information.
3. **Statistical Communication:** To develop the ability to communicate statistical findings effectively, both in writing and through visual representations such as charts and graphs.
4. **Probability Concepts:** To introduce students to fundamental probability concepts and their applications in various real-world scenarios.
5. **Real-World Applications:** To demonstrate how statistics is used in various fields such as science, business, and health sciences, and to help students see the practical applications of statistical methods.
6. **Preparation for Advanced Courses:** For students pursuing majors that require advanced statistical knowledge, this course serve as a foundation for advanced coursework in statistics and data analysis.

By the end of the course the student will be able to:

- Explain the general concepts of statistics. (Ch 1)
- Present and describe the data. (Ch 1 & Ch 2)
- Summarize data using measures of central tendency and variation. (Ch 2)
- Interpret basic probabilities and will present the concepts of probability and will calculate probabilities using the standard normal distribution and relate them to areas under the curve. (Ch 3 & Ch 12)
- Give examples of independent and dependent variables. (Ch 4)
- Calculate and interpret the linear correlation coefficient. (Ch 5)
- Analyze data using regression and correlation. (Ch 4 & Ch 5)
- Distinguish between populations and samples, and parameters and statistics. (Ch 15)
- Describe the relationship between the sampling and the population distribution. (Ch 15)
- Compute point and interval estimates. (Ch 16)
- Perform hypothesis tests. (Ch 17 & Ch 20)
- Analyze the differences between the type of variables (Ch 25)

## TECHNOLOGY REQUIREMENT



Access to a reliable and fast internet connection is required. For the course, we use Canvas <https://canvas.unm.edu> to navigate through the teaching materials and assignments, but students must also be able to navigate and use other online resources.

Students are required to purchase the online Achieve Package (e-book). This online book will be on Canvas via Inclusive Access (IA).

Achieve is the online learning system that accompanies the textbook and includes an e-book. Achieve is required for MATH1350 (Stat145).

### How to access Achieve:

- Using your UNM email, sign in or create an account at <https://achieve.macmillanlearning.com/courses/mbdfzo>

### Inclusive Access (IA):

Your course comes with Inclusive Access (IA) which means you will have a **discounted price** of the book using IA on Canvas. On the main page of this course on Canvas, you should find a section named Course Material. After clicking on it you should see a link named RedShelf. After Clicking on RedShelf you must follow the instructions to access the Online Book.

Also, you should receive an email that contains instructions for inclusive access to the book via the RedShelf on Canvas. Please, read the email to gain more information regarding the IA.





**Book and Package:** The Basic Practice of Statistics (ninth edition: ISBN 978-1-319-38395-4 (ePub)), Achieve Package (e-book). This online book will be on Canvas via IA. Please, read the above information regarding Inclusive Access. Achieve is required for MATH1350 (Stat145).

A student's grade is determined by points earned out of 100. The following sections give a breakdown of points; any changes in % or assignments will be based on class needs and communicated early.

- **In-class work, attendance, and participation credit (10 points)**
  - Being on time (either on Zoom or in person)
  - Stay on Zoom or in person during the entire class time
  - Filling out the participation form and answering the questions.
  - Answering the questions and participate in group assignments
- **Online Post-class activities (10%)**
  - In these activities you will be asked various questions on a topic from the book.
  - For an incorrect answer, you will be referred to the corresponding topic in the book.
  - A similar question will appear if you're not able to answer a question.
  - You will receive a completion score when you master that topic.
  - Online Post-class activities are available on Achieve.
- **Online Homework (30%)**
  - For each chapter (total of 11)
  - Unlimited attempt
  - Not timed
  - Late submission 2% penalty per day for a maximum of five days
  - Online Homework are on Achieve
- **Online Quizzes (15 points)**
  - For each chapter (total of 11)
  - 2 attempt
  - Timed: 1 hour
  - Late submission 2% penalty per day for a maximum of five days
  - Online Quizzes are on Achieve
- **3 Midterms and 1 Final Exams (35 points)**
  - 1 attempt per exam
  - Will be accessible for 24 hours
  - Timed: 1 hour and 30 minutes
  - No late submission will be accepted
  - No back-tracing allowed: Students must complete each question to move on to the next question
  - Exams are on Achieve: Written work must be submitted on Canvas before the due date
- **Total = 100%**





Q. Where can you find the materials for this class? **Canvas** <https://canvas.unm.edu>

Q. Where do you find the assignments? **Achieve**

Q. Where do you submit the assignments? **Achieve**

Q. Where do you find your grade? **Achieve** (Gradebook)

Course information including this syllabus, and all the necessary materials and links, etc. will be available via Canvas.

### QR codes/Attendance/Absence



- - Please download a free QR scanner on your smartphone. You should scan the QR code that I provide for you during the first 5 minutes or the last 5 minutes of class.
- - You are expected to be on time for each class, stay for the entire duration, have the necessary course materials on hand, and participate in the lecture and/or group activities to receive full credit for attendance each day.
- - Even if you miss a class, you are still expected to complete the assignments, but you will lose points for class attendance and class activities.

## PUNCTUALITY IS EXPECTED



The due dates for the assignments and exam are very firm. Please manage your time wisely in order to prevent any delay. No late assignment is accepted unless in the event of a genuine emergency per the instructor's discretion. No early exams will be permitted except in documented emergencies: flight reservations, weddings, vacations, birthdays, non-NCAA sporting events, etc. are not considered emergencies.

**Extending assignments for students is not always ideal for several reasons:**

- 1. Maintaining Course Schedule:** Extending assignments can disrupt the planned course schedule. Instructors typically design their courses with a specific pace in mind to cover the required material within the available time. Extending assignments may lead to a lag in the curriculum, making it challenging to cover all necessary topics.
- 2. Developing Time Management Skills:** Meeting deadlines is an essential skill for students to develop. By adhering to due dates, students learn how to manage their time effectively and prioritize tasks. Granting extensions too easily can hinder the development of these crucial skills.
- 3. Fairness and Equity:** Granting extensions to some students but not others can create fairness and equity issues. It may lead to resentment among students who met the original deadlines and frustration among those who did not receive extensions.
- 4. Accountability:** Having firm deadlines encourages accountability among students. When assignments have strict due dates, students are more likely to complete them on time, take their work seriously, and strive for quality.
- 5. Real-World Preparation:** Meeting deadlines is a fundamental requirement in most professions. By adhering to assignment due dates in an academic setting, students prepare for the expectations they will encounter in their future careers.
- 6. Preventing Procrastination:** Allowing extensions can encourage procrastination. Students may delay their work with the expectation of getting an extension, leading to last-minute rushes and lower-quality work.
- 7. Maintaining Academic Integrity:** Extending deadlines can create opportunities for academic misconduct, such as sharing answers or copying from external sources, as students might seek shortcuts when facing time constraints.

While there are valid reasons to grant extensions in cases of genuine emergencies or extenuating circumstances, it's crucial for instructors to establish clear policies and guidelines for requesting extensions to maintain fairness, consistency, and the educational integrity of the course. In general, extensions should be exceptions rather than the norm to promote responsible time management and a conducive learning environment.

According to the Code of Conduct as stated in the Policies and Regulations for UNM, student activities that interfere with the rights of others to pursue their education or to conduct their University duties and responsibilities will lead to disciplinary action. This includes any activities that are disruptive to the class and any acts of academic dishonesty. Students are expected to behave in a courteous and respectful manner toward the instructor and their fellow students. Students may be dropped from a class for inappropriate behavior. For more information: [Student Code of Conduct](#)

Since we assume you are all adults, we will expect from you, respectful adult behavior. Engaging in disruptive or unruly behavior could result in your being asked to leave, at which time you will be counted absent and a referral will be sent to the Dean of Instruction. Continuing to behave in this way could result in your being dropped from the course. Disruptive or unruly behavior includes but is not limited to:

- texting or talking on your cell phone or Laptop at any time during class,
- continually talking with your neighbor when we are not working on a group activity,
- working on homework from another class,
- refusing to participate in the class activities.
- reading material or watching media not related to this course or at a time that is inappropriate,

**RESPECT  
IS EXPECTED**



### Your Responsibility

Time required for This Course: Plan to spend a minimum of 9 to 12 hours per week for this class. There is no guarantee you will pass if you dedicate this amount of time, you still need to learn the material and use your time wisely, but those who pass generally are the ones who spend the time needed to do the work to learn the material.

You are responsible for all material covered in this Syllabus and in class, in assigned readings, and on homework assignments. Not all material on tests will necessarily be covered in class but will be in the assignments. The use of cell phones, headphones, etc. is not permitted in class or exams.

**EXPECTATIONS:** Students are expected to conduct themselves in a polite, courteous, professional, and collegial manner. Cell phones must be set on silent and be out of sight during class. No food or drink is allowed in the computer labs.

If you have a documented disability, the “Equal Access Services office“ will provide me with a letter outlining your accommodations. I will then discuss the accommodations with you to determine the best learning environment. If you feel that you need accommodations, but have not documented your disability, please contact Cheryl Dilger, the coordinator for Equal Access Services at 925-8910 or [cdilger@unm.edu](mailto:cdilger@unm.edu).

If you are struggling in this course, do not be afraid to ask for help!

- Office Hours: See my office hours listed at the beginning of this syllabus. “Office Hours“ Feel free to come by or log in for online office hours (Info on Canvas), or make an appointment to get help.
- Form study groups: You may work together with other members of our class on the Canvas discussion board.

• Tutoring and Student Services: There are various services provided in our Student Services Department. The Math Center at Valencia campus has free tutoring and open labs. CAPS on the main campus also provides tutoring. For more information please check out the following:

[Program Support: CAPS](#), [UNM-Valencia Learning Commons \(Tutoring\)](#): [LRC](#), [TRIO Student Support Services](#), [Student Learning Support at the Center for Teaching and Learning.](#), and [Pathways to Articulation and Sustainable Opportunities for Students \(PASOS\)](#).



## Academic Dishonesty

Having academic integrity is paramount to your success in any class. Plagiarism or cheating is not tolerated. Any instance of this will result in a grade of zero for that assignment. Here is the link to the UNM Academic Dishonesty Policy: <https://policy.unm.edu/regents-policies/section-4/4-8.html>.

**The policy states:** Each student is expected to maintain the highest standards of honesty and integrity in academic and professional matters. The University reserves the right to take disciplinary action, up to and including dismissal, against any student who is found guilty of academic dishonesty or who otherwise fails to meet the expected standards. Any student judged to have engaged in academic dishonesty in coursework may receive a reduced or failing grade for the work in question and/or for the course.

Academic Dishonesty is defined as:

“Academic dishonesty“ includes, but is not limited to, dishonesty in quizzes, tests, or assignments; claiming credit for work not done or done by others; hindering the academic work of other students; misrepresenting academic or professional qualifications within or without the University; and nondisclosure or misrepresentation in filling out applications or other University records.

Cheating students will be prosecuted according to University guidelines. Students should get acquainted with their rights and responsibilities as explained in the Student Code of Conduct <https://grad.unm.edu/aire/academic-integrity.html>

**Title IX (9) Statement:** In an effort to meet obligations under Title IX, UNM faculty, Teaching Assistants, and Graduate Assistants are considered “responsible employees” by the Department of Education (see pg. 15 - <http://www2.ed.gov/about/offices/list/ocr/docs/qa-201404-title-ix.pdf>). This designation requires that any report of gender discrimination which includes sexual harassment, sexual misconduct and sexual violence made to a faculty member, TA, or GA must be reported to the Title IX Coordinator at the Office of Equal Opportunity ([oeo.unm.edu](http://oeo.unm.edu)). For more information on the campus policy regarding sexual misconduct, see: <https://policy.unm.edu/university-policies/2000/2740.html>

### Important Links

**Disabilities Policy: Office of Equal Access:** Contact the Office of Equal Access at 925-8560 to schedule an appointment. <https://valencia.unm.edu/students/advisement/equal-access-faqs.html>

**The Center for Academic Learning:** The Learning Center is open Monday – Friday with evening hours Monday – Thursday To schedule an appointment or for additional information call (505)-925-8907 <https://valencia.unm.edu/campus-resources/learning-commons/index.html>

#### UNM Valencia Registrar’s Office

Contact Registration Office by calling 925-8580 <http://valencia.unm.edu>

#### UNM Deadlines & Academic Calendar

**UNM Deadlines:** <https://registrar.unm.edu/semester-deadline-dates/index.html> .....*And....*

**Academic Calendar:** <https://hr.unm.edu/calendars>

Topics	In detail
1. Part I: Ch 01: Picturing Distributions with Graphs:	<ul style="list-style-type: none"> <li>- Introduction to Data Visualization</li> <li>- Types of Graphs (Bar Charts, Histograms, Box Plots, etc.)</li> <li>- Data Summary Statistics and Measures of Spread</li> <li>- Interpretation of Graphical Representations</li> </ul>
2. Part I: Ch 02: Describing Distributions with Numbers:	<ul style="list-style-type: none"> <li>- Central Tendency Measures and Measures of Variability</li> <li>- Percentiles, Quartiles and The Interquartile Range (IQR)</li> <li>- Summary Statistics for Categorical Data</li> </ul>
3. Part I: Ch 03: The Normal Distributions:	<ul style="list-style-type: none"> <li>- Introduction to the Normal Distribution</li> <li>- Standardization and Z-Scores</li> <li>- Using Normal Distribution Tables</li> </ul>
4. Part I: Ch 04: Scatterplots and Correlation:	<ul style="list-style-type: none"> <li>- Scatterplots and Relationships between Variables, and Interpretation</li> <li>- Correlation Coefficients (Pearson's <math>r</math>)</li> <li>- Strength and Direction of Correlation</li> </ul>
5. Part I: Ch 05: Regression:	<ul style="list-style-type: none"> <li>- Simple Linear Regression</li> <li>- Regression Lines and Equations</li> <li>- Least Squares Method</li> <li>- Interpreting Regression Results</li> </ul>
8. Part II: Ch 08: Producing Data: Sampling:	<ul style="list-style-type: none"> <li>- Introduction to Sampling Techniques</li> <li>- Simple Random Sampling</li> <li>- Stratified Sampling</li> <li>- Sampling Errors and Biases</li> </ul>
9. Part II: Ch 09: Producing Data: Experiments:	<ul style="list-style-type: none"> <li>- Experimental Design and Randomized Controlled Trials</li> <li>- Independent and Dependent Variables</li> <li>- Control Groups and Placebo Effects</li> <li>- Ethical Considerations in Experiments</li> </ul>
10. Part III: Ch 12: Introducing Probability:	<ul style="list-style-type: none"> <li>- Fundamentals of Probability</li> <li>- Probability Rules and Laws</li> <li>- Combinatorics (Permutations and Combinations)</li> <li>- Probability Distributions</li> </ul>
11. Part III: Ch 15: Sampling Distributions:	<ul style="list-style-type: none"> <li>- The Concept of Sampling Distribution</li> <li>- Central Limit Theorem</li> <li>- Sampling Distribution of the Sample Proportion (Applications)</li> </ul>
12. Part III: Ch 16: Confidence Intervals:	<ul style="list-style-type: none"> <li>- Confidence Interval Estimation</li> <li>- Margin of Error</li> <li>- Confidence Intervals for the Mean and for Proportions (Interpretation)</li> </ul>
13. Part III: Ch 17: Tests of Significance:	<ul style="list-style-type: none"> <li>- Hypothesis Testing Process, Null and Alternative Hypotheses</li> <li>- Significance Levels and P-Values</li> <li>- One-Sample and Two-Sample Hypothesis Tests</li> </ul>

CrunchIt! is a web-based statistical program that allows users to perform all of the statistical operations and graphing needed for an introductory statistics course.

Warning: CrunchIt will sometimes not work with Internet Explorer. It will ask for Java to be downloaded, or some such message. Unfortunately, downloading Java does not help. However, if you use Mozilla Firefox, CrunchIt works like a charm. And, here is the [Crunch It!](#)

Please watch the videos I have made for you and uploaded on YouTube:

<https://youtu.be/2i660CafMMI> Achieve tour and Crunch It for chapter 01.

<https://youtu.be/v82BmiREY2I> Crunch It for chapter 02.

[https://youtu.be/ut\\_ZYrlgVNI](https://youtu.be/ut_ZYrlgVNI) Crunch It for chapter 03.

<https://youtu.be/nc8bhEA6wBI> Crunch It for chapters 04 and 05.

Our book has five partitions and there are various numbers of topics (Chapters) in each partition. These are the topics that we are going to learn in this semester.



Week-Day	Schedule subject to change if necessary First day of semester: Jan 15 <sup>th</sup> & Final Exams: May 6 <sup>th</sup> to 11 <sup>th</sup> Holidays: Martin Luther King Day Jan 15 <sup>th</sup> & Spring break March 10 <sup>th</sup> -17 <sup>th</sup>
W1-D1	(Monday Class No Topic) IMP: Syllabus, Intro to Statistics
W1-D2	Ch.1 Data Set, Types of Variables
W2-D1	Ch.1 Picturing Distributions of Variables
W2-D2	Ch.1 Interpreting Graphs <b>Due Date Chapters 1 post Class Activity 28th Jan, 12:59 pm</b>
W3-D1	Ch.2 Measures of Center
W3-D2	Ch.2 Measures of Variability
W4-D1	Ch.2 Five number Summary, Detecting Outlier
W4-D2	Review and Practice <b>Due Date Chapters 2 post Class Activity 7th Feb, 12:59 pm</b> <b>Due Date Chapters 1 &amp; 2 assignments 8th Feb, 12:59 pm</b> <b>Due Date Midterm Exam 1: 9th Feb, 12:59 pm</b>
W5-D1	Ch.12 Introducing Probability
W5-D2	Ch.12 Probability Rules <b>Due Date Chapters 12 post Class Activity 18th Feb, 12:59 pm</b>
W6-D1	Ch.3 The Normal (Z) Distributions
W6-D2	Ch.3 Standardized Normal Distribution
W7-D1	Ch.3 Continued more Practice <b>Due Date Chapters 3 post Class Activity 23rd Feb, 12:59 pm</b>
W7-D2	Ch.15 Central Limit Thm & Law of Large numbers
W8-D1	Ch.15 Statistical Inference and Sampling Distributions <b>Due Date Chapters 15 post Class Activity 6th March, 12:59 pm</b>
W8-D2	Ch.15 Review and Practice <b>Due Date Chapters 12, 3, &amp; 15 assignments 7th March, 12:59 pm</b> <b>Due Date Midterm Exam 2: 8th March, 12:59 pm</b>
W9-D1	Spring Break No Topic
W9-D2	Spring Break No Topic
W10-D1	Ch.4 Explanatory & Response Variables
W10-D2	Ch.4 Measure of linear association: Correlation <b>Due Date Chapters 4 post Class Activity 22nd March, 12:59 pm</b>
W11-D1	Ch.5 Regression lines
W11-D2	Ch.5 Let's Find some Relation! <b>Due Date Chapters 5 post Class Activity 29th March, 12:59 pm</b>
W12-D1	Ch.8 Population vs. Sample, SRS
W12-D2	Ch.9 Experimental study <b>Due Date Chapters 8 post Class Activity 5th April, 12:59 pm</b> <b>Due Date Chapters 9 post Class Activity 8th April, 12:59 pm</b>
W13-D1	Review and Practice <b>Due Date Chapters 4, 5, 8, &amp; 9 assignments 9th April, 12:59 pm</b> <b>Due Date Midterm Exam 3: 10th April, 12:59 pm</b>
W13-D2	Ch.16 Confidence Intervals: The Basics
W14-D1	Ch.16 Confidence Intervals in Practice!
W14-D2	Ch.16 Continued <b>Due Date Chapters 16 post Class Activity 19th April, 12:59 pm</b>
W15-D1	Ch.17 Hypothesis test
W15-D2	Ch.17 Hypothesis test Continued
W16-D1	Ch.17 Tests of Significance: The Basics <b>Due Date Chapters 17 post Class Activity 1st May, 12:59 pm</b>
W16-D2	Review and Practice <b>Due Date Chapters 16 &amp; 17 assignments 2nd May, 12:59 pm</b> <b>Due Date Final Exam: 3rd May, 12:59 pm</b>