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COURSE SYLLABUS

Course: STAT216 Introduction to Statistics
Current Semester: Summer 2024
Time and Location: Online

Instructor: Jennifer Weeding
Contact Information: jweeding@dawson.edu, Phone: 406-377-9435, Main Building, Room L115
Office Hours: Virtual office hours are available at your request. EMAIL instructor to set up an appointment.
**Credit Hours:** 4
Prerequisite: ACT 21 or higher, math placement test, consent of Instructor

Course Description: This course introduces the concepts and procedures used in statistical reasoning and analysis. Topics include the presentation of data, measures of location, variability, relationships between variables, probability, sampling distributions, confidence intervals & hypothesis testing.

Instructional Materials:

Textbook: Available for *free* through your Cengage Unlimited Account.

- Introduction to Statistics and Data Analysis, 6th Edition. Peck, Short, & Olsen.

- If prompted to pay, **DO NOT TO PAY FOR ACCESS TO THE TEXTBOOK/CENGAGE UNLIMITED – YOU HAVE ALREADY PAID** (look at your student bill 🖥). If this occurs, contact your instructor.
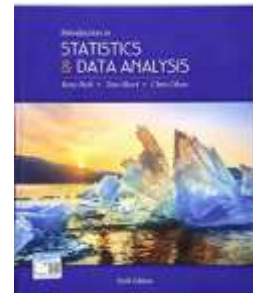
Online Homework:

- WebAssign will used for online homework & is available through your Cengage Unlimited account. A link to WebAssign is provided in the top section of our Moodle course page.

Student Learning Outcomes:

1. Think critically about data and data collection.
2. Use appropriate graphical and numerical summaries for univariate and bivariate data and be able to describe the characteristics of a distribution.
3. Demonstrate knowledge and use of random variables, means and variances, and sampling distributions.
4. Demonstrate knowledge of the Central Limit Theorem.
5. Apply standard statistical procedures (null/alternative hypotheses, test statistics, p-values, decisions, conclusions, & errors).
6. Interpret and communicate the outcomes of standard statistical procedures.
7. Interpret a confidence interval. (i.e. How does a 95% confidence interval relate to a hypothesis test with alpha = 0.05?)
8. Explain and demonstrate common abuses of tests.
9. Communicate findings to a non-mathematical audience.

Purpose of Academic Assessment

Academic assessment is the process for *ongoing improvement of student learning and success.*
The assessment program at Dawson Community College has four specific interrelated purposes.

- To improve student learning
- To improve teaching strategies
- To document successes and identify opportunities for improvement
- To provide evidence for institutional effectiveness

Grading: The final grade will be based on the average of homework assignments, four midterm exams, and a final exam. Homework will be due weekly, on Sunday evenings. The final exam will be **cumulative**.

No extra credit assignments will be given in this course.
Late work will **NOT** be accepted. **No exceptions.**

Homework	Midterm Exams (4)	Final Exam
20%	60%	20%

Grading scale:

	93-100% A	90-92% A-
88-89% B+	83-87% B	80-82% B-
78-79% C+	73-77% C	70-72% C-
68-69% D+	63-67% D	60-62% D-
0-59% F		

Tentative Course Schedule:

We will cover the chapters from the book in the following order:

1. Chapter 1: The Role of Statistics and the Data Analysis Process
2. Chapter 2: Collecting Data Sensibly
3. Chapter 3: Graphical Methods for Describing Data
4. Chapter 4: Numerical Methods for Describing Data
5. Chapter 5: Summarizing Bivariate Data
6. Chapter 6: Probability
7. Chapter 7: Variables and Probability Distributions
8. Chapter 8: Sampling Variability and Sampling Distributions
9. Chapter 9: Estimation using a Single Sample
10. Chapter 10: Hypothesis Testing Using a Single Sample
11. Chapter 11: Comparing Two Populations or Treatments

Policies and Procedures:

Cheating and Plagiarism/Academic Integrity: Students at Dawson Community College are expected to do their own work and in their own words and with their own ideas. If they quote or paraphrase the words of others, they are expected to indicate who it is they are paraphrasing. An instructor, who believes a student has cheated or claimed the work of someone else as his/her own, may take disciplinary steps as outlined under Academic Integrity Guidelines. This may include, but not be limited to, giving a failing grade or referring the student to others for further discipline.

As a Dawson Community College student and as a student in this class, you are responsible for reading, understanding, and abiding by the DCC Student Code of Conduct. The Student Code of Conduct is included in the DCC Student Handbook and is available online at https://www.dawson.edu/current-students/student-success/student-handbook.html/title/student-conduct-code.”

Class Attendance Policy:

This is a fully online course. Dawson Community College supports the philosophy that learning is optimal when students attend classes regularly and participate in the learning environment through interaction with colleagues and instructors. ***The student is responsible for maintaining regular attendance in registered classes – in an online class this means logging in to Moodle, watching the course videos, completing worksheets & homework, and communicating with the instructor when clarification is needed.*** Absences due to serious illness or strictly unavoidable circumstances may be excused – the instructor must be notified in order for accommodations to be considered. ***An excused absence does not, under any circumstances, relieve the student of the responsibility for completing the course work***.

Reasonable Disability Accommodation:

Dawson Community College will provide reasonable accommodations for qualified students with disabilities pursuant to Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (Public Law 101-336) to ensure equal access to its programs. Students seeking academic accommodations for a special need must contact the Dean of Academics office at 406-377-9434.

Syllabus Change Policy:

Except for changes that substantially affect implementation of the evaluation (grading) statement, this syllabus is a guide for the course and is subject to change with advance notice.

NOTE:

You are welcome to work ahead of this schedule, however there will be no late work accepted.

STAT 216 – Introduction to Statistics
==TENTATIVE== Schedule – SUMMER 2024

WEEK	*DATE*	*Material Covered*	*What's Due? (Sunday Evening)*	*Sunday (DUE on)*
1	June 3rd – June 9th	Chapter 1 Chapter 2	Chapter 1 HW Chapter 2 HW	June 9th
2	June 10th – June 16th	Chapter 3	Chapter 3 HW **Midterm Exam 1**	June 16th
3	June 17th – June 23rd	Chapter 4 Chapter 5	Chapter 4 HW Chapter 5 HW	June 23rd
4	June 24th – June 30th	Chapter 6	Chapter 6 HW **Midterm Exam 2**	June 30th
5	July 1st – July 7th	Chapter 7 Chapter 8	Chapter 7 HW Chapter 8 HW	July 7th
6	July 8th – July 14th	Chapter 9	Chapter 9 HW **Midterm Exam 3**	July 14th
7	July 15th – July 21st	Chapter 10	Chapter 10 HW	July 21st
8	July 22nd – July 28th	Chapter 10 & 11	Chapter 11 HW	July 28th
9	July 29th – August 4th	Chapter 11	Chapter 11 HW, pt 2 **Midterm Exam 4**	August 4th
10	August 5th – August 9th	Final Exam	**FINAL EXAM**	**Friday, August 9th**