



TEXAS A&M UNIVERSITY
SAN ANTONIO

College of Education and Human Development
Department of Counseling, Health & Kinesiology
EDKN 5338-900 Statistical Analysis of Research Data (3 credits)
Spring 2025

Instructor: T. Brock Symons, Ph.D.

Class Time & Location: 5:30 p.m. to 6:45 p.m.
Monday (Face-to-Face), Sci Tech 279
Wednesday (Online Asynchronous / Synchronous via WebEx)

E-mail & Phone: tsymons@tamusa.edu (preferred contact method) and 210 – 784 – 2587 (office)

Office Hours: Monday and Wednesday at 12:30 – 3:30 pm via face-to-face or WebEx or by appointment via email.

I understand that this may not be possible for everyone; so, you can always email me at tsymons@tamusa.edu if you have any questions.

I am available from 10:00 a.m. – 5:30 p.m. Central Standard Time (EST) Monday through Friday to contact via telephone and/or e-mail using your Texas A&M University – San Antonio e-mail. If these times are not convenient for you, please let me know and I will be happy to accommodate your schedule if possible. I provide you with these times to make it easier to communicate with me, not to limit our contact and want you to know that, should you need to contact me outside these periods, you should not hesitate to do so.

In the event a third party needs to contact me, please direct them to my contact information listed under "E-mail & Phone" information above. No third party should use your login credentials to gain access to the classroom in Blackboard (Bb).

I will respond to your inquiry within 24 hours of receipt except on weekends and holidays, it will then be the next business day. If I do not respond in that period, know that I probably did not receive your message.

Office Location: SciTech 142K

Welcome to the Texas A&M University – San Antonio, Department of Counseling, Health and Kinesiology's Statistical Analysis of Research Data (EDKN 5338) course. This course is designed as a hybrid class. You will learn the statistical analyses utilized and the interpretation of research data in health, kinesiology and recreation in this 16-week course.

The course is designed to help you obtain the core concepts of statistical analysis so that as educators and exercise scientists you will be able to keep abreast of the latest science as consumers and/or researchers. You will read, attend classes, watch online modules, and participate in both classroom and online activities.

Required Textbook: Salkind, Neil, J. and Frey, Bruce B. (2020).
Statistics for People Who (Think They) Hate Statistics (7th ed. eBook).
SAGE Publications, Inc: Thousand Oaks, CA.
ISBN-13: 97815443811855 (paperback)

<https://www.bkstr.com/texasamsanantoniostore/home>

Required Supplies: SPSS. <https://www.ibm.com/products/spss-statistics/gradpack> (Standard): It is generally ~\$35.00 but you may be able to find lower prices elsewhere, such as eBay. The library and computer labs on main campus have computers with SPSS software if you choose not to buy it, but it is your responsibility to have access.

Recommended Textbooks: NA

Course Description: The statistical analysis and interpretation of research data in health, kinesiology and recreation. Concentration is on the concepts underlying the various statistical tests. Prerequisite: EDKN 4311 or equivalent.

Course Objective: To provide an understanding of basic statistical concepts so that educators and exercise scientists can keep abreast as consumers and/or researchers. Knowledge of these concepts will be applied using computers and computer related technology.

Student Learner Outcomes: Upon completion of this course, each student will be able to:

1. Differentiate between inferential and descriptive statistics.
2. Identify the characteristics of the four kinds of measurement scales.
3. Differentiate between discrete and continuous data.
4. Explain and interpret typical and atypical frequency distributions.
5. Differentiate between independent and dependent variables.
6. Apply the following statistical concepts: measures of central tendency, measures of variability, percentile ranks, norms, standard scores, correlation, regression, ANOVA, and chi-square.
7. Explain how the normal curve is used to make probability statements.
8. Explain sampling error.
9. Explain the relationship between sample size and confidence interval.
10. Differentiate between biased and unbiased sample.
11. Interpret sampling error and real difference.
12. Explain the difference between parametric and non-parametric statistics.
13. Interpret various statistical techniques in professional research.
14. Use statistical software to perform statistical analyses.

Graduate Class Policies

A student has the right to expect competent, well-organized instruction for the full number of clock hours allotted for a course; to sufficient written assignments, graded fairly and with reasonable promptness to show the student's academic standing in the course at least before mid-semester; to have ample opportunity to confer with the instructor at published office hours and to review graded written work; to freedom from ridicule, discrimination, harassment or accusations in the presence of other students or faculty members; and to an avenue for appealing to higher academic authority in case of alleged unfairness by an instructor.

Student Rights and Responsibilities: Students' Rights and Responsibilities: The following statement of students' rights and responsibilities is intended to reflect the philosophical base upon which University Student Rules are built. This philosophy acknowledges the existence of both rights and responsibilities, which is inherent to an individual not only as a student at Texas A&M University-San Antonio but also as a citizen of this country.

Students' Rights:

1. A student shall have the right to participate in a free exchange of ideas, and there shall be no University rule or administrative rule that in any way abridges the rights of freedom of speech, expression, petition and peaceful assembly as set forth in the U.S. Constitution.
2. Each student shall have the right to participate in all areas and activities of the University, free from any form of discrimination, including harassment, on the basis of race, color, national or ethnic origin, religion, sex, disability, age, sexual orientation, gender identity, gender expression, and pregnancy/parenting or veteran status in accordance with applicable federal and state laws.
3. A student has the right to personal privacy except as otherwise provided by law, and this will be observed by students and University authorities alike.
4. Each student subject to disciplinary action arising from violations of university student rules shall be assured a fundamentally fair process.

Students' Responsibilities:

1. A student has the responsibility to respect the rights and property of others, including other students, the faculty, and administration.
2. A student has the responsibility to be fully acquainted with the published University Student Rules found in the Student Handbook, Student Code of Conduct, on our website, and University Catalog, and to comply with them, as well as with federal, state, and local laws.
3. A student has the responsibility to recognize that student actions reflect upon the individuals involved and upon the entire University community.
4. A student has the responsibility to recognize the University's obligation to provide a safe environment for learning.

5. A student has the responsibility to check their university email for any updates or official university notifications.

We expect that students will behave in a manner that is dignified, respectful, and courteous to all people, regardless of sex, ethnic/racial origin, religious background, sexual orientation, or disability. Conduct that infringes on the rights of another individual will not be tolerated.

Students are expected to exhibit a high level of honesty and integrity in their pursuit of higher education. Students engaging in an act that violates the standards of academic integrity will find themselves facing academic and/or disciplinary sanctions. Academic misconduct is any act, or attempt, which gives an unfair advantage to the student. Additionally, any behavior specifically prohibited by a faculty member in the course syllabus or class discussion may be considered as academic misconduct. For more information on academic misconduct policies and procedures please review the Student Code of Conduct (<https://www.tamusa.edu/university-policies/student-rights-and-responsibilities/documents/Student-Handbook-2022-23.pdf>) or visit the resources available in the OSRR website (<https://www.tamusa.edu/university-policies/student-rights-and-responsibilities/academic-integrity.html>).

Academic Dishonesty: Students are expected to do their own course work. Academic dishonesty is a violation of the Student Code of Conduct; therefore, the instructor may report any form of academic dishonesty to the Office of Student Rights and Responsibilities. Please review the Student Handbook for a complete description of the process.

Artificial Intelligence Policy: One assumes that all work submitted by students will be generated by the students themselves, working individually or in groups. Students should not have another person/entity do the writing of any portion of an assignment for them, which includes hiring a person or a company to write assignments and/or using artificial intelligence (AI) tools like ChatGPT. Use of any AI-generated content in this course qualifies as academic dishonesty and violates Texas A&M-San Antonio's standards of academic integrity.

Class Attendance: A vital part of every student's education is regular attendance of class meetings. Any absences tend to lower the quality of a student's work in a course, and frequent or persistent absences may preclude a passing grade or cause a student to be dropped from one or more courses upon the request of a faculty member to the Provost and Vice President for Academic Affairs.

- The instructor's policy for this course includes:
 - Your presence is expected in class daily except for emergencies. Students assume responsibility for any material missed in class. It is your responsibility to make up missed work
 - **You will have 1 unexcused absence without penalty.**
 - **You will receive an F after 2 unexcused absences.**
 - Requests to be absent from class for official University business (athletics, field trips, student government, etc.) shall be made prior to the anticipated absence. Arrangements for missed work will be made at that time.

- If you miss an exam, quiz, or do not show up on the day of a presentation or when an assignment is due without prior arrangement with the instructor, no make-up will be allowed unless there is a *documented* emergency.
- If there is an emergency (hospital, funeral, etc.) please contact me at your earliest convenience.

Religious Observances: Texas A&M University-San Antonio recognizes the diversity of faiths represented among the campus community and protects the rights of students, faculty, and staff to observe religious holidays according to their tradition. Under the policy, students are provided an opportunity to make up any examination, study, or course work requirements that may be missed due to a religious observance provided they notify their instructors before the end of the second week of classes for regular session classes.

Research on Human Subjects: Research that involves human subjects must be approved by the Institutional Review Board for the Protection of Human Subjects.

Academic Accommodations for Individuals with Disabilities: Texas A&M University-San Antonio is committed to providing all students with reasonable access to learning opportunities and accommodations in accordance with The Americans with Disabilities Act, as amended, and Section 504 of the Rehabilitation Act. If you experience barriers to your education due to a disability or think you may have a disability, Disability Support Services is located in the Central Academic Building, Suite 210. You can also contact us via phone at (210) 784-1335, visit us <https://www.tamusa.edu/Disability-Support-Services/index.html> or email us at dss@tamusa.edu. Disabilities may include, but are not limited to, attentional, learning, mental health, sensory, physical, or chronic health conditions. All students are encouraged to discuss their disability-related needs with Disability Support Services and their instructors as soon as possible.

Academic Learning Center: The Academic Learning Center provides free course-based tutoring to all currently enrolled students at Texas A&M University-San Antonio. Students wishing to work with a tutor can make appointments through the Brainfuse online tutoring platform. Brainfuse can be accessed in the Tools section of Blackboard. You can contact the Academic Learning Center by emailing tutoring@tamusa.edu, calling (210) 784-1307, or visiting the Central Academic Building, room 202.

Counseling/Mental Health Resources: As a college student, there may be times when personal stressors interfere with your academic performance and negatively impact your daily functioning. If you are experiencing emotional difficulties or mental health concerns, support is available to you through the Student Counseling Center (SCC). To schedule an appointment, call 210-784-1331 or visit Madla 120.

All mental health services provided by the SCC are free and confidential (as the law allows). The Student Counseling Center provides brief individual and group therapy, crisis intervention, consultation, case management, and prevention services. For more information on SCC services visit tamusa.edu/studentcounseling.

Crisis support is available 24/7 by calling the SCC at 210-784-1331 (after-hours select option '2').



Additionally, the TELUS Student Support App provides a variety of mental health resources to including support for in the moment distress, an anonymous peer to peer support network, mental health screenings, podcasts, and articles to improve your mental wellbeing.

Emergency Preparedness: JagE Alert is Texas A&M University-San Antonio’s mass notification. In the event of an emergency, such as inclement weather, students, staff and faculty, who are registered, will have the option to receive a text message, email with instructions and updates. To register or update your information visit: <https://tamusa.bbcportal.com/>.

More information about Emergency Operations Plan and the Emergency Action Plan can be found here: <https://www.tamusa.edu/about-us/emergency-management/>.

Download the SafeZone App (<https://safezoneapp.com/>) for emergencies or call (210) 784-1911. Non-Emergency (210) 784-1900.

Financial Aid and Verification of Attendance: According to the following federal regulation, 34 CFR 668.21: U.S. Department of Education (DoE) Title IV regulation, a student can only receive Title IV funds based on Title IV eligibility criteria which include class attendance. If Title IV funds are disbursed to ineligible students (including students who fail to begin attendance), the institution must return these funds to the U.S. DoE within 30 days of becoming aware that the student will not or has not begun attendance. The faculty will provide the Office of Financial Aid with an electronic notification if a student has not attended the first week of class. Any student receiving federal financial aid who does not attend the first week of class will have their aid terminated and returned to the DoE. Please note that any student who stops attending at any time during the semester may also need to return a portion of their federal aid.

Writing, Language, and Digital Composing Center: The Writing, Language, and Digital Composing Center supports graduate and undergraduate students in all three colleges as well as faculty and staff. Tutors work with students to develop reading skills, prepare oral presentations, and plan, draft, and revise their written assignments. Our language tutors support students enrolled in Spanish courses and students composing in Spanish for any assignment. Our digital studio tutors support students working on digital projects such as eportfolios, class presentations, or other digital multimedia projects. Students can schedule appointments through JagWire under the Student Services tab. Click on “Writing, Language, and Digital Composing Center” to make your appointment. The Center offers face-to-face, synchronous online, and asynchronous digital appointments. More information about what services we offer, how to make an appointment, and how to access your appointment can be found on our website at <https://www.tamusa.edu/academics/>.

Meeting Basic Needs: Any student who has difficulty affording groceries or accessing sufficient food to eat every day or who lacks a safe and stable place to live, and believes this may affect their performance in the course, is urged to submit a CARE referral (<https://www.tamusa.edu/university-policies/Student-Rights-and-Responsibilities/file-a-report.html>) for support. Furthermore, please notify the professor if you are comfortable in doing so. This will enable them to direct you to available resources.

Military Affairs: Veterans and active-duty military personnel are welcomed and encouraged to visit the Office of Military Affairs for any question involving federal or state VA Education Benefits. Visit the Patriots' Casa building, room 202, or to contact the Office of Military Affairs with any questions at military.va@tamusa.edu or (210)784-1397.

Statement of Harassment and Discrimination: Texas A&M University-San Antonio is committed to the fundamental principles of academic freedom, equal opportunity, and human dignity. To fulfill its multiple missions as an institution of higher learning, A&M-San Antonio encourages a climate that values and nurtures collegiality and the uniqueness of the individual within our state, nation, and world. All decisions and actions involving students and employees should be based on applicable law and individual merit. Texas A&M University-San Antonio, in accordance with applicable federal and state law, prohibits discrimination, including harassment, on the basis of race, color, sex, religion, national origin, age, disability, genetic information, veteran status, sexual orientation, gender identity, gender expression, or pregnancy/parenting status. Individuals who believe they have experienced harassment or discrimination prohibited by this statement are encouraged to contact the appropriate offices within their respective units.

Texas A&M University-San Antonio faculty are committed to providing a safe learning environment for all students and for the university as a whole. If you have experienced any form of sex- or gender-based discrimination or harassment, including sexual assault, sexual harassment, domestic or dating violence, or stalking, know that help and support are available. A&M-San Antonio's Title IX Coordinator can support those impacted by such conduct in navigating campus life, accessing health and counseling services, providing academic and housing accommodations, and more. The university strongly encourages all students to report any such incidents to the Title IX Coordinator. Please be aware that all A&M-San Antonio employees (other than those designated as confidential resources such as counselors and trained victim advocates) are required to report information about such discrimination and harassment to the university. This means that if you tell a faculty member about a situation of sexual harassment, sexual violence, or other related misconduct, the faculty member must share that information with the university's Title IX Coordinator (titleix@tamusa.edu, 210-784-2061, CAB 439K). If you wish to speak to a confidential employee who does not have this reporting requirement, you can contact the Student Counseling Center at (210) 784-1331 or visit them in Madla 120.

Pregnant/Parenting Students: Texas A&M-San Antonio does not require a pregnant or parenting student, solely because of that status or issues related to that status, to (1) take a leave of absence or withdraw from their degree or certificate program; (2) limit the student's studies; (3) participate in an alternative program; (4) change the student's major, degree, or certificate program; or (5) refrain from joining or cease participating in any course, activity, or program at the University. The university will

provide such reasonable accommodations to pregnant students as would be provided to a student with a temporary medical condition that are related to the health and safety of the student and the student's unborn child. These could include maintaining a safe distance from substances, areas, and activities known to be hazardous to pregnant individuals and their unborn child; excused absences because of illness or medical appointments; modified due dates for assignments; rescheduled tests/exams; taking a leave of absence; and being provided access to instructional materials and video recordings of lectures for excused absences, if these would be provided to any other student with an excused absence. Pregnant/parenting students are encouraged to contact the Title IX Coordinator with any questions or concerns related to their status (titleix@tamusa.edu; 210-784-2061; CAB 439K).

Texas A&M-San Antonio has also designated the Title IX Coordinator as the liaison officer for current or incoming students who are the parent or guardian of a child younger than 18 years of age. The Title IX Coordinator can provide students with information regarding support services and other resources.

The Six-Drop Rule: Students are subject to the requirements of Senate Bill (SB) 1231 passed by the Texas Legislature in 2007. SB 1231 limits students to a maximum of six (6) non-punitive course drops (i.e., courses a student chooses to drop) during their undergraduate careers. A non-punitive drop does not affect the student's GPA. However, course drops that exceed the maximum allowed by SB 1231 will be treated as "F" grades and will impact the student's GPA.

Administrative Drops for Non-Attendance: A faculty member may drop an undergraduate student for non-attendance at any time prior to the mid-point of a long semester. A drop processed by a faculty member for non-attendance will be treated as a non-punitive grade unless the undergraduate student is subject to the requirements of Senate Bill 1231. The Office of the Registrar will treat all drops processed by a faculty member in accordance with the requirements of Senate Bill 1231 and may change a grade of W to a grade of WS or an F, depending on the student's status.

Incompletes: The spirit of the "Incomplete" is to give a student an opportunity to complete a course after the end of the semester. An Incomplete will only be considered under specific circumstances: 1. 70% of the class has been completed and student is passing with a "C" or better 2. The circumstance for which the "I" is requested is supported with documentation 3. Student has been attending class on a regular basis Incompletes are not to be used to remedy excessive absences. Unforeseen circumstances precipitating the request for an "I", should occur near the end of the semester. Students who are experiencing difficulties at the beginning or midway through the course should contact their professor immediately to discuss options. When a professor agrees to grant an "I", a contract between the student and professor that outlines a specific timeline for completion of the course will be generated. Topics such as the highest possible grade will also be outlined. If the contract is not fulfilled, the professor will submit a change of grade form with earned letter grade. All "I"s will automatically revert to an "F" after one year.

Grading Policy: Your final grade will be presented as a standard percentage point. Your final grade will be determined by dividing the total points you earned by the total points offered in this course. ***I will not respond to individual request for calculation of grade.*** It is your responsibility to keep a record of

the grade points you have earned in the exams, assignments, and in-class quizzes. All grades will be posted to Blackboard.

Your final grade will be determined as a percentage of the following points:

	Points
Quizzes (15 @ 10 points per quiz)	150
Exams (3 @ 100 points)	300
Assignments (15 @ 10 points per assignment)	<u>300</u>
Total	750

Grading Scale (No Curve!)

90 or higher = A, 80 – 89 = B, 70 – 79 = C, 65 – 69 = D, Below 65 = F

A grade of “C” or better must be earned in this course to satisfy Kinesiology requirements. Majors who do not earn a grade of “C” or better will be required to repeat the course. I will round up your grade under the following condition, if you earn an ##.9, then I will round your grade up to the next letter grade. Therefore, if you an 89.9, I will then round your grade up to 90.0 and you will earn an A. If you earn an 89.8, then your final grade will be a B.

No changes to your final grade will occur once class has ended unless I have made a mistake. You are given the opportunity to follow your grade throughout the semester; thus, you should not be surprised with the grade you earn. There are no exceptions (eligibility, financial aid, etc.)

Course Requirements: Consider the following, with some lectures occurring online, you will be responsible for viewing the online materials and/or PowerPoint presentations and keeping up with the module quizzes and assignments in order to not fall behind. You will be responsible for ensuring that you completely understand the key concepts that make up the learning objectives of each module, essentially teaching yourself. The responsibility for ensuring your success in this course will be yours and that is what life-long learning is all about.

You will depend on technology to submit and complete course work and to communicate. The key word here is “depend.” If cyber communication is disrupted, you will be required to submit assignments via email or in an alternate manner to Texas A&M University – San Antonio, Health and Kinesiology Program, Science and Technology Building, San Antonio, TX 78224. Please keep in mind; you might need to find alternate internet sources if the computer at your home/work has an outage. Texas A&M University – San Antonio and many public libraries offer access. Need help? Contact the IT HelpDesk at (210) 784-4357 or helpdesk@tamusa.edu . Hours: Monday through Friday: 8:00 a.m. – 6:00 p.m. (closed Saturday and Sunday).

Quizzes. Module quizzes will be given to assess your knowledge following the completion of a module. You will be required to complete *15 module quizzes*. Each module quiz will be worth *10 points* and will be given on Blackboard. Quizzes will cover material from the particular module, *semester total of 150 points*.

Assignments. There will be 15 assignments, each worth 20 points. Each assignment will consist of short answer question(s) and will cover material from preceding lectures, *semester total 300 points.*

Make-up Quizzes/Late Assignment Policy: There will be no make-up opportunities for all assessments. (Exceptions: If you are absent because of school-sponsored activity (you need to notify me at least one week in advance) or illness with doctor's excuse. In which case, you need to take the exam on a specific date & time that I will assign).

All class work is due on the date and time assigned; work received later than the due date will be penalized one letter grade per day.

- ***I do not offer extra credit.***
- ***I do not offer Independent Studies if an acceptable grade is not earned***

Technology Requirements: Quizzes are to be completed on Blackboard (Bb) according to the directions provided.

I will be holding in person / virtual office hours via WebEx. I will post a WebEx meeting link to Blackboard and we will be able to meet virtually.

Continuing and regular use of your TAMUSA e-mail is expected. You must be able to use Internet search tools, access Bb, download and print documents and upload assignments.

To access Blackboard, go to <https://tamusa.blackboard.com/>.

Library Support for COEHD Programs & Courses: The [A&M-SA Library](#) provides access to thousands of researches and learning materials for COEHD students, faculty, and staff. These resources are mainly provided in electronic format and are accessible 24/7/365 with Jaguar log-in credentials. They include, but are not limited to, scholarly academic journals, professional publications, newspapers, ebooks, streaming video, and curated web resources. Additionally, there is a smaller physical collection, study space, and computer access available in CAB 202. Two unique physical collections housed in CAB 202 are the curriculum materials (sample textbooks, teachers' guides, activity guides, manipulatives, models, classroom reading collections, educational games, etc.) and the children's literature collection. These materials are available for checkout and can be used by students in lesson planning and in their clinical school placements.

[Education Librarian Kimberly Grotewold](#) is available to assist with finding, accessing, evaluating, and effectively using relevant library resources and other information. She has developed subject, topic, and course-specific research guides which are linked into Blackboard (under Campus Resources in the left menu) and are accessible through the [Library's website](#) under the Research Guides link. If you have questions, concerns, or need help, please contact her through email at kimberly.grotewold@tamusa.edu; via phone: (210) 784-1519; or request an appointment using her [online scheduling calendar](#).

Schedule of Course Activities:

Module	Topic	Date	Reading	Objectives	Deliverable(s)
	Statistics and Understanding Averages	1.27 F-2-F	Ch. 1 & 2	1.1 What statistics are all about 1.2 Why you should take statistics 1.3 How to succeed in the course 1.4 Understanding measures of central tendency 1.5 Computing the mean for a set of scores 1.6 Computing the median for a set of scores 1.7 Computing the mode for a set of scores 1.8 Understanding and applying scales or levels of measurement 1.9 Selecting a measure of central tendency	
		1.29		1.10 Using SPSS to compute descriptive statistics	Module 1 Assignment
2	Understanding Variability and Illustrating & Graphing Data	2.3 F-2-F	Ch. 3 & 4	2.1 Understanding the value of variability as a descriptive tool 2.2 Computing the range 2.3 Computing the standard deviation 2.4 Computing the variance 2.5 Understanding what the standard deviation and variance have in common—and how they are different 2.6 Understanding why a picture is really worth a thousand words 2.7 Creating a histogram and a polygon 2.8 Understanding the different shape of different distributions 2.9 Using SPSS to create incredibly cool charts 2.10 Creating different types of charts and understanding their application and uses	
		3.5		2.11 Using SPSS to compute measures of variability 2.12 Using SPSS to illustrate data	Module 2 Assignment
3	Computing Correlation Coefficients	2.10 F-2-F	Ch. 5	3.1 Understanding what correlations are and how they work 3.2 Computing a simple correlation coefficient 3.3 Interpreting the value of the correlation coefficient 3.4 Understanding what other types of correlations exist and when they should be used	

		2.12		3.5 Using SPSS to compute correlation coefficients and scatterplots	Module 3 Assignment
4	Reliability and Validity	2.17 F-2-F	Ch. 6	4.1 Defining reliability and validity and understanding why they are important 4.2 This is a stats class! What's up with this measurement stuff? 4.3 Understanding how the quality of test is evaluated 4.4 Computing and interpreting various types of reliability coefficients 4.5 Computing and interpreting various types of validity coefficients	
		2.19		4.6 Using SPSS to compute reliability and validity	Module 4 Assignment
EXAM 1				2.19 to 2.24 – Modules 1 to 4 (Chapters 1 to 6)	
5	Hypotheticals and You: Testing Your Questions	2.24 F-2-F	Ch. 7	5.1 Understanding the difference between a sample and a population 5.2 Understanding the importance of the null and research hypotheses 5.3 Using criteria to judge a good hypothesis	
		2.26		5.4 PubMed and/or Google Scholar empirical research	Module 5 Assignment
6	Probability and Significance	3.3 F-2-F	Ch. 8 & 9	6.1 Understanding probability and why it is basic to the understanding of statistics 6.2 Applying the characteristics of the normal, or bell-shaped, curve 6.3 Computing and interpreting z scores and understanding their importance 6.4 Using SPSS to compute z scores	Module 6 Assignment
		3.5		7.1 Understanding the concept of significance is and why it is important 7.2 Distinguishing between Type I and Type II errors 7.3 Understanding how inferential statistics work 7.4 Selecting the appropriate statistical test for your purposes 7.5 Exploration of confidence intervals	Module 7 Assignment
3.10 to 3.14				Spring Break	
8	One-Sample z Test	3.17 F-2-F	Ch. 10	8.1 Deciding when the z-test for one sample is appropriate to use	

				8.2 Computing the observed z value Interpreting the z value	
				8.3 Understanding what the z value means	
				8.5 Understanding what effect size is and interpreting it	
		3.19		8.5 Using SPSS to perform a z test	Module 8 Assignment
9	Independent and Dependent t-test	3.24 F-2-F	Ch. 11 & 12	9.1 Using the t-test for independent means when appropriate 9.2 Computing the observed t value 9.3 Interpreting the t value and understanding what it means 9.1 Computing the effect size for a t-test for independent means 9.5 Using SPSS to perform an independent t-test	Module 9 Assignment
				10.1 Understanding when the t-test for dependent means is appropriate to use 10.2 Computing the observed t value 10.3 Interpreting the t value and understanding what it means 10.4 Computing the effect size for a t-test for dependent means	
		3.26		10.5 Using SPSS to perform a dependent t-test	Module 10 Assignment
EXAM 2				3.26 to 3.31 – Modules 5 to 10 (Chapters 7 to 12)	
11	Analysis of Variance	3.31 F-2-F	Ch. 13	11.1 Deciding when it is appropriate to use analysis of variance 11.2 Computing and interpreting the F statistic 11.3 Using SPSS to complete an analysis of variance 11.4 Computing the effect size for a one-way analysis of variance	
		4.2		11.5 Using SPSS to compute the F ratio	Module 11 Assignment
12	Factorial Analysis of Variance	4.7 F-2-F	Ch. 14	12.1 Using analysis of variance with more than one factor 12.2 Understanding main and interaction effects 12.3 Using SPSS to complete a factorial analysis of variance 12.4 Computing the effect size for a factorial analysis of variance	
		4.9		12.5 Using SPSS to compute the F ratio continued	Module 12 Assignment
13	Testing Relationships using the Correlation Coefficient	4.14 F-2-F	Ch. 15	13.1 Testing the significance of the correlation coefficient	

				13.2 Interpreting the correlation coefficient	
				13.3 Distinguishing between significance and meaningfulness (again!)	
				13.4 Using SPSS to analyze correlational data and how to understand the results of the analysis	
		4.16		13.5 Using SPSS to compute a correlation coefficient (again)	Module 13 Assignment
14	Using Linear Regression	4.21 F-2-F	Ch. 16	14.1 Understanding how prediction works and how it can be used in the social and behavioral sciences	
				14.2 Understanding how and why linear regression works when predicting one variable on the basis of another	
				14.3 Judging the accuracy of predictions	
				14.4 Understanding how multiple regression works and why it is useful	
		4.23		14.5 Using SPSS to compute a correlation coefficient (again)	Module 14 Assignment
15	Non-Parametric Tests	4.28 F-2-F	Ch. 17	15.1 Understanding what non-parametrics are and how they are used	
				15.2 Analyzing data using a chi-square test for goodness-of-fit	
				15.3 Analyzing data using a chi-square test of independence	
				15.4 A brief survey of nonparametric statistics and when and how they should be used	
		4.30		15.5 Using SPSS to perform chi-square tests	Module 15 Assignment
EXAM 3		5.5	Modules 11 to 15 (Chapters 13 to 17)		