

**TEXAS WOMAN'S UNIVERSITY  
COLLEGE OF PROFESSIONAL EDUCATION  
DEPARTMENT OF FAMILY SCIENCES**

**FS 5903 / Special Topics: Statistics  
3 hours  
Summer 2002**

**Course meetings: Saturdays, 8:30 am – 5:30 pm, HDB**

**On-campus meetings:**

June 8, June 29, August 3

**Remainder of course is conducted on Blackboard:**

**<http://online.twu.edu> or <http://twu.blackboard.com>**

Instructors:

Glen Jennings, Ed.D., LMFT, LPC

Telephone: (940) 898-2776

Email: [GJennings@twu.edu](mailto:GJennings@twu.edu)

Virtual office hours for this course: Thursdays, 2pm – 5pm except 6/13 and 7/11

Other hours as posted in the Department

Mary Bold, Ph.D., CFLE

Syllabus online: [www.marybold.com](http://www.marybold.com) [follow link To Syllabi]

[http://twu.edu/~f\\_bold](http://twu.edu/~f_bold) [click on Syllabi]

Telephone: (940) 898-2677

Office Hours: posted at [http://twu.edu/~f\\_bold](http://twu.edu/~f_bold)

Email: [MBold@twu.edu](mailto:MBold@twu.edu)

Virtual office hours for this course: Tuesdays, 6:30pm – 9:30pm except 6/18

Resources and Materials:

**Required:**

Students working for a semester grade of A: SPSS for Windows (statistical software). Most students will likely use **SPSS for Windows 11.0 (Student Version)**. However, older versions (back to 8.0) and professional editions of SPSS for Windows will suffice for the level of statistics we cover.

**SHOP AROUND before purchasing this software.** The manager at the TWU Bookstore has warned that the price here is higher than at other sources. Many metroplex university bookstores will honor your TWU student card OR a receipt of your tuition/registration for an educational discount on SPSS for Windows. Also, some Internet sources offer great prices. You can spend anywhere from \$50 to \$200 on this software.

**Computer labs at TWU** (and probably other campuses, too) have SPSS for Windows 11.0 installed on computers available for your use free of charge. For hours, consult the Helpdesk or the TWU website.

Textbook choice is yours. Dr. Jennings recommends that you look for a Statistics book that is understandable to you and appropriate for you. Many texts advertise that they are suitable for study in the social sciences and these may provide relevant examples that interest you.

5903 CD-ROM v 1.5 published by the Department of Family Sciences. This software will be provided in the first class meeting.

Journal articles and other readings as assigned in Blackboard or in class.

Course Description:

FS 5903. Special Topics: Statistics. An introduction to graduate level statistics with an emphasis on both descriptive and inferential statistics. Understanding of statistical concepts rather than the mathematical computations is emphasized, including what is the most appropriate statistical test to use depending upon the specific research vignette examined. The course combines research design, research methodology and statistics to foster greater appreciation of research and statistics in general. Credit: Three hours.

Course Objectives:

1. Develop an understanding of the use of statistics in research.
2. Apply guidelines for choosing appropriate statistical tests for varied research needs.
3. Become conversant with the terminology of statistics and be able to communicate clearly about statistics in research.
4. Critically evaluate published studies according to the statistics used by the researcher.

Course Requirements:

**Assignments for all students:**

**Weekly tests on BB** (Blackboard). Locate in Course Documents. Select the green title for a version that you can print out and study from. Click on the red title when you are ready to submit your answers (in one session online). You will have the option of dropping two (2) quiz scores. The average of your scores comprises 1/3 of your semester grade.

**Midterm Exam**. On-campus class. Comprises 1/3 of your semester grade.

**Final Exam**. On-campus class. Comprises 1/3 of your semester grade.

(requirements continued on next page)

**Stat Brief.** For a guide to writing Stat Briefs, consult the FS 5903 CD-ROM. Complete seven (7), drawing from this list of tests (no repeats):

1. Chi-square goodness of fit
2. Chi-square converted to phi-coefficient or contingency coefficient
3. Spearman correlation
4. Pearson product moment correlation
5. Mann-Whitney U-test
6. Kruskal-Wallis F-test
7. Two-tailed independent univariate t-test
8. Two-tailed dependent t-test
9. Simple regression
10. Point bi-serial correlation
11. Rank bi-serial correlation
12. Multiple regression
13. Others as approved by instructor

**Abstract of Research Article.** For a guide to writing Abstracts, consult the FS 5903 CD-ROM. Abstracts completed for this class cannot be used for other classes. Any abstract completed for previous classes cannot be used for assignments in FS 5903. Complete seven (7) that include tests from this list (no repeats):

1. Chi-square for a difference
2. Chi-square for a relationship
3. Any two (2) other non-parametric tests
4. Simple regression
5. Correlation
6. t-test
7. Multivariate t-test (Hotellings T-square)
8. Simple ANOVA
9. Factorial ANOVA
10. ANCOVA (simple or factorial)
11. MANOVA (simple or factorial)
12. MANCOVA (simple or factorial)
13. Multiple regression
14. A research article that has no inferential stats and only descriptive stats

**Participation.** Students are expected to participate fully in both on-campus and BB discussions.

**Grades on Stat Briefs, Abstracts, and Participation.** These elements of the course are required to receive a final grade. Their completion does not count toward the final grade because they are too important. These are the things that will make a difference ten years from now.

However, their non-completion *does* count toward the final grade. The semester grade is discounted one (1) point for each uncompleted assignment, including participation in each class.

## **Assignments for students seeking an "A":**

**All of the above.**

**Participation on a Survey Team.** Teams will be formed in the first week. Working as a team, create a survey. Administer it to class members of FS 5903 on June 29. Analyze the data and create a graphical report of results. Present results to the class on August 3. Utilize the Group tools of a bulletin board and virtual chat as provided in BB. Communicate and share files via e-mail and attachments. Share the work within your team.

(requirements continued on next page)

**Explore statistical software: SPSS for Windows.** Participate in the SPSS Forum in BB. This will entail creating, downloading, and uploading data sets to share with other class members. Use SPSS to run statistical tests on the data as well as to create visual reports of results. Share completed work with class members via BB and e-mail.

**Grading.** Full participation in Survey work and the SPSS Forum will be expected. Obviously, grades in all other course work must average 90% or better to earn the A.

**Policies and Procedures:**

1. Written work should be typed. The style manual for the American Psychological Association (APA), 5<sup>th</sup> ed., should be used for citations, references, and manuscript style.
2. Written work should be turned in according to class schedule. Grade deductions will be made for late work. This includes e-mail submissions and required postings to Blackboard. Due dates are firm regardless of server problems.
3. Electronic submissions should be clearly identified with your name and purpose. For example, in e-mail your Subject line and first sentence in the message should look something like this: Doe – John – Stat Brief #1. If you attach a file to either BB or e-mail, the file name should look something like this: Doe – John – SPSS report for 1-A.
4. Utilize your BB Forums and Group spaces to ask for help with homework problems. If you need no help, then share your knowledge here with people who do.

**Evaluation Criteria:**

A: 90 – 100%      B: 80 – 89      C: 70 – 79      D: 60 – 69      F: 59 down

All work must be completed in order to receive a semester grade, including assignments that are not scored.

Written work, whether in Blackboard or a paper or a test, must display an understanding of the topic or question. Your responses must “fit” the question. If you invent a new question or take your answer down an alternative path, we must assume that you do not know the answer to the question posed. For grading purposes, this would equate to turning in a blank sheet.

**TWU Disability Services Statement:**

Texas Woman’s University seeks to provide reasonable appropriate academic adjustments for all qualified individuals with disabilities. This University will comply with all applicable federal, state, and local laws, regulations and guidelines, specifically Section 504, of the Rehabilitation Act of 1973, and the Americans with Disabilities Act (ADA), with respect to providing appropriate academic adjustments to afford equal educational opportunity. It is the responsibility of the student to register with and provide medical verification and academic schedules to Disability Support Services (DSS) at the beginning of each semester and no later than the second week of

school unless otherwise determined by the coordinator. The student must also contact the faculty member in a timely manner to arrange for appropriate academic adjustments. For further information regarding Disability Support Services or to register for assistance, please contact the office at 898-3835 (voice), 898-3830 (TDD) or visit CFO 105.

Family Sciences Diversity Policy:

The concept of diversity implies a total commitment to an open context that promotes equality, social tolerance, and the right to express different points of view. The Family Sciences Department practices and celebrates diversity and creates a culture characterized by a climate of inclusion rather than exclusion, where people are involved in working together for a common good. Diversity refers to the inclusion of all persons regardless of their differences. These differences include but are not limited to ethnicity, race, culture, gender, age, socio-economic status, religion, sexual orientation, and physical disability. The Family Sciences Department does not condone discrimination in any form and complies with Texas Woman's University Non-Discrimination Policy. The faculty actively seek enrichment through the strength, power, and wisdom of diversity.

Course Outline:

DATE	READING OR ASSIGNMENT DUE
6-8	<b>On-campus:</b> Course Introduction, Lab Trials, Electronic Resources
6-15	<b>End Module 1:</b> Submit 1 Quiz, 1 Stat Brief, and 1 Abstract <b>SPSS Groups:</b> Submit all requirements labeled Module 1 <b>Begin Module 2</b>
6-22	<b>End Module 2:</b> Submit 1 Quiz, 1 Stat Brief, and 1 Abstract <b>SPSS Groups:</b> Submit all requirements labeled Module 2 <b>Begin Module 3</b>
6-28	<b>End Module 3:</b> Submit 1 Quiz, 1 Stat Brief, and 1 Abstract <b>SPSS Groups:</b> Submit all requirements labeled Module 3 <b>Begin Modules 4 + 5</b>  <b>IN ADDITION:</b> <b>Meet on campus 8:30 am to 5:30 pm:</b> take Mid-term <b>SPSS Groups:</b> Administer surveys to the class

7-13	<b>NOTE THIS IS A DEADLINE AFTER A TWO-WEEK SPAN:</b> <b>End Modules 4 + 5:</b> Submit 2 Quizzes, 2 Stat Briefs, and 2 Abstracts <b>SPSS Groups:</b> Submit all requirements labeled Modules 4 + 5 <b>Begin Modules 6 + 7</b>
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7-27	<b>NOTE THIS IS A DEADLINE AFTER A TWO-WEEK SPAN:</b> <b>End Modules 6 + 7:</b> Submit 2 Quizzes, 2 Stat Briefs, and 2 Abstracts <b>SPSS Groups:</b> Submit all requirements labeled Modules 6 + 7 <b>Begin Review for Final:</b> Share your knowledge on BB
8-3	<b>End Review Week</b>  <b>IN ADDITION:</b> <b>Meet on campus 8:30 am to 5:30 pm:</b> take Final Exam <b>SPSS Groups:</b> Report on surveys to the class