

## **RES722 - Quantitative Research Methods**

### **(3 credit hours)**

### **Course Syllabus**

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### **Course Description**

This course requires students to become familiar with the characteristics, language and logic of quantitative research. The emphasis will be on the appropriate selection, application and interpretation of both parametric and non-parametric hypothesis tests while understanding the nature of the basic linear regression model and its statistical underpinnings. Basic assumptions will be developed. A component of this course is to understand the available techniques for quantitative data analysis by the reading and evaluation of research methods of articles within the students' areas of interest and to recognize and assess quality and rigor in evaluating a quantitative research study. Actual case studies will be part of this course and the challenge of reliability and validity in cross-cultural research will be discussed.

### **Course Learning Outcomes**

By the end of this course, you will be able to:

1. Evaluate the main data-collection and data analysis techniques used in quantitative research and their advantages and limitations
2. Compare quantitative and qualitative methods
3. Debate the ethical principles of quantitative research, ethical challenges and approval processes
4. Analyze quantitative research terminology and data use and application
5. Evaluate published quantitative research
6. Develop hypothesis, research problems and related questions

### **Required Textbook(s) and Resources**

For this course you will need to purchase the following materials:

1. Babbie, E. R. (2021). The practice of social research (15th ed.). Cengage.
2. Gravetter, F. J., Wallnau, L. B., Forzano, L. -A. B., & Witnauer, J. E. (2021). Essentials of statistics for the behavioral sciences (10th ed.). Cengage.
3. IBM SPSS Statistics Premium GradPack 26.

Note that you need to purchase SPSS if you do not already have access. This software (now owned by IBM) is prohibitively expensive, but students can “rent” access for a reasonable fee. Rental periods of 6, 12 or 24 months are available. See IBM’s list of [recommended vendors](#).

Be sure to also review the weekly **Explore** sections for additional library or web resources. For access to databases, research help, and writing tips, visit the [Tiffin University Library](#). You might consider registering for one of the library's many webinars on library research, source evaluation, copyright, and other topics, at the [Library Events - Upcoming Events](#) web page. For further assistance see our [Library Guide](#) or email a librarian, at: [library@tiffin.edu](mailto:library@tiffin.edu).

## Time Commitment

Effective time management is possibly the single most critical element to your academic success. To do well in this class you should plan your time wisely. With our accelerated, seven-week term, you should reserve roughly **twenty (20) hours per week** to complete readings and assignments.

To help plan your time and keep on track toward successful course completion, note the distinctive rhythm of assignment due dates:

1. All times assume Eastern Time (GMT-4).
2. Weeks begin at 12:00 a.m. ET on Monday and end at 11:55 p.m. ET on Sunday.
3. Unless otherwise noted, initial forum discussion posts are due by **11:55 p.m. ET on Wednesdays** and response posts are due by **11:55 p.m. ET on Saturdays**.
4. Major assignments and reflections are due by **11:55 p.m. ET on Sundays**.

## Learning Activities

To assess your learning, this course consists of seven weekly discussions, seven papers, and a final course reflection. Like all TU online courses, the total possible score for the course is 1,000 points. There are no quizzes, exams, or extra credit.

## Note About Terminology

The three methodology courses in the RES series (RES710, 720, and 722) are required of all doctoral students, regardless of program. For that reason, you may notice the use of generic terminology. That's because not all doctoral programs at TU lead to the same degree or require the same terminal assessment. For example, Global Leadership and Change students write a dissertation to earn a Ph.D., while Criminal Justice students complete an applied research project to graduate with a Doctor of CJ degree (DCJ). Regardless of program, the research methods taught in the RES courses are the same for all doctoral students.

## Grading

The chart below identifies the individual contributions from each type of activity, per week.

Activity	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Discussion	25	50	50	50	50	50	50	325
Paper	50	100	100	100	100	100	100	650
Reflection	--	--	--	--	--	--	25	25
Total	150	150	150	100	150	150	150	1000

## Grading Scale

A: 90-100%

B: 80-89%

C: 70-79%

F: <69%

## Course Schedule and Weekly Checklist

Topic	Learning Activities (Due by 11:55 p.m. ET on day designated)
Week 1: Choosing a Research Method	<ul style="list-style-type: none"><li><input type="checkbox"/> MON: Activity 1.1 (Forum): What do you fear about this course?</li><li><input type="checkbox"/> WED: Activity 1.2 (Forum): Your Emerging Topic</li><li><input type="checkbox"/> SAT: Activity 1.2 Forum Responses (Activity 1.2)</li><li><input type="checkbox"/> SUN: Activity 1.3: Ethical Issues in Quantitative Research</li></ul>
Week 2: Research Questions and Design	<ul style="list-style-type: none"><li><input type="checkbox"/> WED: Activity 2.1 (Forum): Quantitative Research Questions</li><li><input type="checkbox"/> SAT: Activity 2.1 Forum Responses</li><li><input type="checkbox"/> SUN: Activity 2.2: Quantitative Research Design</li></ul>
Week 3: Empirical Study Review & Quantitative Test Selection	<ul style="list-style-type: none"><li><input type="checkbox"/> WED: Activity 3.1 (Forum): Dissection of Research Article</li><li><input type="checkbox"/> SAT: Activity 3.1 Forum Responses</li><li><input type="checkbox"/> SUN: Activity 3.2: Quantitative Test Selection</li></ul>

Topic	Learning Activities (Due by 11:55 p.m. ET on day designated)
Week 4: Research Instruments and Data Collection Techniques	<input type="checkbox"/> WED: Activity 4.1 (Forum): Survey Questions and Scoring System <input type="checkbox"/> SAT: Activity 4.1 Forum Responses <input type="checkbox"/> SUN: Activity 4.2: Create and Evaluate a Survey Instrument
Week 5: Populations and Sampling	<input type="checkbox"/> WED: Activity 5.1 (Forum): Population and Sampling Strategy <input type="checkbox"/> SAT: Activity 5.1 Forum Responses <input type="checkbox"/> SUN: SAT: Activity 4.1 Forum Responses
Week 6: Quantitative Data Analysis: Descriptive Statistics	<input type="checkbox"/> WED: Activity 6.1 (Forum): Best Practices for Internet-based Research <input type="checkbox"/> SAT: Activity 6.1 Forum Responses <input type="checkbox"/> SUN: Activity 6.2: Determine and Present Descriptive Statistics
Week 7: Quantitative Data Analysis: Inferential Statistics	<input type="checkbox"/> WED: Activity 7.1 (Forum): Experimental vs. Quasi-Experimental Designs <input type="checkbox"/> SAT: Activity 7.1 Forum Responses <input type="checkbox"/> SUN: Activity 7.2: Conduct an Inferential Statistical Analysis <input type="checkbox"/> SUN: Activity 7.3: Course Reflection

## Tips for Success

Online learning requires self-discipline and self-direction. As truth seekers, we should be willing to challenge one another's academic work in a spirit of respectful comradery. Your course is a place to benefit from the expertise, experience, and diverse perspectives of your instructor and peers. Constructive feedback will further challenge you to expand your knowledge and understanding.

To get the most out of your learning experience, you should actively engage (participate) in **ALL** course activities. Course elements in any given week are arranged chronologically. To complete a week, simply work your way "down the page" through all course narratives and activities.

## For More Information

Be sure to review the [Support, Policies, and Procedures](#) addendum.