

RSCH 9840
Quantitative Research Methods
3 SEMESTER HOURS

Dewar College of Education
Valdosta State University
Department of Curriculum, Leadership, and Technology
Conceptual Framework: Guiding Principles (DEPOSITS)
(adapted from the Georgia Systemic Teacher Education Program Accomplished Teacher Framework)

Dispositions Principle: Productive dispositions positively affect learners, professional growth, and the learning environment.

Equity Principle: All learners deserve high expectations and support.

Process Principle: Learning is a lifelong process of development and growth.

Ownership Principle: Professionals are committed to and assume responsibility for the future of their disciplines.

Support Principle: Successful engagement in the process of learning requires collaboration among multiple partners.

Impact Principle: Effective practice yields evidence of learning.

Technology Principle: Technology facilitates teaching, learning, community-building, and resource acquisition.

Standards Principle: Evidence-based standards systematically guide professional preparation and development.

REQUIRED TEXTBOOKS

American Psychological Association (2010). Publication manual of the American Psychological Association (6th ed.). Washington, D.C.: The Association.

Field, A. (2009). Discovering statistics using SPSS 3e + SPSS 18.0. Los Angeles, CA: SAGE Publications, Inc. Bundle: ISBN 978-1412990769.

Other Reading: Additional reading material may be supplied by the instructor; may be online, or other reading material collected and disseminated by students.

COURSE DESCRIPTION

This graduate level course is designed to introduce students to practical applications of advanced statistical methods. Two goals guide instruction. The first goal is to provide students with the information and skills necessary to interpret research articles in their chosen areas of interest. The second goal is to prepare the students for their dissertation study so that they are able to collect and analyze data and interpret and communicate results appropriately.

COLLEGE OF EDUCATION CONCEPTUAL FRAMEWORK STANDARDS (CFS)

(*identify those that apply to the course)

- *I. CONTENT AND CURRICULUM: Educators demonstrate a strong content knowledge of content area(s) that is appropriate for their certification levels.

- II. KNOWLEDGE OF STUDENTS AND THEIR LEARNING: Educators support the intellectual, social, physical, and personal development of all students.

- III. LEARNING ENVIRONMENTS: Educators create learning environments that encourage positive social interaction, active engagement in learning, and self-motivation.

- IV. ASSESSMENT: Educators understand and use a range of formal and informal assessment strategies to evaluate and ensure the continuous development of all learners.

- V. PLANNING AND INSTRUCTION: Educators design and create instructional experiences based on their knowledge of content and curriculum, students, learning environments, and assessment.

- *VI. PROFESSIONALISM: Educators recognize, participate in, and contribute to teaching and learning as a profession.

LEARNING OUTCOMES FOR VSU'S CORE CURRICULUM

N/A

SELECTED EDUCATIONAL OUTCOMES (EO)

1. Doctoral candidates will demonstrate inquiry skills in quantitative, qualitative, and mixed research methodologies.
2. Doctoral candidates will demonstrate a comprehensive understanding of the knowledge, research, and theories appropriate to their major field by completing a comprehensive examination.

3. Doctoral candidates will demonstrate the ability to engage in focused inquiry by researching a topic, evaluating relevant literature, writing a comprehensive dissertation and presenting the results of their study.

COURSE OBJECTIVES (CO):

1. Identify, define, and describe basic statistical concepts (CFS I & VI);
2. Identify, describe, and translate statistical notation (CFS CFS I & VI);
3. Select, calculate, and interpret descriptive statistics, given sets of data (CFS I & VI);
4. Select, calculate, and interpret inferential statistics (correlation, independent means t test, dependent means t test, ANOVA, ANCOVA, Factorial ANOVA, simple regression, multiple regression, chi-square, and selected nonparametric statistics) , given sets of data (CFS I & VI);
5. Given a set of data, develop well-written research questions and write a results section answering the well-written research questions. (CFS I & VI)

COURSE ACTIVITIES/ASSIGNMENTS/REQUIREMENTS

Course Assignments Overview Students are to complete a number of tasks and assessment activities to assist in learning the course content. There are primarily three types of tasks to be completed in the course; data projects, article analyses, and Discussion Board participation. A description of the tasks is presented below.

Data Projects (80 points) There are eight data projects that are to be submitted during the course. Given a data set, students will generate a research question and/or questions that might be written for a given statistic, using the specified statistic analyze the data and interpret, and generate a brief write-up of the results.

Article Analyses (20 points) Students are to locate articles in the professional journals in their field that employ the specified statistics. Students are to submit the article as a pdf file plus an in-depth evaluation of the methods section and results section of each article. Each article evaluation should be approximately two pages in length.

Late Assignment Policy: All assignments and discussion topics have due dates and close at 11:30 p.m. on the day they are due. Late tasks or activities as a general rule will not be accepted for credit. Technically, this is the class policy. However, communication is the key. If a student contacts me in advance and we come to an agreement based on individual circumstances, then I have some flexibility on accepting and grading late work.

COURSE EVALUATION

Quality is expected in all products and performances. Points are summed from each task or activity to generate the final score for each student. Final grades are assigned based on a 10 point grading scale; A - 100% - 90%, B – 89% - 80%, C – 79% - 70%, D- 69% - 60%, and F – 59% and below. This semester the course weight for tasks is:

Data Projects 80%
Article Evaluations 20%
Total 100%

Flexibility: The intention is to accomplish the objectives specified in the course syllabus. Circumstances may arise, however, that prohibit us from fulfilling this endeavor. Therefore, this syllabus is subject to change. Students will be notified of any change in advance of its occurrence.

ATTENDANCE POLICY

Graduate students are expected to attend all classes. If circumstances occur that require you to miss a class session, the instructor requests an email or phone message prior to the class session. A student missing more than 20% of the scheduled class sessions (see the VSU catalog) will be subject to receiving a failing grade in the course.

PROFESSIONALISM

Within the coursework and fieldwork, educators expected to respect intellectual property, complete assignments with consistent punctuality, regularly attend class (online and/or face-to-face), make an effort to complete assignments completely and correctly, pay careful attention to detail in following instructions, show willingness to revise based on instructor or peer feedback, strive for creativity in devising products and processes, demonstrate enthusiasm in face-to-face and online endeavors, be helpful to peers, show self-reliance to enable independent progress/ completion of work, display courtesy in written and oral communications, and exhibit cooperation in group work situations. Professional educators should practice fairness based upon a belief that all learners can achieve.

General rule: In all cases, consider what the actions of a responsible professional would be; then practice those actions.

DEWAR COLLEGE OF EDUCATION POLICY STATEMENT ON PLAGIARISM

Below is information directly quoted from the Academic Honesty Policies and Procedures:

Academic integrity is the responsibility of all VSU faculty and students. Faculty members should promote academic integrity by including clear instruction on the components of academic integrity and clearly defining the penalties for cheating and plagiarism in their course syllabi. Students are responsible for knowing and abiding by the Academic Integrity Policy as set forth in the Student Code of Conduct and the faculty members' syllabi. All students are expected to do their own work and to uphold a high standard of academic ethics.

The full text of Academic Honesty Policies and Procedures is available on the Academic Affairs website (<http://www.valdosta.edu/academic/AcademicHonestyatVSU.shtml>).

The consequences for acts of academic dishonesty in the Dewar College of Education are:

FIRST OFFENSE:

1. The faculty member will administer an academic response (e.g. resubmit / retake assignment, failure of the assignment, failure of the course).
2. The faculty member will complete a Dewar College of Education Concern Form (<http://www.valdosta.edu/coe/studentsinfo.shtml>).
3. The faculty member will complete a Valdosta State University Report of Academic Dishonesty (<http://www.valdosta.edu/academic/AcademicHonestyatVSU.shtml>).

SECOND OFFENSE:

1. The faculty member will administer an academic response (e.g. resubmit / retake assignment, failure of the assignment, failure of the course).
2. The faculty member will complete a Dewar College of Education Concern form (<http://www.valdosta.edu/coe/studentsinfo.shtml>). The Dewar College of Education Concern Form Policy will be followed.
3. The faculty member will complete a Valdosta State University Report of Academic Dishonesty (<http://www.valdosta.edu/academic/AcademicHonestyatVSU.shtml>). According to the Academic Honesty Policies and Procedures document, “after a second (or subsequent) Report of Academic Dishonesty has been submitted to the Student Conduct Office in the Dean of Students Office, official charges will be drawn up and the disciplinary matter will be referred to the Valdosta State University Judicial Committee.”

ACCESSIBILITY STATEMENT

Valdosta State University is an equal opportunity educational institution. It is not the intent of the institution to discriminate against any applicant for admission or any student or employee of the institution based on the age, sex, race, religion, color, national origin, disability, or sexual orientation of the individual. It is the intent of the institution to comply with the Civil Rights Act of 1964 and subsequent Executive Orders as well as Title IX, Equal Pay Act of 1963, Vietnam Era Veterans Readjustment Assistance Act of 1974, Age Discrimination in Employment Act of 1967, and the Rehabilitation Act of 1973.

Students with disabilities who are experiencing barriers in this course may contact the Access Office for assistance in determining and implementing reasonable accommodations. The Access Office is located in Farber Hall. The phone numbers are 229-245-2498 (V), 229-375-5871 (VP) and 229-219-1348 (TTY). For more information, please visit <http://www.valdosta.edu/access> or email: access@valdosta.edu.

STUDENT OPINION OF INSTRUCTION

At the end of the term, all students will be expected to complete an online Student Opinion of Instruction survey (SOI) that will be available on BANNER. Students will receive an email notification through their VSU email address when the SOI is available (generally at least one

week before the end of the term). SOI responses are anonymous, and instructors will be able to view only a summary of all responses two weeks after they have submitted final grades. While instructors will not be able to view individual responses or to access any of the responses until after final grade submission, they will be able to see which students have or have not completed their SOIs, and student compliance may be considered in the determination of the final course grade. These compliance and non-compliance reports will not be available once instructors are able to access the results. Complete information about the SOIs, including how to access the survey and a timetable for this term is available at <http://www.valdosta.edu/academic/OnlineSOIPilotProject.shtml>.

INSTRUCTOR

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