



College of Clinical and Rehabilitative Health Sciences

Allied Health Sciences

ALHE 5500
Methods of Research in Allied Health
3.0 Credit Hours

Course Description

This course is intended to enhance the allied health practitioner's skill in the development and interpretation of research. Discussions will be conducted on various research designs, statistical procedures, sampling techniques and literature reviews. Assignments that include advanced writing applications and technology utilization are required. Graduate students on a non-thesis track may wish to start the construction of their capstone project in this course, and thesis track students may complete the basics of Chapters 1, 2, and 3 in this course.

Course Topics and Objectives

The student will be introduced to the activities of the research process. A systematic approach will be used to review the essential steps in research methodology. Topics include: identifying the problem, reviewing information, collecting data, analyzing data, and drawing conclusions. At the completion of this course the student will be able to:

1. Discuss the procedures in the scientific method and the components of a research project.
2. Discuss the differences between independent and dependent variables.
3. Discuss other possible types of variables.
4. Address operational definitions for individual studies.
5. Identify the different scales of measurement.
6. Discuss the types of reliability.
7. Examine various types of reliability.
8. Examine internal and external validity.
9. Differentiate between qualitative and quantitative research designs.
10. Discuss advantages and disadvantages of qualitative and quantitative research designs.
11. Discuss the process of randomization.
12. Discuss the types of sampling techniques.
13. Use descriptive statistics in the analysis of data.
14. Use inferential statistics in the analysis of data.
15. Discuss and apply the different parametric and nonparametric statistics.
16. Accept or reject null hypotheses, focus on preventing Type 1 and Type 2 error.
17. Differentiate between various types of statistical procedures.
18. Identify the sources of information for review of literature.

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19. Perform a literature review of a topic of interest.
20. Successfully apply to institutional review board (IRB) regarding their project.

Prerequisites

Students should have successfully completed ALHE 4060 Research in Allied Health or a comparable undergraduate research course, or obtain the instructors permission. Students must be accepted into the Allied Health major as a graduate student.

Required Textbooks

1. Cottrell, R. R. & McKenzie, J. F. (2011). Health promotion and education research methods, 2nd Ed. Boston: Jones and Bartlett. ISBN 9780763775070
2. Salkind, N. J. (2019). Statistics for people who think they hate statistics, 7th ed. Thousand Oaks, CA: Sage. ISBN 1544387601 (Paperback)
3. American Psychological Association (2019). APA Publications Manual, 7th ed. Washington: APA. ISBN 1433832178 (Paperback)

Supplemental Texts:

Bainbridge, W. S. (1992). Social research methods. Belmont, CA: Wadsworth. ISBN 0-534-13122-0.

Pope, C. & Mays, N. (2000). Qualitative research in health care (2nd ed.). London: BMJ Books. ISBN 0-7279-1396-4.

Stevens, J. (1996). Applied multivariate statistics for the social sciences. Mahwah, NJ: Lawrence Erlbaum Associates. ISBN 0-8058-1671-2.

Hardware Requirements

See ETSU guidelines.

Software Requirements

Required:

IBM SPSS Statistics Grad Pack

Microsoft Office Suite (Word, PowerPoint, Access, Excel).

Instructor Information

Dr. Randy Byington

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Work phone: 1-423-439-5054

Office Location: ETSU Campus Center Building Room 313B

Office hours: Available by appointment

Procedures for Submitting Assignments

All course requirements are submitted online, and students should send their work to the course dropbox. A missed assignment is scored as a zero (0).

Grading Procedure

Repeated failure to participate in assigned online activities for any reason will require the permission of the Chair of Allied Health Sciences to re-enter this class. Extenuating circumstances must be communicated to the instructor, for example, a physician's written excuse is necessary for absences due to illness. Instructor closure of student discussion

forums prior to student entry will result in zero points for that discussion forum. For more information about grading policies and minimum standards, please refer to the program policy manual. Vigorous evaluation of proper citation, the use of cut-and-paste articles, and the use of plagiarism software will be ongoing.

Assignments:

Online class participation (10 points)

All students are expected to actively participate in online class discussions. Each discussion question posted will be assigned a date by which the student must respond. If a student is unable to fulfill this requirement for any reason, he/she should notify the instructor prior to the class and make alternative arrangements. The aim is to encourage interaction among students and faculty, not simply to present information. ***Students are required to respond to all discussion questions.*** Student responses to discussion questions must be substantive, that is, thoughtful and analytical. Because the D2L system has its own way of formatting material posted on the discussion feature, the student will not be expected to strictly follow APA guidelines for discussion forum postings. However, the student is held to academic standards of writing style and the use of proper grammar, punctuation, and spelling. You should post at least 4 times each week and read all of the postings of other students.

Statistics homework (50 points)

The student will complete the assigned statistics homework and will submit the assignments to the course dropbox.

Research project (40 points)

The student, working from the theoretical and methodological framework established in the reading of our texts, will write a 15 (total pages) paper with an abstract. While not absolutely required, ***students should use this project as the initial development stage for the first three chapters (the prospectus) of their thesis or capstone project.*** You may want to consult your graduate committee chair for input as you select a topic. Research Course Instructor approval of your project's topic is required in week 4 of the course (I recognize that project titles and topics change as we conduct research). ***No final grade for the course can be assigned until the research project is completed.***

Grading Scale:

(% of available points):

100-95 A -----*82-80 C+
 94-92A-----*79-75 C
 91-89 B+ -----*74-73 C-
 88-86 B-----*72-71D+
 85-83 B-----*70-68D

-----*<67F

***Unsatisfactory grades in the MSAH Program**

Class Participation

Attendance at all Forums and Virtual Classrooms (if scheduled) is required. Participation

in discussion and sharing of ideas regarding research methods and findings is expected and appreciated.

Punctuality

Students are expected to:

Check the course calendar for the due dates of assignments.

Check the course bulletin board frequently for announcements.

Complete Assignments and Discussion Forums prior to posted closing dates.

Course Ground Rules

The student is expected to:

Learn how to navigate the D2L system.

Participate by responding to all discussion questions.

Keep abreast of course announcement.

Use the assigned college or university e-mail address as opposed to a personal e-mail address.

Contact the instructor if unclear about assignment expectations.

Address technical problems immediately.

Guidelines for Communications

Email:

Email should be answered by both students and faculty within 24 hours (weekends and holidays are exempt; i.e., on Memorial Day or the 4th of July)

Always include a subject line.

Remember to be decorous as some comments may be taken the wrong way.

Be careful in wording your emails. Use capital letters as appropriate (i.e., all CAPS is considered shouting).

Use standard fonts.

Do not send large attachments without permission.

Special formatting such as centering, audio messages, tables, html, etc. should be avoided unless absolutely necessary to complete an assignment or other communication.

Respect the privacy of other class members.

Discussion Groups:

Review the discussion threads thoroughly before entering the discussion.

Try to maintain threads by using the <Reply> button rather than starting a new topic.

Do not make insulting or inflammatory statements to other members of the discussion group.

Be respectful of others ideas.

Be patient and read the comments of other group members thoroughly before entering your remarks.

Be cooperative with group leaders in completing assigned tasks.

Be positive and constructive in group discussions.

Respond in a thoughtful and timely manner.

Library

The East Tennessee State University Library is available to all students enrolled in the program. Links to library materials (such as electronic journals, databases, interlibrary

loans, digital reserves, dictionaries, encyclopedias, maps, and other librarian support) and Internet resources needed by learners to complete online assignments and as background reading must be included in all courses.

Students with Disabilities

Qualified students with disabilities will be provided reasonable and necessary academic accommodations if determined eligible by the appropriate disability services staff at their home institution. Prior to granting disability accommodations in this course, the instructor must receive written verification of a student's eligibility for specific accommodations from the disability services staff at the home institution. It is the student's responsibility to initiate contact with his/her home institutions disability services staff and to follow the established procedures for having the accommodation notice sent to the instructor.

Syllabus Changes

The instructor reserves the right to make changes as necessary to the syllabus. If changes are necessitated during the term of the course, the instructor will immediately notify students of such changes both by individual email communication and posting both notification and nature of change(s) on the course bulletin board.

Technical Support

If you are having problems logging into the course, timing out of the course, using the course website tools, or other technical problems, please the course instructor as soon as possible.

References

Babbie, E. (1995). *The practice of social research*. Belmont, CA: Wadsworth. ISBN 0-534-18744-7.

Bailey, D. M. (1997). *Research for the health professional: A practical guide* (2nd Edition). Philadelphia: F. A. Davis. ISBN 0-8036-0151-4.

Bainbridge, W. S. (1992). *Social research methods*. Belmont, CA: Wadsworth. ISBN 0-534-13122-0.

Gall, M. D., Borg, W. R., & Gall, J. P. (1996). *Educational research: An introduction*. New York: Longman Publishers. ISBN 0-8013-0980-8.

Mishoe, S. C. & Welch, M. A., Jr. (2002). *Critical thinking in respiratory care*. New York: McGraw-Hill. ISBN 0-07-134474-8.

Polgar, S. & Thomas, S. A. (2000). *Introduction to research in the health sciences*. New York: Harcourt-Livingston.

Pope, C. & Mays, N. (2000). *Qualitative research in health care* (2nd ed.). London: BMJ Books. ISBN 0-7279-1396-4.

Stein, F. & Cutler, S. K. (1996). *Clinical research in allied health and special education*. San Diego: Singular Publishing Group. ISBN 1-5659-3631-0.

Stevens, J. (1996). Applied multivariate statistics for the social sciences. Mahwah, NJ: Lawrence Erlbaum Associates. ISBN 0-8058-1671-2.

Stringer, E. & Genat, W. J. (2004). Action research in health. Columbus, OH: Pearson Merrill Prentice Hall. ISBN 0-13-098578-3.

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