Course Information Summary

Course (Prefix, Number, Title):

SPE 5900 Research in Special Education

Course Description:

Candidates in this course will develop skills necessary to analyze research designs involving special education methodology and will be able to interpret statistics through multiple regression. Credits: 3.

Pre-requisites/Co-requisites

Graduate standing

Required Text:

American Psychological Association. (2001). Publication manual of the American

Psychological Association (5th Ed.). Washington, DC: Author.

Gall, M.D., Gall, J.P., & Borg, W.R., (2006). Educational research, 7th edition. NY:

Allyn & Bacon.

Support of Conceptual Framework:

In order to make wise decisions regarding curricula, practices, and interventions, educators must understand educational research and be cognizant of the quality indicators which signify sound research design and methodology. Additionally, to advance the field, it is important that educators are able to identify possible issues in need of further investigation and possess the skills to conduct and interpret the results of action research in their respective classrooms, schools, and districts.

Methods of Instruction:

Lecture, candidate-directed research (information gathering, analysis, synthesis and presentation), and class discussion will be the primary means of instruction.

Learning Outcomes/Objectives

Eastern Illinois Graduate Assessment of Candidate Learning Assessments (Indicate which of six outcomes are assessed by the requirements of this course)(EIU):

- 1. A depth of content knowledge including effective technology skills and ethical behaviors
- 3. Oral and written communication skills
- 4. Advanced scholarship through research and/or creative activity

CEC Advanced Content Standards and CEC Special Education Administrator Knowledge and Skills Addressed In This Course (CEC AC)

Advanced Standard 1: Leadership and Policy:

Special educators in advanced programs learn to use their deep understanding of the history of special education, current legal and ethical standards, and emerging issues to provide leadership. Special educators promote high professional self-expectations and help others understand the needs of individuals with exceptional learning needs. They advocate for educational policy based on solid evidence-based knowledge to support high quality education for individuals with exceptional learning needs. As appropriate to their role, they advocate for appropriate resources to ensure that all personnel involved have effective preparation. Special educators use their knowledge of the needs of different groups in a pluralistic society to promote evidence-based practices and challenging expectations for individuals with exceptional learning needs. They model respect for all individuals and ethical practice. They help to create positive and productive work environments and celebrate accomplishments with colleagues. They mentor others and promote high expectations for themselves, other professionals, and individuals with exceptional learning needs.

Advanced Standard 3: Research & Inquiry

Research and inquiry inform the decisions of special educators who have completed advanced programs in guiding professional practice. Special educators know models, theories, philosophies, and research methods that form the basis for evidence-based practices in special education. This knowledge includes information sources, data collection, and data analysis strategies. Special educators evaluate the appropriateness of research methodologies in relation to practices presented in the literature. They use educational research to improve instructional techniques, intervention strategies, and curricular materials. They foster an environment supportive of continuous instructional improvement, and engage in the design and implementation of action research. Special educators are able to use the literature to resolve issues of professional practice, and help others to understand various evidence-based practices.

Advanced Standard 4: Student and Program Evaluation

Evaluation is critical to advanced practice of special educators. Underlying evaluation is the knowledge of systems and theories of educational assessment and evaluation, along with skills in the implementation of evidence based practices in assessment. Effective special educators design and implement research activities to evaluate the effectiveness of instructional practices and, as appropriate to their role, to assess progress toward the organizational vision, mission, and goals of their programs. It is critical in evaluation that nonbiased assessment procedures are used in the selection of assessment instruments, methods, and procedures for both programs and individuals. With respect to evaluation of individuals, special educators prepared at the advanced level are able to apply their knowledge and skill to all stages and purposes of evaluation including: prereferral and screening, preplacement for special education eligibility, monitoring and reporting

learning progress in the general education curriculum and other individualized educational program goals.

Advanced Standard 5: Professional Development and Ethical Practice Special educators are guided by the professional ethics and practice standards. Special educators have responsibility for promoting the success of individuals with exceptional learning needs, their families, and colleagues. They create supportive environments that safeguard the legal rights of students and their families. They model and promote ethical and professional practice. Special educators plan, present, and evaluate professional development, as appropriate to their roles, based on models that apply adult learning theories and focus on effective practice at all organizational levels. Special educators model their own commitment to continuously improving their own professional practice by participating in professional development themselves.

CEC Advanced Core Standards, including Common Core Knowledge and Skills (CEC ACC_K or CEC ACC_S):

ACC1K3 Emerging issues and trends that potentially affect the school community and the mission of the school.

ACC3K1 Evidence-based practices validated for specific characteristics of learners and settings

ACC4K2 Variety of methods for assessing and evaluating students' performance.

ACC5K1 Legal rights and responsibilities of students, staff, and parents/guardians.

ACC5K2 Moral and ethical responsibilities of educators.

ACC5K3 Human rights of individuals with exceptional learning needs and their families.

ACC1S3 Advocate for educational policy within the context of evidence-based practices.

ACC3S1 Identify and use the research literature to resolve issues of professional practice.

ACC3S3 Use educational research to improve instruction, intervention strategies, and curricular materials.

ACC4S1 Design and use methods for assessing and evaluating programs.

ACC4S2 Design and implement research activities to examine the effectiveness of instructional practices.

ACC4S3 Advocate for evidence based practices in assessment.

ACC4S4 Report the assessment of students' performance and evaluation of instructional programs.

ACC5S2 Implement practices that promote success for individuals with exceptional learning needs

ACC5S4 Disseminate information on effective school and classroom practices

ACC5S5 Create an environment which supports continuous instructional improvement.

CEC Specialty Area Knowledge and Skills

Special Education Administrator (CEC SEA_K or CEC SEA_S):

SA1K1 Models, theories, and philosophies that provide the foundation for the administration of programs and services for individuals with exceptional learning needs and their families

SA3K1 Research in administrative practices that supports individuals with exceptional learning needs and their families

SA4K1 Models, theories, and practices used to evaluate educational programs and personnel serving individuals with exceptional learning needs and their families

SA5K3 Professional development theories and practices that improve instruction and instructional content for students with exceptional learning needs

SA3S1 Engages in data-based decision-making for the administration of educational programs and services that supports exceptional students and their families

SA3S2 Develops data-based educational expectations and evidence-based programs that account for the impact of diversity on individuals with exceptional learning needs and their families

SA4S2 Develops and implements ongoing evaluations of education programs and personnel

SA4S4 Designs and implements evaluation procedures that improve instructional content and practices

SA5S2 Develops and implements professional development activities and programs that improve instructional practices and lead to improved outcomes for students with exceptional learning needs and their families

Grading Policy:

Grading Scale: A point scale is used. Grades are determined by the number of points earned. The following scale is used by the Department of Special Education faculty:

90% or more of the points = A 80%-89% of the points = B 70%-79% of the points = C 60%-69% of the points = D less than 60% of the points = F

Assignments:

1. Participation/Attendance

Candidates are expected to attend and participate in each class. In-class activities cannot be made up due to their interactive nature. Attendance will be reflected in the course grade.

Assessment
 Midterm examination
 Weekly quizzes
 Descriptive Statistics test

Final presentation

3. Readings

Weekly readings from the textbooks will be required.

4. Research Proposal

Weekly submissions

Proposal

Handout for peers

Chart of Assessments:

See Chart . .

Graduate/Advanced: Chart of Assessments

Assessment Name	Brief Description	Graduate/Advanced Unit Standards	Dispositions
		Addressed	Addressed
		1 2 3 4 5 6	1 2 3 4 5
Research Proposal	Candidates will design a research proposal that could be implemented in their own setting. The proposal will include: a review of literature, research questions, a description of their research design and methodology. The proposal and an accompanying handout will be shared with peers via an		
	in class presentation and discussion.		

List of Graduate/Advanced Unit Standards:

Standard 1 – Content Knowledge

Standard 2 – Critical Thinking and Problem Solving

Standard 3 – Oral and Written Communications

Standard 4 – Advanced Scholarship/Research/Creative Activity

Standard 5 – Working with Diverse Clientele

Standard 6 – Collaboration and Creating Positive Relations

List of Unit Dispositions:

Disposition 1 – Interaction with Students

Disposition 2 – Professional and Ethical Practice

Disposition 3 – Effective Communication

Disposition 4 – Planning for Teaching and Student Learning

Disposition 5 – Sensitivity to Diversity and Equity

SPE 5900

SPE 5900 Research in Special Education

Course Description:

Students in this course will develop skills necessary to analyze research designs involving special education methodology and will be able to interpret statistics through multiple regression.

Learning Model

The primary learning model for this class is the information processing model. (Costa, A. (Ed.). (1991). *Developing minds: A resource book for teaching thinking*. Alexandria, VA: Association for Supervision and Curriculum Development.

Textbooks:

American Psychological Association. (2010). *Publication manual of the American Psychological Association (6th ed.).* Washington, DC: Author.

Gall, M.D., Gall, J.P., & Borg, W.R., (2007). *Educational research: An introduction* (8th ed.). NY: Allyn & Bacon.

Course Outline:

- I. An Overview of Education Research (Gall, Borg & Gall, 1996; Gay, 1987; Glass, 1987; Richardson-Koehler, 1987.)
 - A. Types of Educational Research
 - B. Purposes of Educational Research
 - C. Nature of Scientific Inquiry
 - D. Personal Motivation for Conducting Educational Research
- II. Planning Educational Research
 - A. Developing a Research Proposal (Behling, 1984.)
 - B. Ethical, Legal Constraints, and Human Relations (American Anthropological Assoc., 1983.)
 - C. Reviewing the Literature (Woodbury, 1982.)
 - D. Critical Evaluation of Research (Glass, et al., 1981.)
 - E. Mistakes Made in Planning Educational Research
- III. Sampling and Measurement in Educational Research
 - A. Populations and Samples (Bobbie, 1985.)
 - B. Selection and Administration of Tests (American Psychological Assoc., 1985.)

- C. Types of Standardized Tests (Mitchell, 1985.)
- D. Mistakes Made in Sampling and Measurement
- IV. Research Design and Methodology
 - A. Types of Research Design (Cook & Campbell, 1979.)
 - B. Quantitative Research Design (Goetz & LeCompte, 1984.)
 - C. Statistical Analysis (Achen, 1986.)
 - D. Qualitative Research (Goetz & LeCompte, 1984.)
 - E. Mistakes Made in Quantitative and Qualitative Research
- V. Types of Educational Research
 - A. Introduction
 - B. Questionnaire Survey (deVaus, 1986.)
 - C. Interview Approach (Bradburn, et al., 1981.)
 - D. Observational Research (Webb, et al., 1981.)
 - E. Causal-Comparative Approach (Elashoff, 1969.)
 - F. Correlational Method (Cook & Campbell, 1979.)
 - G. Experimental Designs (Cook & Campbell, 1979.)
 - H. Action Research
- VI. Data Processing and Reporting (Bruning & Kentz, 1987; Greenberg, 1987.)
 - A. Processing Research Data
 - B. Preparing the Research Report
 - C. Mistakes Made in Processing Research Data and Preparing the Research Report

Course Requirements

1. Participation/Attendance

Students are expected to attend and participate in each class. In-class activities cannot be made up due to their interactive nature. Attendance will be reflected in the course grade.

2. <u>Assessment</u>

Midterm examination

Quizzes

Descriptive Statistics test

Final presentation

3. Readings

Weekly readings from the textbooks will be required.

4. Research Proposal

Proposal Outline

Final Research Proposal

Handout for peers

Course/Department Policies

Written Language Standards. Written assignments are expected to follow *American Psychological Association (APA)* style, format, and guidelines. Non-

labeling language is expected in all written materials. Students in SPE 5900 will be expected to meet performance criteria associated with grammar, spelling, and sentence structure.

Attendance: Students are expected to attend all classes. If prevented by an acute illness or an emergency, the student should contact the instructor in as timely a manner as is possible. When the student can anticipate the absence, the instructor should be contacted before the absence occurs. The instructor after due consideration to the reason for the absence, may deny the student's request to make up missed assignments or exams. Students who are absent from class, for whatever reasons, are held responsible for the material covered during their absence.

<u>Grading Scale:</u> A point scale is used. Grades are determined by the number of points earned. The following scale is used by the Department of Special Education faculty:

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<u>Late Assignments</u>: Assignments are due the class period of the day listed on the class schedule. Any assignment turned in after the designated due date is considered late. Assignments turned in late without instructor approval will result in a 10% deduction of total points for each day the assignment is not submitted.

<u>Appointments/Assistance:</u> Each student is encouraged to contact the instructor for assistance with any problem and/or for general discussion. Available conference times are posted in the notebook in Room 1212, Special Education Office. If times listed are inconvenient, please call to arrange an alternate time.

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^{**}The instructor reserves the right to change the course outline and/or requirements as deemed necessary.

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State of Illinois Specialty Area LBS II or Director Standards Addressed in this Course

Curriculum Adaptation Specialist (IL CAS) None

Behavior Intervention Specialist (IL BIS) None

State of Illinois Specialty Area LBS II and Director Standards Addressed in this Course

Director of Special Education (IL DIR)
None

References

- Achen, C.H. (1985). *The statistical analysis of quasi-experiments*. Berkeley, CA: University of California Press.
- Behling, J.H. (1984). *Guidelines for preparing research proposals, rev. ed.* Lanham, MD: University Press of America.
- Berliner, D.C. (1986). In pursuit of the expert pedagogue. *Educational Researcher*, 15(7), 5-13.
- Bobbie, E.R. (1985). *The practice of social research, 4th edition.* Belmont, CA: Wadsworth.
- Bogdan, R.C., & Biklen, S.K. (1992). *Qualitative research for education: An introduction to theory and methods (2nd Ed.).* Boston: Allyn & Bacon.
- Bradburn, N.M., & Sudman, S. (1981.) *Improving interview method and questionnaire design.* San Francisco, CA: Jassey-Bass.
- Brantlinger, E., Jiminez, R., Klingner, J., Pugach, M., & Richardson, V. (2005). *Qualitative studies in special education, 71*, 195-207.
- Bruning, J.L., & Kintz, B.L. (1987). *Computational handbook of statistics, 3rd edition.* Glenview, IL: Scott, Foresman.
- Campbell, D.T., & Stanley, J.C. (1966). Experimental and quasi-experimental designs for research. Chicago: Rand McNally.
- Cook, T.D., & Campbell, D.T. (1979). *Quasi-experimentation: Design and analysis issues for field settings.* Chicago, IL: Rand McNalley.
- Costa, A. (Ed.). (1991). *Developing minds: A resource book for teaching thinking.*Alexandria, VA: Association for Supervision and Curriculum Development.
- Cronbach, L.J. (1990). *Essentials of psychological testing (5th Ed.).* New York: Harper & Row.

- Cutter-Landsman, D., & Wrzesinski, C.J. (1994). Internet: A vehicle for original student research. *Teaching and Change*, *1*(*3*), 133-153.
- deVaus, D.A. (1986). *Surveys in social research.* Boston, MA: George Allen & Univin.
- Gersten, R., Fuchs, L., Compton, D., Coyne, M., Greenwood, C., & Innocent, M. (2005). Quality *indicators for group experimental and quasi-experimental research in special education*, 71, 149-164.
- Glesne, C., & Peskin, A. (1992). *Becoming qualitative researchers: An introduction*.

 New York: Longman.
- Hartman, D.P. (1977). Considerations in the choice of interobserver reliability estimates. *Journal of Applied Behavior Analysis*, *10*, 103-116.
- Hollenbeck, A.R. (1978). Problems of reliability in observational research. In C.P.

 Sackett (Ed.) *Observing behavior Vol. II: Data collection and analysis methods.* Baltimore:

 University Park Press.
- Horner, R., Carr, E., Halle, J., McGee, G., Odom, S., & Wolery, M. (2005). The use of single-subject research to identify evidence-based practice in special education, 71, 165-180.
- Kazdin, A.E. (1982). Single-case research designs: Methods for clinical and applied settings. New York: Oxford University Press.
- Kratochwill, T.R., (1983). Time-series research: Contributions to empirical clinical practice. *Behavioral Assessment*, *5*, 165-176.
- Lyne, L. S. (1999) *A cross section of education research.* Los Angeles, CA: Pyrczak Publishers.
- McEwan, E., & McEwan, P. (2003). *Making sense of research*. Thousand Oaks, CA:

 Corwin Press.

- McMillan, J.H., & Schumacher, S. (1997). Research in education: A conceptual introduction. New York: Longman.
- Mertens, D., & McLaughlin, J. (2004). *Research and evaluation methods in special education.* Thousand Oaks, CA: Corwin Press.
- Mitchell, J.V. (1985). *The ninth mental measurement yearbook.* Lincoln, NE: University of Nebraska Press.
- Mullen, M.E. (1981). Research strategies for the longitudinal evaluation of handicapped infants. (ERIC No. ED 218 876).
- Odom, S.L. (1988). Research in early childhood special education. In S.L. Odom &

 M.B. Karnes (Eds.), *Early intervention for infants and children with handicaps: An empirical base.* Baltimore: Paul H. Brookes Publishing Co.
- Odom, S., Brantlinger, E., Gersten, R., Horner, R., Thompson, B., & Harris, K. (2005). Research in special education: Scientific methods and evidence-based practices, 71, 137-148.
- Pierce, J. (1994). The educational research list (ERL-L) on BITNET/INTERNET. *Educational Researchers, 23(2), 25-28.*
- Professional ethics. (1983). Washington, D.C.: American Anthropological Association.
- Pyrczak, F. (1995). *Making sense of statistics: A conceptual overview.* Los Angeles, CA: Pyrczak Publishing Co.
- Richardson-Koehler, V. (1987). What happens to research on the way to practice.

 Theory into Practice, 26(1), 38-43.
- Robinson, V., & Lai, M. (2006). *Practitioner research for educators: A guide to improving classrooms and schools*. Thousand Oaks, CA: Corwin Press.
- Sagor, R. (2005). The action research guidebook: A four-step process for educators

- and school teams. Thousand Oaks, CA: Corwin Press.
- Schmuck, P. (2006). *Practical action research for change* (2nd ed.). Thousand Oaks, CA: Corwin Press.
- Silva, M., & Cartwright, G.F. (1993). The internet as a medium for educational research. *Educational Libraries*, *17*(2), 7-12.
- Standards for educational and psychological testing. (1985). Washington, D.C.:

 American Psychological Association.
- Stile, S.W. (1987). Alternating treatments design (ATD) for inquiry in early childhood special education programs. *Journal of the Division for Early Childhood, 11(3),* 233-237.
- Tawney, J.W., & Gast, D.L. (1984). Single subject research in special education.

 Columbus, OH: Charles E. Merrill Publishing Company.
- Thompson, B., Diamond, K., McWilliam, R., Snyder, B., & Snyder, S. (2005).

 Evaluating the quality of evidence from correlational research for evidence-based practice, 71, 181-194.
- Verdugo, E.D. (1998). *Practical problems in research methods: A casebook.* Los Angeles, CA: Pyrczak Publishers.
- Webb, E.J., Campbell, D.T., Schwartz, R.D., Sechrest, L., & Grove, J.B. (1981).

 Nonreactive measures in the social sciences. Boston, MA: Houghton Mifflin.
- Zigler, E., & Balla, D. (1982). Selecting outcome variables in evaluations of early childhood special education programs. *Topics in Early Childhood Special Education*, 1(4), 11-22.