

1. **COURSE NAME:** ED 550 Reading Fundamentals #1: An Introduction to Scientifically-based Research
2. **EDUCATIONAL GOALS FOR THE COURSE:**
Reading Fundamentals supports the concept of scientifically-based reading research to develop a phonetically-based approach to reading assessment, instruction, evaluation and remediation. The Reading Fundamentals series was written following the research and practices spelled out in the Reading First legislation and these terms will be used interchangeably throughout this series.

An Introduction to Scientifically-Based Research, the first in a three-course series on effective reading instruction, was designed to give background on Reading First as it applies to the No Child Left Behind federal legislation. The course discusses the research that supports scientifically-based research as it applies to phonetically-based instruction, assessment, and evaluation. The course explores myths and misconceptions concerning reading instruction and remediation. It also presents an evaluation checklist designed to assess the effectiveness of your current reading program. The goal of the course is to present you with research, trustworthy evidence, and background information that support the need for a reading program that is based on scientific research and proven methods.

3. **INSTRUCTIONAL LEARNING OBJECTIVES:**
 - Describe what is meant by critical thinking.
 - Explain what science is and illustrate the six scientific principles.
 - Explain the myths and misconceptions of science, and describe the ways in which we gain information.
 - Describe the impact science has had on medicine, clinical psychology, and education.
 - Illustrate the constraint levels in educational research.
 - Describe the concepts of reliability and validity.
 - Explain what is meant by variability, including the sources of variability.
 - Describe the terms *internal* and *external validity*, and explain the threats to each.
 - Illustrate the different research designs/methods (i.e., experimental, single-case, causal-comparative, correlational, and qualitative).
 - Describe the importance of replications and illustrate the types of replications.
 - Describe what is meant by the term *research syntheses*, and illustrate the National Reading Panel synthesis.
 - Describe the evaluation instrument for Stage I review of reading programs.
4. **COURSE REQUIREMENTS:**
 - Complete all information chapters, showing a competent understanding of the material presented.
 - Complete all chapter examinations, showing a competent understanding of the material presented.
 - Complete a review of any chapter on which your examination score was below 70%.
 - Retake any examination, after completing an information review, to increase that examination score to a minimum of 70% (maximum of three attempts).
 - Complete all course journal article and essay writing assignments with the minimum word count shown for each writing assignment.
 - Complete a course evaluation form at the end of the course.

5. **DATES, TIMES AND LOCATION OF PROPOSED COURSE:**

TBD to equal time requirements for 2 semester credits.

Home study course to be completed within 6 months of beginning date.

6. **DUE DATES FOR COMPLETION OF COURSE REQUIREMENTS:** Last day of class

7. **LEARNING RESOURCES AND REQUIRED TEXT:**

Minimum Requirements:

Macintosh Operating Systems - Mac OS 9.x or OS 10.x, 256MB of RAM and 5MB of free hard disk space, 15" or larger color monitor with a minimum resolution of 800x600, CD driver 4x minimum speed and a printer connected to your computer.

Windows Operating Systems - Windows 2000, XP Home, Professional or newer, 256MB of RAM and 5MB of free hard disk space; 15" or larger color monitor with a minimum resolution of 800x600, CD driver 4x minimum speed and a printer connected to your computer.

CD: Title: *Reading Fundamentals #1: An Introduction to Scientifically-based Research*

(software package) Author: Ronald Martella, Ph.D. Publisher: Virtual Education Software, inc.

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Please keep the CD. There is a \$25 replacement fee for CD-roms if you need to replace yours due to theft, damage, misplacement, etc. Call 1-800-313-6744, with your credit card information, if you need a replacement.

8. **EVALUATION PROCEDURE:** Graded: 95-100%=A, 90-94=A-, 87-89=B+, 84-86=B, 80-83=B-, 77-79=C+, 74-76=C, 70-73=C- (C- is the lowest possible grade for credit) Your final grade for this course will be determined by calculating an average score of all sectional exams. This score will be printed on your final certificate. As this is a self-paced computerized instruction program, you may review course information as often as necessary. You will not be able to exit any examinations until you have answered all questions. If you try to exit the exam section before you complete all questions your information will be lost. You are expected to complete the entire exam in one sitting.