SYLLABUS Educ 3575

Department of Teacher Education

# Weber State University

## Title: Elementary Mathematics: Evaluation, Remediation and Supports

## Instructor: TBD

## Credit: 2 semester hours

## Semester:

Class Location:

Class Time:

##

## **Course Description:**

This course is designed to teach teacher candidates validated evaluation and remediation strategies for K-5 students struggling in mathematics. This course focuses on techniques in elementary mathematics. Candidates will be introduced to the process of identifying math difficulties, selecting evidence based interventions, implementing instruction, and using the data-based instructional decision model to monitor students’ math progress and intervention effectiveness.
Prerequisites: Completion of Education Level 1 courses with a grade of B- or better
Co-requisites: Educ 3545, Educ 3565, Educ 4521, Educ 4530, Educ 4550

**Course Outcomes**

WSU’s teacher preparation conceptual framework theme is, “Student Achievement: Students, Teachers, & Communities Working Together”. The model that illustrates the programs purposes, philosophy, outcomes and evaluation is represented by an easel, at the center of which is three overlapping components: Reflecting, Engaging, and Collaborating. The program standards are performance-based; they describe what teachers should know and be able to do in order to be awarded a license.

“The Utah Effective Teaching Standards (UETS) have been established by the Utah State Board of Education (R277–530) as the foundation for effective teaching practice. The standards constitute the minimum knowledge and skills required to successfully teach the Utah Core Curriculum Standards and serve as a basis for educator evaluation and a tiered licensing system. They are designed to guide expectations for the screening, hiring, and induction of teachers, and the state approval of licensing preparation programs. The UETS draw heavily upon the concepts in Council of Chief State School Officers’ Model Core Teaching Standards, as well as the needs of Utah districts. They support high quality instruction, one of the Board’s **Promises to Keep** goals” (p. 41).

**Course Objectives**

The Utah Effective Teaching Standards (UETS) are a description of highly effective teaching as adopted by the Utah State Board of Regents. They also represent the knowledge and skills necessary to teach the Utah Core Curriculum Standards. They align with [Utah effective teaching standards](http://www.uen.org/k12educator/uets/), national [Council for Exceptional Children initial preparation standards](http://www.cec.sped.org/~/media/Files/Standards/Professional%20Preparation%20Standards/Initial%20Preparation%20Standards%20with%20Elaborations.pdf) (CEC, 2012), [NCTE/IRA standards](http://www.ncte.org/library/NCTEFiles/Resources/Books/Sample/StandardsDoc.pdf) (NCTE, 2010) and current research on effective teaching practice.

Upon completion of this course, the special education teacher candidate will demonstrate an “Emerging” level of competency in the following UETS and CEC standards:

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| **Course Objectives** | **UETS****CEC****NCTM** | **Assignments** |
| Describe the meaning and function of the Utah Core Curriculum Standards for Mathematics K-5 | UETS 4CEC 3NCTE/IRA 1 | Instructional Planning and Decision Making Process  |
| Describe the role of and role and connection between the Mathematics process Standards and how to teach for the components in order to help elementary students become successful in using and applying mathematics. | UETS 4, 7CEC 3, 5NCTE/IRA 2 | IRIS Modules/ActivitiesEvidence Based Strategies |
| Describe the role and connection between the mathematics content standards and how to teach the components in order to help elementary students become successful in using and applying mathematics | UETS 4, 7CEC 3, 5NCTE/IRA 2 | IRIS Modules/ActivitiesEvidence Based Strategies |
| Identify student deficits and skills in elementary mathematics areas | UETS 5CEC 4NCTE/IRA 3 | Instructional Planning and Decision Making Process  |
| Design instructional programming for elementary students identified as struggling in mathematics | UETS 1, 2, 6CEC 5NCTE/IRA 2 | Instructional Planning and Decision Making Process Evidence Based Strategies |
| Determine intervention effectiveness using the data-based instructional decision model | UETS 5CEC 4NCTE/IRA 3 | Instructional Planning and Decision Making Process  |

Required Materials:

Stein, M., Kiner, D., Sibert, J., Carnine, D. W. (2006). Designing effective mathematics instruction: A direct instruction approach (4th edition). Upper Saddle River, NJ. Pearson Publications

**Assignments**

1. **Article Graphic Organizers**

Teacher candidates will read the assigned articles. After reading each article, they will input all information in a graphic organizer of your choice found at <http://www.eduplace.com/graphicorganizer>. Completed graphic organizers must be brought to class on the assigned days. Candidates will use these organizers to actively participate in a small group discussion. The articles will be available on the class website. Candidates are responsible for downloading them on your own.

1. **IRIS Math Modules**

Teacher candidates will complete each module, answer discussion questions, and be prepared to discuss in-class. Candidates are required to complete the following IRIS modules, which can be found at <http://iris.peabody.vanderbilt.edu>.

1. **Evidence Based Teaching Strategies**

Each of these will provide independent practice on particular aspects of mathematics lesson design and instruction. The assignments will focus on the foundations of mathematics in grades K-5.

1. **Quizzes**

There will be four quizzes throughout the semester to assess student knowledge on lectures, material from the guided notes, important terms, class discussion, and assigned readings. They will consist of multiple choice, true/false and short answer questions.

1. **Instructional Planning and Decision Making Process**

Teacher candidates are required to complete the 8 step curriculum analysis process for students in their practicum placement, including:

* 1. Analyze the Utah Core Curriculum Subject (This includes student present level of performance (PLOP) based on curriculum-based measurement (CBM) and Curriculum Standards)
	2. Develop or Select curriculum-based assessments (CBAs) (IRI, Spelling Inventory, Self-created CBA)
	3. Administer survey CBAs
	4. Analyze CBA results (Includes error analysis)
	5. Define the Instructional Program (Standards, Present Levels of Academic Achievement and Functional Performance (PLAAFP), and Goals and Objectives)
	6. Develop focused CBAs for goals and objectives and progress monitoring system
	7. Develop Instructional Plans using evidence based strategies (includes units of instruction, daily lessons, daily formative assessments, and progress recording system)
	8. *\* Implement effective instruction (includes using data based instructional decisions)*

*\* This is completed and graded in practicum*

1. **Class attendance and Participation.**

Teacher candidates are expected to download or print daily guided notes from the website, bring them to class, attend to the weekly lecture(s) complete the guided notes during the class session, participate in the activities, and ask any relevant questions. Candidates will earn points per class period for attending and participating.

**How grades will be determined**

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| **Course Grades** | **Percentage** | **Grade Scale** |
| Article Graphic Organizer  | 5% | A | 95%-100% | C+ | 77%-79% |
| IRIS Math Modules | 5% | A- | 90%-94% | C | 74%-76% |
| Evidence based teaching Strategies | 15% | B+ | 87%-89% | C- | 70%-73% |
| Quizzes  | 5% | B | 84%-86% | D | 65%-69% |
| Instructional Planning and Decision Making  | 65% | B- | 80%-83% | E | ≤ 64%  |
| Class Attendance and Participation  | 5% |  |  |  |  |
| Total possible | 100% |  |  |  |  |

**University Ethics Policy:** Failure to maintain academic ethics/academic honesty including the avoidance of cheating, plagiarism\*, collusion and falsification will result in an E in the course and may result in charges being issued, hearings being held, and /or sanctions being imposed. Any violation of the WSU student code of conduct may result in a failing grade in the course and /or withdrawal of the teacher candidate’s admission to the Teacher Education Program

\*Plagiarism is complex because it comes in many shapes and forms, but in simple terms it means copying material from somewhere else and passing it off as your own work, either intentionally or unintentionally. For the sake of clarity, keep in mind the following: every word of your paper is expected to be your own work, written specifically for this class (no resubmitting work from previous classes). It is acceptable to use a few short quotations so long as the source is properly attributed and quotation marks are used, but papers copied in whole or in part are entirely unacceptable. Failure to use quotation marks, even if only by accident, is still plagiarism. If you are caught submitting a copied paper, even if you didn’t mean to, you are guilty of plagiarism and the range of penalties runs from failing the assignment (for the most minor infractions only), failing the class (the most common penalty) or expulsion from the university (for extreme repeat offenders). These penalties also apply to anyone caught cheating on exams.

**ADA Statement:** Any teacher candidate requiring accommodations or services due to a disability must contact Services for Teacher candidates with Disabilities (SSD) in room 181 of the Student Service Center. SSD can also arrange to provide course materials (including this syllabus) in alternative formats if necessary

**Counseling and Psychological Services:**

Weber State University has counseling services free of charge to students. If you feel you may be in need of these services for any reason, please contact them at 801-626-6406. Or visit the office in suite 280 of the Student Service Center.

**Campus Closure:**In the event that WSU is closed for an extended period of time due to an unforeseen event, please access the course website https://learn-wsu.uen.org/login for information on how class will proceed.

Course Calendar

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| Date | Topic | Assignment(s) Quiz |
| Week 1 | Course IntroductionCourse SyllabusUtah Core State Standards |  |
| Week 2 | Step 1: Instructional Planning and Decision Making Process (IPDMP)Math in the elementary schools | Quiz 1Case Study 1 |
| Week 3 | CBM Beginning Math | IPDMP: Step 1 |
| Week 4 | Step 2: Instructional Planning and Decision Making ProcessAligning CBM to student expectations in beginning math | Case Study 2 |
| Week 5 | Counting and Cardinality: EBPsNumbers and Operations in Base 10: EBPs | Quiz 2IPDMP: Step 2 |
| Week 6 | Step 3 & 4: Instructional Planning and Decision Making ProcessAnalyzing CBA results | Case Study 3 |
| Week 7 | Operations and Algebraic Thinking: EBPs | Evidence-Based Strategy #1IPDMP: Steps 3 & 4Article graphic organizers set 1 due |
| Week 8 | Step 5: Instructional Planning and Decision Making ProcessPLAAFP and MAG | Case Study 4 |
| Week 9 | Numbers and Operations Fractions: EBPs | Evidence-Based Strategy #2Quiz 3IPDMP: Step 5 |
| Week 10 | Step 6 & 7: Instructional Planning and Decision Making ProcessCBA development and lesson planning | Case Study 5IPDMP: Step 5 (continued) |
| Week 11 | IRIS Modules Math | IPDMP: Steps 6 & 7 |
| Week 12 | Measurement and Data: EBPs | Evidence-Based Strategy #3 |
| Week 13 | Elementary Geometry: EBPs  |  |
| Week 14 | Practicum Debrief and discussion  |  |
| Week 15 | State/District Assessments | Quiz 4Article graphic organizers set 2 due |