# ED 435 Teaching Mathematics P-6 (3 credits)

**Spring 2014**

**Syllabus**

# Instructor Information

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| Course CRN | 30635 |
| Instructor | Leslie Goldstein |
| Office | Jones 108 |
| Phone | (970) 247-7161 |
| E-mail | http://faculty.fortlewis.edu/GOLDSTEIN\_L/ |
| Personal web page | Goldstein\_l@fortlewis.edu |
| Office Hours | T 11:30 – 12:30, WF 1:30 – 3:00 |
| Alcove Hours | W 11:30 – 12:30, F 11:00 – 1:00 |

# Course Description:

This course prepares future preschool and elementary teachers to reach every child, from birth through sixth grade, with rigorous and innovative instructional practices as they relate to mathematic instruction. This course includes the teaching of number systems and number sense, geometry, measurement, statistics and probability, and functions and use of variables.

**Student Outcomes:**

Students in this course will attain the following goals:

* Develop a working knowledge of mathematic curriculum standards (Colorado Academic and Common Core)
* Review past and current trends and issues in mathematics education
* Explore the emphasis on problem solving as a means to meet the developmental needs of students in the elementary and preschool classroom setting
* Use both the 5E lesson plan model and a 3 Phase lesson format model to develop lessons using a problem solving approach and, that meet both the objectives of the Colorado P-12 Academic Math Standards and the Common Core Curriculum Standards
* Strengthen content knowledge necessary to teach mathematics in the elementary and preschool classroom
* Use technology and print media to locate teaching resources, review content, and communicate ideas
* Implement instruction of “hands on” mathematics lessons within the elementary or preschool classroom setting and reflect on teaching effectiveness through use of authentic assessment

**Grading**:

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| KATS assignments (KATS#) | 60% |
| Journal/online work (J#) | 20% |
| Article (A#) | 20% |

**How your final grade will be determined**

* **Journal and Article** work will be assessed using the attached rubric. The rubric letter grade will be assigned a numerical grade based on the attached conversion chart. Journal assignments are either an activity extension to something done in class, or a reflection of work completed during class time. Articles assignments are either questions or reflections based on an article or video.
* **KATS assignments** (SB 191, **Teacher Quality standards** 1CCr 301-87 Section 3.02 standards element C and **Performance Based Teacher Licensure** **Standards** 1CCR 301-37 Section 5.02(1)a,b,c,d,e) requires the planning, designing and teaching of 3 lessons that include statistics, probability, number system, number sense & variables and include in an interdisciplinary unit AND design and teach a lesson in geometry and measurement to be included in an interdisciplinary unit. Furthermore, **Performance Based Teacher Licensure Standards** 1CCr 301-37 Section 5.03(7) requires that CSAP math preparation will be reflected in the unit through the standards used in lesson planning. Grading for the KATS assignments are attached. Each lesson will be valued at 15% of your grade. The lesson will be broken down into deliverable pieces – lesson plan, teaching the lesson and reflection of the lesson.
* **Grade cutoffs** --A grade of C- or better is required to enroll in the next level course.

100-93: A 92-90: A- 89-88: B+ 87-83: B 82-80: B- etc.

* **Last Day to Withdraw** – The last day to withdraw from FLC classes with a grade of “CW” (course withdrawal) is **Friday, March 7, 2014**. This is a college-wide deadline that is not negotiable.

To withdraw from this course, go to the Registrar’s Office, Room 160, Miller Student Services Building before the course withdrawal deadline. They will help you through the process. You do not need my signature on the course withdrawal request form.

Starting Fall 2013, students have a life-time limit of three individual course withdrawals from FLC courses. If you have withdrawn from classes before Fall 2013, these will not count towards your lifetime limit. Also, withdrawing entirely from a semester (all classes) does not count against your lifetime “CW” limit. Semester withdrawal is handled under a different policy and procedure. Please refer to the Academic Policies section of the Fort Lewis College *Catalog of Courses* for more information about course and semester withdrawal policies and procedures

* **Academic Integrity Field Participation:** Candidates of the Teacher Education Program are required to adhere to professional standards and ethics in their academic work and field study experience. Professional behaviors and actions include but are not limited to the following examples:
  + - Candidate’s academic work must reflect integrity and honesty.
    - Candidates are expected to use appropriate language and professional discourse with students, supervising teachers, and professors.
    - The candidate’s field study logs must be an accurate, valid, and concise representation of the time spent participating in field study experiences.
    - Candidates are expected to dress appropriately for the contemporary traditional classroom. Dress codes should be modeled after supervising teachers.
    - Candidates, who display unprofessional or unethical behavior, will be subject to disciplinary actions, which could result in the candidate’s removal from their field placement and/or the TED Program. Finally, any illegal conduct, amoral actions, or violations deemed seriously negligent on the part of a student teacher candidate, will result in the immediate removal from the field placement and/or TED Program and possible notification of legal infraction to local/state authorities.

# Class Policies

* **Tardy Behavior/Leaving Class** -- Tardy arrivals and early departures will affect your attendance, at your instructor’s discretion. An absence may be recorded if a student leaves for any amount of time during the class period.
* **Incompletes** -- Incompletes will only be given under very special circumstances, upon the decision of the instructor
* **Cell Phones and other media** -- You are not permitted to use cell phones or MP3 players (or the like) during class time for any reason.

# Learning Support

* **Office Hours** -- Your instructor is your best resource. Go to office hours. Ask questions.
* **Writing Center** -- The Writing Center is located in Jones 105B. It is staffed with writing instructors and trained peer tutors. They provide assistance with reading and writing.
* **Instructor Web Page** -- Your instructor’s web page provides important resources for students.

# College Policies

* **Disabilities** -- Students with disabilities have equal access and equal opportunity in this course.  If you require reasonable accommodations to fully participate in course activities or meet course requirements, you must register with Disability Services, 280 Noble Hall, 247-7459.  If you qualify for services, bring your letter of accommodation to me as soon as possible.
* **Academic Honesty** -- Cheating of any form is unacceptable and is not tolerated. Students caught cheating will automatically fail the course and be reported to the Academic Vice President for additional sanctions.
* **Drug and Alcohol** -- Increasing concern about the effects of the use and abuse of alcohol and other substances requires a reminder that attending class under the influence of alcohol or other substance is detrimental to academic achievement and effective classroom activities and will not be tolerated.

**Course Topics and Assignments:**

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| Week 1 | What are the math standards?  \*NCTM  \*Common Core  \*Colorado Academic Standards | J1 (assigned Tuesday, Due Thursday)  A1 (assigned Thursday) | **SB 191 1CCr 301-87 section 3.02 element E** |
| Week 2 | Concepts, Content and Skills | A1 (due Tuesday) | **PBTLS 1CCR 301-37 section 5.02 (2)** |
| Week 3 | District Sample Curriculum | J2 (due Tuesday)& J3 (due Thursday) | **PBTLS (1 CCR 301-37 Section 5.02(1)** |
| Week 4 | Grading and Assessments | KATS 1 |  |
| Week 5 | Number Sense, Properties & Operations | A2 | **PBTLS (1 CCR 301-37 Section 5.02(1a)** |
| Week 6 | Patterns, Functions & Algebraic Structures | J4 & J5 | **PBTLS (1 CCR 301-37 Section 5.02(1e)** |
| Week 7 | Data Analysis, Statistics, and Probability | J6 & J7 | **PBTLS (1 CCR 301-37 Section 5.02(1d)** |
| Week 8 | Shape, Dimension, and Geometric Relationships | KATS 2 | **PBTLS (1 CCR 301-37 Section 5.02(1b,c)** |
| Week 9 | 21st Century Skills (CDE) | A3 |  |
| Week 10 | Manipulatives | J8 & J9 |  |
| Week 11 | Literacy & Communication | A4 |  |
| Week 12 | Technology 1 (handheld) | KATS 3  (note: Tuesday, April 8th class is cancelled) |  |
| Week 13 | Technology 2 (computer and online – including [PACC](http://www.parcconline.org/about-parcc)) | J10 | **PBTLS (1 CCR 301-37 Section 5.03(8)**  **PBTLS (1 CCR 301-37 Section 5.07 (1)** |
| Week 14 | Putting it all together | A5 |  |
| Week 15 | Exam Week | KATS 4 |  |