

Independent Study Course Syllabus

Course Number: MAT 902

Course Title: Addition/Subtraction with Regrouping/Place Value

☐ Online ☒ Distance Learning

Instructor: Dianne Young
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Units: 3
Grade Level: 1-3

Course Description

MAT 902 *Addition and Subtraction With Regrouping/Place Value* is a Common Core Standards-based methods course which offers first, second, and third grade teachers a guide for designing a learning experience for their students which focuses on place value concepts including grouping, number patterns, base ten, number sense of quantities of 100 and beyond, through addition and subtraction skills. All of the manipulative materials and activities included in this class have been developed to provide teachers with concrete, pictorial, and abstract experiences to help students construct an understanding of place value. Over 100 math focused tasks directly tied to specific Common Core State content standards are presented for students to experience individually, in small learning groups, or with the whole class are included in the course materials. The assignments may be completed with or without student participation. Built into the course requirements, are several contacts between the course instructor and the student via email. Focused questions are addressed and assistance is offered through these contacts between the instructor and student. The assignments may be completed with or without classroom student participation.

Creating a learning environment that supports the development of understanding math concepts for our young learners is as critical as the choice of curriculum expectations. If lessons are developed to encourage and promote understanding, children will learn that mathematics makes sense and is applicable to their everyday needs. Children need to learn that mathematics makes connections and is related to many other disciplines.

This course is designed to help teachers of elementary children establish a classroom that is supportive of an active, meaning-based approach to the teaching and learning of mathematics.

It is hoped that this course will give teachers the information and support they need to create a positive and effective learning environment for their children.

Course Dates

Self-paced; students may enroll at any time and take up to one year to complete assignments.

You have up to one year from the date of registration, and no less than three weeks (one week per credit), to complete the course.

Course Materials

Course Syllabus and Procedures Guide CD by Carol Gossett contains links to Common Core State Math Standards, course assignments; including descriptions of classroom activities and reflective writing assignments, and more to help you complete this course.

Content, Application, and Practice files on CD contains background information, methods and strategies for teaching computation through models and hands-on experiences. You will be asked to apply the suggested classroom activities and techniques to your school situation.

Block and Arrow to Practice Basic Skills in Math is a collection of learning challenges designed to engage students in basic skills practice. Files on course CD and packaged separately – Face Value/Place Value Set A.

Counting Manipulatives Base Ten Blocks, to be used to build concrete models of one, two, and three digit numbers.

Place Value Mats – Used with Base Ten Blocks to build concrete models of two and three digit numbers.

A Fair Bear Share by Stuart J. Murphy

Blue Ribbon Blueberry Pie is the best—but do these bear cubs have enough ingredients to bake one? Regrouping their berries, nuts, and seeds by tens and ones reveals that one cub has not done her fair bear share. John Speirs's irresistible bear cub's make this lesson in regrouping one children will enjoy.

Shark Swimathon by Stuart J. Murphy

Like other books in the Math Start series, this presents a mathematical concept in the framework of a story. Here, a shark swim team practices subtraction of two-digit numbers as it tries to reach a goal of 75 laps. The focus is on the subtraction, which gets progressively more difficult as the predictable story goes on.

Online Resources – Additional course materials will be provided as direct links to relevant online resources including articles, webinars, and other valuable materials which directly address and support course content in the Common Core State Standards. Further investigation by the student into the standards is encouraged through course assignments.

Technology Requirements:

In order to successfully complete the course requirements, course participants will need Internet access, be able to send and receive email, know how to manage simple files in a word processing program, and have a basic understanding of the Internet.

Please remember that the instructor is not able to offer technical support. In the event that you need technical support, please contact your Internet Service Provider.

Course Requirements

Summary of Assignments (for detailed instructions please see Schedule of Topics and Assignments)

When you receive your course packet, please check to make sure you have received everything listed as part of the course materials. Contact your instructor to let her know you have received everything and to let her know if you have any questions regarding the course assignments, etc.

1. Read all course materials.
2. Locate the Common Core State Standards in Mathematics for your grade level.
3. Complete all reflective writing assignments.
4. Design a lesson plan (connected to a specific Common Core State Standard) which reflects techniques described in the course text to teach a math concept which ties to math content standards for the grade level you are teaching.
5. Design a Sequence of Instruction which offers a developmentally appropriate approach to the teaching of math skills addressed in this course.
6. Design a learning game which offers drill and practice of math skills addressed in this course through a child-centered and engaging format.
7. Present a series of activities included in the course materials to a group of students OR review and reflect on a series of activities included in the course materials.
8. Prepare a PowerPoint or Display Board and present to colleagues or parent group.
9. Reflect on your learning.

National Standards: COMMON CORE STATE STANDARDS IN MATHEMATICS – First, Second, and Third Grade

Common Core State Standards in Mathematics – First Grade

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Students will make connections to activities included in this course to the standards in the following Domains:

Number and Operations in Base Ten (1.NBT)

Extend the counting sequence.

1. Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.

Understand place value.

2. Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:
 - a) 10 can be thought of as a bundle of ten ones — called a “ten.”
 - b) The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.
 - c) The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).
3. Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols $>$, $=$, and $<$.

Use place value understanding and properties of operations to add and subtract.

4. Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.
5. Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.
6. Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

Common Core State Standards in Mathematics – Second Grade

Students will make connections to activities included in this course to the standards in the following Domains:

Operations and Algebraic Thinking (2.OA)

Represent and solve problems involving addition and subtraction.

1. Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.1 Add and subtract within 20.
2. Fluently add and subtract within 20 using mental strategies.

Number and Operations in Base Ten (2.NBT)

Understand place value.

1. Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:
 - a. 100 can be thought of as a bundle of ten tens — called a “hundred.”
 - b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).
2. Count within 1000; skip-count by 5s, 10s, and 100s.
3. Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.
4. Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using $>$, $=$, and $<$ symbols to record the results of comparisons.

Use place value understanding and properties of operations to add and subtract.

5. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
6. Add up to four two-digit numbers using strategies based on place value and properties of operations.
7. Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.
8. Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.
9. Explain why addition and subtraction strategies work, using place value and the properties of operations.³

Common Core State Standards in Mathematics – Third Grade

Number and Operations (3.NBT)

Use place value understanding and properties of operations to perform multi-digit arithmetic.

1. Use place value understanding to round whole numbers to the nearest 10 or 100.
2. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.

Mathematical Practices All Grades

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.

3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Also applied are the **National Professional Teaching Standards** found at:

<http://www.nbpts.org>. The following five areas are addressed throughout the course materials. Students are asked to apply these standards in their teaching practices.

1. Teachers are committed to students and their learning.
2. Teachers know the subjects they teach and how to teach those subjects to students.
3. Teachers are responsible for managing and monitoring student learning.
4. Teachers think systematically about their practice and learn from experiences.
5. Teachers are members of learning communities.

Learning Objectives / Outcomes (Student Learning Outcomes SLO)

1.Students will identify, reflect on, and apply Common Core State Standards for the grade level they are teaching.
2.Students will apply Best Practices and National Professional Teaching standards, through developmentally appropriate teaching strategies in their classroom.
3.Students will apply critical thinking skills and create opportunities for their classroom students to apply critical thinking skills.
4.Students will design lesson plans which address a specific Common Core Standard for their grade level, which reflect the methods and techniques described throughout the course.
5.Students will reflect on their teaching.

Schedule of Topics and Assignments

Instructor Contact #1: As soon as you receive your course materials, please contact your course instructor. It will be important that you have taken the time to look over your course materials and the assignments so that you will be able to discuss any questions you might have prior to starting the course assignments. (25 points possible)

NOTE: An **on-track** student is someone who is completing this course while teaching in a classroom. **Off-track** students are those who are completing this course while out of the classroom. Those who begin the course while on-track and find they need to complete the course while out of the classroom (e.g. summer vacation) will need to complete a combination of Reflective Writing Reports based on the teaching of lessons and on those simply reviewed as described in the Schedule of Assignments. For example, a student who needs to mix both on and off track assignments, must complete in any combination, 10 Reflective Writing

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Report Forms which would be the result of either teaching and/or reviewing the activities presented through the course materials.

1. *Reading, Reflective Writing & Critical Thinking* - Read and reflect on the reading materials provided in the course materials. Within the reflection, discuss implications for your curriculum and teaching strategies in your classroom as it pertains to your school policy, classroom resources, and content standards. Relate these teaching practices to Best Practices and the Professional Teaching Standards listed in the Standards section above. (25 points possible) Minimum 2 pages. (SLO 2,3&4)
 2. *Reading, Reflective Writing & Critical Thinking* – After reading all course materials, reflect on how this information might assist you in determining a plan of instruction for place value through addition and subtraction and the design of a child-centered and engaging curriculum plan based on specific student needs in your classroom. (25 points possible) Minimum 3 pages. (SLO 2,3&4)
 3. *Reading and Connecting to Standards*
Go to: <http://www.corestandards.org/the-standards> and review the Common Core State Standards in Mathematics for the grade level you are currently teaching. Review the introduction and continue through the entire sections for this grade level. Identify specific standards in the areas of place value and addition and subtraction. Review these standards and the suggested instructional methods shared for these areas of mathematics. Reflect on these standards and give specific examples of how you plan to apply these standards in your curriculum. (25 points possible) (minimum 2 pages) (SLO1)
- Keep this information for use later to be used in lesson plan assignments.
4. *Reading and Reflective Writing & Classroom Application* - Go to the Best Practices in Mathematics:
<http://www.eed.state.ak.us/tls/frameworks2/teachers/math/primary/best/research.shtml> sites to explore this incredible resource for applying Best Practices in the classroom. At this website, study each area of each of the sections listed. Click on each of the areas for additional information. Give a brief overview of how you will apply these Best Practices in your mathematics curriculum plan. (25 points possible) (minimum 2 pages) Be ready to apply these teaching techniques/strategies to the lesson plans you will be writing in assignments to follow. (SLO 2,3&4)
 5. *Classroom Application* - After reviewing the course materials, identify various activities that can be used to directly address place value, addition and subtraction standards for your grade level. Don't forget to review the Block & Arrow file on the CD. Select a minimum of 10 different activities from any of the course materials.

Connect to one or more of the teaching strategies/techniques from Best Practices you reviewed earlier. Review Design a matrix (see sample below) that shows the various connections and plans. See sample Matrix on this CD. (50 points possible)

Common Core Standard	Name of Activity	Best Practices Teaching Strategy

Instructor Contact #2: As soon as you have completed the matrix above, please your instructor by emailing a copy of this assignment to her. She will review these completed forms and let you know whether or not you are on track and will answer any questions you might have. (25 points possible)

6. *Reflective Writing and Classroom Application* - After identifying the 10 activities above, select 5 to present to a group of students, and complete a Reflective Writing Form for each of these activities. (Reflective Writing Forms are included in a separate file on the course CD) (50 points possible)

(Off Track students- teachers who are not currently in a classroom) review these activities– you do not need to teach these to a group of students – however you will need to review a total of 10 activities.) (50 points possible)

Describe how these activities connect to the Common Core State Standards and the Best Practices teaching strategies you reviewed earlier. (*SLO 1,2,3,&4*)

7. *Classroom Application & Critical Thinking* - Design one lesson plan (using the Lesson Plan Template included in a separate file on the course CD) to teach place value through addition and subtraction from the Common Core Standards for your grade level. Include the use of a children's literature selection that directly connects to the concept you are teaching. Implement the teaching strategies presented in the course text. Use the Thinking Skills Template (included on the course CD) to design discussion questions in each level of Thinking Skills within the lesson plans. Include the Best Practices strategies you are using as well. (75 points possible) (*SLO 1,2,3,&4*)
8. *Classroom Application* - Present 2 activities included in the course materials as learning games to a group of students. Reflect on the effectiveness of the format of games and how you would incorporate these in your math curriculum plan. These

Learning Games can be found on the course CD and through other resources. (25 points possible) (SLO 2 &4)

9. *Professional Application* - Prepare a PowerPoint presentation using a minimum of 10 slides that can be used to share with colleagues about strategies, techniques, and activities to teach place value- addition and subtraction; include teaching strategies, connections to standards, classroom set-up, Best Practices, and the hands-on teaching approach this course presents. OR prepare a Display Board that will inform parents about teaching strategies, techniques, etc. for teaching place value-addition and subtraction. (75 points possible) (SLO 1,2,3,&4)
10. *Reflective Writing* - Once you have presented the PowerPoint to colleagues, ask them to complete an evaluation form (included in course materials) to give you feedback on the presentation. Submit these forms and a summary of the results. OR after you have displayed the Parent information board for at least one week, write a summary of any discussions, comments, questions parents may have had regarding the information on the board. (25 points possible) (SLO 3&4)
11. Additional Resources – Go to:
<http://www.khanacademy.org/math/arithmetic/decimals/v/decimal-place-value> Select a couple of different topics relating to place value, click on the topic title and view the videos and other resources available. Reflect on how you might be able to use these with students. (25 points possible) (SLO 2 &4)
12. Reflective Writing – To culminate this learning experience, describe how the guiding documents; Common Core Standards, Best Practices, Professional Teaching Standards, course materials on teaching place value; addition and subtraction, Levels of Thinking Skills, and the course lesson plan template all connect together. Describe any new learning or new connections you were able to make through the assignments in this course. (50 points possible)

Instructor Contact #3: As soon as you have completed your presentation, please contact your instructor by emailing a copy of the PowerPoint or photos of the presentation board you have designed. She will review this presentation and discuss the results of your presentation to colleagues or parents, and will answer any questions you might have. (25 points possible)

It is expected that students spend a minimum of 30 hours of study and preparation per unit. This is a 3 unit course; thus 90+ hours of study and preparation is required.

Evidence of Learning

Student Learning Outcomes (SLO)	Assignments SLOs are Measured	Connecting Standards To SLOs and Assignments	Evidence of Learning
1.Students will identify, reflect on, and apply Common Core State Standards for the grade level they are teaching.	<i>Assignments 3, 5, 6, 7, 8,10, and 11</i>	<p><i>Common Core State Standards First Grade</i> <i>Number and Operations in Base Ten (1.NBT)</i></p> <p><i>Second Grade</i> <i>Operations and Algebraic Thinking (2.OA)</i> <i>Number and Operations in Base Ten (2.NBT)</i></p> <p><i>Third Grade</i> <i>Number and Operations (3.NBT)</i></p> <p><i>First through Third Grade</i> <i>Mathematical Practices</i></p>	<p>Through student's written assignments (Reflective Writing Forms) which connect specific course activities to the Common Core State Standards, and other guiding documents.</p> <p>Through the student prepared Making Connections Curriculum Matrix</p> <p>Through a student prepared PowerPoint presentation which presents connections to the standards identified throughout the course.</p>
2.Students will apply Best Practices and National Professional Teaching standards, through developmentally appropriate teaching strategies in their classroom.	<i>Assignments 4, 5, 6, 7, 8, 9, 10, and 11</i>	<p><i>National Professional Teaching Standards</i> Standards 1-5</p>	Through student's written reflection on the implications of content presented throughout the course including school policy, classroom resources, course lessons, and the design of lesson plans.

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3.Students will apply critical thinking skills and create opportunities for their classroom students to apply critical thinking skills.	<i>Assignments 1, 2, 4, 5, 6, 8, 10 and 11</i>	<i>Common Core State Standards First - Third Grade</i> • Mathematical Practices	Through student's written reflections on the course readings and the implications for their curriculum and teaching strategies. Through the design of opportunities for their classroom students to use critical thinking skills by designing discussion questions based on the Thinking Skills template provided.
4.Students will design lesson plans which address a specific Common Core Standard for their grade level, which reflect the methods and techniques described throughout the course.	<i>Assignments 1, 2, 5, 7, and 9</i>	<i>Common Core State Standards First – Third Grade</i> • Mathematical Practices	Through a student designed a lesson plan which addresses a specific Common Core State Math Standard for the first through third grade to teach place value: addition and subtraction which asks learners to apply two or more of the Mathematical practices within the CCSS. Through the student prepared Making Connections Curriculum Matrix
5.Students will reflect on their teaching.	<i>Assignments 1, 2, 4, 5, 6,7,8, 9, 10, and 11</i>	<i>National Professional Teaching Standards</i> Standards 1-5	Through student's written assignments (Reflective Writing Forms) which connect specific course activities to the Common Core State Standards. Through a student prepared PowerPoint presentation which presents connections to the Common Core Standards. Through a culminating reflection on the learning experience in this course.

Grading Policies and Rubrics

700 total points possible

630 – 700 = A

560 - 629 = B or Credit Grade

Below 560 points = no credit

The discernment between an A or a B is at the discretion of the instructor based on the quality of work submitted (see assignment rubric). Coursework falling short of a quality equaling a B or a Credit Grade will be returned with further instructions. All assignments must be completed in order to receive a grade. In addition, all assignments are expected to reflect the quality that teacher-training institutions require of professional educators. If completed assignments do not meet this standard, students will be notified with further instructions from the instructor.

Students successfully completing all assignments will earn a grade of **Credit** or where a letter grade is requested on the Grade Request form, a letter grade of **B** will be issued. Coursework falling short of a quality equaling a B will not receive credit.

Coursework is to be typed and in an organized, binder or folder format. Examples of classroom, student work or photos are welcomed but not required. Keep a copy of your coursework in the event something gets lost in the mail. If you would like your assignments returned, include a stamped, self-addressed envelope in which to do so. OR: If you prefer, assignments can be emailed to the instructor when all have been completed. Please include as many files as possible in a single email and follow up immediately with additional emails if more room is needed. Please place the course number: MAT 902 and your last name in the Subject area of the emails.

Final Course Grade and Transcripts

When all work for the course has been completed, students will need to logon to the Center for Professional Development website (<http://ce.fresno.edu/cpd>) to “Submit Grade Form”. Once the instructor fills out the grade form online, students may log back in to request their Grade Report as well as order transcripts online. Please allow at least two weeks for the final grade to be posted. For more information see the Independent Studies Policies and Procedures that were sent to you when you received your course materials, or in your online course. They are available, also at <http://ce.fresno.edu/cpd> - under General Information > CPD Policies.

GRADING RUBRIC for Evaluating Assignments

Assignment	Student Learning Outcomes (SLO)	Below Standard/ No Credit 90-90-100%	Standard credit/B	Superior/A
<i>Reflective Writing & Critical Thinking -</i> Read and reflect on the reading materials provided in the course materials. Within the reflection, discuss implications for your curriculum and teaching strategies in your classroom as it pertains to your school policy, classroom resources, and content standards. Relate these teaching practices to Best Practices and the Professional Teaching Standards listed in the Standards section above. (25 points possible) Minimum 2 pages. (SLO 2,3&4)	<i>SLO 2,3, 4 and 5</i>	(Less than 20 points) <ul style="list-style-type: none"> • Less than 80% of the key elements of the assignment are covered. • Page requirements were not met. • Incomplete submission of most items, vague and/or superficial information. 	(20-21 points) <ul style="list-style-type: none"> • 80-89% of the key elements of the assignment are covered in a substantive way; • Page requirements met. • Lacks full development of concepts. Beginnings of critical thinking; submission tends to simply summarize reading materials. Could be improved with more analysis and critical thinking. 	(22-25 points) <ul style="list-style-type: none"> • 90-100% of the key elements are covered in a substantive way; • Page requirements met • Demonstrates critical thinking, complete, accurate, and concise reflections, good grammar and spelling.
<i>Reflective Writing & Critical Thinking –</i> After reading all course materials, reflect on how this information might assist you in determining a plan of instruction for place value; addition and subtraction and the design of a child-centered and engaging	<i>SLO 2,3, 4 and 5</i>	(Less than 20 points) <ul style="list-style-type: none"> • Less than 80% of the key elements of the assignment are covered. • Page requirements 	(20-21 points) <ul style="list-style-type: none"> • 80-89% of the key elements of the assignment are covered in a substantive way; 	(22-25 points) <ul style="list-style-type: none"> • 90-100% of the key elements are covered in a substantive way; • Page requirements met

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curriculum plan based on specific student needs in your classroom. (25 points possible) Minimum 3 pages. (SLO 2,3&40		were not met. • Incomplete submission of most items, vague and/or superficial information.	<ul style="list-style-type: none"> • Page requirements met. • Lacks full development of concepts. Beginnings of critical thinking; submission tends to simply summarize reading materials. Could be improved with more analysis and critical thinking. 	<ul style="list-style-type: none"> • Demonstrates critical thinking, complete, accurate, and concise reflections, good grammar and spelling.
<p><i>Connecting to Standards</i> Go to: http://www.corestandards.org/the-standards and review the Common Core State Standards in Mathematics for the grade level you are currently teaching. Review the introduction and continue through the entire sections for this grade level. Identify specific standards in the areas of place value; addition and subtraction Review these standards and the suggested instructional methods shared for these areas of mathematics. Reflect on these standards and give specific examples of how you plan to apply these standards in your curriculum. (25 points possible) (minimum 2 pages) (SLO1)</p> <p>Keep this information for use later to be</p>	SLO 1	<p>(Less than 20 points)</p> <ul style="list-style-type: none"> • Less than 80% of the key elements of the assignment are covered. • Page requirements were not met. • Incomplete submission of assignment. 	<p>(20-21 points)</p> <ul style="list-style-type: none"> • Adequate connections to grade level standards were submitted through examples of how student will apply the standards in classroom curriculum. • Lacking in multiple examples of application of the standards. 	<p>(22-25 points)</p> <ul style="list-style-type: none"> • Strong connections to grade level standards were submitted through multiple examples of how student will apply the standards in classroom curriculum. • Page requirements met.

used in lesson plan assignments.)				
<p><i>Reflective Writing & Classroom Application</i> - Go to The Best Practices http://www.eed.state.ak.us/tls/frameworks2/teachers/math/primary/best/home.shtml and then to the Best Practices in Mathematics: http://www.eed.state.ak.us/tls/frameworks2/teachers/math/primary/best/research.shtml sites to explore this incredible resource for applying Best Practices in the classroom. At this website, study each area of each of the 10 sections listed. Click on each of the 10 areas for additional information. Give a brief overview of how you will apply these Best Practices in your mathematics curriculum plan. (25 points possible) (minimum 2 pages) Be ready to apply these teaching techniques/strategies to the lesson plans you will be writing in assignments to follow. (SLO 2,3&4)</p>	SLO 2,3, 4 and 5	<p>(Less than 20 points)</p> <ul style="list-style-type: none"> • Less than 80% of the key elements of the assignment are covered. • Incomplete submission of most items, vague and/or superficial information. 	<p>(20-21 points)</p> <ul style="list-style-type: none"> • 80-89% of the key elements of the assignment are covered in a substantive way; • Lacks full development of concepts. Beginnings of critical thinking; submission tends to simply summarize reading materials. • Could be improved with more analysis and critical thinking. 	<p>(22-25 points)</p> <ul style="list-style-type: none"> • 90-100% of the key elements are covered in a substantive way; • Demonstrates critical thinking, complete, accurate, and concise reflections, good grammar and spelling. • 10 Best Practices Sections were addressed.
<p><i>Classroom Application</i> - After reviewing the course materials, identify various activities that can be used to directly address place value; addition and</p>	SLO 1, 2,3, 4 and 5	<p>(Less than 40 points)</p> <ul style="list-style-type: none"> • Less than 80% of the major concepts for the assignment were defined. 	<p>(40-44 points)</p> <ul style="list-style-type: none"> • 80-89% of the major concepts for the assignment were defined. 	<p>(45-50 points)</p> <ul style="list-style-type: none"> • 90-100% of the major concepts for the assignment were met.

subtraction standards for your grade level. Select a minimum of 10 different activities. Connect to one or more of the teaching strategies/techniques from Best Practices you reviewed earlier. Review Design a matrix (see sample below) that shows the various connections and plans. See sample Matrix on this CD. (50 points possible)		<ul style="list-style-type: none"> • Less than 8 activities were reviewed with few connections to the Common Core Standards. • Few extensions/revisions were presented. 	<ul style="list-style-type: none"> • 10 activities were reviewed with connections to the Common Core Standards. • Some extensions/revisions were presented. 	<ul style="list-style-type: none"> • 10 activities were reviewed with strong connections to the Common Core Standards. • Creative and appropriate extensions/revisions were presented to meet the needs of students.
<p><i>Classroom Application</i> - After identifying the 10 activities above, select 5 to present to a group of students, and complete a Reflective Writing Form for each of these activities. (Reflective Writing Forms are included in a separate file on the course CD) (50 points possible)</p> <p>(Off Track students- teachers who are not currently in a classroom) review these activities– you do not need to teach these to a group of students – however you will need to review a total of 10 activities.) (50 points possible)</p> <p>Describe how these activities connect to the Common Core State Standards and the</p>	<i>SLO 1, 2,3, 4 and 5</i>	<p>(Less than 40 points)</p> <ul style="list-style-type: none"> • Less than 80% of the major concepts for the assignment were defined. • Less than 5 activities were reviewed with few connections to the Common Core Standards. • Few extensions/revisions were presented. 	<p>(40-44 points)</p> <ul style="list-style-type: none"> • 80-89% of the major concepts for the assignment were defined. • 5 -10 activities were reviewed with connections to the Common Core Standards. • Some extensions/revisions were presented. 	<p>(45-50 points)</p> <ul style="list-style-type: none"> • 90-100% of the major concepts for the assignment were defined. • 5 -10 activities were reviewed with strong connections to the Common Core Standards. • Creative and appropriate extensions/revisions were presented to meet the needs of students.

Best Practices teaching strategies you reviewed earlier. (SLO 1,2,3,&4)				
<i>Classroom Application & Critical Thinking</i> - Design one lesson plan (using the Lesson Plan Template included in a separate file on the course CD) to teach place value; addition and subtraction connected to the Common Core Standards for your grade level. Include the use of a children's literature selection that directly connects to the concept you are teaching. Implement the teaching strategies presented in the course text. Use the Thinking Skills Template (included on the course CD) to design discussion questions in each level of Thinking Skills within the lesson plans. Include the Best Practices strategies you are using as well. (75 points possible) (SLO 1,2,3,&4)	SLO 1, 2,3, 4 and 5	(Less than 60 points) <ul style="list-style-type: none"> • Less than 80% of the major concepts for the assignment were defined. • Less than 80% of the Lesson Plan Template was included. 	(60-67 points) <ul style="list-style-type: none"> • 80-89% of the elements of the Lesson Plan Template were included. 	(68-75 points) <ul style="list-style-type: none"> • 90-100% of the major concepts for the assignment were defined. • All elements of the Lesson Plan Template were included.
<i>Classroom Application</i> - Present 2 activities included in the text as learning games to a group of students. Reflect on the effectiveness of the format of games and how you would incorporate these in your math curriculum plan. These Learning Games can be found on the	SLO 1, 2,3, 4 and 5	(Less than 20 points) <ul style="list-style-type: none"> • A brief and unclear discussion of the effectiveness of learning games was presented. • A plan to incorporate games in the math 	(20-21 points) <ul style="list-style-type: none"> • An adequate discussion of the effectiveness of learning games was presented. • A plan to incorporate games in the math 	(22-25 points) <ul style="list-style-type: none"> • A clear and thorough discussion of the effectiveness of learning games was presented. • A clear and thorough plan to incorporate

course CD. (25 points possible) (<i>SLO 2 &4</i>)		curriculum was below standard in clarity and thoroughness.	curriculum was submitted	games in the math curriculum was submitted.
<i>Professional Application</i> - Prepare a PowerPoint presentation using a minimum of 10 slides that can be used to share with colleagues about strategies, techniques, and activities to teach place value- addition and subtraction; include teaching strategies, connections to standards, classroom set-up, Best Practices, and the hands-on teaching approach this course presents. OR prepare a Display Board that will inform parents about your techniques for teaching place value; addition and subtraction. (75 points possible) (<i>SLO 1,2,3,&4</i>)	<i>SLO 2, 4, and 5</i>	(Less than 60 points) <ul style="list-style-type: none"> • Less than 80% of the key elements of the Power Point or Display Board were submitted. • Presentation was unclear and below standard. 	(60-67 points) <ul style="list-style-type: none"> • 80-89% % of all key elements of the Power Point or Display Board were submitted. • Presentation was accurate, and thorough. • Presentation lacked creativity. 	(68-75 points) <ul style="list-style-type: none"> • 90-100% of all key elements of the Power Point or Display Board were submitted. • Presentation was creative, accurate, and thorough.
<i>Reflective Writing</i> - Once you have presented the PowerPoint to colleagues, ask them to complete an evaluation form (included in course materials) to give you feedback on the presentation. Submit these forms and a summary of the results. OR after you have displayed the Parent information board for at least one week, write a summary of any discussions,	<i>1, 2,3, 4 and 5</i>	(Less than 20 points) <ul style="list-style-type: none"> • A summary was submitted. • Submission lacked clarity and thoroughness. 	(20-21 points) <ul style="list-style-type: none"> • A clear and thorough summary was submitted. • Feedback forms were submitted. • Critical Thinking Skills were lacking in the reflection within this assignment. 	(22-25 points) <ul style="list-style-type: none"> • A clear and thorough summary was submitted. • Feedback forms were submitted. • Critical Thinking Skills were applied to the reflection on this assignment.

comments, questions parents may have had regarding the information on the board. (25 points possible) (<i>SLO 3&4</i>)				
Reflective Writing – To culminate this learning experience, describe how the guiding documents; Common Core Standards, Best Practices, Professional Teaching Standards, course materials on teaching place value; addition and subtraction, Levels of Thinking Skills, and the course lesson plan template all connect together. Describe any new learning or new connections you were able to make through the assignments in this course. (50 points possible)	<i>SLO 3, 4, and 5</i>	(Less than 40 points) <ul style="list-style-type: none"> • A summary was submitted. • Submission lacked clarity and thoroughness. 	(40-44 points) <ul style="list-style-type: none"> • A clear and thorough summary was submitted which included most of the required guiding documents and connections to assignments listed in assignment directions. • Critical Thinking Skills were lacking in the reflection within this assignment. 	(45-50 points) <ul style="list-style-type: none"> • A clear and thorough summary was submitted which included all the required guiding documents, and connections to assignments listed in assignment directions.. • Critical Thinking Skills were applied to the reflection on this assignment.
<i>Instructor Contacts x 3</i> Students will initiate a minimum of 3 contacts with the instructor as directed in the Schedule of Assignments. Students will respond to any contacts initiated by the instructor throughout the course. 25 points possible for each student required contact	<i>SLO 5</i>	(Less than 60 points) <ul style="list-style-type: none"> • Students did not initiate contacts with instructor. • Students did not respond to most instructor contacts. These assignments cannot be made up once the course is over. 	(60-67 points) <ul style="list-style-type: none"> • Students initiated a minimum of 3 required contacts. • Students responded to many of the instructor contacts. 	(68-75 points) <ul style="list-style-type: none"> • Students initiated all required contacts. • Students responded to all instructor contacts.

TOTAL POINTS - 700

Course Number and Title: MAT 902 Addition/Subtraction with Regrouping/Place Value
Instructor: Dianne Young
Date of Revision 5/25/16

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Grading Options

Course participants have the option of requesting a letter grade or a credit/no credit when submitting the online grade form. Students will submit grade form when coursework has been completed. See attached file for instructions for requesting a final grade.

Instructor/Student Contact

It is important in a distance learning course for students to feel connected to their instructor. Please do not hesitate to contact your instructor. If for some reason you do not receive a reply to an email in a timely manner, please call, as sometimes student emails are placed in a Quarantined or Spam folder by the university filtering system and I do not see the message.

Distance Learning Courses:

There are 3 Instructor contacts required of the students in this course. (see Schedule of Assignments above). These contacts are designed to give students the opportunity to discuss specific assignments with the instructor throughout the course. It is important for students to make these contacts at the designated sequence of the schedule of the course to avoid completing assignments incorrectly.

References/ Resources

Academic Benchmarks <http://www.academicbenchmarks.com/search/> The Free K-12 Academic Standards Digital Library for all state standards.

Common Core State Standards Initiative <http://www.corestandards.org/the-standards>
Includes the Common Core State Standards in Mathematics for all grade levels.

Critical Issue: Providing Hands-On, Minds-On, and Authentic Learning Experiences in Mathematics. (1995).
<http://www.ncrel.org/sdrs/areas/issues/content/cntareas/math/ma300.htm>

Didax Educational Standards <http://www.didax.com/standards/> Includes standards in the following areas: Mathematics, English/Language Arts, Visual and Performing Arts, Technology, Science, Social Studies, Health, and more.

Educational World: National Education Standards <http://www.education-world.com/standards/national> includes links to both national and state standards in different areas of the curriculum.

Shunk, D.M., Pintrich, P.R., & Meece, J.L. (2008). *Motivation in education: Theory, research, and applications*. Upper Saddle River, NJ: Pearson Merrill/Prentice Hall.

Mid-continent Research for Education and Learning (MCREL) www.mcrel.org/standards-benchmarks A compendium of content standards and benchmarks for K-12 education in both searchable and browsable formats.

National Professional Teaching Standards <http://www.nbpts.org>. Five areas are addressed throughout the course materials. Students are asked to apply these standards in their teaching practices.

Plagiarism and Academic Honesty

All people participating in the educational process at Fresno Pacific University are expected to pursue honesty and integrity in all aspects of their academic work. Academic dishonesty, including plagiarism, will be handled according to the procedures set forth in the Fresno Pacific University Catalogue. URL <http://www.fresno.edu>.

CONTINUING EDUCATION PROGRAM STUDENT LEARNING OUTCOMES:

CE 1. Demonstrate proficient written communication by articulating a clear focus, synthesizing arguments, and utilizing standard formats in order to inform and persuade others, and present information applicable to targeted use.
CE 2. Demonstrate comprehension of content-specific knowledge and the ability to apply it in theoretical, personal, professional, or societal contexts.
CE 3. Reflect on their personal and professional growth and provide evidence of how such reflection is utilized to manage personal and professional improvement.
CE 4. Apply critical thinking competencies by generating probing questions, recognizing underlying assumptions, interpreting and evaluating relevant information, and applying their understandings to the professional setting.
CE 5. Reflect on values that inspire high standards of professional and ethical behavior as they pursue excellence in applying new learning to their chosen field.
CE 6. Identify information needed in order to fully understand a topic or task, organize that information, identify the best sources of information for a given enquiry, locate and critically evaluate sources, and accurately and effectively share that information.

FRESNO PACIFIC UNIVERSITY STUDENT LEARNING OUTCOMES

Student Learning Outcomes Oral Communication: Students will <i>exhibit</i> clear, engaging, and confident oral communication – in both individual and group settings – and will critically <i>evaluate</i> content and delivery components.
Written Communication: Students will <i>demonstrate</i> proficient written communication by

<i>articulating</i> a clear focus, <i>synthesizing</i> arguments, and utilizing standard formats in order to <i>inform</i> and <i>persuade</i> others.
Content Knowledge: Students will <i>demonstrate</i> comprehension of content-specific knowledge and the ability to apply it in theoretical, personal, professional, or societal contexts.
Reflection: Students will <i>reflect</i> on their personal and professional growth and <i>provide evidence</i> of how such reflection is utilized to manage personal and vocational improvement.
Critical Thinking: Students will <i>apply</i> critical thinking competencies by <i>generating</i> probing questions, <i>recognizing</i> underlying assumptions, <i>interpreting</i> and <i>evaluating</i> relevant information, and <i>applying</i> their understandings to new situations.
Moral Reasoning: Students will identify and apply moral reasoning and ethical decision-making skills, and articulate the norms and principles underlying a Christian world-view.
Service: Students will demonstrate service and reconciliation as a way of leadership.
Cultural and Global Perspective: Students will identify personal, cultural, and global perspectives and will employ these perspectives to evaluate complex systems.
Quantitative Reasoning: Students will accurately compute calculations and symbolic operations and explain their use in a field of study.
Information Literacy: Students will identify information needed in order to fully understand a topic or task, explain how that information is organized, identify the best sources of information for a given enquiry, locate and critically evaluate sources, and accurately and effectively share that information.

Course Number and Title: MAT 902 Addition/Subtraction with Regrouping/Place Value
Instructor: Dianne Young
Date of Revision 5/25/16

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Instructor: Dianne Young

Date of Revision 5/25/16

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