





Independent Study Course Syllabus

Course Number: MAT 900

Course Title: Math Activities for Primary Grades

☐ Online X Correspondence

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Units: 3 Grade L

Grade Level: 1-3

Course Description

The activities in this course are designed to serve as reviews, diagnostic aids, and remedial teaching tools for teachers who are working with students in grades one, two, and three. Using a variety of high-interest formats that can easily be adapted for different achievement levels and concept areas, teachers are provided with an easy-to-use and understand resource that is also useful for introducing new skills and preparing students for achievement testing. The activities in Math Activities for the Primary Grades cover numeration, reading numbers, place value, addition, subtraction, multiplication, time, money, fractional numbers, and problem solving. The teacher-friendly formats are designed for active participation of all students in both small group and whole class lessons. Many of the activities can also be used for peer and cross age tutoring situations and as homework assignments to encourage parental involvement. Each of the activities has an accompanying teacher's page that states the objective, indicates a procedure, and gives suggestions for adapting the activity to higher or lower achievement levels. The concept and skill areas presented in this course are aligned with national, state, and local guidelines. In addition, the lessons are easily integrated into existing mathematics programs.

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

The course materials may be found on the USB Flash Drive. All files are PDF's and you will need the free Adobe reader to view the files if you do not have Adobe Acrobat installed on your computer http://get.adobe.com/reader/.

The following items are on the USB Flash Drive:

- The Course Manual, *Math Activities for the Primary Grades*, is a rather large PDF file that may take a few minutes to download.
- The **Recorded Drill Activities** are one of the options and are detailed in the course manual. These lessons are excellent for auditory learners, and strengthen listening skills in all learners while providing practice with the addition and subtraction combinations. These activities are mp3's and may be found on the USB Flash Drive along with the instructions for downloading and listening to the files.
- The **Primary Math Games and Activities** folder on the USB Flash Drive contains various learning games and activities appropriate for 1st through 3rd grade students. The majority of these activities are colorful game boards that may be printed and laminated for use in centers and small groups.

In addition to the course manual, *Math Activities for the Primary Grades* and the other learning activities found on the USB Flash Drive, the course materials consist of:

- Chip Pack with Spinners
 - Vinyl Clock
 - General Information and Instructions
 - o Instructions for submitting online Grade Form
 - o Procedure for Completing Coursework
 - o General Information

NOTE: The course manual is in a PDF format. Users will need the <u>free Acrobat reader</u> to open and view the files (http://get.adobe.com/reader/)

Online Resources

Relevant online resources that support course content and encourage further investigation.

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.

Course Requirements

The course is divided into seven units of study. In each unit, participants will explore the use of games in the classroom through:

• Standards Based Instruction

- Learning Activities
- Activity Development
- Collaboration
- Article Review
- Reflective Essay
- Research Based Instructional Activity

Every assignment has a rubric. Most participants are successful on their assignments because they align their work to the rubric, and assignments can be corrected and resubmitted.

National and Common Core Standards

In an effort to enhance the learning experiences, as well as demonstrate knowledge, skills, abilities, and commitment, teachers will infuse the five core propositions set forth by The National Board for Professional Teaching Standards in their teaching practices. This will be accomplished as teachers successfully implement appropriate activities in their classroom and reflect upon the experience. In addition, teachers will be networking with their colleagues as part of a learning community.

National Board for Professional Teaching Standards(http://www.nbpts.org/)

- 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 experience.
- 5. Teachers are members of learning communities.

National Standards

The activities in the course manual, *Math Activities for the Primary Grades*, focus on the standards at the core of a solid mathematics instructional program for primary students as published in the by the National Council of Teachers of Mathematics in the *Principles and Standards for School Mathematics* (http://standards.nctm.org/).

Common Core Standards

The Common Core State Standards Initiative is a state-led effort coordinated by the National Governors Association Center for Best Practices (NGA Center) and the Council of Chief State School Officers (CCSSO). The goal of this initiative is to develop a common core of state standards in English-language arts and math in grades K-12. The point of this effort is simple: improving teaching and learning to ensure that high school graduates in every part of the nation have the knowledge and skills they need for college or a career. The Common Core Standards are both research and evidence-based as well as internationally benchmarked. These standards define the knowledge and skills students should have within their K-12 education careers so that they will graduate high school fully prepared for college and careers.

Though the program is optional, states that adopt it are more likely to receive Race to the Top federal dollars.

Common Core State Standards Initiative

http://www.corestandards.org/the-standards

The standards are:

- Aligned with college and work expectations.
- Clear, understandable and consistent.
- Include rigorous content and application of knowledge through high-order skills.
- Build upon the strengths and lessons of current state standards.
- Informed by other top performing countries so that all students are prepared to succeed in our global economy and society.
- Evidence and researched based.

As you create lessons for your students you will be exploring National, State, District, or the Common Core Standards and identify how the lessons and activities you implement and develop align with those standards.

Schedule of Topics and Assignments

Assignments are available for use with or without student participation.

Schedule of Topics		Assignments	
Unit 1	Standards-Based Instruction (SLO 1,7)	 Locate and explore relevant standards Reflect upon how standards guide teaching practices 	
Unit 2	Learning Activities (SLO 1,2,3,5,7)	 Identify activities in the course content appropriate for the level of the students in your classroom Align each of the activities to national, state, or district standards Implement the activities and complete a reflection for each one assessing the results 	
Unit 3	Activity Development (SLO 1,2,3,4,7,8)	Design and develop one activity that infuses reading or math with another subject area	
Unit 4	Teacher Collaboration	Promote staff interaction and collaboration through the sharing of ideas and relevant	

Schedule of Topics		Assignments	
	(SLO 9)	teaching practices	
Unit 5	Article Review (SLO 6,9)	Review and analyze current trends in reading education specifically related to your teaching situation	
Unit 6	Reflective Essay (SLO 8)	Reflect upon the course content and analyze the implications for teaching	
Unit 7	Research-based Activity (SLO 1,2,3,4,7,8)	Using any of the formats listed in the assignments, or any that you have created, design an activity for use in your classroom that incorporates one of the strategies outlined by Richard Marzano	

Evidence of Learning

- Course instructor observed evidence of understanding of course objectives as demonstrated through students' presentation of their knowledge of course concepts guided by focus questions.
- Course instructor observed evidence of understanding of course objectives as demonstrated through students' reflective writing assignments.
- Course instructor observed evidence of understanding of course objectives as demonstrated through students' correlation of the activities to state, national, or district standards.
- Student demonstrated their understanding of appropriate strategies of using games in the classroom through the design of lessons for classroom implementation.
- Student demonstrated their understanding of integrating other subject areas into the teaching of reading through the suggestions described in each lesson.

Grading Policies and Rubrics

100 total points possible 100 - 90 = A 89 - 70 = B or Credit Grade Below 70 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.

- 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.

Major Assignments

1.	Standards Correlation	20 points
2.	Learning Activities	30 points
3.	Activity Development	10 points
4.	Teacher Collaboration	10 points
5.	Article Review	10 points
6.	Final Reflection	10 points
7.	Research-Based Activity	10 points

Rubric for Evaluating Assignments

Students will be graded using a rubric for evaluating each objective.

The point value for each assignment is at the discretion of the instructor based on the quality of the work submitted.

Assignments	Sub-Standard	Standard	Superior
Standards	State or national	State or national	State or national
Correlation	standards were	standards for the	standards for the
20 points	minimally explored and	appropriate grade level	appropriate grade level
	connected to the	were explored,	were thoroughly
Superior=20-	activities in the course	connections were	explored, connections
17	content, presentation	presented and	were presented and
Standard=16-	lacks organization and	sufficiently connected to	connected to course
14	comprehension, writing	course content,	content, presentation is
Sub-	contains noticeable	presentation is adequate,	comprehensive, very
standard=13-	mistakes in grammar and	writing is acceptable	well organized, writing
11	spelling.	with very few mistakes	is clear, succinct, and
		in grammar and spelling.	reflects graduate level
			expectations.

Assignments	Sub-Standard	Standard	Superior
Learning	All required activities	All required activities	All or more of the
Activities	were implemented,	were implemented,	required activities were
30 points	standards were	standards were correlated	implemented, standards
_	correlated to less than	to most of the activities,	were correlated to all
Superior=30-	half of the activities,	the objectives were	activities, objectives
27	objectives were missing	adequately stated but not	were specific and stated
Standard=26-	or vague, reflections	always specific,	in terms of observable
24	contained a minimal	reflections were	learner outcomes,
Sub-	description of the	generally clear but did	reflections were
standard=23-	grouping, procedures,	not always	comprehensive and
21	and few or no	comprehensively	included observations of
	observations,	describe the groupings,	what went well or
	suggestions,	and procedures, very few	problems encountered,
	modification, or student	suggestions,	there was a clear and
	reactions were	modifications,	concise description of
	explained, writing	observations, or student	the groupings, the
	contains noticeable	reactions were included,	procedure, and
	mistakes in grammar and	writing is acceptable	suggestions,
	spelling.	with very few mistakes	modifications, and
		in grammar and spelling.	student reactions were
			explained when
			appropriate, writing is
			clear, succinct, and
			reflects graduate level
			expectations.
Activity	Vague description of the	Clear, and detailed	Comprehensive, clear,
Development	activity is defined,	description of the activity	and detailed description
10 points	activity is somewhat	is defined, activity is	of the activity is
	linked to a skill, and	linked to a skill,	defined, activity is
Superior=10-9	objective, subject	objective and infuses	clearly linked to a
Standard=8	infusion is unclear,	another subject area,	specific skill, objective
Sub-	target audience, learning	target audience, learning	and infuses another
standard=7	materials and a	materials and a	subject area, target
	description of the	description of the	audience, learning
	processes, procedures	processes, procedures	materials and a
	and an analysis of the	and an analysis of the	description of the
	activity unclear, writing	activity is presented,	processes, procedures
	contains noticeable	writing is acceptable	and an analysis of the
	mistakes in grammar and	with very few mistakes	activity is thoroughly
	spelling.	in grammar and spelling.	presented, writing is
			clear, succinct and
			reflects graduate level
			expectations.

Assignments	Sub-Standard	Standard	Superior
Teacher	Two activities were	Two activities were	Two or more activities
Collaboration	shared, summary is	shared, there is an	were shared, summary is
10 points	vague and lacks a	adequate description of	comprehensive, concise
	detailed description of	the experience,	and a detailed
Superior=10-9	the experience, few or	comments from the	description of the
Standard=8	no comments or	teachers as well as	experience is clearly
Sub-	suggestions from the	suggestions for	presented, comments
standard=7	teachers were included,	adaptations or	from the teachers were
	it is not clear as to	modifications in the	included as well as
	whether or not the	activities were minimally	suggestions for
	teachers found the	presented, it is vague as	adaptations or
	activities valuable,	to whether or not the	modifications in the
	writing contains	teachers found the	activities, it is clear as to
	noticeable mistakes in	activities valuable,	whether or not the
	grammar and spelling.	writing is acceptable	teachers found the
		with very few mistakes	activities valuable,
		in grammar and spelling.	writing is clear, succinct
			and reflects graduate
			level expectations.
Article	The topic of the article is	The topic of the article	The topic of the article
Review	marginally appropriate	adequately applies to the	is highly appropriate to
10 points	to the content of the	content of the course and	the content of the course
	course and the teaching	the teaching situation,	and the teaching
Superior=10-9	situation, critique is	critique is generally well	situation, critique is
Standard=8	vague and disjointed,	organized, few examples	comprehensive and very
Sub-	few or no examples are	are provided for	well organized, specific
standard=7	provided for classroom	classroom application,	examples are provided
	application, writing	writing is acceptable	for classroom
	contains noticeable	with very few mistakes	application, writing is
	mistakes in grammar and	in grammar and spelling.	clear and succinct and
	spelling.		reflects graduate level
			expectations.

Assignments	Sub-Standard	Standard	Superior
Reflective	Reflection is vague in	Reflection is specific to	Reflection displays
Essay	relation to the strategies	strategies presented in	critical thinking that is
10 points	presented in the course,	the course, there is	clear, concise, and
1	lacks a description of the	adequate description of	specific to the strategies
Superior=10-9	classroom environment,	the classroom	presented in the course,
Standard=8	with little or no	environment, student	a comprehensive
Sub-	indication of student	reaction, as well as plans	description of the
standard=7	participation or plans for	for future	classroom environment,
	future implementation,	implementation, and	the reaction of the
	and writing contains	writing is acceptable	students, and plans for
	noticeable mistakes in	with very few mistakes	future implementation
	grammar and spelling.	in grammar and spelling.	are included, and
			writing is clear and
			succinct and reflects
			graduate level
			expectations.
Research-	Vague description of the	Clear, and detailed	Comprehensive, clear,
Based	activity is defined,	description of the	and detailed description
Activity	activity is somewhat	instructional activity is	of the instructional
10 points	linked to a skill,	defined, activity is	activity is defined,
	objective, and research-	linked to a skill,	activity is clearly linked
Superior=10-9	based instructional	objective, and research-	to a specific skill,
Standard=8	strategy, target audience,	based instructional	objective, and research-
Sub-	learning materials and a	activity, target audience,	based instructional
standard=7	description of the	learning materials and a	activity, target audience,
	processes, procedures	description of the	learning materials and a
	and an analysis of the	processes, procedures	description of the
	activity is unclear.	and an analysis of the	processes, procedures
		activity is presented.	and an analysis of the
			activity is thoroughly
			presented.

Writing Requirements

Superior: Writing is clear, succinct, and reflects graduate level expectations. Standard: Writing is acceptable with very few mistakes in grammar and spelling. Sub-standard: Writing contains noticeable mistakes in grammar and spelling.

Grading Options

Course assignments are graded with the use of a Scoring Rubric. Course participants have the option of requesting a letter grade or a credit/no credit.

Instructor/Student Contact

Built into the course requirements are several contacts between the course instructor and the students via phone, fax, or email. Questions are addressed and assistance is offered through these

contacts, however, students are encouraged to contact the instructor at anytime throughout the course to discuss the materials, assignments, or any questions that they may have.

How to send Email:

The subject line of all Email must contain the following information:

course number your last name, first initial.

example: MAT 900 Bennett, M.

Email sent without this subject line will not be opened.

If you have to leave a message, please leave your name, the course number, and any questions you may have along with a phone number so that we may return your call.

The required contacts are as follows:

- Carefully examine the course materials and the assignments. Contact the course instructor
 via phone or email after you have gone through the course material and when you are
 ready to begin the assignments. Indicate the grade level that you teach, how you are
 going to implement the activities, and ask any questions that you may have regarding the
 course. In addition, you are encouraged to contact the instructor at any time to discuss the
 assignments or ask for clarification.
- Upon completion of the first two activities selected from the course content, send the reflections to the course instructor via email or fax. The instructor will contact you for assessment and feedback. Do not fax or email anything other than the first two activities, the remaining coursework will be sent via regular mail upon completion of all the assignments.
- Upon receipt of your completed assignments the instructor will contact you via phone or email to confirm course completion and discuss the coursework.

References/ Resources

Delicious

(http://delicious.com/maryebennett)

This link is to my social bookmarking site. This site is constantly growing with relevant and valuable resources for teachers. You will find links to articles about using Games in the Classroom on this site.

Marzano, R., Pickering, D., Pollock, J. 2001 <u>Classroom Instruction That Works: Research-Based Strategies for Increasing Student Achievement</u> (http://www.mcrel.org/citw). Association for Supervision and Curriculum Development.

<u>Classroom Instruction that Works</u> (http://mcrel.org/citw)

National Council of Teachers of Mathematics (http://www.nctm.org/)

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.

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 *exhibit* clear, engaging, and confident oral communication – in both individual and group settings – and will critically *evaluate* content and delivery components.

Written Communication: Students will *demonstrate* proficient written communication by *articulating* a clear focus, *synthesizing* arguments, and utilizing standard formats in order to *inform* and *persuade* others.

Content Knowledge: Students will *demonstrate* comprehension of content-specific knowledge and the ability to apply it in theoretical, personal, professional, or societal contexts.

Reflection: Students will *reflect* on their personal and professional growth and *provide evidence* of how such reflection is utilized to manage personal and vocational improvement.

Critical Thinking: Students will *apply* critical thinking competencies by *generating* probing questions, *recognizing* underlying assumptions, *interpreting* and *evaluating* relevant information, and *applying* 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.