

Independent Study Online Course Syllabus

Course Number: MAT 901A

Course Title: Mat Activities for the Intermediate Grades - Online

X Online ☐ Correspondence

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5876 E. Powers, Clovis, CA 93619

Units: 3

Grade Level: 4-6

Course Description

The activities in this online course are designed to serve as reviews, diagnostic aids, and remedial teaching tools for teachers who are working with students in grades four, five, and six. Integrating theory and practice, this course presents innovative teaching strategies utilizing a variety of high-interest formats. The learning experiences are easily adaptable to meet the various learning styles and needs as well as prepare students for achievement testing. The activities in *Math Activities for the Intermediate Grades* cover numeration, reading numbers, place value, addition, subtraction, multiplication, time, money, measurement, fractional numbers, decimals, and problem solving. Course participants will also have the chance to interact with the instructor and their classmates in the online environment as they complete assignments. The teacher-friendly formats are designed for active participation of all students in both small group and whole class lessons. 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.

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.

Moodle:

This course will be delivered totally online. Moodle is a learning management system that provides students access to online resources, documents, graded assignments, quizzes, discussion forums, etc. with an easy to learn and use interface. To learn more about Moodle go to: (http://docs.moodle.org/en/Student_tutorials). There are some student tutorials on the Center for Online Learning website at Fresno Pacific University – <http://col.fresno.edu/student>.

Moodle Site Login and passwords – (or other online course access information)

Students will need to have internet access to log onto <http://ce-connect.fresno.edu>. The username and password numbers for Moodle access will be sent to you by the university using the email address you submitted at the time of registration. The instructor will then contact you with a welcome letter and login instructions. If you need help with the username and password recovery please contact the Center for Professional Development at (800)372-5505, or (559)453-2000 during regular office hours - Mon-Fri 8:00 am to 5:00 pm.

Getting Help with Moodle:

If you need help with Moodle, please contact the Center for Online Learning (COL), by telephone 1-559-453-3460. Help by phone is available Mon-Thurs 8:00 am to 8:00pm and on Fridays from 8:00 am to 5:00 pm, or by filling out a “Request Services” form at <http://col.fresno.edu/contact/request-services>. Please identify that you are with the Continuing Education/Independent Studies department.

Course Materials

- **Math Activities for the Intermediate Grades** by Curriculum Services Associates is a collection of 30 math activities appropriate for use in the intermediate grades. Please download and print the PDF file. ***NOTE: The course manual is in a PDF format. Users will need the [free Acrobat reader](http://get.adobe.com/reader/) to open and view the files*** (<http://get.adobe.com/reader/>)
- **Chip Pack**, which includes colored transparent vinyl chips and pawns to be used as markers for many of the activities and a clear vinyl spinner that can be used on the

Overhead Projector or with a Document Camera. This will arrive in the mail following registration.

Online Resources

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

Discussion Forums

Participation is an important expectation of this course and all online courses. Online discussions promote reflection and analysis while allowing students to appreciate and evaluate positions that others express. While students may not be engaging with the same students throughout this course they will be expected to offer comments, questions, and replies to the discussion question whenever possible. The faculty role in the discussion forum is that of an observer and facilitator.

The Online Environment

An integral part of this course is the online environment in which course participants will have the opportunity to network with other teachers as part of a community of learners. Course participants will contribute to threaded discussions as they share methods, ideas, and relevant resources.

If you do not feel comfortable in the online environment, you may take this course in the traditional independent-study format. If you would like to do this, please contact the course instructor.

Course Requirements

The course is divided into seven units of study. In each unit, participants will explore strategies and techniques for teaching mathematics through:

- Standards Based Instruction
- Learning Activities
- Activity Development
- Collaboration
- Article Review
- Reflective Essay

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

As students progress through this course they will be responsible for identifying and aligning course content to state or national math standards. In addition, they will reflect upon how the standards affect and guide teaching practices.

Many of the activities in the course, *Math Activities for the Intermediate Grades*, focus on the standards at the core of a solid mathematics instructional program for intermediate 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.

| <i>Schedule of Topics</i> | | <i>Assignments</i> |
|----------------------------------|---|--|
| Unit 1 | Standards-Based Instruction (SLO 1,7) | <ul style="list-style-type: none"> • Locate and explore relevant standards • Reflect upon how standards guide teaching practices |
| Unit 2 | Learning Activities (SLO 1,2,3,5,7) | <ul style="list-style-type: none"> • 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) | <ul style="list-style-type: none"> • Design and develop one activity that infuses reading or math with another subject area |
| Unit 4 | Teacher Collaboration (SLO 6) | <ul style="list-style-type: none"> • Promote staff interaction and collaboration through the sharing of ideas and relevant teaching practices |
| Unit 5 | Article Review (SLO 6,9) | <ul style="list-style-type: none"> • Review and analyze current trends in reading education specifically related to your teaching situation |
| Unit 6 | Reflective Essay (SLO 8) | <ul style="list-style-type: none"> • Reflect upon the course content and analyze the implications for teaching |
| Unit 7 | Create a Game (SLO 1,2,3,4,7,8) | <ul style="list-style-type: none"> • Create-A-Game - Math or Language: Using any of the formats listed in the assignments, or any that you have created, design a game |

| <i>Schedule of Topics</i> | | <i>Assignments</i> |
|---------------------------|--|---------------------------|
| | | for use in your classroom |

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 for teaching math in the classroom through the design of lessons for classroom implementation.
- Student demonstrated their understanding of integrating other subject areas into the teaching of math through the suggestions described in each lesson.
- Student demonstrated their understanding of research-based instructional strategies through the design of an appropriate mathematics activity.
- Student demonstrated their understanding of the value of peer collaboration through their reflection of a sharing experience.
- Student demonstrated the use of critical thinking through asynchronous communication as they connected real-life classroom situations to the course content,
- Student demonstrated reflective teaching practices through connections to course assignments and primary learning outcomes as described in a reflective essay.

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>.

Grading Policies and Rubrics

100 total points possible

100 – 90 = A

89 – 70 = B or Credit Grade

Below 70 points = no credit

| Assignments | Sub-Standard | Standard | Superior |
|--|---|--|--|
| Learning Activities and Standards Correlation 30 possible points Superior=30-27 Standard=26-24 Sub-standard=below 23 | 15 activities were implemented, standards were correlated to less than 10 of the activities, objectives were missing or vague, reflections contained a minimal description of the grouping, procedures, and few or no observations, suggestions, modification and subject integration, or student reactions were explained. | 15 activities were implemented, standards were correlated to most of the activities, the objectives were adequately stated but not always specific, reflections were generally clear but did not always comprehensively describe the groupings, and procedures, very few suggestions, modifications and subject integration, observations, or student reactions were included. | 15 or more activities were implemented, standards were correlated to all activities, objectives were specific and stated in terms of observable learner outcomes, reflections were comprehensive and included observations of what went well or problems encountered, there was a clear and concise description of the groupings, the procedure, and suggestions, modifications, appropriate subject integration, and student reactions were explained when appropriate. |
| Activity Development 10 possible points | Vague description of the activity is defined, activity somewhat infuses another subject | Clear, and detailed description of the activity is defined, activity is infused with | Comprehensive, clear, and detailed description of the activity is defined, activity is |

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| Superior=10-9 Standard=8 Sub-standard=7 | area and is vaguely linked to a skill and objective, target audience and researched-based instructional strategy, learning materials and a description of the processes, procedures and an analysis of the activity unclear, activity is not easily accessible through the appropriate Discussion Board. | another subject area and the skill and objective, target audience and research-based instructional strategies are presented, learning materials and a description of the processes, procedures and an analysis of the activity is defined, activity is accessible through the appropriate Discussion Board. | clearly infused with another subject area and linked to a specific skill, objective, target audience and research-based instructional strategies are presented, learning materials and a description of the processes, procedures and an analysis of the activity is thoroughly defined, activity is easily accessible through the appropriate Discussion Board. |
| Teacher Collaboration 10 possible points Superior=10-9 Standard=8 Sub-standard=7 | Two activities were shared, summary is vague and lacks a detailed description of the experience, few or no comments or suggestions from the teachers were included, it is not clear as to whether or not the teachers found the activities valuable. | Two activities were shared, there is an adequate description of the experience, comments from the teachers as well as suggestions for adaptations or modifications in the activities were minimally presented, it is vague as to whether or not the teachers found the activities valuable. | Two or more activities were shared, summary is comprehensive, concise and a detailed description of the experience is clearly presented, comments from the teachers were included as well as suggestions for adaptations or modifications in the activities, it is clear as to whether or not the teachers found the activities valuable. |
| Article Review 10 possible points Superior=10-9 Standard=8 Sub-standard=7 | The topic of the article is marginally appropriate to the content of the course and the teaching situation, critique is vague and disjointed, few or no examples are provided for classroom application. | The topic of the article adequately applies to the content of the course and the teaching situation, critique is generally well organized, few examples are provided for classroom application. | The topic of the article is highly appropriate to the content of the course and the teaching situation, critique is comprehensive and very well organized, specific examples are provided for classroom application. |
| Reflective Essay 10 possible | Reflection is vague in relation to the strategies presented in the course, | Reflection is specific to strategies presented in the course, there is | Reflection displays critical thinking that is clear, concise, and |

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| points Superior=10-9 Standard=8 Sub-standard=7 | lacks a description of the classroom environment, with little or no indication of student participation or plans for future implementation and there is not a connection between course assignments and primary learning outcomes. | adequate description of the classroom environment, student reaction, as well as plans for future implementation and a connection between the course assignments and the primary learning outcomes is presented. | specific to the strategies presented in the course, a comprehensive description of the classroom environment, the reaction of the students, and plans for future implementation are included, a clear connection between the course assignments and the primary learning outcomes is presented. |
| Discussion Forums 30 points possible Superior=30-27 Standard=26-24 Sub-standard=below 23 | Less than 100% of Discussion Forum assignments were completed, postings minimally responded to the question and the information is superficial without any evidence of insight or analysis, may be completely off topic, no connections are made to content or real-life situations, attachments are missing as described in the assignments. | 100% of all Discussion Forum assignments were completed, postings respond to the question and deliver information that demonstrate insight, thought, and analysis, connections are sufficiently made to previous or current content or to real-life situations, attachments are present as described in the assignments. | 100% of all Discussion Forum assignments were completed, postings fully addressed the question and deliver information that is full of insight, thought, and analysis, connections are made to previous or current content or to real-life situations, appropriate attachments are present as described in the assignments. |

- 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

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| 1. Standards Correlation | 20 points |
| 2. Learning Activities | 30 points |
| 3. Activity Development | 10 points |

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| 4. Teacher Collaboration | 10 points |
| 5. Article Review | 10 points |
| 6. Final Reflection | 10 points |
| 7. Discussion Forums | 10 points |

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: MAT901A 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.

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.

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

[McRel Mid-continent Research for Education and Learning](http://www.mcrel.org/standards-benchmarks/) (<http://www.mcrel.org/standards-benchmarks/>)

A compendium of content standards and benchmarks for K-12 education

[Education World National and State Standards](http://www.educationworld.com/standards/)(<http://www.educationworld.com/standards/>)

[Academic Benchmarks](http://www.academicbenchmarks.com/search/)(<http://www.academicbenchmarks.com/search/>)

[NCTM – Math Standards and Expectations](http://standards.nctm.org/document/appendix/numb.htm) (<http://standards.nctm.org/document/appendix/numb.htm>)

CONTINUING EDUCATION PROGRAM STUDENT LEARNING OUTCOMES:

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| 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

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| 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. |

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| 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. |