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with



T&L 2900 – Computer Aided Mathematics

Course-at-a-Glance

Instructor/Presenter: Ben Bernard, PhD, Raymond Queener, Ed.D

Instructor of Record: Sarah Holder. *Note: A reader and Learning Coach may also be assigned to the learner to read and provide feedback on written assignments.*

Length: 15 hours for one PD credit

Dates: Enroll Anytime – Complete in 4 months

Professional Development Credit Options: 1

Introduction

Keeping learners engaged, interested, and motivated can be a challenging task for educators. Yet, it is vital to students' increased success in school. This course explores the use of laptop technology to increase academic achievement and math achievement specifically, technology is identified as a significant factor to be embraced by schools in their pursuit of improved student achievement. After reviewing this course, you too may reflect on whether or not finding the resources to integrate technology into daily instruction has become an ethical issue for school teachers and administrators.

Getting Started and Course Directions

Directions for Completing UND Professional Development Courses Using Whitewater Learning Content are available upon the student's receipt of the welcome email from Whitewater Learning (WWL) 3-8 days after online course registration.

Course Objectives

This course explores the use of laptop technology to increase academic achievement and math achievement specifically, technology is identified as a significant factor to be embraced by schools in their pursuit of improved student achievement.

Learning Objectives

The learner will address:

- Provide reasons that describe the importance of being able to compare nations in terms of international academic achievement.
- Identify countries that rank higher on international education assessments than does the U.S

- Cite sound research to support the implementation of 1:1 technology into the learning environment.

Module Topics

Mathematics Achievement and Computer Aided Instruction Part 1

A. Getting Started

1. Measures of Student Achievement in Mathematics
2. Why is this Important?
3. Causes of Falling Behind

Mathematics Achievement and Computer Aided Instruction Part 2

A. Getting Started

1. Opportunity to Learn
2. Can Computer Aided Instruction (CAI) help?
3. A Brief History of Technology in Education
4. How is Computer Aided Instruction a Link to Sound Teaching Principles?

Effects of Laptop Initiatives on Student Achievement in Mathematics: Part 1

A. Getting Started

1. Improving Student Achievement
2. Factors Influencing Student Achievement
3. Student Attendance and Engagement
4. Four Components
5. Effect of Technology on Student Attendance and Engagement
6. Effect of 1:1 Laptop Programs on Student Attendance and Engagement

Effects of Laptop Initiatives on Student Achievement in Mathematics: Part 2

A. Getting Started

1. Technology and Teacher Quality
2. 1:1 Laptop Programs and Teacher Quality
3. Technology and Curriculum, Instruction, and Assessment
4. 1:1 Laptop and Curriculum and Assessment
5. Technology and Student-Teacher Relationships
6. 1:1 Laptop Programs and Student Achievement
7. Summary

Professional Development Reflection

- What new ideas or concepts did you learn?
- What teaching practices or concepts were reinforced?
- When applying the strategies and concepts you learned in this course into your daily practice, what went well?

- What would you change?
- How will students benefit from this course?
- What resources or ideas do you want to explore further? What questions or concerns do you still have?

Course Requirements

- A. Complete all the components for the required learning modules and electives relevant to you.
1. Read all contents included
 2. View the module
 3. Activity and Assessment – at the end of each module you’ll find a Dolt and Provelt. You must complete each and upload your Dolt as a ShareIt and comment on at least one other ShareIt.
 4. Upon completion of all required modules included in the course, the student will write a reflection. The reflection is included on the syllabus.

Assignments & Grading Percentages toward Final Grade

One Credit Option

The Learner Will:

1. Review all content within each module. (10% of grade)
2. Complete each module Dolt activity and upload as a ShareIt. (40% of final grade)
3. Comment on at least one other ShareIt per module. (20% of final grade)
4. Complete module Provelt with a score of 80% or greater. (20% of final grade)
5. Complete an end of course survey/reflection that follows the specifications provided (10% of final grade)

Grading

This online course uses Letter Grading (A – F) or Satisfactory/Unsatisfactory (S/U). The grading option must be selected at the time of course registration.

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Hoonuit courses will be graded on an S/U basis unless a special request is made by a district or because of a learner’s district of employment’s requirements for a letter grade to earn a lane change for pay increases or other significant reasons.

If a letter grade is selected, the learner must complete work to earn a minimum grade of B.

To earn a B, the learner must earn at least 13-15 points on the following rubric for one credit.

To earn an A, all Provelts must have a score higher than 90% and earn at least 16-20 points on the rubric for one credit.

Rubric					
Indicators	Beginner 1	Developing 2	Accomplished 3	Exemplary 4	Point s
Demonstration of topic knowledge.	The learner does not demonstrate adequate knowledge of the topic.	The learner is beginning to adequately understand the topic.	The learner shows topic competency.	The learner shows topic mastery.	
The project/text has been created at a professional level.	The final project/text has numerous errors, is unorganized, or has problems with clarity.	The final project/text needs attention to errors, organization, and clarity.	The final project/text is mostly error-free, clear, and organized.	The final project/text is error-free, clear, and organized.	
All elements of the Dolt instructions have been completed thoughtfully.	The learner does not meet the majority of the Dolt requirements.	The learner meets most of the Dolt requirements.	The learner meets all of the Dolt requirements.	The learner goes above and beyond Dolt requirements.	
Providing feedback to others: Demonstration of activity knowledge.	The commenter does not demonstrate knowledge of the project/text.	The commenter has demonstrated a basic understanding of the project/text.	The commenter has demonstrated they have read and evaluated the ShareIt.	The commenter demonstrates that they understand the purpose and scope of the project, and have read and evaluated the ShareIt.	

Providing feedback to others.	The commenter has provided unhelpful or unkind feedback.	The commenter has provided basic feedback.	The commenter has provided kind, authentic/genuine feedback, including a minimum of two positive comments, and one needs-improvement comment.	The commenter provides kind, authentic/genuine feedback, and provides more than three suggestions/statements of feedback with a balance between positive and needs-improvement.	
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Scholastic Dishonesty

Students enrolled in this course are expected to be aware of the seriousness of scholastic dishonesty. Unacceptable behavior, such as submitting someone else's work as your own, cheating on exams, or plagiarizing can result in failure of the course or other sanctions. For a more detailed description of these policies, please refer to the UND Code of Student Life; Appendix IIIa-3, at: <http://und.edu/student-affairs/code-of-student-life/>