ArmchairEd Course Syllabus
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Overview:
ArmchairEd.com currently provides continuing education to educators, using Educational Leadership magazine and premiere published books on cutting-edge educational themes and topics. The program has been operating since Fall, 2000, and has provided continuing education to hundreds of educators.

Course Goals and Objectives:
As a result of these courses, the student will be able to:
1. Stay current on educational themes and topics pertinent to teaching and education
2. Identify current research in education
3. Apply this knowledge to the student's current educational position

The following published book is currently being used as a text for the ArmchairEd course:

STEM Lesson Essentials: Integrating Science, Technology, Engineering, and Mathematics (Vasquea, J.A., Sneider, C., Comer, M., 2013). Heinemann, 178 pages.

*****This course fulfills the Washington State Science, Technology, Engineering and Math Clock hour Continuing Education Requirement**

STEM Lesson Essentials provides all the tools and strategies you'll need to design integrated, interdisciplinary STEM (Science, Technology, Engineering, Mathematics) lessons and units that are relevant and exciting to students. The course provides clear definitions of both STEM and STEM literacy, including organizing and delivering instruction by weaving the four disciplines together in intentional ways. The engineering and technology practices can instead be blended into existing math and science lessons in ways that engage students and help them master twenty-first century skills. The course provides five guiding principles for effective STEM instruction, classroom examples of what these principles look like in action, sample activities that put all four STEM fields into practice, and lesson planning templates for STEM units.

Credit Options:
The course will be offered for five credits, based on the length and substance of the book. The five-credit course will include 30 multiple-choice questions and five required essays.

Grading Rubric:
Pass/Fail: Coursework must be passed with 70% criterion.
Letter Grade: 90%: A grade
80% B grade
70% C grade
Multiple Choice Test: 15% of overall grade

Five Essays Required
Complete the following five essays:
Essay 1: Use the planning template on p. 139-140 in the text to create an integrated STEM unit for your class.
Essay 2: Take a unit that you've created and have taught in your own classroom. Think of ways to make it either multidisciplinary or interdisciplinary. In your essay, talk about the changes you would make to the unit and how you may (or may not) find it improved.
Essay 3: Beginning on p. 173 in STEM Lesson Essentials is a list of resources for creating STEM curricula. Explore the websites listed and find at least three lessons or activities that you can use in your classroom. Write three lesson plans that include one or more of the activities you discovered. With the lesson plan, talk about the rationale for using whatever you chose and how you expect it to impact your students' learning.
Essay 4: Using what you've learned and research you can do online, make a list of STEM-related careers. Either with your students or on your own, create a list of individuals in your community who have STEM-related positions. Create a unit that will make actual connections, digital or personal, between your students and one or more of those individuals. Report on the outcome of the connections that your students make
Essay 5: Create your own demonstration of the learning you take from this text. Identify your topic and describe it in an introductory paragraph. You may choose from the list below or develop your own.

- Action Research
- Extended learning, including research and developed activities
- Compare/contrast your current education practice to that of the text
- Create forms or systems for use in your classroom including assessment tools
- Plan an 'event', meeting or other pertinent program and report/reflect on it

Each chapter ends with a Reflection. You may choose to answer one or more of the Reflection questions that interest you.
You may combine any of these or develop your own. You may e-mail info@armchaired.com if you desire specific permission for your topic. The essay must demonstrate knowledge of the course and text, and direct application to your own educational position.

Essay scoring rubric:

Five essays required
Each essay 17% of overall grade
Single spaced, 10 to 12 size font
Use of introduction and summary statement (even when a unit is developed)
Demonstration of grammar, spelling and writing skill
Demonstration of applied knowledge

- **You must download the coursework before starting this course.**
- **All essays must be fully completed and the rubric followed to receive a grade. Essays not completed to required length will not be processed and revisions will be required.**
- **Submit all coursework together.**