



**UNIVERSITY OF ARKANSAS**  
**College of Education and Health Professions**  
**Department of Curriculum and Instruction**

Course Number: CIED 5232  
Course Title: *Interdisciplinary Studies*  
Credits: 2  
Semester: Spring 2009  
Time: Mondays 8:30-9:30 am  
Room: TBA  
Professor: [REDACTED]  
Telephone: [REDACTED]  
Web Site: [REDACTED]

**Catalog Description:** Introduction to the nature of interdisciplinary study: curricular content, course planning (topics and themes), instructional strategies, and evaluation and assessment.

**Expanded Description:** The purpose of this course is to provide preservice teachers with knowledge of the nature of interdisciplinary study leading to the design of curricula that cut across the traditional school or academic disciplines (called interdisciplinary) and/or weave elements together from within a discipline (called intradisciplinary). Our discussions will focus on three basic issues; Why should we provide integrated instruction? What strategies exist to permit integrated instruction and What philosophical and practical issues relate to integrated instruction? Course readings and assignments are linked to these three basic questions.

**Prerequisite(s):** Admission to Master of Arts in Teaching (MAT) Program

**Relationship to the Knowledge Base:** Initial Teacher Preparation

**Course Objectives:**

Upon completion of this course, you should be able to:

- A) Choose appropriate topics or themes and course content for interdisciplinary units and curricula;
- B) Set goals and objectives that reflect the interdisciplinary nature of studies;
- C) Work cooperatively in a small group to design an interdisciplinary unit;

- D) Describe, select and implement instructional strategies that facilitate interdisciplinary teaching/learning;
- E) Design appropriate instruments to evaluate and assess the instruction of interdisciplinary units and courses, including the development of portfolios for creative projects and activities;
- F) Access and utilize research on learning outcomes of interdisciplinary instruction;
- G) Describe potentially successful innovative interdisciplinary programs;
- H) Discuss the interrelatedness of curricular offerings and the role of each in the overall curriculum.

### Required Text:

There is no required text. All reading materials will be found on the CDROM provided in class. All written assignments must be submitted in APA style, therefore it may be useful for you to have a copy of the current edition of the *Publication manual of the American Psychological Association (5<sup>th</sup> edition)*. Washington, DC: American Psychological Association

### The Fine Print

**Grading Scale:** The *College of Education and Health Professions* does yet not permit awarding "+" and "-" grades. This is unfortunate because there is most certainly a difference between 80 and 89 percent but in our current system both would be a "B." So, in order to award a meaningful grade with some precision, we will use a 9 point scale in this class whereby 91% will be the lowest A, 82% the lowest B, 73% the lowest C and 64% the lowest D.

**Lateness:** To encourage everyone to hand in all assignments, I will accept late work. However, in fairness to those who do turn things in on time there will be a price to pay for late work. I will grade all late assignments and then deduct 10% for any assignment turned in within one week late and 25% for each week or part of a week of additional lateness.

**The Grade of Incomplete:** A grade of IN can be assigned only if there is work not completed because of a documented illness or some other emergency occurring after the 12<sup>th</sup> week of the semester. Arrangements for the IN and removal of the IN must be instituted by the student and agreed to by the instructor in advance and reported on the official "Incomplete (IN) completion form."

**Students with Disabilities /** Any student requiring accommodations based on a disability is required to register with the Center for Educational Access (CEA) each semester. A letter of verification for approved recommendations can be obtained through CEA. Please be sure I receive the letter early in the semester.

**Academic Honesty Policy:** The application of the University of Arkansas Academic Honesty Policy, as stated in the current Graduate School Catalog will be fully adhered to in this course. Academic dishonesty involves acts which may subvert or compromise the integrity of the educational process. Grades and degrees earned by dishonest means devalue those earned by all students; therefore, it is important that students are aware of the University of Arkansas Academic Honesty Policy.

**Inclement Weather Policy:** When the University has officially canceled classes because of inclement weather this class will not meet. If you feel the weather is so bad that you would risk an accident to get to class, you are responsible for making your own best decisions in these instances.

Final Grades in Interdisciplinary Studies will be based on the following:

- A) **Class Participation** (individual): you will be awarded three points for each class session during which you make a continuing contribution (39pts)
- B) **Resource Contributions (Individual) (You must do TWO from the following list):**
  - **Resource #A** Contribute a value added abstract of an article or book chapter providing a *rationale* for instructional integration (30pts)
  - **Resource #B** Contribute a value added abstract of an article or book chapter providing a *practical suggestion* for instructional integration (30pts)
  - **Resource #C** Contribute a value added abstract of an article or book chapter providing some *other discussion* (philosophical, problematic, etc.) related to the integration of instruction (30pts)

Notes regarding this assignment:

1. In all cases, be sure that the resource is *not* already available in the course reader (both core and supplementary articles).
  2. Start the assignment with a full APA style reference for the article (which should be no more than 15 years old)
  3. State whether the article is a rationale, practical suggestion or other discussion
  4. Write an abstract/overview with enough detail that one could understand the point of the article without having to read it fully
  5. Within this abstract you may make comments, suggestions, criticisms (which one would not do in a traditional abstract). In addition, you should state how the author uses the term interdisciplinarity. If the article is not about secondary instruction you should provide some thoughts about how the strategy/rationale could apply to secondary (perhaps with modification)
  6. Provide a full copy of the article itself attached to your "value-added" narrative
- C) **Reaction Paper #1** (group) resulting from a discussion of classroom deliberations related to the INTRAdisciplinary form of integration (15pts).
  - D) **Reaction Paper #2** (group) resulting from a discussion of classroom deliberation related to interdisciplinary integration (15pts).

Note: The reaction papers might address definitions, challenges, advantages, solutions, examples and other related topics

- E) **Interdisciplinary Curriculum Project** (group); you will design an interdisciplinary lesson lasting at least two weeks to be evaluated using the rubric provided (100pts).

**Basis Instructions for the Curriculum Project:** Your group will develop an interdisciplinary unit encompassing at least two weeks of instruction. You will need to describe the grade level, the number of students involved, and the diversity within your fictional (or actual) student group. Assume that you have the resources available to do the activities described in your unit. Follow the process outlined in your textbook and discussed in class for developing an interdisciplinary unit. Your group will need to select an organizing center, brainstorm associations, establish guiding questions and write the supporting activities. There should be a culminating activity that ties the unit together. Lesson plans should be written in the Pathwise format. Additionally, thinking skills should be including explicitly in

the activities. The final product will be a compilation of this in a three-ring binder, submitted to the instructor by the due date.

- F) **Final Exam** (individual); a traditional examination of the theoretical, philosophical and practical aspects of interdisciplinary instruction (40pts)

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Final grades in *Interdisciplinary Studies* will be based on the following:

• Class participation (3 pts x 13 class sessions)	39 points ( %)
• Resource Contribution #1	30 points ( %)
• Resource Contribution #2	30 points ( %)
• Reaction Paper #1	30 points ( %)
• Reaction Paper #1	15 points ( %)
• Curriculum Project (Group)	100 points ( %)
• Final examination	40 points ( %)
Total	269 points possible

**Interdisciplinary Unit Grading Checklist****Spring 2009****Names of Group Members:**

The goal here is to produce a short unit (approximately 10 lessons) that authentically, engagingly and appropriately weave several (at least three) typically discrete disciplines together. The lessons can run concurrently or can be spaced throughout time; this issue should be discussed in the introductory section focusing on organization. Please note, "unit" as used here is simply the set of related lessons that are designed together to accomplish a particular purpose.

**A) Introduction (Organization of and Rationale for the Unit); \_\_\_\_\_ 15 pts.**

Describe the nature of the unit including a discussion of how long it will last, how many lessons are involved, how will the lessons be delivered, etc. This section should describe what element(s) make it interdisciplinary. (What "hook" ties the discrete subjects together and why is this a valid, appropriate and engaging organizer?) Provide the rationale for the use of your organizing principle. Finally, provide some discussion of how this unit will be incorporated into the traditional curriculum and how likely it is that this could actually happen.

**B) Context for the Unit and the Learners; \_\_\_\_\_ 10 pts.**

Discuss who the students are (grade level, etc.), what will they already have studied to prepare them for the interdisciplinary unit, how long is the unit, when this unit might best be taught during the year, etc.?

**C) Instructional Standards; \_\_\_\_\_ 10 pts.**

Make a general statement about which standards will be addressed by the unit and mention the specific standards that will be addressed in each lesson of the unit. Please cite the actual standard (i.e. CUS.19.AH) and provide a sense of its scope (i.e. Cultural & technology changes in American society using primary and secondary sources). Ensure that all standards targeted come from the same grade level(s).

**D) Links; \_\_\_\_\_ 5 pts.**

How effectively have you described (perhaps in a matrix) the links between the lesson elements and the various disciplines targeted?

**E) Lessons; \_\_\_\_\_ 40 pts.**

Provide 10 lesson plans which include enough detail that someone else could use them in instruction in the way you have intended. No particular lesson plan is required but all lesson plans included should be of the same style. Feel free to use the Pathwise™ lesson plan style. Be sure to include the name of the author on each lesson plan included.

**F) Assessment; \_\_\_\_\_ 10 pts.**

Describe the nature of and plan for assessment. Please provide a copy of at least one assessment tool that you will use to measure student progress at the conclusion of the unit.

**G) Relative Score; \_\_\_\_\_ 10 pts.**

This score is awarded after all of the units from your class have been evaluated based on a qualitative ranking of your unit in comparison with others.

Total Points Earned \_\_\_\_\_

## CIED 5232: Interdisciplinary Studies Schedule (Spring 2009)

Session	Date	Theme	Assignment Due
1	January 12	Getting Started: Teaching at the Intersections	
	January 19	Martin Luther King Jr. Day (NO CLASS)	
2	January 26	Rationales for Interdisciplinarity	
3	February 2	Rationales for Interdisciplinarity	
4	February 9	Rationales for Interdisciplinarity	Reaction Paper #1 Due (Intra)
5	February 16	Methods of Interdisciplinary Instruction	Resource Contribution #1 Due
6	February 23	Methods of Interdisciplinary Instruction	
7	March 2	Methods of Interdisciplinary Instruction	Reaction Paper #2 Due (Inter)
8	March 9	Methods of Interdisciplinary Instruction	
	March 16	SPRING VACATION (NO CLASS)	
	March 23	NO SEED CLASSES	
9	March 20	Philosophical Considerations	Resource Contribution #2 Due
10	April 6	Philosophical Considerations	
11	April 13	Philosophical Considerations	
	April 20	NO CLASS (NARST Meeting for Instructor)	
12	April 27		Curriculum Project Due
13	May 4	Final Examination (Details TBA)	

**READING LIST for  
*Interdisciplinary Instruction***

Note - The numbered articles must be read thoroughly *before* you come to class to discuss the topics indicated in the class syllabus. There are two kinds of articles provided here, required or core articles that must be read and supplementary (S) ones that may be read to provide additional information and insights. The numbers below are associated with the session number for the reading. The core articles are those that have numbers. Before coming to Session 3, for instance, you must have read everything up through those marked 3/1 and 3/2.

**Sessions 1 and 2: Rationales for Interdisciplinary Instruction**

- 1-2/1 Lake, K. (2001). *Integrated Curriculum*. In School Improvement Research Series (SIRS). Retrieved December 20, 2007, from <http://www.nwrel.org/scpd/sirs/8/c016.html>
- 1-2/2 Kysilka, M. L. (1998). Understanding integrated curriculum. *The Curriculum Journal*, 9(2), 197-209.
- 1-2/3 McComas, W. F. (2009, February). Thinking, teaching and learning science outside the boxes: Reconsidering interdisciplinarity in science instruction. *The Science Teacher*, 76(2), 24-28.

**Session 3: Rationales for Interdisciplinary Instruction**

- 3/1 Burton, L. H. (2001). Interdisciplinary Curriculum: Retrospect and Prospect. *Music Educators Journal*, 87(5), 17-21.
- 3/2 Stevenson, C. & Carr, J. F. (1993). Goals for integrated studies. In Stevenson, C. & Carr, J. F. (Eds.). *Integrated Studies in the Middle Grades: "Dancing through walls"* (pp. 7-25). New York: Teachers College Press.

**Session 4: Rationales for Interdisciplinary Instruction**

- 4/1 Davison, D. M., Miller, K. W. & Metheny, D. L. (1995). What Does Integration of Science and Mathematics Really Mean? *School Science and Mathematics*, 95(5), 226-230.
- 4/2 Frantzen, D. (2001). Rethinking Foreign Language Literature: Towards an Integration of Literature and Language at ALL Levels. In: *SLA and the Literature Classroom: Fostering Dialogues. Issues in Language Program Direction: A Series of Annual Volumes*.

**Supplementary Materials: Rationales for Interdisciplinary Instruction**

- (S) Hurd, P. D. (1991). Why We Must Transform Science Education. *Educational Leadership*, 49(2), 33-35.
- (S) Showalter, V. (1975). Rationale for an Unbounded Science Curriculum. *School Science and Mathematics*, 75(1), 15-21.

**Session 5: Methods of Interdisciplinary Instruction**

- 5/1 Barab, S. A. & Landa, A. (1997). Designing Effective Interdisciplinary Anchors. *Educational Leadership*, 54(6), 52-55.
- 5/2 Palmer, J. M. (1991). Planning Wheels Turn Curriculum Around. *Educational Leadership*, 49(2), 57-60.
- 5/3 California Science Framework (1990). The major themes of science (Chapter 2). Sacramento: California Department of Education.

- 5/4 National Science Teachers Association. (1992). Strategies for Implementation of Scope, Sequence and Coordination. In *Scope, Sequence and Coordination of Secondary School Science Volume 1: The Content Core - A Guide for Curriculum Designers* pp. 27-48. NSTA: Washington, DC.

#### Session 6: Methods of Interdisciplinary Instruction

- 6/1 Sponder, B. (1993). Techniques for Promoting Interdisciplinary Education in the Classroom. *Teaching and Learning, 14*(1), 11-24.
- 6/2 Fogarty, A. (1991). Ten ways to integrate the curriculum. *Educational Leadership, 49*(2), 61-65.
- 6/3 Jacobs, H. H. (1989). The interdisciplinary concept model: A step-by-step approach for developing integrated units of study. In Jacobs, H. H. (Ed). *Interdisciplinary curriculum: Design and implementation* (pp. 53-65). Alexandria, VA: Association for Supervision and Curriculum Development.

#### Session 7: Methods of Interdisciplinary Instruction

- 7/1 Stevenson, C. & Carr, J. F. (1993). Integrated studies planning framework. In Stevenson, C. & Carr, J. F. (Eds.). *Integrated Studies in the Middle Grades: "Dancing through walls"* (pp. 26-39). New York: Teachers College Press.
- 7/2 Jacobs, H. H. (1991). Planning for Curriculum Integration. *Educational Leadership, 49*(2), 27-28.
- 7/3 Showalter, V. M. (1973). Symposium - Ways to Integrate Science: The FUSE Approach. *The Science Teacher, 40*(2), 25-27.

#### Session 8: Methods of Interdisciplinary Instruction

- 8/1 Loepp, F. L. (1999). Models of Curriculum Integration. *The Journal of Technology Studies, 25*(2), 21-25.
- 8/2 McDonald, J. and Czerniak, C. (1994). Developing interdisciplinary units: Strategies and examples. *School Science and Mathematics, 94*(1), 5-10.
- 8/3 Berlin, D. F. & White, A. L. (1994). The Berlin-White Integrated Science and Mathematics Model. *School Science and Mathematics, 94*(1), 2-4.

#### Supplementary Materials: Methods of Interdisciplinary Instruction

- (S) Champagne, A. B. & Cornbleth, C. (1992). Interdisciplinary Approaches to Science Education: A Cognitive Analysis. In *Teaching About the History and Nature of Science and Technology: Background Papers* (chapter 10), Colorado Springs, CO.
- (S) Hofstein, A. & Yager, R. E. (1982). Societal Issues as Organizers for Science Education in the '80s. *School Science and Mathematics, 82*(7), 539-546.
- (S) Panaritis, P. (1995). Beyond Brainstorming. *Phi Delta Kappan, 76*(8), 623-628.
- (S) Schaller, S. & Wenk, J. (1997). A Humanities Class for the Twenty-first Century. *English Journal, 86*(7), 75-78.

#### Session 9: Philosophical Considerations of Interdisciplinary Instruction

- 9/1 Benson. T. L. (1982). Five arguments against interdisciplinary studies (pp.38-48) and Editor's Note (pp.111-112). In Miller, R. C. (Ed.). *Issues in Integrative Studies. An Occasional Publication of the Association for Integrative Studies*, San Francisco, CA.

- 9/2 Roth, K. J. (1994). Second thoughts about Interdisciplinary studies. *American Educator*. (pp. 44-48) Spring.

**Session 10: Philosophical Considerations of Interdisciplinary Instruction**

- 10/1 Jacobs, H. (2007). Concept to Classroom: A talk with Heidi Hayes Jacobs about Interdisciplinary Curriculum. Retrieved December 20, 2007, from <http://www.thirteen.org/edonline/concept2class/interdisciplinary/exploration.html>
- 10/2 Stevenson, C. & Carr, J. F. (1993). Daring to dance. . . or not. In Stevenson, C. & Carr, J. F. (Eds.). *Integrated Studies in the Middle Grades: "Dancing through walls"*(pp. 183-201). New York: Teachers College Press.

**Session 11: Philosophical Considerations of Interdisciplinary Instruction**

- 11/1 Pang, J. S. & Good, R. (2000). A Review of the Integration of Science and Mathematics: Implications for Further Research. *School Science and Mathematics, 100*(2), 73-82.

**Supplementary Materials: Philosophical Considerations of Interdisciplinary Instruction**

- (S) Adler, M. & Flihan, S. (1997). *The Interdisciplinary Continuum: Reconciling Theory, Research and Practice*, Report Series 2.36, National Research Center on English Learning & Achievement, University at Albany, State University of New York.
- (S) Siskin, L. S. (2000). Restructuring Knowledge: Mapping (Inter)Disciplinary Change. In Wineburg, S. & Grossman P. (Eds). *Interdisciplinary Curriculum: Challenges to implementation* (pp. 171-190). New York: Teacher College Press.