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OFFICE OF THE PROVOST
PROGRESS A
DEC 22 2004

NON-GENERAL EDUCATION - CURRICULUM PROPOSAL

SCC #04-05- 355

Deadlines

October 1, 2004 to be implemented Fall 2005 - September 11, 2005 to be implemented Spring 2006

PROPOSAL TITLE: Inquiry and Discovery in the Elementary Classroom

Sponsors: Robin McBee Email: mcbee@rowan.edu Ext: 4736
Janet Moss, Patrick Westcott, Walt Quint, Yvonne Rodriguez

DEPARTMENT: Elementary/Early Childhood

COLLEGE: Education

If Liberal Arts & Sciences CHECK: History/Humanities Math/Sciences Social/Behavioral Sciences

UNDERGRADUATE GRADUATE

THE ATTACHED NON-GEN-ED PROPOSAL IS BEST DESCRIBED BY THE ITEMS CHECKED

- New non-gen-ed course
- Minor curricular changes fewer than three (3)
- Existing non-gen-ed course
- Non-gen-ed degree requirements
- Major
- Minor, specialization, concentration, track, certificate program

THE FOLLOWING SIGNATURES REPRESENT APPROVAL

Department Chair: [Signature] Date 9/24/04
 Department Curriculum Chair: [Signature] Date 9/24/04
 Academic Dean: [Signature] Date 10/6/04
 * Dept. Curriculum Committee is Committee of the Whole, with Department Chair as Chair

COLLEGE CURRICULUM COMMITTEE

OPEN HEARING Date 12/06/04 Approved Not Approved
 COLLEGE CURRICULUM CHAIR [Signature]
 Senate Curriculum Chair Signature [Signature] Date Senate Announcement 12/20/04
 Comments _____

EXECUTIVE VICE PRESIDENT/PROVOST Signature: [Signature] Date 12/15/04

Approved Not Approved

Date 1/7/05 REGISTRAR
 Course Description, Prerequisites & Approved - Reg's Taxonomy & Course # 0802317
 Registrar Signature: [Signature]

NOTIFICATION FORWARD

- SCC Chair
- Academic Dean
- Department Chair
- Registrar
- R
- CAP
- VP Student Affairs
- Others

B/B

TM 2/1/05

COURSE PROPOSAL

Details

- a. **Course Title:** Inquiry and Discovery in the Elementary Classroom
- b. **Sponsor(s):** Robin McBee, Department of Elementary/Early Childhood Education
Janet Moss, Department of Elementary/Early Childhood Education
Patrick Westcott, Department of Elementary/Early Childhood Education
Walter Quint, Department of Elementary/Early Childhood Education
Yvonne Rodriguez, Department of Elementary/Early Childhood Education
- c. **Credit Hours:** 3 semester hours
- d. **Course Level:** Junior 300 level
- e. **Prerequisites:** Admission to the certification program.
Co-Requisites: Differentiating Instruction: Teaching in the Inclusive Classroom (0808.3##)
Practicum: Assessment in Elementary Classrooms (0802.3##)
- f. **Suggested time and scale of implementation:** Fall 2005. The course will be offered in the Spring and Fall semesters as necessary.

Curricular Effect

- **Offerings**

This course, along with all courses proposed under the new Bachelor of Arts in Education Degree Program, Elementary (K-5) Specialization, is proposed as part of the programmatic package of courses that would replace the courses formerly offered under the Bachelor of Arts in Elementary Education Program. Educational Studies I and III (offered by the Department of Elementary/Early Childhood Education) and Health in the Elementary Classroom (offered by the Department of Health and Exercise Science) will be deleted.

- **Adequacy**

Approximately 5 sections will need to be offered each semester. No additional staff will be required.

- **Recommended Library Resources**

American Association for the Advancement of Science. (2001). Atlas of science literacy.

American Association for the Advancement of Science and National Science Teachers Association, Washington, D.C.

American Association for the Advancement of Science. (1993). Benchmarks for science literacy. Oxford University Press, New York.

American Association for the Advancement of Science. (1992). Update Project 2061: Education for a changing future. Washington, D.C.: Author.

American Association for the Advancement of Science. (1989). Project 2061. Oxford University Press, New York.

American Association for the Advancement of Science. (1968). Science-A Process Approach. New York: Xerox Education Division.

Atwood, V. (1991). Elementary School Social Studies: Research As a Guide to Practice. Washington, D.C.:NCSS Publications.

Boyer, E. L. 1995. The Basic School: A Community for Learning. Ewing, NJ: The Carnegie Foundation for the Advancement of Teaching.

Bluhm, W.J.; Hungerford, H. R.; Saunders, G. W.; Volk, T. L.; Wise, K. C.; and Winther, A. A. (2003) Science Methods for Elementary and Middle School Teachers (Second Edition). Champaign, IL: Stipes.

Caine, R. N. and Caine, G. (1991). Making Connections, Teaching and the Human Brain. Alexandria, VA: Association for Supervision and Curriculum Development.

Centers for Disease Control and Prevention (2002). Physical activity and good nutrition: Essential elements to prevent chronic diseases and obesity. Atlanta, GA: Author.

Centers for Disease Control and Prevention. (2000). Promoting better health for young people through physical activity and sports. Atlanta, GA: Author.

Consortium of National Arts Education Associations: American Alliance for Theatre & Education, Music Educators National Conference, National Arts Education Association, National Dance Association (1994). National standards for arts education: What every young American should know and be able to do in the arts. Reston, VA: Music Educators National Conference.

Corbin, C. B. & Pangrazi, R.P. (1998). Physical activity for children: A statement of guidelines. Reston, VA: National Association for Sport and Physical Education.

Cornett, C. E. (1999). The Arts as Meaning Makers, Integrating Literature and the Arts Throughout the Curriculum. Upper Saddle River, NJ: Prentice-Hall

Deasy, R. J. (Ed.). (2002). Critical links: Learning in the arts and student academic and social development. Washington, DC: Arts Education Partnership.

Drake, S. M. 1993. Planning integrated curriculum: The call to adventure. Alexandria, VA: Association for Supervision and Curriculum Development.

Elias, M., Zins, J., Weissberg, R, Frey, K., Greenberg, M., Haynes, N., Kessler, R., Schwab-Stone, M., & Shriver, T. (1997). Promoting social and emotional learning: Guidelines for educators. Alexandria, VA : ASCD.

Evans, R. W. and Saxe, D. W. (1996). Handbook On Teaching Social Issues. Washington, D.C.: NCSS Publications.

Farris, P. J. (2004). Elementary & Middle School Social Studies, An Interdisciplinary Multicultural Approach. New York: McGraw Hill.

Fisk, E. B. (Ed.). (1999). Champions of change: The impact of the arts on learning. Alexandria, VA: The President's Committee on the Arts and Humanities and Arts Education Partnership.

Fogarty, R. 1991. Ten ways to integrate curriculum. Educational Leadership 49(2): 61-65.

Fogarty, R. , ed. 1993. Integrating the curricula: A collection. Palatine, IL: IRI/Skylight Publishing.

Garcia, E. 1991. Education of linguistically and culturally diverse students: Effective instructional practices. Santa Cruz: National Center for Research on Cultural Diversity and Second Language Learning. (Educational Document Retrieval Service No. 338099)

Gehrke, N. J. (1993). Explorations of teachers' development of integrated curriculums. In Integrating the curricula: A collection, ed. R. Fogarty, 167-180. Palatine, IL: IRI/Skylight Publishing.

Goldberg, M. (1997). Arts and Learning, An Integrated Approach to teaching and learning in Multicultural and Multilingual Settings. White Plains, NY.: Longman.

Goldberg, M. R.; Phillips, A. (1992) Arts as Education. Cambridge, MA: Harvard University.

Haas, M. E. and Laughlin, M. A. (eds.). (1998) Meeting the Standards, Social Studies Readings for K-6 Educators. Washington, D.C.: NCSS Publications.

Hood, J. (1991). An integrated approach to teaching students the use of computers in science. Journal of Computers in Mathematics and Science Teaching, 10(4), 27 - 35.

Hungerford, H. R., Litherland, R. A., Peyton, R. B., Ramsey, J. M., & Volk, T. L. (1992). Investigating and evaluating environmental issues and actions: Skill development modules: A curriculum development project designed to teach students how to investigate and evaluate science-related social issues. Champaign, IL: Stipes Publishing Company.

Hungerford, H. R., Ramsey, J. M., & Volk, T. L. (1989). What we 'know' about STS citizenship behavior from selected research articles. Unpublished paper, Science Education Center, Department of Curriculum and Instruction, Southern Illinois University at Carbondale.

Hungerford, H. R., Volk, T. L., & Ramsey, J. M. (1990). Science-technology-society: Investigating and evaluating sts issues and solutions. Champaign, IL: Stipes Publishing Company. (188)

International Technology Education Association (2000). Standards for technological literacy. International Technology Education Association.

Joint Committee on National Health Education Standards. (1995). National health education standards. Atlanta, GA: American Cancer Society.

Krey, D. M. (1998). Children's Literature in Social Studies, Teaching to the Standards. Washington, D.C.: NCSS Publications.

Learning and the arts: Crossing boundaries. Proceeding from an invitational meeting for education, art, and youth funders. (2000, January 12-14). Los Angeles, CA: The Geraldine R. Dodge Foundation, J. Paul Getty Trust, and the John D. and Catherine T. MacArthur Foundations.

Lindquist, T. (1995). Seeing the Whole through Social Studies. Portsmouth, NH: Heinemann.
Literacy in the arts: An imperative for New Jersey schools. (1989, October). Literacy in the Arts Task Force.

Longley, L. (Ed.). (1999). Gaining the arts advantage: Lessons learned from school districts that value arts education. Alexandria, VA.: The President's Committee on the Arts and Humanities and Arts Education Partnership.

McBee, R. H. (2000, Spring). The Educational Forum; Journal of Kappa Delta Pi International Honor Society, pp. 254-259.

National Association for Sport and Physical Education. (1995). Moving into the future: National standards for physical education. Reston, VA: American Alliance for Health, Physical Education, Recreation, and Dance.

National Research Council. (1996). National science education standards. National Academy Press, Washington, D.C.

New Jersey State Department of Education, (2004). New Jersey core curriculum content standards. Trenton, NJ: Author.

New Jersey State Department of Education. (1999). New Jersey visual and performing arts curriculum framework. Trenton, NJ: Author.

Okebukola, P. A. (1986). The influence of preferred learning styles on cooperative learning in science. Science Education, 70, 509-517.

Panaritis, P. (1995). Beyond brainstorming: Planning a successful interdisciplinary program. Phi Delta Kappan 76(8): 623-628.

Panzer, N. (1994). Celebrate America in Poetry and Art. New York: Hyperion.

Pines, A., & West, L. H. (1986). Conceptual Understanding and Science Learning. Science Education, 70, 583-604.

Perez-Stable, M. A. and Cordier, M. H. (1994). Understanding American History through Children's Literature: Instructional Units and Activities for Grades K-8. Phoenix, AZ: Oryx.

Pryor, A. Z., & Soloway, E. (1996). Practicing authentic science. Electronic Learning, 15(5), 34 - 36.

Pearson, W., Jr., & Bechtel H. Kenneth. (1989). Blacks, science and American education. New Brunswick, NJ: Rutgers University Press.

Post, T. R.; Ellis, A. K.; Humphreys, A. H.; Buggiey, L. J. (1997). Interdisciplinary Approaches to Curriculum, Themes for Teaching. Upper Saddle River, NJ: Prentice-Hall.

Ramsey, J. (1993). The science education reform movement: Implications for social responsibility. Science Education, 77, 235-258.

Resnick, L. B. (1983). Mathematics and science learning: A new conception. Science, 220, 477-478.

- Ross, E. W. (1994). Reflective Practice in Social Studies. Washington, D.C.: NCSS Publications.
- Seidel, S., Eppel, M., & Martinello, M. (2001). Arts survive: A study of sustainability in arts education partnerships. The Arts Survive Research Study, a research study conducted at Project Zero at the Harvard Graduate School of Education supported by the John S. and James L. Knight Foundation.
- Selwyn, D. (1993). Arts and Humanities in the Social Studies. Tucson, AZ: Zephyr.
- Short, K. G.; Schroeder, J.; Laird, J.; Kauffman, G.; Ferguson, M. J.; and Crawford, K. M. (1996). Learning Together Through Inquiry, From Columbus to Integrated Curriculum. New York: Stenhouse.
- Silverblank, F. (1992). An Annotated Bibliography of Historical Fiction for the Social Studies, Grades 5 through 12. Dubuque, IA: Kendall/Hunt.
- Simpson, J. W.; Delaney, J. M.; Carroll, K. L.; Hamilton, C. M.; Kay, S. I.; Kerlavage, M. S.; Olson, J. L. (1998). Creating Meaning Through Art, Teacher as Choice Maker. Upper Saddle River, NJ: Prentice-Hall.
- Sunal, C.; Powell, D.; McClelland, S.; Rule, A.; Rovegno, I.; Smith, k C.; Sunal, D. (2000). Integrating Academic Units in the Elementary School Curriculum. Orlando: Harcourt.
- Steffey, S. and Hood, W. J. (1994). If This is Social Studies, Why Isn't It Boring? York, ME: Stenhouse.
- Tejada, I. (1993). Brown Bag Ideas from Many Cultures. Worcester, MA: Davis.
- Tobin, K., & Garnett, P. (1987). Gender related differences in science activities. Science Education, 71, 91-103.
- U.S. Department of Health and Human Services. (1996). Physical activity and health: A report of the Surgeon General. Atlanta, GA: Author.
- U.S. Department of Health and Human Services. (2001). The Surgeon General's call to action to prevent and decrease overweight and obesity. Rockville, MD: Author.
- Wolfinger, D. M.; Stockard, J. W., Jr.. (1997). Elementary Methods, An Integrated Curriculum. White Plains, NY: Longman.
- Wood, K. E. (1997). Interdisciplinary Instruction, A Practical Guide for Elementary and Middle School Teachers. Upper Saddle River, NJ: Merrill.
- Zarnowski, M. and Gallagher, A. F. (eds.). (1993). Children's Literature and Social Studies: Selecting and Using Notable Books in the Classroom. Dubuque, IA: Kendall/Hunt.
- **Short-term Evaluations:** Does not apply

Rationale

This course, *Inquiry and Discovery in the Elementary Classroom*, launches the junior level, professional sequence of courses for the Elementary Education (K-5) Specialization of the Bachelor's Degree in Education. It focuses particularly on the elementary grade subjects of science, social studies,

health, and the arts, and it establishes and teaches teacher candidates how to use interdisciplinary themes and inquiry approaches to teaching and learning as effective means of improving academic performance (Garcia, 1991; Drake, 1993; Boyer, 1995; Panaritis, 1995; McBee, 2000) and organizing numerous subject demands and curricular materials and mandates. Because the course reinforces and more deeply investigates inquiry approaches to instruction (Bluhm, et al, 2002; Short, 1996), which were introduced earlier in the education program, teacher candidates will further develop their ability to use critical thinking skills and open-ended investigations in order to promote in their young learners deep conceptual understanding and long-term retention of content.

Essence of the Course

a. Objectives of the Course

1. Teacher candidates completing this course will be able to explain the purpose of state and national standards in the areas of science, social studies, health, and the arts and the implications of mandates for meeting the standards when planning instruction in New Jersey elementary classrooms. This will include:
 - The relationship between the standards, school accountability, and high stakes testing (i.e. NJ ASK);
 - Implications for covering mandated content and skills in all subject areas, for selecting learning activities and student outcomes, and for evaluating student learning;
 - The importance of integrating meaningful instruction across content areas, beyond the scope of textbook programs and formal testing programs, in order to maximize breadth and depth of student learning and retention of what is learned; and
 - The fundamental links between subject areas in understanding the world around us now and throughout history and in solving real world problems.
2. Teacher candidates will be able to demonstrate a thorough understanding of the methods of inquiry and discovery as a means of organizing and delivering instruction and facilitating learning. This will include:
 - Demonstrating how concepts in science and social studies can be developed when students solve problems through experimentation or investigation;
 - Selecting and designing learning experiences that require learners to hypothesize, reason, solve problems, and communicate their findings and solutions;
 - Designing learning activities which utilize technology in researching concepts, collecting and recording data, and designing visual models;
 - Incorporating inquiry-oriented questioning, observing, concept development, and concept attainment into lesson plans;
 - Utilizing the Learning Cycle (Bluhm, et al, 2003) and the Inquiry Cycle (Short, et al, 1996) in designing lesson and unit plans;
 - Designing thematic units, which utilize inquiry and discovery methods in examining problems of relevance to students, which address core content in at least two of the subjects of science, social studies, health, and art, and which integrate meaningful mathematics and literacy instruction; and
 - Adapting instructional plans to meet the unique linguistic, developmental, ability, and cultural needs of learners in field-based classroom.
3. Teacher candidates will be able to develop and use appropriate formative and summative assessments to accompany instruction that is inquiry-oriented. This will include:
 - Developing open-ended written questions and multiple-choice questions to be used as daily practice and to tie into unit topic;

- Designing project options and project products with appropriate criterion-referenced rubrics for measuring progress, which are tailored to meet the needs of individual students;
- Designing performance tasks and appropriate teacher observation measures and student performance criteria rubrics, which are tailored to meet the needs of individual students; and
- Designing appropriate portfolio measures of student progress and academic performance, which are tailored to meet the needs of individual students.

b. Topical Outline/ Content

The objectives are specific and reflect content to be covered in the course.

c. Evaluation of Students and Grading Procedure

Students will be evaluated through a combination of in-class participation, written reflections, the thematic inquiry-oriented unit, an exam, and a course portfolio.

d. Course Evaluation

The procedures that will be used to assess the success of the course in meeting the goals and objectives of the College of Education are: student course evaluations and appropriate departmental and program curriculum review processes.

Results of Consultations

The following departments were consulted.

Elementary/Early Childhood Education, Robin McBee
Special Education Services/Instruction, Sandra McHenry
Health and Exercise Science, Richard Fopeano
Art, Skeffington Thomas
Music, Robert Rawlins
Theatre and Dance, Bart Healy

See Appendix for results of consultations.

Catalog Description

Inquiry and Discovery in the Elementary Classroom 0802.3##

This course examines the use of established elementary education standards in science, social studies, health, and the arts and how interdisciplinary, thematic units of inquiry facilitate meeting those standards. Candidates apply current research on the way children learn and effective teaching in science, social studies, health, and the arts, as well as instructional knowledge and skills they are developing related to inquiry-based instruction, assessment, and differentiating that instruction for elementary students. An interdisciplinary unit of inquiry is developed. A field component is required.

Prerequisite: Admission to the certification program

Co-requisites: Practicum: Assessment in Elementary Classrooms (New Course: 0802.3XX)
Differentiating Instruction: Teaching in Inclusive Classrooms (New Course: 0808.3XX)