



Course Syllabus
(Updated 5/21/2008)

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| COURSE NUMBER: EDTC 5630 01 | COURSE TITLE Advanced Topics in Classroom Technologies Databases for Decision Making | TERM: Summer 01 2008 Mon 5:00 – 9:00 PM 06/09/08 - 08/01/08 |
| SITE: WEB 221 | INSTRUCTOR CONTACT INFORMATION: Dr. Basiyr D. Rodney Phone: 314-246-8718 Office hours: by appointment eMail: desmondrodney62@webster.edu web: http://poe.webster.edu/~desmondrodney62 | CREDIT HOURS: 3 |

1. COURSE DESCRIPTION:

This course explores ways to manage information using databases. Students will explore a variety of database activities which will stimulate the critical evaluation of data needed for wise decision making. Students will also learn how to incorporate these activities into curriculum.

2. LEARNING OUTCOMES:

SoE Goals, SoE Dispositions, MoSTEP, and ISTE Prof Standards Addressed

1. Engage in discussion, reflection and conceptualization of Database Systems for learning as well as for classroom/school productivity (ISTE #1, SOE #1).
2. Manipulate the records of a database using editing, sorting, and searching procedures.
3. Create form layouts and produce reports to present data in meaningful representations (MO-STEP 1e, 2d, 4a, 4b, 5a, 6a) (ISTE #1, SOE #1).
4. Export database data to other productivity applications such as Word Processors and Spreadsheets (ISTE #1, SOE #1).
5. Understand Bloom’s Taxonomy and the development of critical thinking skills as it relates to developing classroom database activities (ISTE #2, SOE #2).
6. Use an information problem solving process to design and create databases for **productivity** as well as **curricular** uses (ISTE #1, SOE #1).
7. Conduct search of online databases using queries, forms and site specific search tools, i.e. ERIC database (ISTE #1, SOE #1).
8. Create a lesson plan database for classroom, school or department use (ISTE #1 & 2, SOE #2).
9. Create a lesson plan utilizing database resources and a database as an integral aspect of a classroom curricular activity (ISTE #2, SOE #2).
10. Create a curricular activity database using probeware to collect and integrate data from external devices (ISTE #1 & 2, SOE #2).
11. Import data from spreadsheets, text and other formats into databases
12. Develop a relational database which functions as a Student Information System (SIS) for organizing, manipulating and reporting student data

3. Schedule of required readings, class preparations and assignments, lectures, discussions, student presentations, out-of-class assignments and exams.

| Unit | Module | Topic | Assignment |
|--------|----------|------------------------------|--------------------------------------|
| Unit 1 | Module 1 | Database types | Database types worksheet |
| | Module 2 | Bloom's Taxonomy | Bloom's taxonomy worksheet |
| | Module 3 | Modeling/Thinking with DBs | Thinking with DB worksheet |
| | Module 4 | Standards Infusion Databases | Online Database worksheet |
| Unit 2 | Module 1 | Flat DB in the classroom | Database Techniques Practice 1 |
| | Module 2 | OpenSource DB | Database Techniques Practice 2 |
| | Module 3 | Databases in the classroom | Database Techniques Practice 3 |
| | Module 4 | Databases in the classroom | Database Techniques Practice 4 |
| Unit 3 | Module 1 | Databases for Management | Resource DB Practice 1 |
| | Module 2 | Databases for Management | Resource DB Practice 2 |
| | Module 3 | Databases for Management | Infusing Forms/Reports Worksheet |
| | Module 4 | Databases for Management | Integrating Word Processor Worksheet |
| Unit 4 | Module 1 | Advanced DB Project 1 | DM Database Project Part 1 |
| | Module 2 | Advanced DB Project 1 | DM Database Project Part 2 |
| | Module 3 | Advanced DB Project 2 | DM Database Project Part 1 |
| | Module 4 | Advanced DB Project 2 | DM Database Project Part 2 |

4. RESOURCES:

Required Text(s):

Jonassen, D. H., Carr, C., and Yueh, H.-P. (1998). Computers as mindtools for engaging learners in critical thinking. *TechTrends*, 43(2):24-32. Available Online

Pasewark, Carolyn, Pasewark, William and Cable, Sandra., (2000). **Microsoft Access 2002: Complete Tutorial** (Spiral-bound)
ISBN-13: 978-0619058838

Library Readings

Amany R. Elbanna (2007). Implementing an integrated system in a socially dis-integrated enterprise: A critical view of ERP enabled integration. *Information Technology & People*, 20(2), 121-139. Retrieved May 21, 2008, from ABI/INFORM Global database. (Document ID: 1283941171).

Aust, Ronald; Newberry, Brian; O'Brien, Joseph; Thomas, Jennifer. "Learning Generation: Fostering Innovation with Tomorrow's Teachers and Technology" *Journal of Technology and Teacher Education*, v13 n2 p167-195 Apr 2005 (EJ723713)

Bodi, Sonia. How Do We Bridge the Gap between What We Teach and What They Do? Some Thoughts on the Place of Questions in the Process of Research" *Journal of Academic Librarianship*, v28 n3 p109-14 May 2002. (EJ654061)

Grant, D., Hall, R., Wailes, N., & Wright, C. (2006). The false promise of technological determinism: the case of enterprise resource planning systems. *New Technology, Work & Employment*, 21(1), 2-15. Retrieved

May 21, 2008, doi:10.1111/j.1468-005X.2006.00159.x

Light, Ben; Wagner, Erica. (2006). Integration in ERP environments: rhetoric, realities and organisational possibilities. New Technology, Work & Employment, Nov2006, Vol. 21 Issue 3, p215-228, 14p, 1 chart; DOI: 10.1111/j.1468-005X.2006.00176.x; (AN 22816666)

Light, Ben. (2005). Potential Pitfalls in Packaged Software Adoption. Communications of the ACM, May2005, Vol. 48 Issue 5, p119-121, 3p, 1 chart; (AN 16915860)

MacKnight, Carol B.; "Supporting Critical Thinking in Interactive Learning Environments"; Computers in The Schools, v17, n3-4, p. 17-32, 2001.

Niess, Margaret L.; "Scaffolding Math Learning with Spreadsheets. Learning Connections—Mathematics" Learning and Leading with Technology, v32 n5 p24-5, 48 Feb 2005 (EJ697306)

Pollock, Neil., Cornford, James. (2004). ERP systems and the university as a "unique" organisation. Information Technology & People, 17(1), 31-52. Retrieved May 21, 2008, from ABI/INFORM Global database. (Document ID: 648472831).

Rhodes, Sara, "Online Databases in the History Curriculum: Encouraging Historical Thinking Skills and Positive Discussion Strategies" 2002 (ED475949)

Thorn, C.A. (2001, November 19). Knowledge Management for Educational Information Systems: What Is the State of the Field?, Education Policy Analysis Archives, 9(47). Retrieved [date] from <http://epaa.asu.edu/epaa/v9n47/>

Required Software:

NB: Most of the required software applications are free and openly available for download free of cost. Links to the download sites are under the Blackboard Vista course site at **weblinks**.

- λ Inspiration (30 day trial available) OR IHMC CMAP (Free Open Source Software)
- λ Microsoft Access 2003 (Usually in Microsoft Office)
- λ OpenOffice.org Base (Free Open Source Software – in OpenOffice.org 2.x)

5. EVALUATION: (basis of evaluation with explanation regarding the nature of the assignment and the percentage of the grade assigned to each item below)

NB: The course assignments add up to 100 points. Therefore to find your grade as a percentage of 100 simply add the points.

| Assignment/ Activity | Description | Percentage of Grade |
|----------------------------|--|------------------------|
| Practice Worksheets | λ Practice Worksheets λ Total of 6 Worksheets λ Each worksheet is 5 points | 30 Points |
| Projects | Two integrated projects that combine a number of skills as learned throughout the course. Represents student application and comprehension of database design, use and integration. | 30 Points |

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| Assignments | <ul style="list-style-type: none"> λ Synthesis or evaluative assignments in which students represent what they have practiced/studied. λ Four Assignments λ Each assignment is 4 points | 20 Points |
| Exam | <ul style="list-style-type: none"> λ Assessment of student knowledge of concepts. Also acts as a diagnostic of student learning. | 10 Points |
| Class Participation | <ul style="list-style-type: none"> λ Discussions, Occasional Chat-room discussions, also Responses to e-lectures. λ Not to exceed 16 items (usually 2 for 2 for each week of class) | 10 Points |

6. GRADING SCALE:

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|---|
| 93 – 100 = A 90 – 92 = A- 86 – 89 = B+ 83 – 85 = B 80 – 82 = B- 76 – 79 = C+ |
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Note: ALL PAPERS/PROJECTS MAY BE RETURNED VIA A SELF-ADDRESSED, STAMPED ENVELOPE. PAPERS ARE NOT AVAILABLE FOR PICK-UP IN THE SoE OFFICE.

7. ATTENDANCE:

Attendance is crucial in all online courses. This means that a student is expected to login to the course several times during each week.

I will be available in the course **chat room** at a time specified (usually a set night of the week). You should come in and chat with me on at least 3 occasions. Chats will focus on clarification of course content. You are expected to observe rules of Net Etiquette.

Even though you are not required to be logged in at any precise time or day, you are expected to login several times during each week. It is important to actively participate each week in the course.

The instructor reserves the right to lower the final grade by a letter grade for missed assignments.

Students who do not complete the requirements of the course must contact the instructor prior to the end of the course to complete an Incomplete Course form. A grade of (I) for Incomplete will not be awarded except in emergencies, as defined by the instructor.

NB: An Incomplete may only be awarded to a student who has maintained a passing grade up to the point of the emergency. Incomplete grades will change to a grade of F or NC unless the requirements stipulated on the incomplete form are met by the date listed on the form or one calendar year from the end of the course, whichever comes first.

8. OTHER

It is expected that in this course we will develop a dynamic learning community. This will be characterized by us actively engaging in modeling the use of technologies as they would exist in the classroom (e.g. a WebQuest or Project). The community will facilitate us learning together and working

together for each person's success. Therefore collaboration using *WebCT Vista email* and the *WebCT Vista online discussion forum* is absolutely necessary to keep thoughts ideas and support flowing within our classroom community.

ACADEMIC HONESTY POLICY

Students at Webster University are expected to practice academic honesty.

Avoiding Plagiarism

In its broadest sense, plagiarism is using someone else's work or ideas, presented or claimed as your own. While students are encouraged to communicate concepts and approaches to solving problems, copying the work of others is strictly prohibited.

Consequences of Academic Dishonesty:

Plagiarism may result in a failing grade and immediate discharge from the course.

For further information about the consequences of academic dishonesty please consult the Webster University Student Handbook.

ACCESSIBILITY/ACCOMMODATIONS POLICY

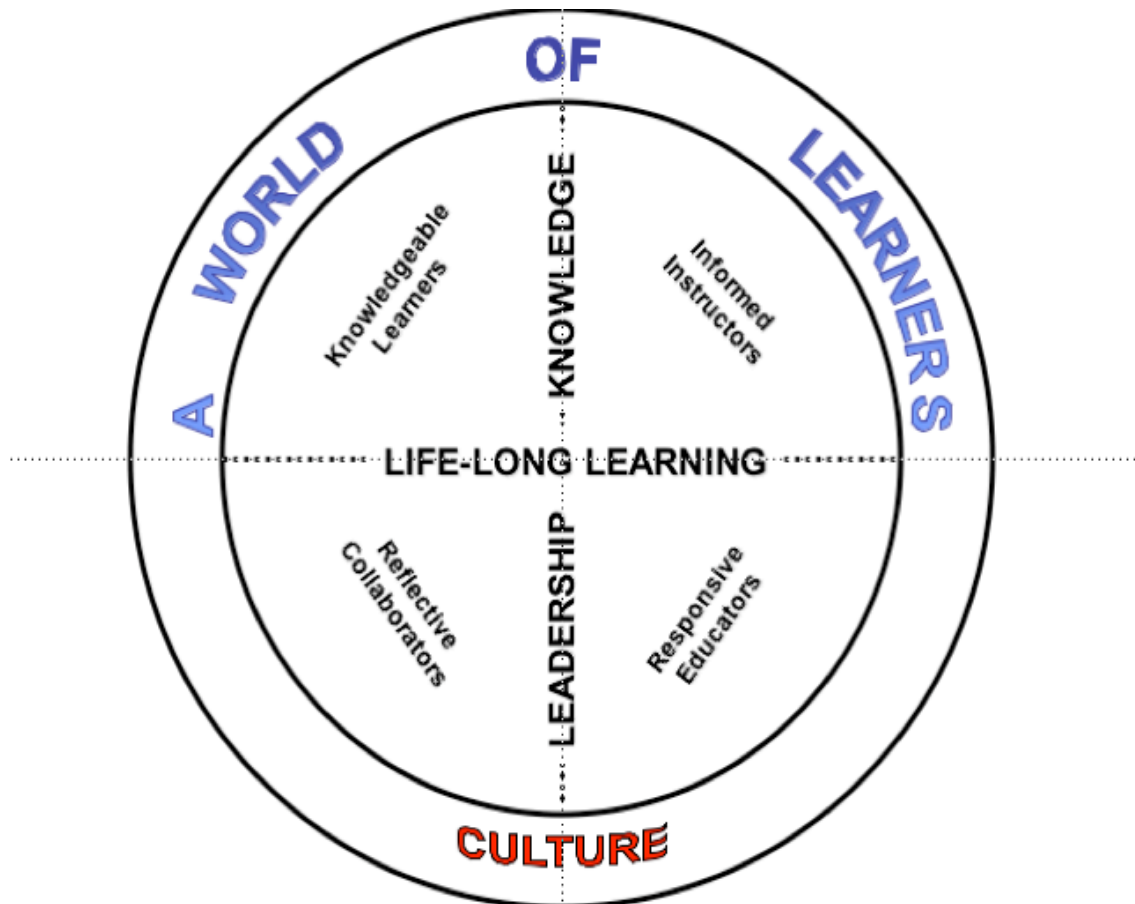
If you have a disability that may have some impact on your work in this class and for which you may require accommodations contact the Director of the Academic Resource Center, Dr. Pat McLeese, at (314) 968-7495.

Webster University School of Education

Vision: “. . . We all must work to make this world worthy of its children.” (Casals, 1970)

Mission: The School of Education at Webster University provides its students with the knowledge, experiences, and practical tools that help them guide both themselves and others toward lifelong learning. The School of Education is a community of educator-scholars who apply critical reflections and creative energies to enhance learning in schools and other educational settings. The faculty strives to support this community by modeling effective teaching practices based on sound theory and research. Personalized approaches create a challenging, yet supportive environment that permits the risk-taking necessary for learning and growth. The School of Education encourages its faculty and students to work actively toward this end, keeping in mind that action must be rooted in visionary, yet realistic, thinking. This thought and action process underscores the development of an inner-directed self-understanding, an outer-directed global perspective, and an appreciation of human diversity that arises from both.

Theme: Developing a world of learners through knowledge, leadership, and life-long learning.



The universal mandala (a circle with intersecting vertical and horizontal lines) graphically represents the conceptual framework of the School of Education. The outer circle provides the framework for a “world of learners” in cultural settings. The two axes represent the theme components of knowledge, leadership, and life-long learning. These lines are broken to emphasize the fluid relationship of the goals and integrated concepts. Each quadrant represents one of the school’s four goals for its candidates: to develop knowledgeable learners, informed instructors, reflective collaborators, and responsive educators.

School of Education Goals

1. Education candidates will demonstrate knowledge of the subject matter, knowledge of the learner, and knowledge of pedagogy based on inquiry and scholarship.

The knowledgeable learner:

- 1.1 knows content that supports conceptual understanding;
- 1.2 applies tools of inquiry to construct meaningful learning experiences;
- 1.3 identifies developmental factors in student learning; and
- 1.4 understands theoretical principles of effective instruction to plan learning experiences.

2. Education candidates will incorporate multiple assessment and instructional strategies to support effective educational practices based on research and theory.

The informed instructor:

- 2.1 designs curriculum based on students’ prior knowledge, learning styles, strengths, and needs;
- 2.2 understands and uses a range of instructional strategies;
- 2.3 uses a variety of communication modes, media, and technology to support student learning; and
- 2.4 employs a variety of formal and informal assessments to monitor learning and modify instruction.

3. Education candidates will reflect on the roles educators take as leaders of change through collaboration with

colleagues, students, and families in schools and communities.

The reflective collaborator:

- 3.1 values and integrates reflection to grow as a professional;
 - 3.2 promotes communication and collaboration with colleagues, families, and community leaders;
 - 3.3 seeks relationships with families and students to support student learning; and
 - 3.4 initiates change that benefits students and their families.
4. Education candidates will demonstrate respect for diversity through responsive teaching and learning that values individual differences.

The responsive educator:

- 4.1 understands and responds appropriately to issues of diversity
- 4.2 acknowledges social and cultural contexts to create effective teaching and learning environments;
- 4.3 adapts instruction to the learner's knowledge, ability, and background experience; and
- 4.4 identifies resources for specialized services when needed.

School of Education Dispositions

NCATE defines dispositions as “the values, commitments and professional ethics that influence behaviors toward students, families, colleagues, and communities and affect student learning, motivation, and development as well as the educator’s own professional growth. “ (Professional Standards, p. 53) There is significant value in focusing attention on qualities that make an effective teacher.

1. Understands and Respects Self
 - 1.1 Understands and respects that s (he) may be different from others
 - 1.2 Embraces an openness to change (adaptability, flexibility)
 - 1.3 Exhibits curiosity
 - 1.4 Engages in reflection
2. Understands and Respects Others
 - 2.1 Understands, respects, and responds appropriately to diversity in a variety of settings
 - 2.2 Exhibits empathy
 - 2.3 Commits to fairness and honesty
 - 2.4 Listens respectfully to other points of view
3. Understands and Respects Professional Communities
 - 3.1 Commits to professional behavior in university and school cultures
 - 3.2 Practices informed decision-making in university and school cultures
 - 3.3 Communicates and collaborates in university and school cultures
 - 3.4 Accepts academic rigor (willingness to work/ high expectations)
 - 3.5 Affects change with courage and confidence