SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

COURSE TITLE:	**Web DBMS**		
CODE NO. :	**CSD320**	**SEMESTER:**	**5**
PROGRAM:	**COMPUTER PROGRAMMER/PROGRAMMER ANALYST**		
AUTHOR:	**Dennis Ochoski**		
DATE:	**Sept/ 2011**	**PREVIOUS OUTLINE DATED:**	**Jan/ 2011**
APPROVED:	"Penny Perrier"		June/11
	_____		_____
	CHAIR		**DATE**
TOTAL CREDITS:	**5**		
PREREQUISITE(S):	**CSD220**		
HOURS/WEEK:	**3**		

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I. COURSE DESCRIPTION:

This course will broaden the student's knowledge of database implementations. The focus will be to use their previous database skills and experiences and apply them to database driven web sites. A combination of technologies will be examined and used throughout the course to expose students to the alternatives that exist in web-based database applications.

The course covers the concepts and practical aspects of creating a web site and web database processing. It will also reacquaint students with relational database concepts, SQL, HTML and more importantly how they relate to creating a database driven web site. Students will be expected to create and manage a web server (Apache). They will be required to code and work with the scripting language, PHP(the "PHP Hypertext Preprocessor"), in the creation of server-side scripts.

The ultimate goal of the course is the creation and implementation of a soundly designed database that is integrated in a realistic and well-designed web site. The students will be expected to work together as team members in developing a fully integrated website.

II. TOPICS:

1. Overview of web based database processing environments and general constructs of PHP programming.
2. Creating web forms and developing scripts using PHP, HTML/XHTML, and SQL.
3. Designing and implementing a web-based database using MySQL.
4. Managing "state" information.
5. Designing, coding and implementing a fully integrated database driven web site in the PHP/MySQL environment.

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III. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

Upon successful completion of this course the student will demonstrate the ability to:

1. Understand the web based database processing environment s and general constructs of PHP programming (chapters 1 – 3)

This learning outcome will comprise approximately **20%** of the course.

Elements of the performance:

- describe the difference between static and dynamic web pages
- describe the environment with respect to HTML/XHTML, PHP and MySQL
- describe the role each server product plays in creating and maintaining an appropriate web site
- create basic PHP scripts and code blocks that include variables, constants, data types, arrays, and, mathematical and logical operators
- define and call functions
- incorporate conditions and looping structures
- manipulate strings

2. Create web forms for user input. (chapters 4, 5 and 6)

This learning outcome will comprise approximately **20%** of the course.

Elements of the performance:

- add action and method attributes
- retrieve and validate submitted data
- redisplay a web form
- understand file types and permissions
- read from and write to files from PHP
- understand and apply the different methods that HTML forms can use to encapsulate data, such as: text fields, checkboxes, radio buttons, listboxes, hidden form fields, password fields, and Submit and Reset buttons
- implement various array concepts into scripts

3. Combine HTML/XHTML, PHP and MySQL to create a data-driven website. (chapters 7 and 8)

   This learning outcome will comprise approximately **50%** of the course.

   Elements of the performance:

   - understand and apply PHP functions that will allow connectivity to a database
   - understand and apply the various ways of retrieving and manipulating data stored in a MySQL database
   - use various PHP functions to process database data
   - properly report MySQL errors
   - insert, update and delete records in a database table using PHP
   - create a fully functional dynamic data-driven web site

4. Manage “state” information. (chapter 9)

   This learning outcome will comprise approximately **10%** of the course.

   Elements of the performance:

   - understand “state” information
   - use hidden form fields, query strings and cookies to save state information
   - use sessions to save state information
   - insert, update and delete records in a database table using PHP
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*****NOTE: The topics specified above will overlap in several areas of skill development and are not necessarily intended to be explored in isolated learning units or in the order specified.**

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IV. REQUIRED RESOURCES / TEXTS / MATERIALS:

The specific book information for this course text is as follows:

Title: PHP Programming with MySQL: The Web Technology Series, 2nd Edition, by Gosselin; Kokoksa; Easterbrooks
South-Western Publishing
ISBN-13: 978-0-538-74584-0

Option 1: Purchase a subscription to a digital copy (eBook).
The student can purchase a web version or a downloadable version. The most common subscription timeframe is 180 days but this varies depending on the text, publisher and/or web site. After the subscription timeframe has expired, the student no longer can access the text unless they extend/renew the subscription. If the bookstore offers an e-version of the text, the subscription timeframe is unlimited, but the subscription cost may be greater. The advantages of the eBook version over the hardcopy version are twofold: savings of approximately 40% – 60%, and, no physical text to carry.

eBook Links: 1) http://www.coursesmart.com/php-programming-with-mysql-the-web-technology/gosselin-kokoska-easterbrooks/dp/9780538745840
2) http://www.nelsonbrain.com/shop/isbn/9780538745840
3) see student portal for availability of e-book version from bookstore (bookstore offers an "unlimited" timeframe on subscriptions)

eBook Help: http://support.coursesmart.com/ics/support/default.asp?deptID=8070&task=knowledge&folderID=53

Option 2: Purchase a hardcopy.

The student may choose to purchase a hardcopy of the text from the above sites or from the bookstore.

Other References

1. **http://php.about.com/od/phpwithmysql/ss/mysql_php.htm**
2. **http://php.net/** **PHP Documentation**
3. http://dev.mysql.com/doc/refman/5.1/en/ **MySQL Documentation**

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V. EVALUATION METHODS:

Tests/Assignments	**Weight**
Assignments	20%
Tests	60%
Project	20%
	100%

The following semester grades will be assigned to students in postsecondary courses:

Grade	Definition	Grade Point Equivalent
A+	90 – 100%	4.00
A	80 - 89%	4.00
B	70 - 79%	3.00
C	60 - 69%	2.00
D	50 – 59%	1.00
F (Fail)	below 50%	0.00

CR (Credit)	Credit for diploma requirements has been awarded.
S	Satisfactory achievement in field /clinical placement or non-graded subject area.
U	Unsatisfactory achievement in field/clinical placement or non-graded subject area.
X	A temporary grade limited to situations with extenuating circumstances giving a student additional time to complete the requirements for a course.
NR	Grade not reported to Registrar's office.
W	Student has withdrawn from the course without academic penalty.

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VI. OTHER EVALUATION CONSIDERATIONS

1. In order to pass this course the student must obtain an overall test/quiz average of **50%** or better, as well as, an overall assignment average of **50%** or better. A student who is not present to write a particular test/quiz, and does not notify the professor beforehand of their intended absence, may be subject to a zero grade on that test/quiz.

2. There will be **no** supplemental or make-up quizzes/tests in this course.

3. Assignments must be submitted by the due date according to the specifications of the professor. Late assignments will normally be given a mark of zero. Late assignments will only be marked at the discretion of the professor in cases where there were extenuating circumstances.

4. Any assignment/projects submissions, deemed to be copied, will result in a **zero** grade being assigned to **all** students involved in that particular incident.

5. It is the responsibility of the student to ask the professor to clarify any assignment requirements.

6. The professor reserves the right to modify the assessment process to meet any changing needs of the class.

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VII. SPECIAL NOTES

Communication:
The professor reserves the right to use tools other than ***WebCT/LMS ,*** such as Microsoft Outlook, for the primary channel of communication.

Attendance:
Sault College is committed to student success. There is a direct correlation between academic performance and class attendance; therefore, for the benefit of all its constituents, all students are encouraged to attend all of their scheduled learning and evaluation sessions. This implies arriving on time and remaining for the duration of the scheduled session. *It is the departmental policy that once the classroom door has enclosed, the learning process has begun. Late arrivers may not be granted admission to the room.*

Absences due to medical or other unavoidable circumstances should be discussed with the professor. Students are required to be in class on time and attendance will be taken within the first five minutes of class. A missed class will result in a penalty in your marks unless you have discussed your absence with the professor as described above. The penalty depends on course hours and will be applied as follows:

Course Hours	Deduction
5 hrs/week (75 hrs)	1.0% /hr
4 hrs/week (60 hrs)	1.5% /hr
3 hrs/week (45 hrs)	2.0% /hr
2 hrs/week (30 hrs)	3.0% /hr

Absentee reports will be discussed with each student. Final penalties will be reviewed and assessed at the discretion of the professor.

VIII. COURSE OUTLINE ADDENDUM:

The provisions contained in the addendum located on the portal form part of this course outline.