BS-CS Program Outcomes Check-List (Spring 2012)

Senior Project

Assessment of Student Outcomes of the BS in Computer Science of the School of Computing and Information Sciences Florida International University

The School of Computing and Information Sciences evaluates the Senior Projects of its graduating seniors for the purpose of assessing the level of attainment of the Student Outcomes of the BS in Computer Science program.

Please complete once per project/team. Your responses to this survey will be used solely to assist evaluators in locating assessment indicators in the documentation of your project.

This survey is expressly NOT for assessment of student performance in the SCIS Senior Project course for assignment of letter grade, nor for assessment of the instructor(s).

Project Title ____vMoodle Phase 3_____

Semester & Year ____Spring 2012_____

Advisor (Faculty / Industry Sponsor): ____Dr. Ming Zhao_____

Team: _____Leduan Camarero_____

_____Qais Mazhar_____

_____Reynier Ortiz_____

_____Austin von Nehring_____

_____

Contact (email / phone): _____qaismazhar@gmail.com_____

Student Outcome (a): *Demonstrate proficiency in the foundation areas of Computer Science including discrete structures, logic and the theory of algorithms*

Discrete Mathematics

- Does the project incorporate elements of mathematical reasoning or proof?
  E.g. Theorem, Mathematical Induction, Propositional Logic, First Order Logic

Mathematical Reasoning / Proof	Deliverable	Page#

- Does the project utilize other elements of discrete mathematics?
  E.g. Set Theory, Boolean Algebras, Combinatorics, Graph Theory

Discrete Math	Deliverable	Page#

Probability & Statistics

- Does the project utilize some statistical procedure(s) to represent or summarize test data?
  E.g. Mean & Standard Deviation, Stem Plot/Histogram, Box Plot/Percentile-Graph

Virtual Machine Performance Monitor	Deliverable 4	32, 60
Data Summary	Deliverable	Page#

- Does the project utilize some statistical measure(s) of system behavior or performance?
  E.g. Probability Distributions, Confidence Intervals, Hypothesis Testing

Statistical Measure	Deliverable	Page#

Theory of Algorithms

- Does the project utilize finite state diagrams to model system behavior?

Finite State Machine	Deliverable	Page#

- Does the project utilize some aspect(s) of formal computer science?
  E.g. Automata, Turing Machines, Recursive Function Theory, Recursive Unsolvability

Automata, etc.	Deliverable	Page#

Student Outcome (b): *Demonstrate proficiency in various areas of Computer Science including data structures and algorithms, concepts of programming languages and computer systems.*

Data Structures & Algorithms

- Does the project utilize an advanced data structure, e.g. search tree, hash table, priority queue?

_____	_____	
Data Structure	Deliverable	Page#

- Does the project utilize some graph algorithm, e.g. shortest path, minimum spanning tree?

_____	_____	
Algorithm	Deliverable	Page#

- Does the project implement some other (non-trivial) algorithm?

Load Balance Analyzer	Presentation 4	Slide 23
Algorithm	Deliverable	Page#

- Does the project analyze run-time complexity of any algorithms?

Load Balance Analyzer	Presentation 4	Slide 23
Algorithm	Deliverable	Page#

Concepts of Programming Languages

- Does the project utilize knowledge of programming language syntax/parsing?
  E.g. Context-Free Grammars, Parse Trees, Recursive Descent

_____	_____	
Syntax/Parsing	Deliverable	Page#

- Does the project utilize knowledge of programming language semantics?
  E.g. Natural Semantics, Interpreters, Expressions, L- and R- Value

_____	_____	
Semantics	Deliverable	Page#

- Does the project utilize knowledge of design issues such as scoping rules, type checking?

_____	_____	
Design Issues	Deliverable	Page#

Computer Systems (Operating Systems)

- Does the project utilize knowledge of memory management techniques?

_____	_____	
Memory Management	Deliverable	Page#

- Does the project utilize knowledge of process synchronization?

_____	_____	
Process Synchronization	Deliverable	Page#

- Does the project utilize knowledge of distributed processing?

_____	_____	
Distributed Processing	Deliverable	Page#

- Does the project utilize knowledge of device management?

_____	_____	
Device Management	Deliverable	Page#

Computer Systems (Database Systems)

- Does the project utilize knowledge of information storage and/or retrieval?

DBMS	4	25-27
Information Management	Deliverable	Page#

- Does the project utilize conceptual or relational database schema?

Relational	4	25-27
Schema	Deliverable	Page#

- Does the project utilize a database query language, e.g. SQL?

SQL	(not shown in deliverables)	
Query Language	Deliverable	Page#

Student Outcome (e): *Demonstrate understanding of the social and ethical concerns of the practicing computer scientist*

- Where does the project document license/copyright, sources/references?

Deliverable	Page#	Deliverable	Page#
User Guide	2		

- Where does the project identify and address any relevant social issues?

Deliverable	Page#	Deliverable	Page#

- Where does the project identify and address any relevant ethical issues?

Deliverable	Page#	Deliverable	Page#

- Where does the project identify and address any relevant legal issues?

Deliverable	Page#	Deliverable	Page#

- Where does the project identify and address any relevant privacy issues?

Deliverable	Page#	Deliverable	Page#

- Where does the project document any anticipated impact on users/clients?

Deliverable	Page#	Deliverable	Page#

- Where does the project document any anticipated technology impact issues?

Deliverable	Page#	Deliverable	Page#

Program Outcome (h): *Have experience with contemporary environments and tools necessary for the practice of computing*

To be completed by the team. List the tools and IDE's that you used at any stage of your project
Competency Rating Scale **5**: Expert, **4**: Advanced, **3**: Competent, **2**: Intermediate, *1*: Novice

____ **Presentation Aids** (MS PowerPoint, Adobe Acrobat, etc.)

Domain	Software / Tool	Competency
Presentation	MS PowerPoint	5
Demonstration		

____ **Document Preparation** (MS Word, MS Visio, LaTeX, UMLet, etc.)

Domain	Software / Tool	Competency
Document Editing	MS Word	5
Diagramming	MS Project	5

____ **Programming Languages & IDE's** (Java, C, C++, C#, SQL, PhP)

Domain	Software / Tool	Competency
Programming Language	PHP	5 (not all group members)
IDE or OS	Linux	5

____ **Project Management** (MS Project, AtTask, version control tools, etc.)

Domain	Software / Tool	Competency
Project Management		

____ **Modeling** (StarUML, Rational Rose, etc.)

Domain	Software / Tool	Competency
UML Modeling		

____ **Database Management** (MS Access, Oracle RDBMS, Apache Cassandra, etc.)

Domain	Software / Tool	Competency
DBMS	PHPMyAdmin	5

____ **Web Servers** (Apache Tomcat, Windows server, etc.)

Domain	Software / Tool	Competency
Web Server	LAMP (linux)	5

____ **Software Testing Tools** (JUnit, Cobetura, etc.)

Domain	Software / Tool	Competency
Testing		

____ **Other**:

Domain	Software / Tool	Competency