Mississippi Valley State University
Mathematics, Computer & Information Sciences
Itta Bena, Mississippi 38941

Course Syllabus

Course Number:	CS 455	**Meeting Times:**	MWF 9:00 – 9:50 AM
Course Title:	CS Senior Project	**Credit Hours:**	3 Semester Hours
Course Instructor:	Timothy Holston	**Course Coordinator:**	Timothy Holston
Email:	thost@mvsu.edu	**Website:**	http://bluebird.mvsu.edu/~tholston/
Office Hours:	**MW** 1:00 PM – 2:00 PM *&* **TR** 1:00 PM – 5:00 PM		

Catalog Description: A comprehensive computer project with considerable detail should be completed under supervision of a faculty member. Topics should be decided in consultation with a faculty member. **Course Prerequisites:** Senior in computer science and grade of C in CS 425.

Textbook(s) and other Required Materials: Not Required

Program Outcomes:
Student will be able to:

1.1. An ability to use current techniques, skills, and tools necessary for computing practice.
1.2. An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices.
1.3. An ability to apply design and development principles in the construction of software systems of varying complexity.
2.1. An ability to apply knowledge of computing and mathematics appropriate to the program's student outcomes and to the discipline.
2.2. An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution.
2.3. An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs.
3.3. An ability to communicate effectively with a range of audiences.

Course Outcomes:
Students will be able to:

1. Use UML diagrams to represent their software system's design and implementation
2. Write reports in IEEE format by summarizing, synthesizing, and reporting the results of scholarly research related to the field of computer science.
3. Demonstrate the ability to propose, design and implement a software system that solves a problem.
4. Demonstrate the ability to communicate the implementation of the software system by documentation and oral presentation

Course Outcomes Mapped to Program Outcomes											
Course Title											
Course Outcomes	P0 1.1	PO 1.2	PO 1.3	PO 2.1	PO 2.2	PO 2.3	PO 3.1	PO 3.2	PO 3.3	PO 3.4	PO 3.5
1	X	X	X	X	X	X			X		
2		X		X					X		
3	X	X	X	X	X	X			X		
4	X	X		X	X	X			X		

Major Topics Covered in Course:

Software Requirements	3 wks
Algorithm Implementation	5 wks
UML Diagrams	5 wks

Laboratory Projects:

Research/Implementation of Software	13 wks

Estimated CSAB Category Content		
	Core	**Advanced**
Data Structures		0.5
Algorithms		0.5
Computer Organization & Architecture		1.0
Concepts of Programming Languages		1.0
Software Design		0.0

Oral and Written Communications:
Students will be required to write a prospectus, give an oral presentation, and one final written report of project.

Social and Ethical Issues:
No component

Theoretical Content:
Algorithm Design
Object Oriented Design

Problem Analysis & Solution Design: Students will work under a CS faculty member to come up with an optimal solution to a real-world problem. Students will be given problem descriptions in which they have to come up with a correct design. They will be required to give an analysis and reasons for different implementations

Grading Scale:		**Course Evaluation:**	
90 – 100	A	Prospectus	10%
80 - 89	B	Bibliography	10%
70 - 79	C	Weekly Status Reports	5%
60 - 69	D	**Project Design**	
59 - below	F	SRS	10%
		SDD	10%
		User Manual	5%
		Written Report	15%
		Oral Presentation	15%
		Implementation	20%

Attendance Policy: Students are required to keep regular attendance to classes. Students are allowed to miss three (3) days of class. Any greater number of absences will result in the student failing the course.

Late/Missed Assignments: Since assignments must be emailed, no assignments will be allowed to be submitted past the deadline.

Student with Special Needs: Mississippi Valley State University is committed to providing reasonable accommodations for students with a documented disability. If you feel you are eligible to receive accommodations for a covered disability (medical, physical, psychiatric, learning, vision, hearing, etc.) and would like to request it for this course, you must be registered with the Services for Students with Disabilities (SSD) program administered by University College. It is recommended that you visit the Disabilities Office located inside the EMAP Computer Lab in the Technical Education (IT) Building to register for the program at the beginning of each semester.

For more information or to schedule an appointment, please contact Mr. Billy Benson, Jr. via phone or email at 662-254-3005 or billy.benson@mvsu.edu.