



**NORTHWEST**  
MISSOURI STATE UNIVERSITY  
MARYVILLE | KANSAS CITY

**School of Computer Science Information Systems**

**44643-01/44443-01**

**Mobile Computing – iOS**

**3 Credit hours**

**Spring 2024**

**Instructor: Dr. Ajay Bandi**

**Office hrs:**

MWF – 11:00 am to 12:00 pm

MWF – 2:00 pm to 3:00 pm

W – 3:00 pm to 4:00 pm

**Email:** [ajay@nwmissouri.edu](mailto:ajay@nwmissouri.edu)

**Office:** CH 2250

**Phone:** 660-562-1199

**Prerequisites:** [CSIS 44242](#) with a grade of C or better, or [CSIS 44542](#) with a grade of B or better

**Textbook and supplementary materials:** All the materials will be posted on Northwest Online.

**Course description:** Students will learn the intricacies of mobile computing development with an emphasis on the iOS platform.

**Student learning outcomes:**

- Learn Swift programming basics.
- Create a project in XCode.
- Design and implement apps in the UIKit framework while adhering to coding standards.
- Understanding the key components of the Foundation and UIKit frameworks.
- Effectively debug and resolve the errors in an application.
- Design responsive UI using stacks and constraints.
- Learn how to import third-party packages and implement protocols and delegates.
- Create animations, use media components, and complex controllers (collection view controller, table view controller, etc.)

**Assessment methods:** Assignments, final project, research paper, and class participation

**Instructional methods:** Instructional methods may include lectures, practical demonstrations, classroom practice, class projects, individual projects, and interactive question and answer sessions.

**Late Submission Policy:** Late submissions are allowed for 24 hours after the due date with a deduction of 10% of the evaluation points; after that, the evaluation will be ZERO.

**Graded course requirements for graduates:**

Category	Points	Percentage
Assignments	150	30%
Final Project	100	20%
Research paper	50	10%
Exams	150	30%
Class Participation (Miscellaneous)	50	10%
Total	500	100%

**Graded course requirements for undergraduates:**

Category	Points	Percentage
Assignments	150	33%
Final Project	100	22%
Exams	150	33%
Class Participation (Miscellaneous)	50	12%
Total	450	100%

**Grading scale:**

Undergraduate Credit (44443)	
Percent Range	Grade
88-100%	A
>= 78% and < 88%	B
>= 68% and < 78%	C
>= 58% and < 68%	D
below 58%	F

Graduate Credit (44643)	
Percent Range	Grade
90-100%	A
>= 80% and < 90%	B
>= 70% and < 80%	C
>= 60% and < 70%	D
below 60%	F

**Course outline/major topics studied:**

Week	Topic	App	Assignment
1	Course Discussion and installation guide	No App	Student Agreement
2	Introduction to swift (Swift playgrounds), Basics (Variables, constants, datatypes, operators, optional) Control Flow (if-else, switch	Hello App Vowel Tester App	Assignment-01
3	Research Paper	Calculator App	Assignment-02
4	Strings	Search Strategies from Librarian.	Assignment-03
5	Discussion on Research Paper Milestone 1 Discussion on Research paper topic Functions	Discount App	Research Paper Milestone 01
6	Dictionaries	Help session in class.	
7	Arrays	Exam - 01	
8	Research Paper and Project Group Discussions Arrays	Help Session	Assignment-04
9	Help Session	WordGuessApp	Assignment-05
10	<b><u>SPRING BREAK</u></b>		
11	Coordinates Animations Project group discussion	Demo App	Project Milestone - 01
12	Multiple View Controller	BMI App	Research Paper Milestone - 02
13	Table View	Product App	Assignment-06
14	Collections View	Exam - 02 Movie App Demo	Project Milestone - 02 Assignment 07
15	Help Session	Exam - 03	
16	<b>Finals Week</b>		Research Paper Milestone - 03 Project Milestone 03 Project Milestone 04

**Note:** Course schedule is subject to change with instructor notification and students will be responsible for abiding by these changes.

**Attendance:** Students are expected to attend all classes as specified in the course syllabi for each course. It is the responsibility of the student to promptly notify their instructor when unable to attend class. Please refer to the university policy on attendance at <https://www.nwmissouri.edu/policies/academics/Attendance.pdf>