CS 4/54003 - ST: Mobile App Development For iOS Syllabus

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Term  Spring 2019
Section  CS 44003-001, Course Number (CRN) 12497
         CS 54003-001, Course Number (CRN) 12526
Meeting Info  Meeting times:
               TR  5:30 pm - 6:45 pm, Mathematical Sciences Building 106
Office  MSB 272
Office hours  Tuesday, Thursday  4:15 p.m. - 5:15 p.m.
             By appointment, send email to arrange an appointment
www address  web.cs.kent.edu/~whaverst
CS dept.  Office: 241 MSB (Mathematical Sciences Building)
URL:  www.kent.edu/cs
Text  There is no required text book.
         Material will be provided in on-line notes. See my web site.
Prerequisite  Computer Science II or an equivalent programming course in a high-level programming language such as C# or Java.
         It is assumed that people taking this class know the following.
         • Programming fundamentals, loops, etc.
         • Functions, parameter passing, writing functions
         • Using objects, calling functions/methods on objects, accessing data members/fields.
         • Creating classes.
         • How to build and run a program in some environment.
Software Version  The Xcode IDE is used for this class.
         If you are, or will be, using versions of Mac software, including Xcode and the Mac operating system, that are not the most recent version or the version installed on the Macs in the KSU library you must talk to the instructor to see how the instructor may run the apps you write.
         The instructor must be able to run programs written by students.
         If the instructor is not able to run your code you will need to demo each assignment, when the assignment is due, for the instructor.
If the instructor is unable to run your app the best score for the app will be 50 for that app.

**Course Learning**

Students learn the fundamentals of Application Development for iOS (iPhone, iPad, etc.). This includes using the Swift programming language, Xcode, the iOS SDK (Software Development Kit), and other tools and technologies used in iOS App development.

**In-class Activities**

Students listen to lectures, see preexisting and spontaneously created example code, ask questions, and discuss the material. One midterm exam and a final exam are required.

**Outside Class Activities**

Reading the online notes, programming assignments, programming exercises, and a project are required.

**Grading**

The final grade will be determined by the following components using the associated weights.

- Midterm Exam: 25%
- Final Exam: 25%
- Assignments: 25%
- Exercises: 5%
- Project: 20%

Use the following formula to compute your combined average and look up the result in the grading scale.

\[
\text{combined\_ave} = \text{midterm} \times 0.25 + \text{final} \times 0.25 + \\
\text{assignment\_ave} \times 0.25 + \\
\text{exercise\_ave} \times 0.05 + \text{project} \times 0.2
\]

In the formula `midterm` and `final` mean the scores for the midterm and final exams.

Use estimated values for scores and averages you do not have at this point.

Graduate students will be held to a higher academic standard via more rigorous grading and/or additional requirements on assigned course work.

Grading note: Items turned in on time will usually be graded promptly, often by the next class. Items turned in late will take longer as I will usually wait for other late items to be turned in so they may be graded together.

**Exams**

Exams for the graduate and undergraduate sections may be different.

Each student must take the exam for her/his section (undergraduate or graduate). Failure to do so will result in a 25
point deduction on the exam score. It is the student's responsibility to make sure the student has the correct exam when the exam is handed out. Once a student has begun taking an exam the student may not change exams.

**Midterm Exam**  
A midterm exam will be given.  
A study guide for the midterm will be posted on my web page. The midterm will be announced one week in advance.  
A make-up exam will only be given in the case of an excused absence or a documented, valid emergency. If you anticipate missing the exam see me and we will try to reschedule it.

**Final exam**  
The final exam is comprehensive.  
A study guide for the final exam will be posted on my web page.

**Final exam time**  
The final exam will be at the time indicated in the [KSU exam schedule].

- **Tuesday**, **May 7**, 5:45 - 8:00 p.m.

**Assignments**  
A number of programming assignments will be given.  
Details for each assignment, including requirements and due date, will be given when the assignment is assigned.  
The assignments are programming assignments that are targeted on specific skills.  
Turning in a programming assignment consists having the program file(s) in the repository.  
Assignments are due on the specified day. Your code must be in the repository by the end of the day (11:59 PM) on the specified day.  
It is the student's responsibility to make sure assignment files are in the repository. Files not in the repository are not accessible by the instructor and thus are not turned in.  
There will be a deduction of 5% per day (every day) for late assignments. Grace periods are allowed, see the *Grace Period* section below.  
Details on the assignments and the requirements for them will be given when they are assigned. See the general program requirements link for requirements that apply to all programs.  
Unless otherwise specified on the assignment page or the main class web page **all assignments, including the project, must be turned in by the Friday before final exam week.**

**Exercises**  
A number of programming exercises will be given.  
Details for each exercise and the requirements for it will be given when it is assigned.
Exercises will involve carrying out a straight-forward set of instructions.

Turning in an exercise consists of having a screen shot of the completed exercise in the repository.
No code will be turned in for an exercise.

Exercises are due on the specified day. Your code must be in the repository by the end of the day (11:59 PM) on the specified day.

It is the student's responsibility to make sure exercise file is in the repository. Files not in the repository are not accessible by the instructor and thus are not turned in.

There will be a deduction of 5% per day (every day) for late exercises. Grace periods are allowed, see the Grace Period section below.

Details on the exercises and the requirements for them will be given when they are assigned. See the general program requirements link for requirements that apply to all programs.

Unless otherwise specified on the exercise page or the main class web page all exercises must be turned in by the Friday before final exam week.

**Project**
The project must integrate a number of elements including multiple screens and other iOS features.

A project description will be required near the middle of the term. Details for the project will be given at this time.

Two people in this class may work together on the project. Three or more person projects are not permitted.

**Grace Periods**
A grace period is 48 hours.

You have 2 grade periods to use on assignments and/or exercises. Grace periods do not apply to the project.

A grade period request is made by putting an empty grace period request file in the repository. See the assignment and exercise web pages for details.

To be counted
- A grace period request must be in the repository by the assignment deadline.
- A grace period request file must have a file name with the structure specified in the assignment requirements.

Grace period requests will not be accepted from email.

**Grading Scale**
Scale for combined average to class grade conversion:

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NF/SF Grading

The NF (Never Attended F) grade denotes that the student never attended one class session nor did the student formally withdraw from the course. The NF grade will count as an F (zero quality points) in computing grade point averages.

The SF (Stopped Attending F) grade denotes that the student stopped attending the course and did not formally withdraw from the course. A student who misses more than two consecutive classes without electronic or verbal communication to the faculty member will receive a grade of SF for the course. The grade of SF may be removed by the instructor. The SF grade will count as an F (zero quality points) in computing grade point averages date of last attendance in the course.

Plagiarism -

Copying or plagiarism of any type will not be tolerated and will be dealt with in accordance to Kent State University's policy on cheating and plagiarism described in the student handbook.

ADMINISTRATIVE POLICY AND PROCEDURES REGARDING
STUDENT CHEATING AND PLAGIARISM (Condensed Version)

For complete policy and procedure go to the KSU Policy Register, 3 - 01.8.

Cheating and plagiarism constitute fraudulent misrepresentation for which no credit can be given and for which appropriate sanctions are warranted and will be applied.

The university affirms that acts of cheating and plagiarism by students constitute a subversion of the goals of the institution, have no place in the university and are serious offenses to academic goals and objectives, as well as to the rights of fellow students.

"Cheat" means to intentionally misrepresent the source, nature, or other conditions of academic work so as to accrue undeserved credit, or to cooperate with someone else in such misrepresentation. Cheating includes, but is not limited to:

1. Obtaining or retaining partial or whole copies of
examinations, tests or quizzes before these are distributed
for student use;
2. Using notes, textbooks or other information in examinations,
tests and quizzes, except as expressly permitted;
3. Obtaining confidential information about examinations, tests
or quizzes other than that released by the instructor;
4. Securing, giving or exchanging information during
examinations;
5. Presenting data or other material gathered by another
person or group as one's own;
6. Falsifying experimental data or information;
7. Having another person take one's place for any academic
performance without the specific knowledge and permission
of the instructor;
8. Cooperating with another to do one or more of the above;
9. Using a substantial portion of a piece of work previously
submitted for another course or program to meet the
requirements of the present course or program without
notifying the instructor to whom the work is presented; and
10. Presenting falsified information in order to postpone or avoid
examinations, tests, quizzes, or other academic work.

"Plagiarize" means to take and present as one's own a material
portion of the ideas or words of another or to present as one's
own an idea or work derived from an existing source without full
and proper credit to the source of the ideas, words, or works. As
defined, plagiarize includes, but is not limited to:

a. The copying of words, sentences and paragraphs directly
   from the work of another without proper credit;
b. The copying of illustrations, figures, photographs, drawings,
   models, or other visual and nonverbal materials, including
   recordings of another without proper credit; and
c. The presentation of work prepared by another in final or
draft form as one's own without citing the source, such as the
use of purchased research papers.

**Academic Sanctions**

The following academic sanctions are provided by this rule for
offenses of cheating or plagiarism. Kent campus instructors shall
notify the department chairperson and the student conduct office
each time a sanction is imposed. Regional campus instructors
shall notify the regional campus dean and the student conduct
officer each time a sanction is imposed. Regional campus student
conduct officer shall notify the Kent student conduct office each
time a sanction is imposed by a regional campus Instructor. The
following academic sanctions are provided by this rule for
offenses of cheating or plagiarism. In those cases the instructor may:

1. Refuse to accept the work for credit; or
2. Assign a grade of "F" or zero for the project, test, paper, examination or other work in which the cheating or plagiarism took place; or
3. Assign a grade of "F" for the course in which the cheating or plagiarism took place; and/or;
4. Recommend to the department chair or regional campus dean that further action specified in the rule be taken. The department chairperson or regional campus dean shall determine whether or not to forward to the academic dean or to the vice president for the extended university a recommendation for further sanction under this rule.

**Academic Appeals**

The general principle that applies to the following procedures is that an appeal is directed to the administrative level immediately above the unit from which the appeal emanates.

Appeals are limited to the following reasons:

a. The decision is arbitrary or unreasonable,
b. The decision resulted from a procedural error,
c. The decision is not in accordance with the facts presented,
d. New information is available which may suggest modification of the decision.

**Plagiarism**

**IMPORTANT PLAGIARISM SPECIFICS FOR THIS COURSE**

All homework and programs must be your own work. Any violation means that the work will not be accepted and a score of 0 will be given.

All sources of referenced material must be cited.

Students may discuss the programming assignments with each other.

Students may look at each other's code.

Each student must write her/his own program.

Group programming is NOT permitted.

Sharing files is not permitted. It is not permitted to copy, in any manner, assignment related material (except material provided by the instructor).

- You are not permitted to give a file to another student.
- You are not permitted to accept a file from another student.
It is each student's responsibility to not leave his/her files on public computers.

If shared files are discovered each person with a copy of the shared file will receive a 0 for the assignment. The student who created the original is responsible for not allowing access to the file and the student with the copy should not be using another person's file.

Also:

- You are not permitted to use a file found on a public computer.
- You are not permitted to use solution files found on the Internet.
  You may use Internet material to guide you to your own solution.

Copy and paste of more than a line or two from another source is NOT permitted.

You should understand and be able to explain any part of any assignment you turn in. The instructor may ask you to do this.

**Disability**

University policy 3342-3-01.3 requires that students with disabilities be provided reasonable accommodations to ensure their equal access to course content. If you have a documented disability and require accommodations, please contact the instructor at the beginning of the semester to make arrangements for necessary classroom adjustments. Please note, you must first verify your eligibility for these through Student Accessibility Services (contact 330-672-3391 or visit [www.kent.edu/sas](http://www.kent.edu/sas)) for more information on registration procedures.

**Registration**

University policy requires all students to be officially registered in each class they are attending. Students who are not officially registered for a course by published deadlines should not be attending classes and will not receive credit or a grade for the course. Each student must confirm enrollment by checking his/her class schedule (using Student Tools in FlashLine) prior to the deadline indicated. Registration errors must be corrected prior to the deadline.

Registration dates may be found on the registrar's calendar, [spring important dates](#).

See the registrar's calendar for the last day to withdraw from this course or to process a Complete Term Withdrawal.

**Academic Presence Verification**

I am required by the University (who is required by the government) to indicate for each student whether or not he/she has attended class. This is called Academic Presence Verification.
A student who has completed the first exercise or signed the sign-in sheet will have fulfilled the Academic Presence requirement.

Students who have not fulfilled the Academic Presence requirement by the end of the third week of the semester will be marked as *never attended* on the class Academic Presence Verification web page and given a grade of NF (Never Attended F).

This can be undone if need be.

### Policies

**Attendance Policy:** Attendance is necessary and expected. All students must be on time and engaged in classroom proceedings. Note that it is almost impossible to be successful in any class without regular attendance.

The instructor may sometimes take attendance. When an attendance sheet is passed around put your name only on the attendance sheet.

**Absence Policy:** It is the student's responsibility to promptly notify the instructor about an absence prior to the missed class session and discuss with the instructor how to fulfill academic responsibilities. Notification must be provided in writing or e-mail.

While classes are conducted on the premise that regular attendance is expected, the university recognizes certain activities and events as legitimate reasons for absence from class.

- **Illness or Injury** - In the event of an absence due to illness or injury, verification from the medical professional treating the illness or injury preventing the student from attendance during class time should be presented to the instructor when the student returns to class. Dates in which the student was diagnosed and may return to class should be present on the verification. Students should discuss with the faculty member how to fulfill their academic responsibilities while coping with their illness or injury.
  *University Health Services (UHS) does not provide excuses for students who miss a class, exam, presentation or other academic responsibility due to illness or injury. UHS Walk-Out Statements are not accepted as verification.*

- **School Sponsored Event** - Students who anticipate absences due to a school sponsored event or participation in an approved concert or athletic event should present a "Class Absence Authorization Form" identifying absences and identifying the event sponsor's name and contact information to instructor before the end of the second week of the semester.

- **Other** - Other legitimate reasons for class absence include
death in the immediate family, or religious observance. Students should provide legitimate verification of participation in/attendance at the aforementioned events.

**Missed Class Policy:** It is up to the student to make up any missed material. If class is missed it is best to get notes from a fellow student (who has taken good notes). This will be the best record of what transpired during the class meeting. Sometimes, in response to questions or as seems beneficial, further explanation will spontaneously be created by the instructor and written on the board. The instructor may retain no written record of this.

**Handwriting Policy:** All handwritten work must be legible to the instructor and grader. This includes not writing using tiny characters. Unreadable (by the instructor) work will not be graded and the points will be lost.

**Score Change Policy:** A score is final one week after the score has been given. After one week the score will not be changed. It is the student's responsibility to notify the instructor by email within this one week period if there is a score issue and the instructor will address the issue.

**Assignment Regrading Policy:** Assignments will not be regraded to allow students to improve their score. Fulfill the requirements so that there are no point deductions when the assignment is graded. One exception, the Program Build/Run Policy.

**Program Build/Run Policy:** All programs must build and run. Programs that don't build will be quickly looked over and if it seems like the program is mostly done a score of 50 will be given. You may fix your program and resubmit it with a 6 point deduction for the first occurrence (one time only) and a 8 point deduction for all subsequent occurrences (these deductions will accumulate on an assignment). The program must be fixed and resubmitted by end of the third day following the day the score was assigned.

**Grade Determination Policy:** A student's grade will not be changed because the student needs a better grade. Grades are determined by the weights and grading scale specified above.

**Extra Credit Policy:** There is no extra credit.

**Programming Language Policy:** All programs must be written in Swift 4. Objective C may not be used. There will be a 60 point deduction for any assignment the uses Objective C or earlier version of Swift. No resubmission will be allowed. The only exception will be on the project where a needed library is only available in Objective C. Instructor permission in an email is required for this Objective C exception.
Email Policy: All email to the instructor must be sent from your kent.edu email account. Email from other accounts will be ignored by the instructor. This requirement is so that the instructor is certain who he is communicating with.

Special Permission Policy: Special permission circumstances are rare. If some circumstance arises that a student requires special permission for the student must make the request to the instructor in an email (after having talked to the instructor) and receive an email from the instructor granting the special permission. Without an email from the instructor allowing the special permission there is no special permission. This prevents mis-understandings.

E-cigarette Policy: Using e-cigarettes in class is not permitted.

Final Exam Viewing Policy: A student may view her/his final exam after the semester is officially over (this includes after class grades are submitted to the University).

Syllabus Awareness Policy: It is the student's responsibility to be aware of the contents of the syllabus.

Requirements Awareness Policy: It is the student's responsibility to be aware of assignment requirements and other important information on the instructor's web site or in Blackboard. The instructor will go over requirements in class as they become relevant.

Syllabus Amendment Policy: The instructor may amend the syllabus. The syllabus may be amended for clarification. Any amendment that is made will only be made such that it is of possible benefit to every student at the time the amendment is made. Any amendment will be added in color with the date the amendment is made. Amendments are rare.

Miscellaneous
Do not talk to others during class. It is very distracting to other students when someone talks to another person during class. Even when whispering your voice carries further than you likely realize.
Read the online notes. The online notes contain the material that you will be expected to know.
Do not allow personal devices to make sounds during class, obviously it is a distraction to the rest of the class when a device begins making noise.
The instructor may occasionally address a student in class by her/his first name. If you do not want this for yourself notify the instructor in person AND by email.
This is a computer programming course. Computer programming is best learned by writing computer programs. You will need to spend time at the computer writing programs.

Start work on a programming assignment as soon as possible after it is given. This will allow you to discover things that aren't clear to you and ask questions about them. It is hard to write a program quickly at the last minute, it is highly recommended to avoid this situation.

If you need to leave class early please inform the instructor before class begins and, if possible, sit near the door.

See my web pages (www address above) for additional information, assignments, etc.

If you have any problems, including understanding the material that we cover in class or using the computer, please talk to me.

Main