Course Syllabus

MIS 2845 001 REM – Applied Program Development

Fall 2020

3 Credit Hours

COVID-19 Notice: https://www.memphis.edu/fcbe/faculty/covid_19_notice.php

Instructor: Yinan Yu, Assistant Professor
Time: 9:40 am – 11:05 am, Tuesday and Thursday (Zoom meeting)
E-mail: yyu4@memphis.edu
Office: FAB 336
Office Hours: Thursday 2:30 pm – 5:30 pm (Zoom meeting)
Teaching Assistant: Bhanu Kankanala
TA Email: bknknala@memphis.edu

Course Overview:

The skills of software development are becoming essential to almost every task of an organization. Many business organizations require their employees to have excellent skills in software development not only for developing a marketable application, but also for achieving business goals such as advanced data analytics, inventory management, artificial intelligence, database development, marketing, consulting, and so on. This course introduces the fundamentals of software development using languages and techniques widely employed in the business environment. In particular, we will study Java this semester.

Java is an “object-oriented programming” (OOP) language that is one of the most important programming paradigms in modern software development. As one of the most widely used OOPs, 80% of the world’s business software developments adopt the Java programming interface. The objective of this course is to introduce the fundamental concepts, principles, methods, and techniques of OOP using Java.

The topics covered in this course can be largely divided into two parts. The first part is focused on the foundation of programming. It covers basic programming concepts, including objects, classes, control statements, collections of objects, encapsulation, cohesion and so on. The second part covers more advanced topics, including inheritance, abstract classes, interface, exception handling and OOP design.
Pre-Requisite

MIS 2749

Required Texts and Related Materials

• All students are expected to purchase the textbook:
  Starting Out with Java: From Control Structures through Objects
  Edition: 7th
  ISBN: 0134802217
  Author: Tony Gaddis
  Publisher: Pearson

• Lecture notes posted on the eCourseware website

Software:

• Java SE Development Kit 14
  https://www.oracle.com/java/technologies/javase-jdk14-downloads.html

• Eclipse Integrated Development Environment (IDE) for Java Developers

The instructions for installing the JDK and IDE will be uploaded on eCourseware.

Location of Course Materials

Course materials are available online at elearn.memphis.edu. They include lecture slides, handouts, assignments, grades and other course-related information. Course materials are organized into modules based on topics.

Course Objectives

After successfully completing this course, students will be able to:

• Analyze problems and develop algorithms to solve them
• Make use of variables, expressions, control structures, and arrays in Java programs
• Organize program code using methods following the software engineering principles of modularity
• Write, document, test, and debug Java programs in commonly used IDEs
• Read and understand introductory Java programs
• Understand the fundamental concepts in object-oriented programming
• Develop simple GUIs in Java

Fogelman College: Learning Outcomes for Your Degree

The Fogelman College has established the following learning goals for all students successfully completing the BBA degree:

• Graduates will be effective communicators.
• Graduates will demonstrate critical thinking skills.
• Graduates will be knowledgeable about ethical factors in the business environment.
• Graduates will be knowledgeable about the global business environment.
• Graduates will be proficient users of business presentation and analysis technology.

Course Methodology

Combination of lecture and hands-on programming activities.

Professor’s Expectations

Students are expected to learn all the teaching materials posted on eCourseware, conduct hands-on activities, review the course content after class, and complete assignments on time. Students are strongly encouraged to contact the professor and TA to discuss any concerns about this course or seek any additional help with course materials if needed. It is critical that students have access to computers with the installed software tools.

Student’s Expectations

Course materials will be well-organized and posted on eCourseware in advance. You will be engaged in an active and supportive learning environment. I will respond to your emails within 2 business days if not sooner. Submissions will be graded within 7 to 10 business days and your up-to-date grade will be posted on eCourseware throughout the semester.

Grading and Evaluation Criteria

Final Course Grades

Final course grades are computed as follows:

<table>
<thead>
<tr>
<th>Point Range</th>
<th>Letter Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>90.0 and above</td>
<td>A</td>
</tr>
<tr>
<td>80.0 - 89.9</td>
<td>B</td>
</tr>
<tr>
<td>70.0 - 79.9</td>
<td>C</td>
</tr>
<tr>
<td>60.0 – 69.9</td>
<td>D</td>
</tr>
<tr>
<td>Under 60.0</td>
<td>F</td>
</tr>
</tbody>
</table>

Your overall points will be based on assignments and exams according to the following scheme:

<table>
<thead>
<tr>
<th>Component</th>
<th>Total Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment/Quizzes</td>
<td>60</td>
</tr>
<tr>
<td>Final Exam</td>
<td>40</td>
</tr>
</tbody>
</table>

Assignments and Quizzes

There will be 9 assignments/quizzes during the semester. Assignments need to be submitted to eCourseware by 11:59PM of the due date. Each assignment will be graded out of 5 points. Assignments should be done individually. Although students are allowed to discuss general concepts with each other, the specific code of the assignment should not be discussed or shared.
with others. Your assignment will be graded as zero if you copy other students’ codes, copy codes from online, or share your code with others.

If an assignment is turned in within 24 hours after the due date/time, there will be a penalty of 1 point. If an assignment is turned in within 48 hours after the due date/time, there will be a penalty of 2 points. No assignments will be accepted 48 hours (2 days) after the due date/time. Assignment must be turned in to their Dropbox. No assignments are accepted as email attachments.

Quizzes will be posted on eCourseware and you have 30 minutes to take. Quizzes need to be finished by the due date. Each quiz will be graded out of 5 points. Quizzes should be done individually.

**Exams**

There will be one open-book take-home exams for this course. It will cover lecture material, assignment, exercises, and textbook reading materials. The exam consists of multiple choice, short answer, and coding questions. Please see the schedule for the dates of the exams.

If you miss an exam because of illness or other unforeseeable emergencies (proper documentation required), you must contact me by email or phone within two days of the scheduled exam date to make arrangement for a makeup exam. Failure to do so will result in a grade of zero for the exam.

**Course Schedule:**

<table>
<thead>
<tr>
<th>Module</th>
<th>Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Welcome to MIS2845; Software installation</td>
</tr>
<tr>
<td>2</td>
<td>Intro to Java; Getting familiar with IDE</td>
</tr>
<tr>
<td>3</td>
<td>Java I/O operation, Expressions, Variables</td>
</tr>
<tr>
<td>4</td>
<td>Introduction to Class, Objects, Methods</td>
</tr>
<tr>
<td>5</td>
<td>Control Statement</td>
</tr>
<tr>
<td>6</td>
<td>Methods, Parameters, and Returns</td>
</tr>
<tr>
<td>7</td>
<td>Characters and Strings</td>
</tr>
<tr>
<td>8</td>
<td>File I/O</td>
</tr>
<tr>
<td>9</td>
<td>Arrays, ArrayLists, Multi-dimensional Array</td>
</tr>
<tr>
<td>10</td>
<td>Advanced Topics (TBD)</td>
</tr>
</tbody>
</table>

Note: The course module is sequential but not weekly.

**Course Policies**

**E-MAIL**

All students are required to maintain and access their University of Memphis email Account on a regular basis. You will receive all official course correspondence at this email account. It is your responsibility to make sure you are able to receive incoming mail in a timely fashion.

**Adding / Dropping**

If you have questions about adding or dropping classes, please refer to the Registrar’s website.
**Academic Integrity**
Plagiarism, cheating and other forms of academic dishonesty are prohibited. Students guilty of academic misconduct, either directly or indirectly, through participation or assistance, are immediately responsible to the instructor of the class in addition to other possible disciplinary sanctions which may be imposed through the regular institutional disciplinary procedures.

([https://www.memphis.edu/osa/students/academic-misconduct.php](https://www.memphis.edu/osa/students/academic-misconduct.php))

**Student Health**
Students who have a positive COVID-19 test should contact the Dean of Students at deanofstudents@memphis.edu.

**Reporting Illness or Absence**
Due dates and deadlines have been established and will be followed for each graded course component. If an emergency should arise, it is the student’s responsibility to contact the instructor prior to the deadline to discuss the matter. A deadline extension will be considered only if both of the following conditions are met: (1) Extreme and unforeseeable emergency and (2) Instructor contacted prior to the due date.

**Inclement Weather**
In the event that inclement weather requires the cancellation of classes at The University of Memphis, local radio and television media will be immediately notified. Additionally, The University of Memphis has established an Inclement Weather Hotline at 678-0888 as well as LiveSafe app, an emergency alert app for participants, faculty and staff. This optional service is used in the event of an on-campus emergency, an unscheduled university closing, or a delay or cancellation of classes due to, for instance, inclement weather.

**Syllabus Changes**
The instructor reserves the right to make changes as necessary to this syllabus. If changes are necessitated during the semester, the instructor will immediately notify students of such changes both by class email communication and posting both notification and nature of change(s) on the course website.

**Student Services**
Please access the FCBE Student Services page for information about:
- Students with Disabilities
- Tutoring and other Academic Assistance
- Advising Services for Fogelman Students
- Technical Assistance

**Student Resources**
Students who need additional resources can visit the Dean of Students Office website at [https://www.memphis.edu/deanofstudents/crisis/index.php](https://www.memphis.edu/deanofstudents/crisis/index.php).