Course Syllabus
MIS 2845 001 – Introduction to Business Application Programming
Fall Semester, 2018

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Office Hours: M/W/F would be available by appointment via E-mail;

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. This course will also cover several topics related to the Integrated Development Environment (IDE) such as testing, debugging, refactoring, and design patterns using Maven.

Pre-Requisites/Co-Requisites:
None

Text Book:
All students are expected to purchase the textbook and MyLab:
Deitel/Deitel - Java How to Program, Early Objects, 11/e; MyLab & Student Value Edition
NOTE ## Student Value Edition may have e-book. Please ask the bookstore or publisher.
Software Requirement:
It is important for all students to have access to a computer with the following software installed:
• IDE and JDK: NetBeans with upper version of JDK 1.8
• Design Structure: Maven

The instructions for installing the IDE and Maven will be given in class.

Fogelman College: Learning Outcomes for Your Degree
This course is designed to help you to meet the overall learning objectives for the BBA degree offered by Fogelman College. You should take the time to become familiar with the overall learning objectives as a student in the BBA degree program.
• BBA Program Outcomes (opens in browser window)

Course Methodology
The instructional methodology of this course will be a combination of PowerPoint presentations and in-class instructor-led lab assignments using IDE and other software tools.

• Activities will consist of lectures, projects, and homework assignments. The instructor will give students peer-to-peer feedback during the class (lab) hours.

/* IMPORTANT NOTE TO STUDENTS */
Programming is fun and easy once you get used to it. However, its entry barrier is high. In this class, we will have many lab hours. During the lab hours, students may ask the instructor questions about class materials and MyLab. If you have any questions, please fully utilize the lab hours as much as you can. The instructor will kindly help you peer-to-peer during the lab hours.

However, you should also be familiar with Google search, Stack overflow and other programming communities that may answer your questions. Please attempt to resolve your question on your own first and then ask the instructor for specific guidance. Sometimes, the instructor may ask what the student has done to answer his/her own question. We will learn how to search for answers to your programming questions in class.

• There will be some optional quizzes and exams through eCourseware. Although the tests will be fully open-book, open-resource, you must complete the tests on your own and not in collaboration with other students.
**Professor’s Expectations of Students:**
In general, you should assist the instructor in creating a positive, supportive environment for learning by staying engaged in the course and actively participating in all online discussions.

**Student’s Expectations of the Professor:**
In my role as your instructor, there are certain things you can expect from me including: a well-organized and engaging learning experience, response to emails within three (3) business days, and feedback on all work submitted within 7-10 calendar days.

**Grading and Evaluation Criteria:**
Over the semester, you will have two options to earn grades.

- **Option 1:** For Java programming expert
  If you are familiar with programming and know how to program Java, you may conduct an independent project using your fundamental knowledge of Java. You will submit a 5-page written proposal which includes problem elicitation, required software development skills, development schedule and expected outcome before the 6th week of the course. The instructor will review the proposal and decide whether to accept it as a final project. If the proposal is accepted, the student should submit the final report which includes the Java project based on NetBeans and Maven, and a written report that explains the software. Students will be meet with the instructor face-to-face 3~5 times during the semester for a progress check. The students who chose Option 1 do not have to submit MyLab assignments and homework. Auditors of this class (e.g., graduate students and other department students) are welcome to choose this option.
  
  The topics of final projects are confined as below:
  - Develop a deep learning model using DL4J’s example
  - Develop a web crawler using JSOAP and Headless Browser
  - Panel Data Creator (for honor contracted student project)

- **Option 2:** Beginner for Java and programming
  Option 2 is the regular grading system by which you may earn credit by doing MyLab homework, handout assignments and in-class projects. You will earn 20% as a bonus grade if you complete the entire MyLab assignment. Honor contracted students who choose Option 2 should complete the entire MyLab homework. There is no specific due date for the MyLab homework before the final submission date that will be determined later during the course.

**Final Course Grades:**
Your final letter grade is based on your overall average. Your overall average is calculated as the sum of all the points you earned on graded assignments divided by the total number of points possible. The letter grade is based on the following schedule:

- 90% and above          A
- Above 80% but below 90% B
- Above 70% but below 80% C
- Above 60% but below 70% D
- Below 60%              F

Your overall grade for the semester is based on how well you perform on a mixture of formal activities including discussions, quizzes and projects. A detailed description of each of the assessed activities can be found after the scoring summary table below.
Scoring Methodology Used to Determine Course Grade:

Points earned on the assessed activities will be distributed as follows:

- **Option 1**
  - Proposal     300 points
  - Programming Quality   500 points
  - Final Report        200 points
  - Meeting Courtesy (Extra)      300 points
  - Total Possible for Semester   1,000 points

- **Option 2**
  - In Class project    650 points
  - MyLab     200 points
  - Take-home-assignment      150 points
  - Extra Credit Project       300 points
  - Total Possible for Semester   1,000 points

**Course Schedule:**

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<thead>
<tr>
<th>Module</th>
<th>Subject</th>
<th>Subject</th>
<th>Note</th>
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<tbody>
<tr>
<td>1</td>
<td>Introduction to Computer and Java</td>
<td>Chapter 1</td>
<td>Install and use of NetBean and JDK</td>
</tr>
<tr>
<td>2</td>
<td>Getting Familiar with IDE</td>
<td>Chapter 2</td>
<td>Install and use of Maven POM.xml</td>
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<td>3</td>
<td>Java I/O Operation</td>
<td>MyLab Chapter 2</td>
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<td>4</td>
<td>Introduction to Classes, Objects, Methods</td>
<td>Chapter 3</td>
<td>MyLab Chapter 3</td>
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<td></td>
<td>Lecture: Methods to find answers about programming question through GitHub, StackOverFlow, Google and other open source communities</td>
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<td>5</td>
<td>Control Statements Part I</td>
<td>Chapter 4</td>
<td>MyLab Chapter 4</td>
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<td>Debugging through IDE</td>
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<td>6</td>
<td>Control Statement Part II</td>
<td>Chapter 5</td>
<td>MyLab Chapter 5</td>
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<td>Handout Assignment</td>
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<td>7</td>
<td>Deeper Look</td>
<td>Chapter 6</td>
<td>MyLab Chapter 6</td>
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<td>Handout Assignment</td>
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<tr>
<td>8</td>
<td>Collections: Arrays, Iteration, Command and Regular Expression</td>
<td>Chapter 7, 8, and 14</td>
<td>MyLab 7, 8, and 14</td>
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<td>9</td>
<td>File I/O</td>
<td>Chapter 15</td>
<td>(Optional) MyLab 15</td>
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<tr>
<td>10</td>
<td>Intro to OOP</td>
<td>Chapter 9 and 10</td>
<td>(Optional) MyLab 9 and 10</td>
</tr>
<tr>
<td>11</td>
<td>Exploring Real-World Examples of Java Applications</td>
<td>TBD</td>
<td>Handout Assignment</td>
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*The course module is sequential but not weekly.*
Course Policies

Email:
All students are required to maintain and access their University of Memphis (@memphis.edu) email account. You will receive all official course correspondence at this email account. It is your responsibility to check your inbox frequently and read all email messages from the course instructor. Although I will use my primary business email (____@memphis.edu) for most course-related communications, during the Summer semester, I tend to check my Gmail (soporide@gmail.com) more frequently throughout the day and week. Feel free to use either to reach out to me.

Attendance:
A participation score or attendance score is not assigned in the grade rubric. However, attendance is mandatory for this class. Surprise extra credit points will be given to students who attend certain classes. Three absences will result in one letter grade deduction, and five absences will result in failing this class.

Adding / Dropping:
If you have questions about adding or dropping classes, please refer to this page on the Registrar’s website (opens in browser window).

Extra Credit Project:
An extra credit project is available for a student expected to earn less than 85% of entire grade. The extra credit project is the summary of an article, data collection and in-depth programming analysis. The student will give a presentation at the end of semester.

Academic Integrity:
The University of Memphis has clear codes regarding cheating and classroom misconduct. If interested, you may refer to the Student Handbook section on academic misconduct for a discussion of these codes. Note that using a “Solutions Manual” is considered cheating. Should your professor have evidence that a “Solutions Manual” has been used, he/she may take steps as described on the campus’ Office of Student Conduct website (opens in browser window). If you have any questions about academic integrity or plagiarism, you are strongly encouraged to review Fogelman College’s Website on Academic Integrity (opens in browser window).

Specific rules to be emphasized regarding academic conduct in this course:

- Texting and talking on cell phones is not permitted during class time.
- Laptop computers are permitted in the classroom but should only be used for class-related purposes.
- You are expected to turn in your assignments on time. The due dates for assignments are provided on the semester schedule and as marked in the eCourseware calendar with each assignment.
- Unless specifically instructed otherwise, collaboration on homework assignments, quizzes, or tests is considered cheating. Copying someone else’s work without proper citation is considered a violation of academic integrity. In this class, violations of academic integrity rules will result in failing the course.
Late Assignments:
Although MyLab does not have a specific due date, **handout assignments do.** Assignments and projects may be submitted anytime up to and including the due date. If your work is not submitted on time, the instructor reserves the option to deduct up to **90%** of the grade value for tardiness depending upon the circumstances and appropriate communication between the student and the instructor.

Reporting Illness or Absence:
Due dates and deadlines have been established for each graded assignment. In this course, deadlines are taken very seriously. Please do not wait until the last day to submit assignments or to take quizzes and exams. 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 all of the following conditions are met: (1) Extreme emergency and (2) Instructor contacted prior to the due date.

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

Student Services

Please access the [FCBE Student Services (opens in browser window)](openclassWindow) page for information about:

- Students with Disabilities
- Tutoring and other Academic Assistance
- Advising Services for Fogelman Students
- Technical Assistance