# Capital University of Economics and Business
# Overseas Chinese College
# Course Syllabus

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## SYLLABUS OF MIS223

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| **Semester and Year** | 2018 Spring (March 4, 2018 - July 20, 2018) |
| **Course Name** | Java Programming |
| **Course Code** | MIS223 |
| **Course Credits** | 4 |
| **Instructor** | Prof. Jingning Li |
| **Contact Information** | Office: C217<br>Tele: 8395 1082<br>Email: lijingning@cueb.edu.cn |
| **Office Hour** | M: 13:30-16:30; Th: 13:30-16:30 |
| **Learning Centre** | T: 18:00-20:00; W: 10:00-12:00 |
| **Time/Place** | **Y02:** M: 10:10-12:00; F: 15:40-17:30 (B212) |
| **Textbook** | *Java How to Program*, Eighth Edition by H. M. Deitel and P. J. Deitel<br>ISBN 978-7-121-18188-7 |

**Reference Book**

*Java Software Solutions Foundations of Program Design*, Sixth Edition by John Lewis and William Loftus
ISBN：978-7-121-08808-7

The textbook and reference book mainly cover the knowledge that instructor introduced in the class, but not limited to these books, students should have the ability to search and expose to the resources to support your study.

**Course Description**

This course is an introduction to programming computers. It is the main introductory course in the Information Technology department and is taken by students from a variety of disciplines wishing to have an understanding of computer programming as well as students wanting to continue on to further studies in Information Technology.

We teach programming using the cross-platform, object-oriented programming language Java. The main focus is on learning to understand the detailed requirements of a programming task, and writing programs that are well structured, correct, easy to read, and to maintain. In order to do these, students need to develop an understanding of how to represent information both as data and algorithms within the objects of a Java program.

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By the end of the course students who succeed are able to design and implement a computer program as well as have some idea of the process of program execution.

**Student Learning Objectives**

At the completion of this unit students will have knowledge and understanding of:

- Java language
- data within a Java program
- the techniques and tools to design and implement a Java program suitable for an information system

**Library Source**

Various books are available for the students to gain a wider exposure to Java knowledge.

**Website Source**

Java API: http://download.oracle.com/javase/1.5.0/docs/api/

**Teaching Methods**

This course consists of lectures, video preview, lab practice, group discussions, study groups, hands-on projects, group presentation, and lab quiz. Students must be prepared to finish some small questions, small quiz, and programming test about the assigned chapters during the class and the lab class.

**Grade Criterion**

| Component | Weight | Description |
|---|---|---|
| Final Exam | 20% | A cumulative final examination will be given based on all of the contents of the class. A minimum of 25% of the exam (5 of the 20%) will consist of questions utilizing the application of critical thinking. |
| Mid-Term Test | 20% | A cumulative midterm test will be given based on all of the contents of the first half of the class. A minimum of 25% of the test (5 of the 20%) will consist of questions utilizing the application of critical thinking. |
| Homework/assignment | 15% | A scenario will be given, and the scenario's problems will be solved follow terminologies, practice exercises, and project assignments. |
| Quizzes | 15% | There will be a number of ad-hoc/pop quizzes during the semester. The purpose of the quizzes is to ensure that students keep up with the contents. |
| Presentation | 10% | Students should finish a semester project and make presentation based on the project. Each student should present and the score will be given based on the topic, |

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| | | preparation and PPT and performance. |
| Participation | 10% | Individuals will be asked to participate individually in a question and answer 10 times during the semester. Students are required to meet with their teachers every other week. Their performances should be counted in their participation. |
| Attendance | 10% | Refer to attendance policy listed below |
| Total | 100% | |

**Detailed Grade Computation**

| | Before Midterm | After Midterm |
|---|---|---|
| Attendance | 5% | 5% |
| Participation | 5% | 5% |
| Homework/assignment | 5% | 10% |
| Quizzes/tests | 5% | 10% |
| Presentation | | 10% |
| Midterm test | 20% (5% of critical thinking) | |
| Final exam | | 20% (5% of critical thinking) |
| Total | 40% | 60% |

**Grading Policy**

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| A+ 97-100 | A 93-96 | A- 90–92 | B+ 87-89 | B 83-86 | B- 80–82 |
| C+ 75–79 | C 70-74 | C- 67–69 | D+ 63–66 | D 62-60 | F 0- 59 |

**Exam Schedule**:

Midterm Test: May 7-11, 2018; Final Exam: June 25–29, 2018

**Assessment of Student Performance**

- ***Self-Study and Reading ability Practice***

  Instructor will give out the chapters or the reference books to read and use class hours to have discussion; students should be able to show a proactive attitude and ability for self-study and reading. Knowledge and oral English will be elements of homework or presentation score.

- ***Homework***
  - Students should finish their homework by themselves. Copying from others will be treated as cheating. Students' homework scored will be lowered. Students should hand in all assignments promptly and on time. Late assignment will be accepted at the discretion of the instructor (i.e., when the student was ill or had an excused

absence). Assignment turned in late without proof of illness or had an excused absence will be reduced in score by 50%.

- Assignment should be printed out. Anything that cannot be read will be marked wrong. Printing requirements are as followed: single space between lines, double space between paragraphs, font size is 12 (maximum). Grammar error can reduce 20% of your score.

- ***Attendance***

Attendance in class is required for all students taking courses at the Capital University of Economics and Business Overseas Chinese College.

- Being late for 15 minutes or more is considered an absence.
- Five hours or above of unexcused absences will result in the lowering of the final grade by one grade band (e.g. from C – to D +). Any excused absence must be discussed directly with the teacher.
- 30% class hours of any kind of absences will result in a failing grade (F), but students are welcome to continue attending classes.
- An incomplete grade (I) will be considered in case of medical or family emergencies.

- ***Participation***
  - Students should participate in classes actively**.** Half of participation grade is determined by their presentation in class. They are encouraged to ask questions relevant to the subject and express their own opinions. Every student should respect the ideas, opinions, and questions of their classmates.
  - Students should also use office hour to ask questions or talk with the instructor for good communication and effective learning.
  - Frequent visiting the instructor and chatting in English during office hours is highly recommended.
  - Any misbehavior and non-class related activities in class will result in the lowering of the participation grade, including ringing beepers and **cell phones.**
  - All above behaviors will be solely evaluated by the instructor for scoring.

- ***Textbook***
  - Students must bring the textbook to class.

**Topical Course Outline**

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| Week | Date | Topics |
|---|---|---|
| 1 | March 5 – March 9 | • Syllabus<br>• Introduction to Java, setup Java environment, and make the first Java program - FirstProgram.java<br>• Introduction to computer system, computer languages, Java programming language<br>(Ch1, Ch2) & Reference book (Ch1) |
| 2 | March 12 – March 16 | • Pre-test<br>• Details of Java syntax, variables, symbolic constants, displaying output, operators<br>• Details of data type conversion<br>• Checking test<br>(Ch3, Appendix A, D, G) & Reference book (Ch2) |
| 3 | March 19 – March 23 | • Pre-test<br>• Details of Java variable types, flow of control, Boolean expressions, conditional statement<br>• Details of iteration, repetition statement, comparing data<br>• Checking test<br>Assignment 1 Start<br>(Ch4, 5) & Reference book (Ch5) |
| 4 | March 26 – March 30 | • Mini-Test<br>• Details of classes and methods<br>• Details of static methods (Integer class, Double class, String class, Math class)<br>• Details of instance methods, the return statement<br>Submit Assignment 1 Step 1<br>(Ch 6, 18) & Reference book (Ch3, 4) |
| 5 | April 2 – April 6 | • Details of Java API packages, user input<br>• Method case study - Part 1<br>• Method case study - Part 2<br>• Self-study: exception handling<br>(Ch3.9, 6, 21) & Reference book (Ch4)<br>**Qingming Festival** |
| 6 | April 9 – | • Method case study - Part 3 |

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| | April 13 | • Details of exception handling<br>(Ch8, 9, 10, 11) & Reference book (Ch4, 6) |
| 7 | April 16<br>–<br>April 20 | • Details of objects<br>• Details of instance classes<br>• Self-study: UML diagrams<br>**Quiz 1**<br>Submit Assignment 1 Version 1<br>Start Assignment 1 Version 2 (with classes and Array)<br>(Ch7, 13) & Reference book (Ch7, 10)<br>**Spring Sports** |
| 8 | April 23<br>–<br>April 27 | • Details of Arrays, creating Arrays, accessing Array elements<br>(Ch9) & Reference book (Ch8) |
| 9 | April 30<br>–<br>May 4 | • Self-study: Details of catching exceptions, two-dimensional Arrays, the ArrayList class<br>**Labor Day Holiday** |
| 10 | May 7<br>–<br>May 11 | **Midterm Test** |
| 11 | May 14<br>–<br>May 18 | • Details of Inheritance, the protected modifier, the super reference, multiple inheritance, overriding methods<br>• Details of class hierarchies, the object class, abstract classes, interface hierarchies, visibility revisited, designing for inheritance<br>• Class case study - Part 1<br>• Class case study - Part 2<br>• Class case study - Part 3<br>Start to submit Assignment 1 Version 2 (with instance methods, classes, arrays, classes inheritance) |
| 12 | May 21<br>–<br>May 25 | • Details of GUI, JFrame, Graphic Objects, drawing with graphics, drawing shapes (lines, rectangles, ovals, arcs, polygons and polylines)<br>• Details of drawing images, drawing Strings, font control, color control<br>Assignment 1 Version 2 End<br>(Ch12, 21) |

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| 13 | May 28 – June 1 | • Details of loading, display and scaling images, animating a series of images, loading and playing audio clips<br>• Case study - Card<br>• Details of Swing package, layout managers, null layout, FlowLayout, BorderLayout, GridLayout, BoxLayout, GridBagLayout<br>Assignment 2 Start<br>(Ch21) |
| 14 | June 4 – June 8 | • Details of basic GUI components, JLabel, JButton, JComboBox, JTextField, JTextArea, JCheckBox, JRadioButton, JList, JSlider<br>• Details of event handling, mouse event handling, key event handling, adapter classes<br>**Quiz 2**<br>(Ch11, 22) |
| 15 | June 11 – June 15 | • Details of Panels, JDesktopPane and JInternalFrame, JTabbedPane<br>• Details of menus, JPopupMenu, user dialogs<br>(Ch14, 26) |
| 16 | June 18 – June 22 | **Duanwu Festival**<br>• Self-study: Details of input & output streams, InputStream class, OuputStream class, Buffered Streams, File class, Read from Files, Write to Files, File methods, Readers & Writers, Reading Text Files, Writing Text Files.<br>• Self-study: Details of multithreading<br>**Review**<br>**Presentation** (Video)<br>Assignment 2 End<br>Submit Assignment 2 program with paper report |
| 17 | June 25 – June 29 | **Final Exam** |

**Note: Some chapters or sections may leave for self-study, this is the students' duty to learn and understand, they may also be included in the quizzes or exams.**

**Week 9 and Week 16: review in Chinese during L.C. and O.H.**

**Teacher's Office Hour**

- The instructor's office hour is shown in the front of the office door.

- Students are required to use the instructor's office hour to ask questions or talk with the instructor once at least per week for good communication and effective learning, which is recorded in the students' participation.
- The time can be scheduled by instructors or students, or both.

**Cheating and Plagiarism**

**Cheating is not tolerated**. Any student caught cheating on a quiz; test or exam will be given a mark of zero (0) for the particular work. At the beginning of the semester the definition of plagiarism will be carefully explained, when any thoughts or writings of another person are used, they must be clearly identified (usually one uses quotation marks) and the source notes. **If any student is caught cheating on any homework assignment, the highest score the student can earn in that course is a "C".**

**Important Dates**

| **Spring Semester, 2018** | **March 4, 2018— July 20, 2018** |
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| Mar.4 | Registration |
| Mar.5 | Classes Begin |
| Mar.16 | Last Day to Drop or Add a Course |
| Apr.5 | Qingming Festival (tentative) |
| Apr.20 | Spring Sports (tentative) |
| May 1 | Labor Day Holiday (tentative) |
| May.7 -11 | Midterm Exams |
| May 14-18 | Summer School Registration (tentative) |
| June 18 | Duanwu Festival (tentative) |
| June 25-29 | Sophomore and Junior students' Final Exam |
| July 2-20 | Sophomore and Junior students' Social Practice，Summer School |
| July 16-20 | Revision and Final Exam Period |
| July 23 | Summer Vacation Begins |

***Note:*** *This syllabus is tentative and may be changed or modified throughout the semester. All students will be notified and a new syllabus will be given.*

**Instructor: Prof. Jingning Li** **Department Head： Prof. Jingning Li**