COSC1437 SYLLABUS – SHORT TERM

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Instructor And Course Information

| SEMESTER: Spring 2020 (March 24 – May 14) |
| Class PROGRAMMING FUNDAMENTALS II |
| COSC1437 Sec 83448 |
| Class Time/Location: online |
| Credit Hours: 4 |

| INSTRUCTOR: Liem Le |
| CONTACT: E-mail: LiemLe@dcccd.edu |
| Office phone: 972-238-6312 |

| OFFICE HOURS: Room D106 |
| M W: 10:30 – 12:00pm |
| T Th: 4:40 - 5:40pm |

| DROP DATE: |
| Certification Date: 03/30/2020 |
| Last date to Withdraw: 05/01/2020 |

Course Prerequisites
COSC 1436 and MATH 1314 or higher.

Course Description
This course focuses on the object-oriented programming paradigm, emphasizing the definition and use of classes along with fundamentals of object-oriented design. The course includes basic analysis of
In this course from lecture, homework, labs and project, students can do the following:

| SLO1          | Declare variables, initialize values of primitive data types
|              | Apply math operators on numeric variables
|              | Write a java program with basic with comments and documentation
| SLO2          | Define a data type class including attributes and methods
|              | Set access modifiers as private, protected, default or public to data members of the data type class such that the data type class encapsulated, toString, constructors, mutator, accessor methods, etc.
| SLO3          | Declare objects of data type class
|              | Initialize object Use object to access data members of class
| SLO4          | Set access modifier for data members of data type classes Inherit from super class: constructor, methods
| SLO5          | Analyze problems and design algorithms using pseudo-code, flowcharts, and structured charts, UML
| SLO6          | Create and access void methods and returned-value methods in classes
|              | Create returned reference method
| SLO7          | Declare arrays, pass array as arguments to methods, returned array from methods create array of objects. Apply searching methods in arrays: sequential search, Sort an array: selection sort and binary search sort
| SLO8          | Apply selection structure to the programs: if, if..else, if..else..if, switch statement
|              | Apply repetition structure to the programs: for, while, do..while loop
In this course, the activities you engage in will give you the opportunity to practice two or more of the following core competencies:

1. **Critical Thinking Skills** - to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information

2. **Communication Skills** - to include effective development, interpretation, and expression of ideas through written, oral, and visual communication

3. **Empirical and Quantitative Skills** - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions

4. **Teamwork** - to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal

5. **Personal Responsibility** - to include the ability to connect choices, actions, and consequences to ethical decision-making

6. **Social Responsibility** - to include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities

In this course, from the weekly quizzes, students will learn and practice the following skills:

<table>
<thead>
<tr>
<th>Time management skills</th>
<th>How to manage your time better Avoid procrastinating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication skills</td>
<td>Bad Communication in the workplace – Meeting skills – How to handle meeting How to write the formal Business Email in English – 10 ways to have better conversation</td>
</tr>
<tr>
<td>Critical Thinking skills</td>
<td>What is Critical Thinking - Parts of Thinking – 3 Kinds of Thinkers 5 tips to improving your Critical Thinking - How thinking works</td>
</tr>
<tr>
<td>Problem Solving skills</td>
<td>How to make Toast - Types of Problems and Problem-Solving Strategies Solve the locker riddle - How to demonstrate Problem Solving skills on your resume at interview</td>
</tr>
</tbody>
</table>
Required Course Materials

- Textbook:
  Starting Out with Java: Early Objects (6th Edition) by Tony Graddis
- USB flash drive to store your labs and assignments
- Richland College Student ID so that you can use the drop-in computer labs
- The Internet Connection to your PC or laptop
- Java Compiler installed to your PC or laptops
- eclipse installed or any type of editor

Graded Work

Final Grades will be available on eCampus and on eConnect at www.econnect.dcccd.edu. They will also be displayed on the Student Advising Report, which is available in the Admissions and Student Records Office, T170.

<table>
<thead>
<tr>
<th>Assessments &amp; Activities</th>
<th>Number of Assignments</th>
<th>Points</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework</td>
<td>10 points x 10 HomeWorks</td>
<td>100</td>
<td>14.0%</td>
</tr>
<tr>
<td>Lab</td>
<td>30 points x 6 lab assignments</td>
<td>180</td>
<td>25.2%</td>
</tr>
<tr>
<td>Exam</td>
<td>100 points x 3 exams</td>
<td>300</td>
<td>42.0%</td>
</tr>
<tr>
<td>Project</td>
<td>1 Project</td>
<td>80</td>
<td>11.2%</td>
</tr>
<tr>
<td>Quiz</td>
<td>5 points x 7 quizzes</td>
<td>35</td>
<td>4.9%</td>
</tr>
<tr>
<td>Discussion topic</td>
<td>6 topics</td>
<td>20</td>
<td>2.7%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>715</td>
<td>100%</td>
</tr>
</tbody>
</table>

Final Grade

<table>
<thead>
<tr>
<th>GRADE</th>
<th>SCORE RANGE</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>643.5 - 715</td>
<td>&gt;=90%</td>
</tr>
<tr>
<td>B</td>
<td>572 – 643.4</td>
<td>&gt;=80%</td>
</tr>
<tr>
<td>C</td>
<td>500.5 – 571.5</td>
<td>&gt;=70%</td>
</tr>
<tr>
<td>D</td>
<td>429 – 500.4</td>
<td>&gt;=60%</td>
</tr>
<tr>
<td>F</td>
<td>&lt; 429</td>
<td>&lt;60%</td>
</tr>
</tbody>
</table>

Description of Graded Work

Quiz:- Provide video clips about Time Management Skills, Communication Skills, Critical Thinking Skills or Problem-Solving Skills. There is a quiz (5 points) after each concept provided each week. The quiz has 5 multiple choices or true/false questions in 15 minutes. It is assigned on each Monday and has the due date next Monday. Quiz cannot be made up.

Homework Assignments – You have to read each chapter in the textbook to learn the concept and do the homework to self assessment. Each homework (10 points) has 15 multiple choices or true/false questions in 30 minutes. It is assigned when starting the chapter and has the due date one day before the test date. You have 3 attempts to do each homework and at the due date, the greatest score will be your score.
Lab - The lab will be posted on eCampus. The labs are individual assignments. Based on the lab instruction, you are required to provide the pseudo-code or flowchart, the source code, the execute file and the picture of the output.
You have to do the lab by yourself to study and gain experience. The labs will be turned in by submitting on eCampus. The due date of each lab is listed in the Course Outline.
Get help for labs:
  * Read topics in HINTS FOR LABS provided on eCampus.
  * Send questions to your instructors
  * Come to any office hours

Project – You have one individual semester project that is assigned in the middle of the semester and you have to complete and submit your work to eCampus by the beginning of the week before the final exam week. As the labs, you are required to provide the pseudo-code or flowchart, the source code, the execute file and the picture of the picture of the output.
You have to do the project by yourself to show what you have learned from the semester. You should start the project as early as you can to have enough time for questions. To get help for the project, you can:
  * Read topics in HINTS FOR LABS provided on eCampus.
  * Send questions to your instructors
  * Come to any office hours

Discussion Topic – There are some topics to discuss about the soft skills that are required you write your opinion about the topics on discussion board then replying on at least two your classmates' opinions. This assignment is not right or wrong. You just need to participate to provide what you think about the topics.

Team Assignment - (This assignment is not applied to short term class) You have to select your team at the first week. Then your team should select a topic to research. The topics are about how to prepare for searching jobs or how to prepare for an interview, etc. You have to contribute your work to the team work to submit the teamwork in a power point presentation to the eCampus by the due date.

Test - must be taken by the due date. The test will be available on eCampus in 3 days for online class or at test time for face-to-face class. You should have the plan ahead to do the test on time. The test is built based on the lectures. Test 1 or test 2 has 50 multiple choices or true/false questions in 60 minutes. The final exam has 75 multiple choices or true/false questions in 75 minutes.

Attendance and Your Final Grade
Students must attend and participate in the on-campus or online courses before the course certification date and continue beyond the course withdrawal date.

For online class: You do not need to be in campus. However, in order to be successful, you must have your own schedule with at least 6 hours per week. Also, you are requested to login to eCampus at least once per week. If you do not login to eCampus 4 weeks (for 16 weeks class) or 2 weeks for (8 weeks class); you will be failed from the class.

For face-to-face class: You have to present in every class and lab on time and whole class time. If you are absent 8 or more classes (for 16 weeks-class) or 4 or more classes (for 8 weeks-class); you will be failed from the class
Late Work Policy

Quizzes and homework cannot be made up if they are passed the due date.

Labs: If you miss the due date, you have one week after the due date to make up with the score based on the 90% of max score. After the making up week, the lab cannot be accepted.

Project: Since the project is assigned and had a long period time to complete, if you miss the due date, you have only 3 days after the due date to make up with the score based on the 90% of max score.

Discussion topics: will be opened for you to discuss.

Team Assignment: cannot be accepted because the due date is very close the final exam.

Test: The test cannot be late. An absence from a test to be excused if you provide any reason that makes you cannot do the test on the test date; you should contact me before or on the test date via e-mail. Anyone missing a test with an unexcused absence will receive a grade of zero on the test.

Other Course Policies

❖ DO NOT HELP YOUR FRIEND BY SENDING YOUR CODE or GIVING THE ANSWERS. YOU CAN STUDY TOGETHER, DISCUSS HOW TO DO THEN DO BY YOURSELF.

Anyone SHARING OR COPPYING the answers of the HomeWorks, labs, project or the tests will receive 0 on the assignment or get failed from the course.

❖ Searching is not allowed during the test.

❖ Using abusive language is not permitted in class, in e-mails and at any communications relating to school.

For face-to-face class:

❖ You should silence the phone/beeper if you are in class or any meeting and only answer phone outside of class and outside of the lab room.

❖ Messaging and watching movies are not allowed in class.

Institutional Policies

Institutional Policies relating to this course can be accessed using the link below. These policies include information about tutoring, Disabilities Services, class drop and repeat options, Title IX, and more. Richland Institutional Policies (http://www.richlandcollege.edu/syllabipolicies)

I EXPECT YOU LEARN THIS COURSE WITH ENJOYMENT AND IMPROVE YOUR EXPERIENCE IN PROGRAMMING FOR YOUR CAREER IN THE FUTURE. DO NOT JUST TRY TO PASS THE COURSE WITHOUT GETTING ANY KNOWLEDGE AND EXPERIENCE.

Course Schedule
<table>
<thead>
<tr>
<th>Week</th>
<th>QUIZZES - LECTURE – HOMEWORK –TEST</th>
<th>DISCUSSION TOPICS - LABS – PROJECT</th>
</tr>
</thead>
</table>
| PREPARE FOR CLASS | - Read START HERE  
- Watch video: The Introduction to Business Concepts –  
- Do quiz Pretest due 3/24  
- Introduce yourself to the class on eCampus - due date 3/24 | - Read Syllabus do the Policy quiz Due date 3/24  
- Buy the book. Have PC/Laptop with the Internet connection  
- Download and install the Java compiler and editor eclipse |
| Week 1 3/24 | Quiz 1 – due on 3/29  
Chapter1: Introduction to Computer and Java  
**HOMEWORK1** – due on 4/9 | Discussion topic 1 Due date on 3/29  
**LAB1**: due on 3/29 |
| Week 2 3/29 | Quiz 2 – due on 4/6  
Chapter2: Java Fundamental  
**HOMEWORK2** – due on 4/9  
Chapter3: A first look at Classes and Objects  
**HOMEWORK3** – due on 4/9 | Discussion topic 2 Due date on 4/6  
**LAB2**: due on 4/6  
**Last day to drop class without W 3/30** |
| Week 3 4/6 | Quiz 3 – due on 4/13  
Chapter4: Decision Structures  
**HOMEWORK4** – due on 4/25  
**TEST1**: (Chapter 1, 2, 3) from 4/10 TO 4/13 | Discussion topic 3 Due date on 4/13  
**LAB3**: due on 4/13  
**PROJECT ASSIGNMENT** due on 5/6 |
| Week 4 4/13 | Quiz 4 – due on 4/20  
Chapter 5: Loops and Files  
**HOMEWORK5** – due on 4/25  
Chapter6: A second Look at Classes and Objects  
**HOMEWORK6** – due on 4/25 | Discussion topic 4 Due date on 4/20  
**LAB4**: due on 4/20  
Working on the project, due on 5/6 |
| Week 5 4/20 | Quiz 5 – due on 4/27  
Chapter7: Arrays and the ArrayList Class  
**HOMEWORK7** – due on 4/25  
**TEST2**: (chapter 4, 5, 6, 7) from 4/26 TO 4/29 | Discussion topic 5 Due date on 4/27  
**LAB5**: due on 4/27  
Working on the project, due on 5/6 |
| Week 6 4/27 | Quiz 6 – due on 5/4  
Chapter8: Text Processing and Wrapper Classes  
**HOMEWORK8** – due on 5/6  
Chapter9: Inheritance  
**HOMEWORK9** – due on 5/6 | Discussion topic 6 Due date on 5/4  
**LAB6**: due on 5/4  
Working on the project, due on 5/6  
**Last day to drop with a “W” on 5/1** |
| Week 7 5/4 | Quiz 7 – due on 5/11  
Chapter10: Exception and Advanced File I/O  
**HOMEWORK10** – due on 5/6  
**Review for final exam from 5/7 to 5/8** | Working on the project, due on 5/6 |
| Week 8 5/11 | **FINAL EXAM** (10 chapters) from 5/9 to 5/12 | }