Ministry of Higher Education
Pkfokam Institute of Excellence
Department of Computing and Software Engineering
Course Code: CS 1302
Course Name: Programming Principles II
Semester: Spring 2018

SYLLABUS

Instructors Information:

1. *Instructor's Name*: Mr. FOGAING Christian
   Email: christian.fogaing@pkfinstitute.com
   Office Hours: By appointment

2. *Instructor's Name*: Mr. MEKONTSO Herman
   Email: metchiha@gmail.com
   Phone: (+237)693 031 561
   Office Hours: Monday 12:00pm to 02:00pm or by appointment

Lecture Meeting Times:
Normal class: Saturday 09:00 am - 12:00 pm
Lab: Monday: 01:00 pm – 04:00 pm

Required course material:
Required Text: Introduction to Java Programming, Comprehensive Version, 10th Edition By Y. Daniel Liang, Pearson Publishing, 2015, ISBN#: 978-0-13-376131-3

Pre - requisite: CS1301

Overview:

The second course in computer science provides coverage of more advanced topics of object-oriented programming. This includes inheritance and polymorphism, files and exception handling, and parameterized types (generic programming). Elementary data structures (linked lists, stacks, and queues) are introduced to solve application problems. Graphical user interfaces and event driven programming are also introduced. Students must continue to use good programming style including proper documentation. Java runtime environment (JRE) and libraries security issues are briefed.

Learning Outcomes:

1. Demonstrate more advanced skills in programming, including the ability to handle multi-dimensional arrays.
2. Design and use classes, including inherited classes.
3. Demonstrate file handling and exception coding in a program.
4. Recognize the difference between iterative and recursive methods and use them correctly in a program

5. Demonstrate the ability to use linked lists, stacks, and queues in problem solutions.
6. Compile and run Java programs in a Windows environment.
7. Understand both the "program driven" and "event-driven" approaches to user interaction, including the relationship between event-driven programs and Graphical User Interfaces
8. Realize vulnerabilities in libraries or JRE when programming.

Grading Plan:	**1000 points**		**Grading Scale:**	**These are minimums. The final grades will be determined by distribution.**
300 points	Assignments		900 +	A
150 points	Lab Grade		800 - 899	B
50 points	Test 1		700 - 799	C
100 points	Test II		600 - 699	D
200 points	Final		below 600	F
100	Class Participation			
100	Project			

Schedule and Topic Coverage:

Week	outlines	Reference in the text book
1	Inheritance	(Revisions)
2	Polymorphism	Chap 11
3	Abstract Classes	Chap 11
4	Interfaces	Chap 13
5	Exception Handling	Chap 13
6	File I/O, with a focus on text IO	Chapter 12
7	JavaFX Basics	Chap 14
8	Event Driven Programming & Animations	Chap 15
9	JavaFX UI Controls	Chap 16
10	Multimedia and Vulnerabilities in Java Libraries and JRE.	Chap 16
11	File I/O, with an emphasis on Binary files	Chap 17
12	Generics	Chap 19
13	Lists, Stacks, Queues & Priority Queues	Chap 20 (Part I)
14	Lists, Stacks, Queues & Priority Queues	Chap 20 (Part II)
15	Sets, Maps	Chap 21
16	Java Database Programming	Chapter 21
17	Review for final	

Tentative Class Calendar

Wk	Saturday	Monday
1	Inheritance	Inheritance - Cont
2	Polymorphism	Lab – Polymorphism and Inheritance
3	Abstract classes and Interfaces	Abstract classes and Interfaces
4	Exception handling	**Test 1**
5	Exceptions handling - Cont	Lab - Exceptions
6	File I/O , Course and LAB	JavaFX Basics
7	JavaFX Basics – cont	JavaFX Basics – LAB
8	**Project Lab I**	Event Driven Programming & Animations
9	Event Driven Programming & Animations - LAB	JavaFX UI Controls
10	JavaFX UI Controls - Cont	Lab – Java FX
11	Multimedia and Vulnerabilities in Java Libraries and JRE.	**Test 2**
12	File I/O, with an emphasis on Binary files (course and LAB)	Generics
13	Generics - LAB	Lists, Stacks, Queues & Priority Queues
14	Lists, Stacks, Queues & Priority Queues	Lists, Stacks, Queues & Priority Queues
15	**Test 3**	Sets, Maps
16	Sets, Maps	Sets, Maps (LAB)
17	Java Database Programming	Java Database Programming
18	Java Database Programming	**Project Lab II**
19	Project Finalization	Projects presentation

Class Rules:

1. Students are responsible for all announcements and assignments made in class.
2. Students are expected to do their own work for all assignments unless otherwise indicated by instructor. Group discussion and study of the assignments are permitted, but, when you begin to prepare your assignment to turn in, all collaboration must cease. If collaboration is suspected, the grade will be a 0. Multiple occasions of collaboration will earn you an academic dishonesty F for the course.
3. All assignments are due ***AT MIDNIGHT*** on the day indicated.
4. **Late programs will be accepted *UP TO ONE WEEK AFTER THE ORIGINAL DUE DATE*.**
5. Late programs will be penalized 5 points per day (including weekends, not including holidays), up to the final acceptance date. After that, the value of the program will be 0 point.
6. Early programs are rewarded 5 points per day (including weekends, not including holidays), up to 3 days early. Should you turn in an assignment a week early, you will still only earn 15 additional points. This is to encourage you to START EARLY and DO NOT PROCRASTINATE! Programs must compile and produce correct results for a majority of the test cases to get early bonus points.
7. If a class is cancelled for any reason, any assignment due that day will immediately be due the next scheduled class period. Any topic or test scheduled for that day will occur the next scheduled class period.
8. Class attendance and participation is expected. Meaningful and relevant class discussion is strongly encouraged as can be seen in the grading plan.
9. In case of justifiable unforeseen, student should report their absence to the class delegate or directly to the teacher, specifying the reason why they will be absent. Students are expected to do that before that day, otherwise, they will irreversibly be marked absents.
10. There is no reason for not doing an assignment. Students are expected to do their assignments even if they were in class or were sick the day of the course.
11. All current PKFOKAM INSTITUTE OF EXCELLENCE policies will apply.

Lab Rules:

1. Students are expected to attend lab each day that a lab is scheduled.
2. Labs are expected to be done and completed during lab time. Each lab is worth a maximum of 15 points.
3. Students work individually on the labs. Communications are not allowed.
4. Labs are due at the end of the lab period.
5. If a student must miss a lab due to class cancellation, holidays, illness, work travel or other valid excuse, he/she must make alternate arrangements with the instructor.

Assignment Policies:

When turning in your assignments, **it must start with a cover sheet** followed by the program listing (source code with comments), followed by the output. All assignments must be stapled, in a binder or otherwise fastened together. Program assignments will be graded heavily for correct results, but emphasis will also be placed upon accurate and neat documentation as well as effective and proper use of the Java language.

All programming assignments must include the student's name and the assignment number.

For Lab Assignments, please add the following line to the end of your source program:

System.out.println("Coded by _____"); //enter your(s) name(s) here

Remember that everyone is working on the same lab…without your name, We don't know whose it is! We need the front page from your lab assignment, followed by what is required for each lab.

Turning in Programs:

1. Turn in programs on the day of class, at the beginning of class. (preferred)
2. Turn in programs to the PKFOKAM front office, and ask that they be time/date stamped.

3. You may email your assignments to the lab instructor at metchiha@gmail.com (source code and output). A printed copy **must** be turned in to me at the next class period or it will be counted late as when the printed copy is received. If the printed copy does not match the email, the printed copy will be graded and counted as received on that date.
4. You will be required to submit a hardcopy of the assignment. In addition, all students must submit an executable version of an assignment upon request.

Assignment Cover Sheet

When turning in your programming assignments (not labs), you must include a signed copy of the cover sheet. Basically in this course, the honor code pledge asserts that work which you submit as being your own really is your own. Use the lab time to learn the material and gain the confidence to complete the programming assignments. The programming labs must be designed and coded by the individual student – if you need help, please see the instructor or lab assistant. You are not allowed to copy another student's work or have someone else do the assignment for you. Tests/quizzes must be taken by each individual student in a supervised classroom with no electronic devices available.

In the case of programs there is sometimes a gray area as to what constitutes "your own work." Clearly, taking someone else's code and permuting it by changing comments, procedure order, variable names, etc. is rampant plagiarism; it is not "your own work." Suppose instead that you talk with a friend about the algorithm, and then code up that algorithm, is that plagiarism? I would say no. The intellectual challenge of this course is to take abstract algorithms, objects, or ideas and make them work. You may freely get help understanding the algorithm, objects, or idea - but you must make it work. The line I draw is: "if you actually look at another person's code (or let someone look at yours) you are stepping over the line."

If you are found in violation of the honesty pledge, you will receive an academic dishonesty "F" for the course.

Name: _____

CS1302 – Introduction to Programming II

Assignment #_____

Instructors: M. FOGAING / M. MEKONTSO

Honor Pledge

On my honor as a student, I have neither ***given*** nor ***received*** unauthorized aid on this assignment.

Signed _____