

**CSE 111: Programming Language I**

**General Information:**

**Course ID**: CSE111

**Section**: 1

**Semester**: Fall 2017

**Course pre-requisite**: Null

**Course credits**: 3

**Class room number**: UB10303

**Instructor Information:**

**Name and title**: Matin Saad Abdullah (MSA)

**Contact info*: mabdullah@bracu.ac.bd***

**Consultation hours**: With appointments

12:30-1:50/SUN, TUE

**Consultation room location/number**: UB50408

**Course overview:**

This course would be an introduction to the foundations of computation and purpose of mechanized computation. Emphasis will be placed on techniques of problem analysis and the development of object oriented programs. It is 3 credits, so 3 hours of theory classes per week. Topics will include working with computer programs using a Computer Programming Language called “Java”. Students are expected to do a lot of self-practice / homework / assignments in problem solving and program design to reinforce the lecture material.

**Learning outcomes:**

By the end of this course, students will be able to:

* Identify the basic structures of computer programs (Tech Awareness)
* Identify common problem patterns and associate them with programming structures (Critical Thinking Skills)
* Apply solution patterns to relevant real-world problems (Critical Thinking Skills)
* Analyze computer programs and verify output (Quantitative Skills)
* Design small computer programs (Critical Thinking Skills)

**Teaching-learning methodology:**

* Interactive discussion.
* Recitation and oral questions by teacher answered orally by students.
* Problem solving.

**Required course materials:**

**Suggested Book:**

* The Java Tutorial at http://download.oracle.com/javase/tutorial/getStarted
* Java API Specifications

at http://www.oracle.com/technetwork/java/api-141528.html

**Lecture Slides:**

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**Miscellaneous:**

* Students are expected to bring their own calculator, several pens, pencils, eraser and scale/ruler in each class.

**Course content:**

* Problem Solving (solution design)
* Intro to Programming
* Analyzing solutions (tracing)

**Tentative course schedule:**

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| **Lecture** | **Topic** |
| **Week - 1** | Introduction to problem solving |
| **Week – 2** | Review of programming basics |
| **Week – 3** | Objects and Classes |
| **Week – 4** | Objects and Classes |
| **Week – 5** | Access Specification |
| **Week – 6** | Midterm and Review |
| **Week – 7** | Method Overloading, Inheritance |
| **Week – 8** | Polymorphism, Dynamic method dispatch |
| **Week – 9** | Practice |
| **Week – 10** | Abstract Class and Interface |
| **Week – 11** | Exception handling |
| **Week – 12** | Review |

**Tentative Evaluation**:

* Class Participation: 5%
* Class Tests/ Quizzes: 20%
* Lab including Lab Assignments : 25%
* Mid Term Exam : 20%
* Final Exam : 30%

**General policy:**

**Grading criteria:**

The grades at the University will be indicated in the following manner:

90 - 100 = A (4.0) Excellent  
85 - <90 = A- (3.7)   
80 - <85 = B+ (3.3)   
75 - <80 = B (3.0) Good  
70 - <75 = B- (2.7)   
65 - <70 = C+ (2.3)   
60 - <65 = C (2.0) Fair  
57 - <60 = C- (1.7)   
55 - <57 = D+ (1.3)   
52 - <55 = D (1.0) Poor  
50 - <52 = D- (0.7)

<50 = F (0.0) Failure

**Grades without numerical value:**

P: Pass

A course may be taken for a pass/fail grade providing that the instructor approves the option and the student carries 12 credits for regular letter grades in that semester.

I: Incomplete

Incomplete is assigned only when a student has failed to complete one or more requirements of the course for an unavoidable reason/accidental circumstance and has applied for I grade.

W: Withdrawal

Withdrawal is assigned to a student who withdraws from the course within the deadline for withdrawal with 'W' grade.

**Attendance policy:**

The course has been designed maintaining linear dependencies for some topics. That is why the students are expected to maintain 100% attendance. A student has to enter class within the first 10 minutes of the class to be marked as present for that particular class. If a student fails to maintain 70% attendance, s/he will be barred from the course. However, in case of illness (keeping in accordance with BRACU policy), exceptions can be made.

**Latecomer policy:**

In case of late submission, grading rules adopted and followed in the department will be applicable to this course. Cause of late submission or absence has to be well supported by appropriate documents.

**Gender policy:**

Gender equity among male and female students in class will be maintained as per the BRAC University concern and BRAC's consistent endeavors on women empowerment. Therefore, all students will be evaluated equally based on their performance in the course concerned regardless of their gender.

**Inclusive education policy statement:**

Each of the students shall be given equal access to laboratory resources, relevant materials and consultation hours, free from discrimination based on gender, language, sexual orientation, pregnancy, culture, ethnicity, religion, health or disability, socioeconomic background or geographic location, as per the inclusive education policy of Bangladesh.