

## Course Syllabus - Spring 2016

**Course Title/Number:** Programming Languages/ IST 334

**Location:** Prichard Hall 200

**Times:** TR, 11:00 am - 12:15 pm

**Instructor:** Dr. Alice Lin

**Office:** ML 104

**Phone:** (304) 696-6418

**E-Mail:** [lina@marshall.edu](mailto:lina@marshall.edu)

**Office hours:** MW 12:30pm - 1:00pm, 3:45pm - 4:15pm, WAEC 1104

T 12:20 pm - 1:50 pm, PH 200

R 12:20 pm - 1:50 pm, ML 104

TR 3:15pm - 3:45pm, WAEC 1104

Other times by appointment

### University Policies:

By enrolling in this course, you agree to the University Policies listed below. Please read the full text of each policy by going to [www.marshall.edu/academic-affairs](http://www.marshall.edu/academic-affairs) and clicking on "Marshall University Policies." Or, you can access the policies directly by going to [www.marshall.edu/academic-affairs/policies/](http://www.marshall.edu/academic-affairs/policies/). Academic Dishonesty/Excused Absence Policy for Undergraduates/Computing Services Acceptable Use/Inclement Weather/Dead Week/Students with Disabilities/Academic Forgiveness/Academic Probation and Suspension/Academic Rights and Responsibilities of Students/Affirmative Action/Sexual Harassment

### Course Description: From Catalog

Evaluation of the specification, syntax, semantics, compilation, and software development issues surrounding the development of programming languages. Students are introduced to imperative and functional languages; concurrency, logic, object-oriented approaches.

### Textbook:

There will be no required textbooks for the course. Some material will be posted on blackboard and some will be handed out in class.

### Credit:

The course is three (3) credit hours. It includes classroom lectures, in-class exercises and exam.

**Course Student Learning Outcomes and Assessment Measures:**

| <b>Course student learning outcomes</b>                                                                                                                        | <b>How students will practice each outcome in this course</b>     | <b>How student achievement of each outcome will be assessed in this course</b> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|--------------------------------------------------------------------------------|
| Students should understand how run-time systems for imperative programming languages work.                                                                     | In-class lectures, in-class examples, in-class exercises and exam | The quality of student performance on in-class exercises and exam.             |
| Students should be familiar with aspects of the object-oriented, functional and declarative paradigms.                                                         | In-class lectures, in-class examples, in-class exercises and exam | The quality of student performance on in-class exercises and exam.             |
| Students should be able to analyze the syntax, semantics, type handling, scoping rules, naming rules, and exception handling of several programming languages. | In-class lectures, in-class examples, in-class exercises and exam | The quality of student performance on in-class exercises and exam.             |
| Students should be able to demonstrate the strengths and weaknesses of different programming languages.                                                        | In-class lectures, in-class examples, in-class exercises and exam | The quality of student performance on in-class exercises and exam.             |

**Grading Policy:**

In-class exercises - 70%

Final Exam - 30%

Final letter grades are determined based on the following grading scale:

90-100%     A

80-89%     B

70-79%     C

60-69%     D

Below 60     F

The instructor reserves the right to change these values depending on the overall class performance and/or extenuating circumstances.

**Attendance Policy:**

Attendance is strongly encouraged. Lecture material will not be reiterated for persons failing to attend a previous session. It is the student's responsibility to meet with instructor to discuss absences due to illness or other reasons. The university attendance policy will apply for excused absences.

**Withdrawal Policy:**

The University withdrawal policy is followed in this course. The last day to drop an individual course for the Spring Semester is March 18, 2016.

**Course Schedule:**

Please note this is a tentative schedule. The instructor reserves the right to make changes as appropriate based on the progress of the class.

| Week | Start date | Topics, Due dates               |
|------|------------|---------------------------------|
| 1    | 1/11       | Syllabus, Introduction          |
| 2    | 1/18       | History                         |
| 3    | 1/25       | Syntax                          |
| 4    | 2/1        | Semantics                       |
| 5    | 2/8        | Syntax Analysis                 |
| 6    | 2/15       | Names, Bindings, and Scopes     |
| 7    | 2/22       | Data Types                      |
| 8    | 2/29       | Expressions                     |
| 9    | 3/7        | Assignment Statements           |
| 10   | 3/14       | Selection Statements            |
| 11   | 3/21       | Spring Break, Classes dismissed |
| 12   | 3/28       | Iterative Statements            |
| 13   | 4/4        | Subprograms                     |
| 14   | 4/11       | Abstract Data Types             |
| 15   | 4/18       | Encapsulation Constructs        |
| 16   | 4/25       | Dead Week                       |
| 17   | 5/2        | Final Exam (May 3, 10:15-12:15) |