

# syllabus

Frank-PC

August 28, 2017

cd#+title: MAT5939-03 ACM Computing Seminar – Fall 2017

## Course Information

**Time & Place:** Monday 18:45-20:00, LOV 102  
**Instructor:** Zhifeng Deng  
**Office Hours:** Tues/Thurs 12:00-13:30 or by appointment  
**Email:** zdeng@math.fsu.edu  
**Website:** [www.math.fsu.edu/~zdeng/acm-computing-seminar/](http://www.math.fsu.edu/~zdeng/acm-computing-seminar/)

## Course Objectives

To learn the C++ programming language with a focus on mathematical and scientific programming applications.

## Prerequisites

Graduate standing in mathematics.

## Course Outline

1. Getting started
  - compilers, editors
  - writing a simple program
2. Data types
  - common data types, casting, arrays, etc.

### 3. Control Structures

- conditionals
- structures for iterating

### 4. Input and output

- arguments from the command line
- reading and writing to files

### 5. Functions

- writing functions
- modularizing code with header and implementation files
- function pointers

### 6. Object-oriented programming

- basics of writing classes: constructors, destructors, operator overloading, etc.

## Grade Policy:

Homework is assigned weekly and counts for 50% of your final grade.

4 comprehensive programs will be released in the second week and they count for the other 50% of your grade. You can submit your programs anytime before the seminar ends.

Your final grade will be  $(Average(HW) + Average(Programs))/2$

Homework and programs are graded on a 0 – 3 scale:

- 0 - no result submitted or code copied from another source
- 1 - result submitted, but did not demonstrate code functions properly
- 2 - showed code functions properly, but results not fully explained
- 3 - showed code functions properly, presented results clearly and fully

To earn a grade of S, you must have final grade greater or equal to 2.

For each homework or program assignment you will hand in a hard-copy report and e-mail me your source code.

For each program assignment, you are expected to come to my office and run your code with different inputs.

When e-mailing, please include [MAT5939] in the subject line of the email.

## Homework Policy

You must convince me your code functions as required. It is up to you to consider sufficient test cases, although I will provide guidance and more examples of what this means in the first couple of assignments. The reports should be considerably less detailed than those submitted for FCM. For example, there is no need for a "Description of Mathematics" or "Description of Algorithm"; rather, an explanation of why you chose the test cases and any special programming methods/data structures you decided to use to solve the problem will be sufficient.

## Attendance Policy

Excused absences include documented illness, deaths in the family and other documented crises, call to active military duty or jury duty, religious holy days, and official University activities. These absences will be accommodated in a way that does not arbitrarily penalize students who have a valid excuse. Consideration will also be given to students whose dependent children experience serious illness.

## Academic Honor Policy

The Florida State University Academic Honor Policy outlines the University's expectations for the integrity of students' academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. Students are responsible for reading the Academic Honor Policy and for living up to their pledge to "... be honest and truthful and ... [to] strive for personal and institutional integrity at Florida State University."

(Florida State University Academic Honor Policy, found at <http://fda.fsu.edu/Academics/Academic-Honor-Policy>.)

## Americans with Disabilities

Students with disabilities needing academic accommodation should:

1. Register with and provide documentation to the Student Disability Resource Center

2. Bring a letter to the instructor indicating the need for accommodation and what type. This should be done

during the first week of class.

This syllabus and other class materials are available in alternative format upon request. For more information about services available to FSU students with disabilities, contact the:

Student Disability Resource Center 874 Traditions Way 108 Student Services Building Florida State University Tallahassee, FL 32306-4167 (850) 644-9566 (voice) (850) 644-8504 (TDD)

[sdrc@admin.fsu.edu](mailto:sdrc@admin.fsu.edu) <http://www.disabilitycenter.fsu.edu/>

## **Syllabus Change Policy**

Except for changes that substantially affect implementation of the evaluation (grading) statement, this syllabus is a guide for the course and is subject to change with advance notice.