

Department of Computer Science

CSC 271 Computer Systems: Programming

(3 contact hours – 2 lab hours – 3 credits)

Syllabus¹

• **General Information**

Instructor	
Office	
Phone	
Class Time	
Class Location	
Office Hours	
Teaching Assistant	

• **Required Textbook**

Assembly Language for x86 Processors, Sixth Edition, Kip R. Irvine, Pearson, 2010

• **Supplementary Textbook**

Assembly Language Programming for Intel Processors Family, Vasile Lungu, Teora USA, 2005

• **Course Description**

An introduction to assembly language including data representation, data storage, arithmetic, control flow, integers and character I/O, stacks, and procedures.

• **Course Prerequisites**

CSC 270

• **Course Category**

Required

¹ This syllabus may change as needed. In such a case, students will be informed accordingly

- **Course Outcomes:**

At the completion of this course, students will be able to:

1. Demonstrate different ways of data representation in computers. [ABET a]
2. Describe basic microcomputer components and the input/output system. [ABET a]
3. Describe the basic elements of assembly language including addressing modes. [ABET a]
4. Analyze, design, implement and test assembly language programs. [ABET c]
5. Use tools to implement and debug assembly language programs. (Lab) [ABET i]
6. Work effectively in a team. (Lab) [ABET d]
7. Communicate effectively. (Lab) [ABET f]

- **Tentative Schedule**

Topic	Week
Syllabus	1
Ch1: Basic Concepts	1-3
Ch2: x86 Processor Architecture	4
Ch3: Assembly Language Fundamentals	5-6
Ch4: Data Transfers, Addressing and Arithmetic	7-9
Ch5: Procedures	10
Ch6: Conditional Processing	11-13
Ch7: Integer Arithmetic	14-15

- **Grading Scheme**

Quizzes	15%
Assignments	5%
Project	5%
Laboratory work	10%
Midterm Exam	25%
Final Exam	40%