# Syllabus 2024 Fall

# CS 351-001 and CS 351-301

Computer Organization

# CREDITS: 4

# General Information

## Contact Your Instructor

**Name:** R.B.Abhyankar

**Email:** RB.Abhyankar@indstate.edu

**Office:** TC Room 301K

## Lecture , Exam, Office Hours

Lecture: 11:00 a.m. to 12:15 p.m. TR

Lecture: 11:00 a.m. to 11:50 a.m. M

**Final Exam:** Details will be provided later.

**Instructor Office Hours: 8:00 a.m. to 9:00 a.m. MWF**

Please call: 812-299-5177. After contact via phone, a Zoom session can also be initiated, if needed:

Zoom: <https://indstate-edu.zoom.us/j/8592537863>

Email: [RB.Abhyankar@indstate.edu](mailto:RB.Abhyankar@indstate.edu)

**Website**: There is a CANVAS Site for the course.

## Prerequisites

A grade of C or better in CS 201

## Required Textbooks

[1] “C Programming in Easy Steps (5th ed)” by Mike McGrath (In Easy Steps, 2018) (Amazon Kindle Edition)

[2] “Computer Systems : Organization and Architecture” by John D. Carpinelli (Pearson, 2000)

ISBN: 978-0201612530 (US edition)

ISBN: 978-8177587678 (International Edition)

**Course Announcements**

You should regularly visit the CANVAS site for the course, and check for assignments, and other announcements.

# Course Description

The official description of this course from the catalog is :

This course examines in some detail how a computer works. To prepare for this study, students will learn the basics of binary arithmetic, data representation, along with propositional and predicate logic. The major hardware components of a computer, including processors (CPUs), memory (RAM), storage and other peripheral devices will be examined in some detail. Computer software will also be studied. The process of program translation and execution will be outlined. Students will learn machine language and learn to write and run simple assembly language programs. Operating system functions and the organization of file systems will be studied.

Tentative Course Schedule (Subject to Change)

Weeks 0 - 3: C Programming

Weeks 4 - 7: Assembly Language Programming (MIPS)

Week 8 - 11: Combinational and Sequential Logic Design

Weeks 12 – 13: Introduction to Program Translation, Operating Systems, Computer Organization

# Learning Outcomes

After completing the course, the student should be able to explain and utilize Computer Organization Concepts and Assembly Language Programming Concepts.

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# Grading and Assignments

Late submission of work may not earn full credit.

DISTRIBUTION OF POINTS

Assignments: 60 %

Quizzes: 20 %

Final Exam: 20 %

## CS Course Policies

Note that this course follows all standard CS course policies. In particular check the CS course policies related to - cheating/plagiarism, attendance, missing exams. See <http://cs.indstate.edu/info/policies.html> for details.

## Late Homeworks/ Assignments

Late submission of assignments may not earn full credit due.

## Grade Cutoffs

GRADING SCALE:

Percentage Minimum Grade

95 and up A

90-94 A -

87-89 B +

84-86 B

80-83 B -

77-79 C +

74-76 C

70-73 C -

67-69 D +

64-66 D

60-63 D -

59 and below F

# CANVAS

The course has a CANVAS site.

**Americans with Disabilities Act (ADA) Statement:**

Indiana State University recognizes that students with disabilities may have special needs that must be met to give them equal access to college programs and facilities. If you need course adaptations or accommodations because of a disability, please contact us as soon as possible in a confidential setting either after class or in my office. All conversations regarding your disability will be kept in strict confidence.

Indiana State’s Accessibility & Advocacy Resources Office coordinates services for students with disabilities: documentation of a disability needs to be on file in that office before any accommodations can be provided. The Accessibility & Advocacy Resources Office is located at HMSU room 816. They can be contacted at 812-237-3829 or isu-aaro@indstate.edu. Appointments to discuss accommodations with the Accessibility Resources Office staff are encouraged.

Once a faculty member is notified by the Accessibility Resources Office that a student is qualified to receive academic accommodations, a faculty member is obligated to provide or allow a reasonable classroom accommodation under ADA.