# Syllabus 2022 FALL

# CS 351-001 and CS 351-302

# CREDITS: 4

# General Information

## Contact Your Instructor

 **Name:** R.B.Abhyankar

**Email:** R.B.Abhyankar@indstate.edu

**Office:** Root Hall, A-182

## Lecture , Exam, Office Hours

Lecture: 11:00 a.m. to 11:50 a.m. M , Room A-019 Root Hall.

Lecture: 11:00 a.m. to 12:15 p.m. TR , Room A-019 Root Hall.

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

**Instructor Office Hours: 11**:00 a.m. to **Noon** , WF, and also by appointment.

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

## Prerequisites

A grade of C or better in CS 201

## Required Textbooks

[1] “Beginning x64 Assembly Programming” by Jo Van Hoey (Apress, 2019)

 ISBN-13: 978-1-4842-5075-4.

**Course Announcements**

Announcements regarding the course will be made via email to your @sycamores.indstate.edu email address. You should regularly check this email account or have it forwarded to an account that you check regularly. You should also regularly visit the CANVAS site for the course, and check for assignments, quizzes, and other announcements.

## Classroom conduct (for face-to-face classes)

You may not use cell phones, iPods/music players, etc. during class. You should be civil and respectful to both the instructor and your classmates, and you should arrive to class a few minutes before the scheduled lecture so you are ready for lecture to begin on time. You may use your computer during class if you are using it to follow along with the examples that are being discussed. You may not check email, facebook, work on other courses, etc. during class.

# 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.

# Course Outline

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.

Normal Content

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.

# Learning Outcomes

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

Language Programming.

#

# Expected Amount of Work

If you take this class seriously and get what you should out of it, some weeks you will likely be spending around 4 **hours/week** or more on the class. The students who get A’s in their CS courses and have an easy time finding jobs do spend this much time on this course. Not everyone would need to spend this much time and not all weeks will be the same, but you should plan on putting in whatever time it takes.

# Grading and Assignments

The students of this course have the following responsibilities: read assigned readings before lecture, attend lecture, complete homework assignments, take in-class quizzes, take exams, and complete a project. Late submission of work will not be accepted.

DISTRIBUTION OF POINTS

 Assignments: 75 %

 Final Exam: 25 %

## 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.

## Start Homeworks Early

We suggest attempting a homework assignment the day it is given, or the day after, so that if you have a problem you can ask early. If you continue to have problems in trying to complete the assignment, you will have time to ask again. Many of the homework assignments require thought and problem solving, which takes “time on the calendar” not just “time on the clock”. By that we mean that spending two hours on 3 consecutive days may be more productive than trying to spend 6 hours at once on the assignment.

## 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

Our goal is that the different grades have the following rough meaning.

**A+/A**
You can do *all* the assignments *on your own*.

**B+/A-**You understand nearly everything, and should be all set to use this knowledge in other courses or in a job.

**B-/B**

Most things you understand very well and a few you might not (more towards the former for a B and more towards the latter for a C).

**C/C+**
Learned enough and have the minimum skills to move on in the subject.

**D+/C-**
You did put some effort in, and understand many things at a high level, but you haven’t mastered the details well enough to be able to use this knowledge in the future.

**D-**

Students will normally *not* get an F if - you attend 80% of the lectures, complete some of the assignments up through the end of the course, and get nearly half of the problems on the final exam correct.

**F**
Normally, students that get an F simply stopped doing the required work at some point.

# CANVAS

The course has a CANVAS site.

# Academic Integrity

Follow the standard CS course policies in terms of what is and is not allowed on assignments: <http://cs.indstate.edu/info/policies.html>

Please ask the instructor if you have doubts about what is considered cheating in this course.

# Special Needs / Student Disabilities

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 University's Student Support Services (SSS) 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. Student Support Services is located on the lower level of Normal Hall in the [Center for Student Success](http://www.indstate.edu/services/student-success/cfss) and can be contacted at 812-237-2700, or you can visit the ISU website under A-Z, [Disability Student Services](https://www.indstate.edu/services/student-success/cfss/student-support-services/disability-student-services) and submit a Contact Form. Appointments to discuss accommodations with SSS staff members are encouraged.

Once a faculty member is notified by Student Support Services that a student is qualified to receive academic accommodations, a faculty member is obligated to provide or allow a reasonable classroom accommodation under ADA.

# **Disclosures Regarding Sexual Misconduct**

*Standard language included in the syllabi for ISU courses.*

Indiana State University fosters a campus free of sexual misconduct including sexual harassment, sexual violence, intimate partner violence, and stalking and/or any form of sex or gender discrimination. If you disclose a potential violation of the sexual misconduct policy I will need to notify the Title IX Coordinator. Students who have experienced sexual misconduct are encouraged to contact confidential resources listed below. To make a report or the Title IX Coordinator, visit the Equal Opportunity and Title IX website:<http://www.indstate.edu/equalopportunity-titleix/titleix>.

The ISU Student Counseling Center – HMSU 7th Floor | 812-237-3939 | [www.indstate.edu/cns](http://www.indstate.edu/cns)

The ISU Victim Advocate – Trista Gibbons, trista.gibbons@indstate.edu

HMSU 7th Floor | 812-237-3939 (office) | 812-230-3803 (cell)

Campus Ministries - United Campus Ministries | 812-232-0186

 <http://www2.indstate.edu/sao/campusinistries.htm>

[www.unitedcampusministries.org](http://www.unitedcampusministries.org/) | ucmminister2@gmail.com

321 N 7th St., Terre Haute, IN 47807

For more information on your rights and available resources<http://www.indstate.edu/equalopportunity-titleix/titleix>

COVID related:

Students are expected to adhere to course attendance policies, as stated in the course syllabus. Documented COVID-related absences will be treated like any other serious medical issue. Following University policy, students with a documented, serious medical issue must contact the Office of the Dean of Students for assistance. The Office of the Dean of Students will supply documentation for faculty. Students with a documented serious medical issue should not be penalized and will be given a reasonable chance to complete exams or assignments. Once notification is made, faculty will make reasonable efforts to accommodate the student’s absence and will communicate that accommodation directly to the student. Please note that faculty are not required to accommodate a serious medical issue with virtual content options, like streaming or recorded lectures. To avoid the potential of missing significant class time, students are strongly encouraged to receive the COVID vaccination that has been made available on campus. For more information about the vaccines or to find a vaccination site, go to: ourshot.in.gov. The ISU Health Center also administers COVID-19 vaccines by appointment.

Students should contact the Office of the Dean of Students with questions by calling 812-237-3829.

The information provided in this section of the syllabus is subject to modification based on guidance by public health authorities. Changes to Covid-related policies or updated information will, as always, be posted on the ISU website and communicated in multiple ways.