CS *151 – Introduction to Computer Science Fall 2022 –*

Syllabus and Information

Course website and information: *Blackboard,* http://cs.indstate.edu/cs151/

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Syllabus

Fall 2022 for CS 151 – Intro to Computer Science

General Information

Contact Your Instructors

Name: *Devon Kinne (section 301), Chelsy Schnabel (section 002)*
Email: *devon.kinne@indstate.edu*, chelsy.schnabel@indstate.edu,
Office: Root Hall *A134* (Devon), A138C (Chelsy)

Lecture, Exam, Office Hours
Lecture: *MWF*
section 002: 9-9:50 room RH A019
section 301: online

Credit Hours: *3*
Exam:
Final Exam for this class will be a final project and interview, between Study Week and Final Exam Week
Also check the Office of the Registrar's exam schedule

Instructor Office Hours:
Devon –Tuesday/Thursday (11a-noon) *and by appointment*
Chelsy –Monday/Wednesday (11:00 – 11:50) *and by appointment*

Office hours will be in-person by default this semester. Devon will be offering her meetings via Zoom if arranged ahead of time. You should be logged in using your ISU credentials. We can use Zoom to talk and share screens (e.g., to take a look at your code).

GA Tutoring: We have a few graduate assistants who are available to help students in beginning computer science courses. The lab is currently available in-person or online appointments. Please see https://cs.indstate.edu/wiki/index.php/Unix_Lab_and_Help for details. The lab hours are in a calendar on the CS homepage, at http://cs.indstate.edu/info/index.php#lab_hours. You can join the lab when working your programs. You can ask the lab assistants to look at your programs, and you can work with any other CS students that are there (you could use the lab as a regular meeting place to work with your classmates).

Website: http://cs.indstate.edu/cs151

Prerequisites

none

Recommended and/or Required Text

Recommended:

- Automate the Boring Stuff with Python (available free at https://automatetheboringstuff.com/)

Lockdown Browser + Webcam Requirement

See http://cs.indstate.edu/~sbaker/cs256/syllabus.php#rs. This lockdown browser will be used for taking quizzes and tests.

Course Announcements

Announcements regarding the course will be made both during class and via Canvas. You can make sure that announcements are forwarded to your sycamores.indstate.edu email account. You should regularly check this email account or have it forwarded to an account that you check regularly.

Classroom conduct

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, Instagram, work on other courses, etc. during class.

Course Description

The official description of this course from the catalog is

"Core concepts that are foundational in computer science, including programming, use of computers for dealing with files and programs, how data is stored, number systems. Focus on building skills needed for programming and further study of computer science, and intermediate mastery of a particular programming language."

Course Outline

This course outline is subject to change.

** Weeks 1-6

- Setup accounts
- Intro to Linux
- Variables
- I/O
- Flow Control
- If-statements
- Loops

- Functions
- Bits, Bytes, Base and Logic
- Exam 1

** Weeks 7-14
- Turtle
  - Chapter 4 - Lists
  - Chapter 5 - Collections
  - Chapter 6 & 7 (Strings and RE)
  - Chapter 9 & 10 (Files)
  - Intro to algorithms
  - Exam2

** Weeks 15-16
- Projects (choose topics, checkpoints, final code)
- Final project and interviews

Learning Outcomes

- Able to use Linux systems and terminal - managing files, running code, using utility programs.
- Basic mastery of core programming concepts - data types, conditionals and loops, Boolean logic, functions, string operations, reading and writing files. In particular,
  - Can take a specification and produce code implementing it.
  - Can take code and "play computer" to determine the precise results of running the code on a given input.
  - Can take a partially complete program and specification for how it should work, and complete it.
  - Can take a program with syntax or logical errors and fix the errors.
- Understanding of good coding style and able to practice good coding style - use of functions to avoid redundant code, whitespace formatting, variable and function names, comments.
- Understanding of base systems, including ability to convert between binary, hex, octal, and decimal.
- Understanding of and ability to explain different file types - text versus binary.
- Able to read and write data with programs, including parsing simple file formats (e.g., csv).
- Understanding of sorting algorithms - able to "play computer" to execute sorting algorithms that were covered in class on small test cases.

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 **_6-10 hours_** 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. Note that the federal government definition of 1 credit hour as requiring 2 hours worth of time on the course for each credit hour of lecture, so you should think of this as the default for all of your courses.

Note - your classes should be more important than your part-time job.

Grading and Assignments

The students of this course have the following responsibilities: read assigned readings before lecture, attend lectures (in-person or online via Zoom), complete homework assignments, take in class quizzes, take exams, and possibly complete a project. The final grade consists of:
Your total/final grade will be computed as -

Exams – 20%
- If we have two exams the weighting will be 10% exam1, 10% exam2
- Earlier exams will be dropped if you do better on later exams - if exam1 is lower than the others it will be dropped,
- No late exams will be given.

Final Project – 20%
Quizzes – 20%
- Expect to have a quiz every week.

Programs / HWs - 20%
- Program / HW grade will be calculated proportionally - assignments with more points will count more towards the grade.

Participation – 20%
- Calculated based on your participation in class (if in-person) and your weekly lab assignments

Each week, you will be having 3 regularly scheduled assignments:
- **Quiz –** this is based off of the reading and Monday lecture material. It opens on Monday at 8:00 am and must be completed by Wednesday at 11:59pm. Quizzes cannot be made up.
- **Smaller lab assignment –** This lab assignment will be a smaller assignment and due by **Friday at 11:59pm**. This will typically be submitted on the CS server. This assignment counts towards your participation.
- **Bigger programming assignment –** This programming assignment will be a little larger in content, and will be submitted on the CS server. This counts towards your Programs/HW grade. It will be due by **Monday morning at 7:59am**

Checkpoint assignments – In CS 151, the first assignment (allAboutLinux) is a "checkpoint" assignment. This assignment must be completed and receive a 100% to pass the course. You must complete the first assignment by specified due date, and receive a 100% on the

assignment. You may resubmit the assignment multiple times to try to receive 100%, but you must have 100% by the specified due date.

Why? There will be some key points where if you fall behind too much then there would not be much hope of passing. Key checkpoints are set to make sure you at least keep up the minimum amount needed.
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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 Homework
All homework assignments will be given a preferred due date. Assignments can be turned in past the preferred due date if and only if the work has not been graded yet. There is a 20% penalty applied to work turned in late. Any assignment discussed in depth in class are effectively closed and no credit will be given.

Start Homework 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
Our goal is that the different grades have the following rough meaning. We roughly follow the following grade cutoffs:

A+	97-100%	C+	77-79%
A	94-96%	C	74-76%
A-	90-93%	C-	70-73%
B+	87-89%	D+	67-69%
B	84-86 %	D	64-66%
B-	80-83%	D-	60-63%

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. Click https://indstate.instructure.com/ to go to Canvas. You should see this course listed under your courses for the current term. The Canvas site is used for giving you your grades, for quizzes/exams, and for video lectures. Announcements will be sent through Canvas and to your university email. Links and such will be kept on this website.

Lectures
In Person Sections -
You will also attend class three times per week. Typically, Monday's class will be lecture based, a lab will be introduced on Wednesday, and you will be given time to work on the lab and homework on Friday. Note that attendance will be taken.

Online Section -
There will be recorded lectures, released each Monday, for the content for the week.

Participating Online
If you are participating online, please see the information at https://www.indstate.edu/fcte under the heading/link "Student Resources". You are expected to either join lectures live through Zoom or watch the recordings once they are available. You will complete assignments, quizzes, and exams on the same schedule as the rest of the class. For quizzes and exams you will

normally have a 24 hour period during which to take the quiz/exam (note that different students will have slightly different questions and any communication between students about quiz/exam content is academic misconduct).

Covid 19 Information

Information specific to CS courses - https://cs.indstate.edu/wiki/index.php/Covid-19#Course_Policies.
Information specific to this course -

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.

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](#) and can be contacted at 812-237-2700, or you can visit the ISU website under A-Z, [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

Statement on Discrimination, Sexual Harassment, and Sexual Misconduct
Indiana State University [Policy 923](#) strictly prohibits discrimination on the basis of: age, disability, genetic information, national origin, pregnancy, race/color, religion, sex, gender identity or expression, sexual orientation, veteran status, or any other class protected by federal and state statutes in ISU programs and activities or that interferes with the educational or workplace environment.
Title IX of the Educational Amendments of 1972 prohibits discrimination based on sex, including sexual harassment. Sexual harassment includes quid pro quo harassment, unwelcome verbal or physical conduct, sexual assault, dating violence, domestic violence, and stalking.

If you witness or experience any forms of the above discrimination, you may report to:
    Office: Equal Opportunity & Title IX; (812) 237-8954; Rankin Hall, Room 426
    Email: ISU-equalopportunity-titleix@mail.indstate.edu
    Online: https://cm.maxient.com/reportingform.php?IndianaStateUniv&layout_id=10
Disclosures made to the following confidential campus resources will not be reported to the Office of Equal Opportunity and Title IX:
        ISU Student Counseling Center: (812) 237-3939; Gillum Hall, 2nd Floor
        Victim Advocate: (812) 237-3829; HMSU 7th Floor
        UAP Clinic/ISU Health Center: (812) 237-3883; 567 N. 5th Street