# CS 151 - Introduction to Computer Science Fall 2020 -

# Syllabus and Information

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

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# **Syllabus**

# Fall 2020 for CS 151 - Intro to Computer Science

#### General Information

#### **Contact Your Instructors**

Name: Devon Kinne (section 002, 301) and Chelsy Shnabel (section 001)

Email: <u>devon.kinne@indstate.edu</u>, <u>chelsy.schnabel@indstate.edu</u>

Office: Root Hall A134 (Devon) and A137A (Chelsy)

#### Lecture, Exam, Office Hours

Lecture: MWF

section 002: 9-9:50 room RH A017 section 001: 10-10:50 room RH A019

section 301: online

See below for information on joining lectures by Zoom or watching recordings online

#### Credit Hours: 3

#### Exam:

Section 002 – Wednesday, December 9, 8:00am Section 001 – Monday, December 7, 10:00 am

Also check the Office of the Registrar's exam schedule

#### **Instructor Office Hours:**

Devon – Monday (11-noon), Tuesday (8:30a-9:30a) and by appointment Chelsy –Tuesday/Thursday (8:30a-9:30a) and by appointment

Office hours will be through Zoom by default this semester. Both Chelsy and Devon prefer you schedule an appointment with them using their online Booking, even if planning on coming to an office hour. Both of their Bookings can be found in the Links link. For a meeting in Zoom, you can go to the following:

Chelsy: Bookings
Devon: Bookings,

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).

Chelsy's Zoom Meeting Devon's Zoom Meeting

**GA Tutoring**: We have a few graduate assistants who are available to help students in beginning computer science courses. The lab is currently available online or by appointment.

Please see <a href="https://cs.indstate.edu/wiki/index.php/Unix\_Lab\_and\_Help">https://cs.indstate.edu/wiki/index.php/Unix\_Lab\_and\_Help</a> for details. The lab hours are in a calendar on the CS homepage, at <a href="https://cs.indstate.edu/info/index.php#lab\_hours">https://cs.indstate.edu/info/index.php#lab\_hours</a>. 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 <a href="http://cs.indstate.edu/~sbaker/cs256/syllabus.php#rs">http://cs.indstate.edu/~sbaker/cs256/syllabus.php#rs</a>. 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 Blackboard. 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 1-4 Scratch
  - Setup accounts
  - Intro to Scratch
  - Structured Program Theorem
  - Variables
  - I/O
  - Events
  - If-statements
  - Loops
  - Blocks
  - Games and Interaction
- \*\* Weeks 5-6
  - Intro to Python
  - Chapter 1 Python Basics
  - Chapter 2 Flow Control
  - Chapter 3 Functions
  - Exam1
- \*\* Weeks 7-12
  - Intro to Linux
  - Chapter 4 Lists
  - Chapter 5 Collections
  - Chapter 6 & 7 (Strings and RE)
  - Chapter 9 & 10 (Files)
  - Bits, Bytes, Base and Logic
  - Exam2
- \*\* Weeks 13-15
  - Intro to algorithms
  - Group Projects (choose topics, checkpoints, final code)
- \*\* Week 16
  - Final exam (Exam3)

### **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 complet 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 <u>6-10 hours</u> 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. <u>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.</u>

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 - 40%

- If we have two exams plus a final, the weighting will be 10% exam1, 15% exam2, 25% final exam.
- Earlier exams will be dropped if you do better on later exams if exam1 is lower than the others it will be dropped, if the final is higher than exams1&2 then only the final will count.
- No late exams will be given.

Quizzes - 20%

Expect to have a quiz every week.

Programs / HWs - 20%

 Program / HWgrade will be calculated proportionally - assignments with more points will count more towards the grade.

Participation - 20%

- Calculated based on the number of times you were present at your Zoom meetings and labs, as a fraction of the days that attendance was taken.
- If you are ill or in quarantine, you can participate online during Office Hours or CS Lab Hours.

**Notes for the online section (section 301)** - You will have a regularly scheduled weekly meeting with Devon or the TA for this course, Kevin. Please set this up the first week of class. This will count towards your attendance and participation.

#### **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 <a href="http://cs.indstate.edu/info/policies.html">http://cs.indstate.edu/info/policies.html</a> for details.

#### Late Homeworks

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 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**

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%
Α	94-96%	С	74-76%
A-	90-93%	C-	70-73%
B+	87-89%	D+	67-69%
В	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.

#### Blackboard

The course has a Blackboard site. Click <a href="https://blackboard.indstate.edu/">https://blackboard.indstate.edu/</a> to go to blackboard. You should see this course listed under your courses for the current term. The blackboard site is used for giving you your grades, for quizzes/exams, and for getting to online lectures (which are done using Zoom). Announcements will be sent through blackboard and to your university email. Links and such will be kept on this website.

#### Lectures (Using Zoom)

Lectures will be pre-recorded and streamed during Monday class time, using Zoom. If you are enrolled in the 301 section of the course, you can watch recorded lectures later if needed according to your schedule. If you are in the in-person sections, you need to join on Zoom during the regular lecture time. Note that attendance will be taken. If you are an in-person student (sections 001,002), you will also attend a lab once per week, during the normal scheduled time on either Wednesday or Friday. There is a field in the gradebook "Section" in Blackboard that indicates whether you will attend on Wednesday or Friday. Plese go to Blackboard for this course, click on My Grades (which might be under Tools if you don't see it as an option on the left menu), and check your section.

For ISU's links to information on getting started with Zoom, see <a href="https://indstate.teamdynamix.com/TDClient/1851/Portal/KB/ArticleDet?ID=109823">https://indstate.teamdynamix.com/TDClient/1851/Portal/KB/ArticleDet?ID=109823</a>.

You will get to the lectures for this course by going to Blackboard for this course, and click on "Zoom - for lectures" on the lefthand menu (or click on Tools and scroll down to Zoom). Once there you should see a schedule of lectures and be able to view recorded lectures. Note that you should install the Zoom application for your computer, and you will need to be logged into to Zoom with your ISU credentials to be able to connect. Also note that the lectures are recorded and only available to those in our class.

### **Participating Online**

If you are participating online, please see the information at <a href="https://www.indstate.edu/fcte">https://www.indstate.edu/fcte</a> 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 - <a href="https://cs.indstate.edu/wiki/index.php/Covid-19#Course">https://cs.indstate.edu/wiki/index.php/Covid-19#Course</a> Policies.

Information specific to this course -

Standard ISU language required in all syllabi (read this all once, then skim for your other courses)...

Illness: Students who are ill, under quarantine for COVID-19, or suspect they are ill will report that to Student Affairs. Student Affairs will verify and notify all faculty who have that student. Once notification is made, all faculty will make every reasonable effort to accommodate the student's absence and will communicate that accommodation directly to the student. Students who need to report an illness should contact Office of the Dean of Student at the following website <a href="https://cm.maxient.com/reportingform.php?IndianaStateUniv&layout\_id=23">https://cm.maxient.com/reportingform.php?IndianaStateUniv&layout\_id=23</a>. They may also call: 812-237-3829.

Masks/Shields: Masks/Shields will be worn by all students and faculty in classrooms as well as in buildings (unless you are alone in an office). What is said/printed on a mask will be held to the same Student Code of Conduct standard as if it were printed on a shirt or hat. As a result, a political statement such as MAGA, BIDEN2020, or BLM is not grounds for demanding that it be removed/replaced. In judging what constitutes an offensive statement on a mask, the determination will be made by Student Affairs using the Student Code of Conduct. If there is a question about a mask, the faculty member will refer the matter to Student Affairs and only insist upon its immediate removal if there is no doubt that it violates the Code. Medical waivers will be made through Student Affairs and students with such a waiver are expected to carry the documentation with them and present it when asked.

**Laptops/Technology:** It is the responsibility of all students to have equipment sufficient to participate in all their classes. All students must have a computer/tablet with audio and video capability. Students will follow the appropriate instructions of their faculty regarding the muting (or unmuting) of audio and video as they would in any classroom setting.

**Traffic flow and social distance:** Students and faculty will respect the need for social distancing to the degree possible by the setting. Faculty and students will move in and out of the classroom as per the appropriate instructions of the faculty/administration. They are expected to follow printed traffic flow statements posted in all rooms and buildings.

**In-class seating:** Faculty are asked to assign students seats in the classroom, using social distancing as possible. The assigned seating chart is to be used all semester and kept by faculty as to facilitate contact tracing and help limit any secondary quarantines.

**Cleaning of Space:** Students are encouraged to clean the surfaces of the chairs/tables/desks they occupy before they sit down and as they prepare to leave. Faculty should advise students

to bring cleaning wipes or cloths to clean their own personal space if they want or to be sure to use hand sanitizer on the way in and way out of the classroom.

**Refusal:** Refusal to comply with any appropriate request will be treated as would any classroom disruption (request to change the behavior; request to leave the class; dismissal of the class and referral to Student Affairs.)

## **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**

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 7<sup>th</sup> Floor | 812-237-3939 | <a href="www.indstate.edu/cns">www.indstate.edu/cns</a> The ISU Victim Advocate – Trista Gibbons, <a href="mailto:trista.gibbons@indstate.edu">trista.gibbons@indstate.edu</a>

HMSU 7<sup>th</sup> 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 | ucmminister2@gmail.com 321 N 7<sup>th</sup> St., Terre Haute, IN 47807

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