CS-151 Computer Science I
Spring 2019 - Syllabus and Information

Contact Your Instructor

Instructor: *Luke May*

Email: *Luke.May@indstate.edu*

Office: N/A online course.

Course Website: http://cs.indstate.edu/~lmay1/courses/#/courses/cs151-sp19/home

Instructor/class Directories (cs.indstate.edu):
  /u1/h5/lmay1
  /u1/class/cs151

Lecture:
Online Course: See course website above. Course lecture materials and assignments will generally be posted on Tuesdays and Fridays. Check the course website daily for the lates assignments and schedule changes.

Final Exam:
Online Course: See course website above. There will be a final project instead of a final examination.

Instructor Office Hours (Virtual):
T/Th   11:00 am - 1:00 pm

The above are my official office hours. If those times will not work for you, you may contact me so we can set up alternative time to meet.

GA Tutoring: N/A online course.

Prerequisites
None

Recommended Texts (not required)
Free Python e-books and resources:
        https://learnxinyminutes.com/docs/python/
        https://automatetheboringstuff.com/
        http://greenteapress.com/thinkpython/html/index.html

Course Announcements
Announcements regarding the course will be made both during class and 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.

Classroom conduct
This is an online course, and as such you will be expected to to behave professionally in all digital communications that take place with your instructor and your classmates. We will be using a chat program

called mattermost that is installed on the CS Server to help us communicate. Do not post anything offensive, and if you have a question as to whether or not something is offensive, don't post it. You can and will be removed from the chat sessions if needed, and that will be detrimental to your grade as many important messages pertaining to the course and assignments are communicated via the chat platform.

Course Information

Course Number: CS-151

Course Name: Computer Science I

Course CRN: 30255

Course Section: 301

Credit Hours: 3.0

Course Catalog Description:

History of computers and computer science, principles of process description, and problem analysis. The basic structures of sequence, iteration, and selection. Programming style, artificial intelligence, current applications.

Course Outline

- Using Linux
- Number Systems and Binary
    - Storing Numeric Data vs Character Data
- Boolean Logic and Circuits
    - AND
    - OR
    - NOT
- Python 3 Language
    - Basic Data Types (str, int, float, bool)
        - Literals
        - Variables
    - Command Line Standard Input / Standard Output
    - Expressions
    - Conditional Statements
    - Functions
        - Definitions
        - Arguments
        - Calls
    - Collections of data
        - Lists
        - Dictionaries
    - Loops
    - File Input/Output
    - Simple Scripting
- Sorting
- Pattern matching and parsing

- Simple Animations

Learning Outcomes
- Should have a basic understanding of Linux, file-systems, and terminal based navigation
- Should understand binary, and why it is important in computer science
- Should know the difference between numeric data and character data
- Should have basic understanding of how computers work and their components
- Should have basic understanding of python 3 syntax
- Should understand data types
- Should understand the role of functions in code reuse and why it is important
- Should understand program flow and code organization

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 **_3-5 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.

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 lecture, complete homework assignments, take in-class quizzes, take exams, and complete a project.

Homeworks, Labs, and Quizzes: 40% of total grade
Exams: 30% of total grade
Participation: 10% of total grade (Chat-based interactions)
Final Project: 20% of total grade

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 Work

Late homeworks and labs will not be allowed to be turned in for credit, mainly because they will be used as a learning tool, and the answers will be given out shortly after the assignments are collected. If you do miss an assignment, I recommend you complete it anyway, because all of the material builds on itself. Showing effort on the assignments goes a long way when I grade, so do not just skip them if you are confused, and do not turn in empty files. Contact me via email or chat if you need help.

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

We try to design homework assignments and exams so that a standard cutoff for grades will be close to what you deserve. After the first exam a grade will be created in Blackboard called "Letter Grade" that is what your letter grade would be if the semester ended today. Initially, I will likely assign the following grades: 93-100 A, 90-93 A-, 87-90 B+, 83-87 B, 80-83 B-, 77-80 C+, 73-77 C, 70-73 C-, 67-70 D+, 63-67 D, 60-63 D-, 0-60 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.

Blackboard

The course has a blackboard site. Click here to go to blackboard. You should see this course listed under your courses for the current term. The blackboard site is only used for giving you your grades (go to the course in blackboard, then click "My Tools", and then "My Grades"). All course content, schedule, etc. is kept in this google doc (which you are currently viewing).

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

Standard language included in the syllabi for ISU courses.

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

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
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 | 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