IFT 101: Information Technology Programming Logic
Arizona State University

Instructor:
Name: Raj Shrestha
Email: rrshrest@asu.edu
Office hours: Online via Zoom (With appointment)

Course:
Number: IFT101
Title: Information Technology Programming Logic
Times/Location: Online in Canvas

Description:
IFT 101 introduces student to basic concepts of problem-solving in computer programming and logical structures. Topics include techniques for problem-solving with computers, organizing a solution, algorithm writing, structure of a computer program, and basic data structures. All concepts will be taught in python including basic logic structures, conditions, loops, print statements, using simple data structures such as lists and dictionaries.

Prerequisites: There are no prerequisite courses for this class.

Textbooks:
Required – ZyBook: ASUIFT101GulatiFall2022-B
Recommended – Python for Everybody, Exploring Data in Python 3 by Charles R. Severance (PDF Version available in https://www.py4e.com/book.php)

Software:
Python 3+ with Anaconda using Spyder or Jupyter IDE or Visual Studio Code
Students will also write code and submit it into the zybook-integrated IDE.

Course Learning Objectives:

CLO-#	Topics	Learning Objectives
CLO-1	Basics of Programming	Demonstrate knowledge of computer architecture and knowledge of how computers execute instructions.
CLO-2	Basic concepts of Data representation by Computers	Demonstrate knowledge of different data types, and operations. Demonstrate knowledge of computer expressions and equations
CLO-3	Basics of Program Structure	Demonstrate knowledge of the overall structure of computer programs. Demonstrate an understanding of program modularization in the context of software architecture. Demonstrate an understanding of functions, their components, how to define them and invoke them.
CLO-4	Sequential Logic Structures	Demonstrate an understanding of the Sequential logic structure. Show an understanding of local and

		global variables and their potential interaction and conflicts.
CLO-5	Decision Structures: Branching	Show an understanding of decisions and branching. Demonstrate an understanding of decision tables, logic trees, and positive/negative logic. Be able to compare different logic expressions for readability and effectiveness
CLO-6	Loops/Iteration	Demonstrate the ability to write/draw loop structures
CLO-7	Arrays/Lists/Dictionaries	Demonstrate the ability to construct and manipulate arrays, both 1-dimensional and 2 dimensional. Demonstrate the ability to create and use dictionaries for data processing.
CLO-8	Python programming	Show the ability to translate an initial problem/assignment scenario to a pseudocode level procedure, and then to running a Python program.

Course Access:
Your ASU courses can be accessed by both https://my.asu.edu
and https://asu.instructure.com/ bookmark both in the event that one site is down.

Computer Requirements:
This course requires a computer with internet access and the following technologies:
Web browsers (Chrome, Mozilla Firefox, or Safari)
Adobe Acrobat Reader
Webcam, microphone, headset/earbuds, and speaker.
Microsoft Office (Microsoft 365 is free for all currently-enrolled ASU students)
Reliable broadband internet connection (DSL or cable) to stream videos.
Note: A smartphone, iPad, Chromebook, etc. will not be sufficient for completing your work in ASU Online courses. While you will be able to access course content with mobile devices, you must use a computer for all assignments, quizzes, and virtual labs.

Technical Support:
For technical support, use the Help icon in the black global navigation menu in your Canvas course or call the ASU Help Desk at +1-(855) 278-5080. Representatives are available to assist you 24 hours a day, 7 days a week.

Campus Resources
There are lots of valuable resources on campus to help you achieve success both personally and academically. Don't hesitate to use them! A few of these are listed here (note that the services are available at all ASU campuses – from the links below, you can find the location(s) of the resource you're interested in at the Poly campus (or another campus):
- Writing centers – https://tutoring.asu.edu/writing-centers
- Tutoring, student success centers: https://tutoring.asu.edu/tutoring
- Counseling / consultation: https://eoss.asu.edu/counseling
- Career services:https://eoss.asu.edu/cs

Student Success:

To be successful:
- Manage the required Course Time Commitment - Coursework includes all learning activities including reading, watching videos, studying, and completing assignments. Arizona Board of Regents requires 45 hours of coursework per credit for college-level courses.
- Read announcements.
- Read and respond to course email messages.
- Check your ASU email regularly.
- Complete assignments by the due dates specified.
- Communicate regularly with your instructor and peers.
- Create a study and/or assignment schedule to stay on track.
- Participate in all of the classroom sessions.
- Complete all pre-class preparation assignments and reading.
- Complete all post-class follow-up assignments and reading.
- Access ASU Online Student Resources

Content Management:
- Any information in this syllabus may be subject to change with reasonable advance notice.
- Students may not share outside the class, including uploading, selling, or distributing course content or notes taken during the conduct of the course.
- Any recording of class sessions by students is prohibited.
- The contents of this course, including lectures and other instructional materials, are copyrighted materials.
- Notes based on these materials may not be sold or commercialized without the express permission of the instructor. Based on ACD 304-06

Grading:
Your grade will be determined based on the following grading schema:

Scale	Grade
>= 98.0% <= 100.0%	A+
>= 93.0% < 98.0%	A
>= 90.0% < 93.0%	A-
>= 88.0% < 90.0%	B+
>= 83.0% < 88.0%	B
>= 80.0% < 83.0%	B-
>= 78.0% < 80.0%	C+
>= 70.0% < 78.0%	C
>= 60.0% < 70.0%	D
< 60.0%	E

Submitting Assignments:
All assignments, unless otherwise announced, MUST be submitted to the designated area of Canvas. Do not submit an assignment via email unless explicitly directed by the teacher. Assignment due dates follow Arizona Standard Time. Click the following link to access the Time Converter (specifically Phoenix) to ensure that your account for the difference in Time Zones.
Note to online students: Arizona is MST year-round, we do not observe Daylight Savings

Required Format:
Standard written English is always used in the ASU classroom.
All written work is to be submitted in the appropriate professional APA style and format using APA Version 7th edition.
Assignment attachments are required to be in Microsoft Word (DOC or DOCX) or Portable Document Format (PDF).
Large attachments (>10MB) should be submitted via a shared link from cloud storage (e.g. ASU student Google Drive (https://drive.google.com – login with your ASU email address and credentials)).

Grading Procedure:
Grades reflect your performance on assignments and adherence to deadlines.

Late Assignments:
Assignments are due at 11:59 on the date posted on the submission page for the assignment on canvas. Late assignments, quizzes and exams are not acceptable.
Notify the instructor **BEFORE** an assignment is due if an urgent situation arises and you are unable to submit the assignment on time. Follow the appropriate University policies to request an accommodation for religious practices or to accommodate a missed assignment due to University-sanctioned activities. Accommodations will be made for religious observances provided that students notify the instructor at the beginning of the semester concerning those dates. Students who expect to miss class due to officially university-sanctioned activities should inform the instructor as early as possible in the semester. Alternative arrangements will generally be made for any examinations and other graded in-class work affected by such absences. The preceding policies are based on ACD 304–04, "Accommodation for Religious Practices" and ACD 304–02, "Missed Classes Due to University-Sanctioned Activities."

Grade Appeals
Grade appeals must be done within 72 hours of grade published in Canvas and can be done by sending an email to instructor describing in detail about dissatisfaction. Grade disputes must first be addressed by discussing the situation with the instructor. If the dispute is not resolved with the instructor, the student may appeal to the department chair per the University Policy for Student Appeal Procedures on Grades. Here is the link to the ASU process - https://catalog.asu.edu/appeal

Incomplete:
A grade of Incomplete can be given only under extreme circumstances, where an unforeseen situation prevents the student from completing all required assignments by the end of the session. This is a decision made only by the faculty member. Students must ask for the incomplete.
A grade of Incomplete requires a contract and work must be made up within 4 weeks after the course, in which the student was enrolled, or the "I" will revert to an "E" and the course must be repeated.

Communicating With the Instructor:
The best method of communication with the course instructor is via email.

Community Forum:

This course uses a discussion topic called "Community Forum" for general questions and comments about the course. Prior to posting a question or comment, check the syllabus, announcements, and existing posts to ensure it's not redundant. You are encouraged to respond to the questions of your classmates. Email questions of a personal nature to your instructor. You can expect a response within 72 hours.

Chat:
The Chat tool in Canvas allows students and teachers to interact in real-time. Use Chat only for informal course-related conversations unless your instructor informs you otherwise. Chat is not ideal for questions about assignments; instructors are not required to monitor it and conversations may be buried or lost.

Email:
ASU email is an official means of communication among students, faculty, and staff. Students are expected to read and act upon email in a timely fashion. Students bear the responsibility of missed messages and should check their ASU-assigned email regularly. All instructor correspondence will be sent to your ASU email account.

Accessibility Statements:
View the Accessibility section to review accessibility statements for common tools and resources used in ASU Online courses.
If any other tools are used in this course, links to the accessibility statements will be listed below this sentence.

Syllabus Disclaimer:
The syllabus is a statement of intent and serves as an implicit agreement between the instructor and the student. Every effort will be made to avoid changing the course schedule but the possibility exists that unforeseen events will make syllabus changes necessary. Remember to check your ASU email and the course site often.

Classroom Behavior:
Cell phones and pagers must be turned off during class to avoid causing distractions. The use of recording devices is not permitted during class. Any violent or threatening conduct by an ASU student in this class will be reported to the ASU Police Department and the Office of the Dean of Students. See SSM 104–02, "Handling Disruptive, Threatening, or Violent Individuals on Campus."

Academic Integrity & Copyright Laws:
One of the core topics of this course is academic integrity. You will be discussing it further throughout the course. ASU expects and requires all its students to act with honesty, integrity and respect the rights of others in carrying out all academic assignments. Fulton Schools of Engineering takes academic integrity VERY seriously. The Fulton Honor Code will be discussed during a future class.
Students in this class must adhere to ASU's academic integrity policy, which can be found at https://provost.asu.edu/academic-integrity/policy). Students are responsible for reviewing this policy and understanding each of the areas in which academic dishonesty can occur. In addition, all engineering students are expected to adhere to both the ASU Academic Integrity Honor Code and the Fulton Schools of Engineering Honor Code. All academic integrity violations will be reported to the Fulton Schools of Engineering Academic Integrity Office (AIO).

The AIO maintains record of all violations and has access to academic integrity violations committed in all other ASU college/schools.

Course content, including lectures, are copyrighted materials and students may not share outside the class, upload to online websites not approved by the instructor, sell, or distribute course content or notes taken during the conduct of the course (see ACD 304–06, "Commercial Note Taking Services" and ABOR Policy 5-308 F.14 for more information). You must refrain from uploading to any course shell, discussion board, or website used by the course instructor or other course forum, material that is not the student's original work, unless the students first comply with all applicable copyright laws; faculty members reserve the right to delete materials on the grounds of suspected copyright infringement.

Plagiarism:
Although ASU encourages collaboration between students, and faculty, in the sharing of ideas and experiences, individual work needs to represent the student's original thought and be distinguishably different from other students' work. Copying from other people's work in part or in whole will result in a ZERO grade for the whole work. Recurring plagiarism will result in obtaining an XE and reporting each student's misconduct.

Threatening Behavior Policy:
Students, faculty, staff, and other individuals do not have an unqualified right of access to university grounds, property, or services (see SSM 104-02). Interfering with the peaceful conduct of university-related business or activities or remaining on campus grounds after a request to leave may be considered a crime. All incidents and allegations of violent or threatening conduct by an ASU student (whether on- or off-campus) must be reported to the ASU Police Department (ASU PD) and the Office of the Dean of Students.

Harassment and Sexual Discrimination:
Arizona State University is committed to providing an environment free of discrimination, harassment, or retaliation for the entire university community, including all students, faculty members, staff employees, and guests. ASU expressly prohibits discrimination, harassment, and retaliation by employees, students, contractors, or agents of the university based on any protected status: race, color, religion, sex, national origin, age, disability, veteran status, sexual orientation, gender identity, and genetic information.

Title IX is a federal law that provides that no person be excluded on the basis of sex from participation in, be denied benefits of, or be subjected to discrimination under any education program or activity. Both Title IX and university policy make clear that sexual violence and harassment based on sex is prohibited. An individual who believes they have been subjected to sexual violence or harassed on the basis of sex can seek support, including counseling and academic support, from the university. If you or someone you know has been harassed on the basis of sex or sexually assaulted, you can find information and resources at https://sexualviolenceprevention.asu.edu/faqs.

As a mandated reporter, I am obligated to report any information I become aware of regarding alleged acts of sexual discrimination, including sexual violence and dating violence. ASU Counseling Services, https://eoss.asu.edu/counseling, is available if you wish discuss any concerns confidentially and privately.

Disability Resources:
Any students who have special needs or need accommodations in this course are encouraged to communicate with me as soon as possible to make appropriate arrangements for these

accommodations. The Americans with Disabilities Act (ADA) is a federal antidiscrimination statute that provides comprehensive civil rights protection for persons with disabilities. One element of this legislation requires that all qualified students with documented disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation please contact the Disability Resource Center (DRC) at ASU Polytechnic located in Student Affairs Quad # 4 or call 480-727-1039 / TTY: 480-727-1009. Please note that students who may need accommodations must register with the ASU Disability Resource Center and provide documentation of that registration to the instructor. Eligibility and documentation policies online: http://www.asu.edu/studentaffairs/ed/drc/

Behavioral Policies:
Any violent or threatening conduct by an ASU student in this class will be reported to the ASU Police Department and the Office of the Dean of Students.

Absence Policies
Absences related to religious observances/practices that are in accord with ACD 304–04, "Accommodation for Religious Practices" (http://www.asu.edu/aad/manuals/acd/acd304-04.html) or related to university sanctioned events/activities that are in accord with ACD 304–02, "Missed Classes Due to University-Sanctioned Activities" (http://www.asu.edu/aad/manuals/acd/acd304-02.html) will not be accommodated unless the instructor is alerted in advance such absences (advance notice = at least 72 hours).
- Be actively involved in Canvas.
- You **are** responsible for material covered in Canvas or included in assignments regardless of whether you are in Canvas or not.
- Students who are actively involved in Canvas regularly have been consistently shown to perform better than students who do not. The truth of that statement may be obvious, but students do not always adhere to it.
- The concepts in this course are difficult to comprehend when you are first introduced to the subject.

Keep all assignments exams in case there is a problem with your grade.

Drop and Add Dates/Withdrawals
It is the responsibility of the student to withdraw from this class. This course adheres to a standard schedule and may be part of a sequenced program, therefore, there is a limited timeline to **drop or add the course.** Withdrawal date deadlines can be found in the schedule of classes at **www.asu.edu.** Anyone that does not complete their assignments and exams and does not withdraw from the class will receive an 'E' grade. Consult with your advisor and notify your instructor to add or drop this course. If you are considering a withdrawal, review the ASU policies: **Withdrawal from Classes, Medical/Compassionate Withdrawal**, and a **Grade of Incomplete.**