

**ITSE 2371**  
**Advanced Python**  
**CLASS SYLLABUS**



**Instructor Contact Information**

**Instructor:** Alan S Gandy

**Email:** alan.s.gandy@lonestar.edu

**Phone:** 281-290-2935

**Office Location:** EMI 100H

**Student Hours:** Wednesdays 10 – 2  
or by appointment

**Website / Other Contact:**

**Welcome to ITSW1307**

**Course Title:** ITSE2371

**Course Subject:** Advanced Python

**Course Section:** 6301/6302

**Classroom Location:** virtual D2L

**Semester and Year:** Spring 24

**Class Days and Times:** asynchronous - no  
required scheduled meetings

**Course Overview**

**Credit Hours:** 3

**Contact Hours:** 80.0

**Prerequisite:** ITSE1371 - Intermediate Python  
Programming

**Corequisite:** none

**Lecture Hours:** 32

**Lab Hours:** 48

**Catalog Description:** This course builds on the student's prior knowledge of the Python programming language by offering a more in-depth and advanced approach to building effective Python applications. Specific topics include user interfaces, networked applications, databases, multithreading and regular expressions. The course reinforces object oriented design, thorough documentation, testing and conventional programming style.

**Student Learning Outcomes:**

1. Students will learn to work with the Collections module.
2. Students will demonstrate the use of Object Oriented Design.
3. Students will understand advanced sorting algorithms.
4. Students will experience working with databases.
5. Students will demonstrate the ability to apply data mining skills.

**In our efforts to prepare students for a changing world, students may be expected to utilize computer technology while enrolled in classes, certificate, and/or degree programs within LSCS. The specific requirements are listed below:**

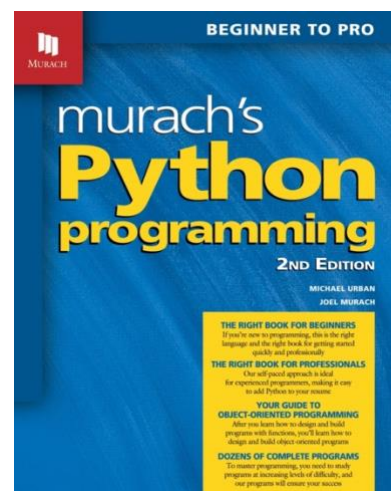
Access to a personal computer, (Windows, MacOS or Linux,) with a current, updated operating system. Students may use any IDE that supports Python3, or browser based coding platforms, repl.it.com, etc.

**IMPORTANT** – This course makes use of virtual proctoring services which require a web cam and microphone, more information may be found here: <https://web.respondus.com/wp-content/uploads/2019/08/RLDB-Quick-Start-Guide-D2L-Student.pdf>

Getting Ready

**Required Material:**

**Murach's Python Programming**  
**2nd Edition**  
**Author(s): Michael Urban, Joel Murach**  
**Publisher: Murach**  
**Print ISBN: 9781943872749, 1943872740**  
**eText ISBN: 9781943872756, 1943872759**



**Optional Material:** none

Instructor Guidelines and Policies

**Attendance:** Regular attendance is expected in order for students to successfully complete the course objectives; this includes actively logging into the course.

**Communication:** This course utilizes D2L/Brightspace Discussion forums for assignment questions.

Students are strongly encouraged to collaborate and communicate using this platform. Please do not send assignment questions as direct messages or emails to the instructor; use the Assignment Help forum for all assignment questions.

**Late Work:** Late work is not accepted. Any assignment not submitted by the due date will receive a 0 grade, unless prior arrangements are approved by the instructor. All assignments, with the exception of the Software Selection discussion post, are due on the last day of the course.

**Make-up Assessments:** Students must contact the instructor prior to missing a scheduled examination. An opportunity to take a makeup examination will be offered to those who make prior contact with the instructor. All make-up exams will be administered in any Lone Star campus assessment center.

**Cell Phones and Computers:** N/A

**Official Day of Record:** Students that have not attended an in-class meeting or participated in an online class prior to the official day of record will be dropped from the course without exception.

Participation is defined as submission of the Software Selection assignment in the Getting Started module. Official day of record for this course is 1/29/24.

**Withdrawal Policy:** No credit will be awarded for a course earning a “W.” If you stop attending class, you must withdraw at the registration office prior to “W” day, 4/8/24. If you stop attending class and do not officially withdraw, you will receive an “F” for the course.

**Six Drop Rule:** Students who enrolled in Texas public institutions of higher education as first-time college students during the Fall 2007 term or later are subject to section 51.907 of the Texas Education Code, which states that an institution of higher education may not permit a student to drop (withdraw with a grade of “W”) from more than six courses, including courses that a transfer student has previously dropped at other Texas public institutions of higher education that have already been counted against their six drop limit. Each student should fully understand this drop limit before you drop any course. Please see a Counselor or Advisor in our Student Services area for additional information and assistance. This policy does not affect developmental or ESOL students.

**Anti-Racism:** LSC-UP is committed to eliminating all forms of racism and discrimination by modeling inclusive learning and work environments for students and employees. LSC-UP dismantles barriers for the underrepresented student and commits to ongoing self-examination of our teaching, learning, and operations. By honoring the experiences and cultural capital that each person brings, we strive to create opportunities for all to succeed. We embrace diversity because it enriches everyone’s experience; we advance equity because it is necessary for democracy; we cultivate inclusion because together we achieve greater goals.

As our community’s college, we move beyond equity in access to achieve equity in outcomes. If you experience or witness discrimination, we welcome your communication.

### Conflict Resolution

If you have an issue with any aspect of the class (grading, policies, instructor behavior, etc.), please discuss the issue with your instructor outside of class time. If you cannot resolve the issue with your instructor, you may contact the department chair to further discuss the matter.

### **Department/Division Contact:**

Department Chair, CIT/Engineering Technologies:

Christopher Shaefer, christopher.f.schaefer@lonestar.edu , 281-290-2673

Dean of Instruction, Computing, and Engineering Technologies:

Andrew Johnson, andrew.johnson@lonestar.edu

### Grade Determination

**Quizzes:** Objective assessments for each assigned chapter or topic.

**Bonus Assignments:** Optional miscellaneous activities which may include discussion and labs.

**Final Exam:** Comprehensive exam covering the entire course.

<b>Your grade will be determined by the following</b>	<b>Summary</b>	<b>Points (if applicable)</b>	<b>Percent of Final Average</b>
Quizzes	Technical Questions Quiz, Chapter Quizzes (Chapters 12 – 18)	80	44%
Final Exam	Comprehensive exam covering all course content	100	56%
<b>Total:</b>		180	100%

### Letter Grade Assignment

<b>Letter Grade</b>	<b>Points</b>	<b>Final Average in Percent</b>
A	> 161	89.5 - 100
B	143 - 160	79.5 - 89.4
C	125 - 142	69.5 - 79.4
D	107 - 124	59.5 - 69.4
F	< 106	< 59.5

### Tentative Instructional Outline

<b>Course Schedule</b>			
<b>Availability</b>	<b>Topics</b>	<b>Graded Assignments</b>	<b>Bonus Assignments</b>
1/16 – 1/21	Getting Started	How to Ask Technical Questions Quiz	

1/22 – 1/29	How to work with dictionaries	Chapter 12 Quiz	
1/29 - 2/4			Chapter 12 Lab Discussion
2/5 – 2/11	How to work with recursion and algorithms	Chapter 13 Quiz	
2/12 - 2/18			Chapter 13 Lab Discussion
2/19 - 2/25	How to define and use your own classes	Chapter 14 Quiz	
2/26 - 3/3			Chapter 14 Lab Discussion
3/4 - 3/10	How to work with inheritance	Chapter 15 Quiz	
3/11 – 3/17	SPRING BREAK		Git / Git Hub Lesson
3/18 – 3/24	How to work with inheritance		Chapter 15 Lab Discussion
3/25 – 3/31	How to design an object-oriented program	Chapter 16 Quiz	
4/1 – 4/7			Chapter 16 Lab Discussion
4/8 – 4/14	How to work with a database	Chapter 17 Quiz	
4/15 – 4/21			Chapter 17 Lab Discussion
4/22 – 4/28	How to build a GUI program	Chapter 18 Quiz	
4/29 – 5/5			Chapter 18 Lab Discussion
5/3 – 5/12	Final Exam	Lab 19-1 Final Exam	

**Lone Star College-University Park is committed to your success!**

## **GradUP**

The LSC-University Park community is here to support you and we encourage you to graduate! Many of you come to a community college because it provides an open door and it makes sense financially. What you may not realize is what attaining an associate or workforce degree can do for you. Below are just some of the reasons why a degree is a positive move for your life and career:

1. You'll be eligible for more jobs.
2. You could have higher earning potential.
3. You can finish in two years or less.
4. You have options for career paths.
5. You can discover what you want from your academic program and career.
6. You can apply for additional scholarships.
7. Many of the colleges in Texas have articulation agreements with community colleges that allow you to receive full credit for the courses you have completed.
8. Your transfer acceptance is higher with an associate degree.



If you have any questions or need guidance with your academic plan and graduation, please ask for assistance. There are resources, advisors, and additional materials available to you. Because your academic success is important, Lone Star College fosters and commits to a set of cultural beliefs.



### **One LSC**

I develop meaningful relationships and collaborate for mutual success.



### **Student Focused**

I support and prepare each student to succeed in college and life.



### **Own It**

I bring my best, rise above challenges, and own my contributions.



### **Advance Equity**

I advance diversity and inclusion to create an equitable environment.



### **Cultivate Community**

I cultivate a community of trust and integrity through transparent dialogue and purposeful actions.



### **Choose Learning**

I learn, grow, and create opportunities for others to do the same.

**Your success is our primary goal!** If you are experiencing challenges achieving your academic goals, please contact your instructor or an advisor. We can provide assistance with academic needs, ADA accommodations, classroom difficulties, financial concerns, and other issues.

**Advising:** The Advising process is an integral part of your academic success. Academic advisors are available to assist you with a variety of academic services including admissions, testing, advising, registration, referral of campus and community resources, add/drop/withdrawal process, transfer planning and graduation processes.

<https://lonestar.edu/advising.htm>

**Academic Calendar:** <https://lonestar.edu/academic-calendar>

**Final Exam Schedule:** <https://lonestar.edu/examschedule.htm>

**Counseling Services:** Counseling services are available to students who are experiencing difficulty with academic issues, selection of college major, career planning, or personal issues. Visit <https://lonestar.edu/counseling-services.htm> for more information.

**Student Learning Resource Center (SLRC):** The Student Learning Resource Center, also known as the SLRC, consists of the library's digital resources and research experts, academic coaching, and the assistive technology lab. The SLRC space on the 8th floor offers open computer labs, study spaces, and printers. Students get their ID cards here, interact with friendly staff, and check out textbooks from the reserve collection. These free services are available to currently enrolled Lone Star College students to support academic success.

**Academic Coaching - Writing, Math, and Science:** Academic Coaching includes elements of traditional tutoring but focuses on the goals and the process of teaching students to become more effective learners over the course of their studies. Academic Coaching provides academic support for subjects face-to-face or virtually through an online platform called Upswing. This support comes in the form of live coaches as well as a variety of tools and resources to support your academic success. Academic Coaching aids with writing assignments and the writing process. Assistance in all levels of math and all areas of science is also provided. More information, including hours, guidelines, and how to access online tutoring, can be found online at <https://upresearch.lonestar.edu/academiccoaching>. Please contact [UPTutor@LoneStar.edu](mailto:UPTutor@LoneStar.edu) for more information

**Assistive Technology Lab:** The Assistive Technology (AT) Lab provides services for students who have accommodations that have been approved by Disabilities Services. Students should begin the process in the Disability Services Office ( <https://www.lonestar.edu/disability-services.htm> ). Assistive technology is any item, piece of equipment, software program, or product system used to increase, maintain, or improve the functional capabilities of persons with disabilities. Some examples of services include note-takers, reader/scribes, digital recorders, smart pens, and text-to-speech software. More information can be found at <https://www.lonestar.edu/UP-AssistiveTech> and you can contact the Assistive Technology Lab staff at [UPAssistvieTech@LoneStar.edu](mailto:UPAssistvieTech@LoneStar.edu).

**Library - Digital and Research Resources:** The University Park library is completely digital. Online collections of credible resources include articles, e-books, and videos, and are accessible from anywhere with your 14-digit library barcode, which you can request online (<https://www.lonestar.edu/library/card.htm#card>). Librarians are available to assist with finding, evaluating, and citing information and can also be contacted by email ([uplibrary-ref@lonestar.edu](mailto:uplibrary-ref@lonestar.edu)), text (281.761.6852), or through the "Chat with the Librarian" button on the library webpages. You can also stop by in person on the 8th floor! More information, including research and citation guides and a searchable FAQ, can be found online at <https://www.lonestar.edu/up-library> and <https://www.upresearch.lonestar.edu>.

## **Lone Star College-University Park College Resources and System Policies**

Please see this link for college details: <https://lonestar.edu/up-syllabus-policies>

Please see this link for system details: <https://www.lonestar.edu/syllabus-policies>