



Syllabus-Spring 2026

Title of Course-Section:	CSCI 1210-501/502 (Programming Fundamentals)
Name of Department:	Mathematics, Engineering, & Computer Science (MECS)
Instructor:	Andisheh Dadashi, Assistant Prof. of Computer Science
Email:	andisheh@unm.edu
Credit Hours :	3 credit hours
Class Days/Times:	MW 10:30 a.m. - 11:45 a.m. (Hyflex: Simultaneous Zoom & face-to-face)
Class Location:	CANVAS & ZyBook
Office Location:	VAAS-105
Student Drop-in Hours:	In-person & Zoom: M 8 a.m. - 10 a.m. (or by appointment)

Note 1: Zoom links related to this course or Student Drop-in Hours can be found on Canvas.

Note 2: The instructor reserves the right to change the syllabus at any point of time during the semester.

Table of content

- [Academic Honesty](#)
- [Assignments Deadlines](#)
- [Chapters of Book](#)
- [Course Schedule](#)
- [Course Structure](#)
- [UNM Deadlines & Academic Calendar](#)
- [Disabilities Policy](#)
- [Evaluation/Grading Methods](#)
- [Important Links](#)
- [Late Assignments](#)
- [Learning Objectives and Outcomes](#)
- [Online Assignments](#)
- [QR Codes/Attendance/Absence](#)
- [Student Responsibility](#)
- [Student Behavior & Collegial Behavior](#)
- [How to be Successful in this Course?](#)
- [General Support for this Course!](#)
- [Teaching Materials](#)
- [Technology Requirements](#)
- [The Center for Academic Learning](#)
- [UNM Valencia Title IX Representative](#)

****Contacting your instructor via Email****

HOW TO EMAIL



When emailing me, in the subject of your email, please write down your course name, course number, and section number. For example, the subject of your email to me should be: **CS 1210-501** or **CS 1210-502**. You must only contact me with your **UNM e-mail**. Check your **UNM email frequently**. You are responsible for missing any announcement I send via email or posted on Canvas. Failure to identify your message with the class number, and not using your UNM email may result in no response.

Instructor Response Time:

- The best way of contacting me will be via CANVAS Inbox.
- In all cases please, be patient and give me 24 hours to 48 hours to reach back to you.
- I will be available via email (and CANVAS Inbox) during the weekdays until 5 p.m.
- I may not be able to respond to any email on Saturday and Sunday.

Get to know your instructor:



Dr. Andisheh Dadashi is an Assistant Professor of Computer Science, Statistics, and Mathematics in the Mathematics, Engineering, and Computer Science (MECS) Division at the University of New Mexico–Valencia (UNM–VA). She holds a Bachelor’s degree in Mathematics and Statistics from Iran, a Master’s in Statistical Mathematics from India, and a second Master’s in Statistics from the University of New Mexico (UNM). She earned her Ph.D. in Computer Science from UNM Main, where she also serves as a Research Assistant Professor in the Department of Biology, working in Dr. Davorika Gulisija’s lab on computational biology.

Dr. Dadashi began her teaching career as a Visiting Lecturer II at UNM–Gallup (UNM–GA), where she collaborated with the Critical Technology Studies Program (CTSP) to recruit and mentor students in research related to critical technology and national security. She has since developed and taught cross-listed data science courses across UNM’s main and branch campuses.

Her research focuses on developing theoretical frameworks, computational methods, and statistical tools to study rapid polygenic adaptation—how complex traits evolve in response to changing environments. This work plays a key role in understanding how organisms adapt to climate change.

In recognition of her inclusive teaching and innovative curriculum design, Dr. Dadashi received the 2024–2025 UNM Teaching Excellence Award, jointly sponsored by the Center for Teaching and Learning and the Honors College. This university-wide award reflects her commitment to accessible, interdisciplinary STEM education.

CSCI 1210 (Programming Fundamentals) is a gentle and fun introduction. Students will use a modern Integrated Development Environment to author small programs in a high-level language that does interesting things. If you are planning on being a CS major and have no previous exposure to computer programming or want a disciplined approach to it, this is the course for you. If you have prior experience, you might want to start with CSCI 1260.

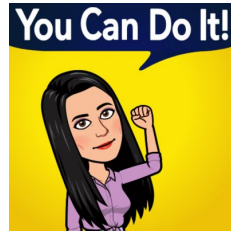
Why Choose Python?

Python has evolved from a humble scripting language into one of the most widely embraced programming languages today. It stands out for several compelling reasons:

1. **Readability:** Python is renowned for its high-level syntax, making it exceptionally easy to read and write code.
2. **Interpreted Language:** Python is an interpreted language, which means you can write and execute code without the need for complex compilation processes.
3. **Foundational Syntax:** Learning the syntax of any language is crucial, and Python is no exception. These rules serve as the building blocks for crafting solutions to problems.
4. **Accessibility:** Python is open source and free to use for anyone. Additionally, a wealth of free tools and libraries are available to enhance your coding experience.
5. **Cross-Platform Compatibility:** While some minor issues may arise with file management, Python is mostly cross-platform, allowing you to work seamlessly across different operating systems.
6. **Versatility:** Python's versatility extends to mobile devices, enabling it to run on phones, which is a notable advantage.
7. **Abundant Resources:** Python boasts an extensive ecosystem of learning resources and examples, making it one of the most well-supported languages for newcomers and experienced programmers alike.
8. **Global Accessibility:** When you publish your code using Python, it becomes accessible to anyone worldwide. Python's clarity and simplicity ensure that others can understand and run your code effectively.

In summary, Python's readability, interpretive nature, foundational syntax, accessibility, cross-platform capabilities, mobile compatibility, extensive resources, and global reach make it an outstanding choice for aspiring programmers and seasoned developers alike.

How to be successful in a Programming course?



Success in this course depends on a combination of effort, effective strategies, and a solid understanding of the subject matter. Here are some tips to help you excel in such a course (**What to do**):

1. **Attend Classes Regularly:** - Make sure to attend all lectures and labs. Consistent attendance helps you understand the material as it's presented, and you won't miss important announcements or assignments.
2. **Participate Actively:** - Engage in class discussions, ask questions, and seek clarification when you don't understand something. Active participation can help you grasp concepts faster.
3. **Read the Course Syllabus:** - Understand the course requirements, grading criteria, and important deadlines. This will help you stay organized and plan your study schedule accordingly.
4. **Start Early:** - Don't procrastinate. Begin assignments and projects as soon as they are assigned. Programming often requires time for trial and error, so starting early allows you to troubleshoot issues.
5. **Practice Regularly:** - Programming is a skill that improves with practice. Spend extra time coding beyond what's required for your assignments. Experiment with different problems and solutions to reinforce your understanding.
6. **Use Online Resources:** - The internet is a treasure trove of programming resources. Websites like Stack Overflow, and GitHub can be invaluable for finding solutions to problems and learning from others.
7. **Seek Help When Needed:** - Don't be afraid to ask for help from your instructor or teaching assistants if you're struggling with a concept or project. They are there to assist you.
8. **Understand the Basics:** - Ensure you have a solid grasp of the foundational concepts like variables, data types, control structures (if statements, loops), and functions. These will form the building blocks of more advanced programming.
9. **Test Your Code:** - Always test your code thoroughly before submitting it. Debugging is a crucial skill, and finding and fixing errors is a big part of programming.
10. **Study the Documentation:** - Get comfortable with reading and understanding documentation for the programming languages and libraries you're using. Documentation is often a programmer's best friend.
11. **Stay Inquisitive:** - Technology is always evolving. Stay curious and open to new ideas, and tools.
12. **Stay Positive and Persistent:** - Programming can be challenging, but maintaining a positive attitude and being persistent in your efforts can make a significant difference in your success.

Remember that programming can be challenging, and setbacks are a part of the learning process. Stay persistent, and with dedication and practice, you can excel in this course.

Evaluation/Grading Methods

Your final grade in this class is based on the following components:

Progress Credit	10 %
Participation Activities (PA)	20 %
Challenge Activities (CA)	20 %
Programming Challenges or Labs (PC)	25 %
Final Exam	25 %
Overall	100 %



Passing grade is 73% or better. F is a grade lower than 60%

Overall Grades: pluses and minuses may or may not be added to letter grades at the instructor's discretion. Grades of A+ are not rare and will only be awarded for exceptional work.

In order to pass this course your grade on the final exam must be 70% or better.

This policy ensures academic integrity by allowing the instructor to verify that students fully understand and can explain their work, especially in courses with limited in-person assessments. It helps maintain fairness and ensures the submitted work reflects the student's own knowledge and effort.

Note: The instructor reserves the right to call any student at any time during the semester for an oral discussion or explanation of their submitted work.

Grade	From	To	Grade	From	To	Grade	From	To
A+	98	100	B+	87	89.99	C+	77	79.99
A	93	97.99	B	83	86.99	C	73	76.99
A-	90	92.99	B-	80	82.99	C-	70	72.99



Pre-requisites/Co-requisites: If you are planning on being a CS major and have no previous exposure to computer programming or want a disciplined approach to it, this is the course for you. If you have prior experience, you might want to start with CS152L. If you are a non-CS major, your profession might require some computer programming skills, so this is also the course for you.

Course Description: Why do you need this course? Almost every person interacts with a computer program several times a day. All professionals are required to have some knowledge of computers as users. Some professions go even further to ask new employees to be able to write computer programs.

Goals: The objective of the course is an understanding of the relationship between computing and problem-solving. We will be using Python to solve engineering and math problems. The high-level language is Python, the student will learn the basic syntax and rules of Python and will practice it extensively during the term. If you have no previous programming experience, this is the course for you.

By the end of the course, the student will be able to:

1. Design computer solutions to simple problems;
2. Explain how are computer solutions designed;
3. Define basic programming constructs and demonstrate fluency in working with conditional control flow, looping structures, and procedural programming techniques;
4. Write programs to solve simple computer problems in a high-level programming language.
5. Acquire and be able to define and use precisely some terms of computer programming.
6. Establish the foundations of computer programming as the building block for becoming a “good programmer”. There is a set of good practices, habits, and skills, related to being a good programmer. Involves characteristics of the product (the program): clear (easy to understand), flexible (easy to modify to make it do something slightly different, or to extend it to add more functionality).
7. Abstract fundamental concepts behind the programming language constructs that will allow the student to learn a new programming language fast, reducing the learning curve of the language.

TECHNOLOGY REQUIREMENT



Access to a reliable and fast internet connection is required.

For the course, we use [Canvas](#) to navigate through the teaching materials and assignments, but students must also be able to navigate and use other online resources.

Students are required to purchase the online **ZyBook Package** (e-book).

This online book will be on Canvas via **Inclusive Access (IA)**.

ZyBook is the online learning system that accompanies the textbook and includes an e-book. ZyBook is required for the CSCI 1210 course.

How to access Zybook:

- Choose RedShelf on Canvas
- Copy code from RedShelf
- Sign up at zybooks.com
- Enter this code: **UNMCSCI1210DadashiSpring2026**
- Input code from RedShelf
- Click subscribe

A subscription is around \$99.

Students are required to download and install Python on their computer:

How to download Python:

To learn how to install Python, Anaconda, and other IDE, please, watch the following video that I recorded for you <https://youtu.be/XctjwKgChsY> or simply google the instruction.

You can use any IDE (Integrated Development Environment) such as Spyder 3, PyCharm CE IDEs, etc for coding in Python.

Spyder IDE is included in Anaconda therefore as long as you download Anaconda you have access to Spyder IDE.

For PyCharm CE IDEs from JetBrains, you can download it from the following website (use your UNM email to create an account for free access): <https://www.jetbrains.com/pycharm/download>

By Quality Matters: To successfully participate in this course, students must have regular internet access with sufficient bandwidth to stream videos and access course materials on Canvas and ZyBook. High-speed internet is not required; however, a stable connection is essential to ensure smooth access to course content and assignments.



Book and Package:

The online book will be on learn.zybooks.com. Please, read [above](#) regarding how to subscribe via [IA](#). A student's grade is determined by points earned out of 100. The following sections give a breakdown of points; any changes in % or assignments will be based on class needs and communicated early.

- Progress Credit (10%)

Scan the QR barcode when it is provided to you during class time (lecture videos).

Answer the questions on the QR code form and submit the form before class ends (before the deadline).

Join and participate in tasks and discussions on Canvas.

Work on ZyLabs as a group during class when available, before the due dates.

Credit is given for ongoing progress, incremental achievements, and continuous activity throughout the semester.

- Participation Activities (PA) (20%)

- PAs are the section quizzes based on the reading activities from materials in the book

- PAs are due before class

- PAs are not timed

- PAs are posted on ZyBook and must be submitted on ZyBook before the due date

- Challenge Activities (CA) (20%)

- CAs are the section quizzes or programming assignments from what you learned during the class

- CAs are due after class

- CAs are not timed

- CAs are posted on ZyBook and must be submitted on ZyBook before the due date

- Programming Challenges (PC) or labs (25%)

- PCs are the coding project that is based on the content of each unit

- PCs are due every three to four weeks

- PCs are not timed

- PCs are posted on ZyBook and must be submitted on ZyBook before the due date

- Final Exam (25%)

- Exam is programming projects or/and multiple-choice questions based on the covered units

- Exam is timed (90 minutes)

- There are 2 submissions

- Exam will appear on ZyBook at the time we agreed upon.

- Exam will be posted on ZyBook and must be submitted on ZyBook before the due date

- Proctored exam may be require

Note: All the programs submitted on ZyBook will be automatically graded and reviewed for plagiarism.

Assignments Deadlines

Understanding deadlines is crucial to your success in this course. Please read the following information carefully so you don't miss any important due dates.

– **Discussion and Task Deadlines (Canvas):** All discussions and other Canvas-based tasks have their deadlines posted directly in the **Discussion** section of Canvas. Deadlines are enforced by Canvas. As soon as the deadline passes, the discussion or task will **disappear** and you will no longer be able to submit it.

Plan ahead to ensure you complete and submit your work before the deadline.

– **Attendance Deadlines:** Attendance is tracked differently depending on whether you are an **online** or **in-person/HyFlex** student.

For Fully Online Courses

- Each module includes **two instructional videos** per week.
- Each video contains a **QR code** that appears at the end.
- You must:
 - Watch both videos completely.
 - Scan the QR code using your phone.
 - Submit the form that opens after scanning to receive credit for attendance.
- **Attendance is due by 11:59 PM on the Sunday** of the week the module is completed.

For In-Person or HyFlex Courses

- A QR code will be shared during class.
- You must:
 - Scan the QR code **before class ends**.
 - Submit the form linked to the QR code to record your attendance.
- **No late submissions** are accepted. Attendance must be submitted before you leave class or the Zoom meeting.

– **Assignment Deadlines (ZyBook):** Assignments such as Programming Challenges (PC/Labs), Challenge Activities (CA), and Participation Activities (PA) are completed and submitted through **ZyBook**. Here's what you need to know:

- The due dates for these assignments are clearly listed in the **Assignments** section of ZyBook.
- You will typically have assignments due **almost every other day**.
- It is **your responsibility** to check ZyBook regularly and complete your work before the deadlines.

– **Summary:** Please make sure to stay organized, check Canvas and ZyBook regularly, and reach out if you have any questions.

Task Type	Where to Find Deadline	When It's Due
Canvas Discussions / Tasks	Canvas → Discussions Section	As shown in Canvas (disappears after)
Attendance (Online)	Module Videos (QR Code)	Sunday of each module week
Attendance (In-Person/HyFlex)	In Class (QR Code)	Before class ends
ZyBook Assignments	ZyBook → Assignments Section	Almost every other day



- Q. Where can you find the materials for this class? **Canvas** and **zyBooks**
- Q. Where do you find and submit the assignments? **zyBooks**
- Q. Where do you find your grade? **Canvas** (Gradebook) and **zyBooks**
- Q. Where do you find the Tasks and Discussions? **Canvas**

Course information including this syllabus, and all the necessary materials and links, etc. will be available via Canvas.

QR codes/Attendance/Absence



- - Please download a free QR scanner on your smartphone. You should scan the QR code that I provide for you during the first 5 minutes or the last 5 minutes of class (Lecture videos).
- - (Not for fully online classes) You are expected to be on time for each class, stay for the entire duration, have the necessary course materials on hand, and participate in the lecture and/or group activities to receive full credit for Progress Credit each day.
- - (Not for fully online classes) Even if you miss a class, you are still expected to complete the assignments, but you will lose points for Progress Credit.
- - (Not for fully online classes) Attendance is mandatory, if you have four consecutive absences (two weeks) without notifying your instructor, or if you accumulate a total of four random absences (including the first day of class), your instructor reserves the right to drop you from the course. (To value the hard work and dedication of other students.)

PUNCTUALITY IS
EXPECTED



Assignment and exam deadlines are firm. Please manage your time wisely to avoid delays. Late assignments will not be accepted **except in the case of a genuine emergency**, at the instructor's discretion.

Please note: To provide some flexibility, the lowest grade from two Programming Assignments (PA or CA), one Lab, and one Discussion will be dropped from the final grade calculation. This policy is intended to accommodate occasional unforeseen circumstances without requiring formal extensions.

- No early exams or make-up exams will be permitted, **except in documented emergencies**. Flight reservations, weddings, vacations, birthdays, and non-NCAA sporting events **do not** qualify as emergencies.
- There will be **no make-up for the final exam**.

Extending assignments for students is not always ideal for several reasons:

- 1. Maintaining Course Schedule:** Extending assignments can disrupt the planned course schedule. Instructors typically design their courses with a specific pace in mind to cover the required material within the available time. Extending assignments may lead to a lag in the curriculum, making it challenging to cover all necessary topics.
- 2. Developing Time Management Skills:** Meeting deadlines is an essential skill for students to develop. By adhering to due dates, students learn how to manage their time effectively and prioritize tasks. Granting extensions too easily can hinder the development of these crucial skills.
- 3. Fairness and Equity:** Granting extensions to some students but not others can create fairness and equity issues. It may lead to resentment among students who met the original deadlines and frustration among those who did not receive extensions.
- 4. Accountability:** Having firm deadlines encourages accountability among students. When assignments have strict due dates, students are more likely to complete them on time, take their work seriously, and strive for quality.
- 5. Real-World Preparation:** Meeting deadlines is a fundamental requirement in most professions. By adhering to assignment due dates in an academic setting, students prepare for the expectations they will encounter in their future careers.
- 6. Preventing Procrastination:** Allowing extensions can encourage procrastination. Students may delay their work with the expectation of getting an extension, leading to last-minute rushes and low-quality work.
- 7. Maintaining Academic Integrity:** Extending deadlines can create opportunities for academic misconduct, such as sharing answers or copying from external sources.

While there are valid reasons to grant extensions in cases of genuine emergencies or extenuating circumstances, it's crucial for instructors to establish clear policies and guidelines for requesting extensions to maintain fairness, consistency, and the educational integrity of the course. In general, extensions should be exceptions rather than the norm to promote responsible time management and a conducive learning environment.

Student Behavior & Collegial Behavior

According to the Code of Conduct as stated in the Policies and Regulations for UNM, student activities that interfere with the rights of others to pursue their education or to conduct their University duties and responsibilities will lead to disciplinary action. This includes any activities that are disruptive to the class and any acts of academic dishonesty. Students are expected to behave in a courteous and respectful manner toward the instructor and their fellow students. Students may be dropped from a class for inappropriate behavior. For more information: [Student Code of Conduct](#)

Since we assume you are all adults, we will expect from you, respectful adult behavior. Engaging in disruptive or unruly behavior could result in your being asked to leave, at which time you will be counted absent and a referral will be sent to the Dean of Instruction. Continuing to behave in this way could result in your being dropped from the course. Disruptive or unruly behavior includes but is not limited to:

- texting or talking on your cell phone or Laptop at any time during class,
- continually talking with your neighbor when we are not working on a group activity,
- working on homework from another class,
- refusing to participate in the class activities.
- reading material or watching media not related to this course or at a time that is inappropriate,
- If your learning preferences differ significantly from the course approach, I encourage you to discuss options with me or consider alternate sections that may better fit your needs.
- If you believe there are too many rules and restrictions set for this course and you prefer not to adhere to them, please drop this course.
- If you think this course requires too much work and you do not have sufficient time to dedicate to it, please drop this course.
- If you believe you lack the necessary background knowledge for this course and do not have the time to work on improving it, please drop this course.
- If you are willing to invest enough time to learn from this course, cooperate with your instructor, and ask for help when needed, please stay with us for a great learning experience together.



Your Responsibility

Time required for This Course: Plan to spend a minimum of 9 to 12 hours per week for this class. There is no guarantee you will pass if you dedicate this amount of time, you still need to learn the material and use your time wisely, but those who pass generally are the ones who spend the time needed to do the work to learn the material.

You are responsible for all material covered in this Syllabus and in class, in assigned readings, and on homework assignments. Not all material on tests will necessarily be covered in class but will be in the assignments. The use of cell phones, headphones, etc. is not permitted in class or exams.

EXPECTATIONS: Students are expected to conduct themselves in a polite, courteous, professional, and collegial manner. Cell phones must be set on silent and be out of sight during class. No food or drink is allowed in the computer labs.

Support!

If you have a documented disability, the "Equal Access Services office" will provide me with a letter outlining your accommodations. I will then discuss the accommodations with you to determine the best learning environment. If you feel that you need accommodations, but have not documented your disability, please contact Cheryl Dilger, the coordinator for Equal Access Services at (505)-925-8910 or cdilger@unm.edu.

If you are struggling in this course, do not be afraid to ask for help!

- Student Drop-in Hours: See my Student Drop-in Hours listed at the beginning of this syllabus. "Student Drop-in Hours" Feel free to come by or log in for online Student Drop-in Hours (Info on Canvas), or make an appointment to get help.
- Form study groups: You may work together with other members of our class on the Canvas discussion board.
- Tutoring and Student Services: There are various services provided in our Student Services Department. The Math Center at Valencia campus has free tutoring and open labs. CAPS on the main campus also provides tutoring. For more information please check out the following:
[Program Support: CAPS](#), [UNM-Valencia Learning Commons \(Tutoring\)](#): [LRC](#), [TRIO Student Support Services](#), [Student Learning Support at the Center for Teaching and Learning.](#), and [Pathways to Articulation and Sustainable Opportunities for Students \(PASOS\)](#).



Academic Honesty

Having academic integrity is paramount to your success in any class. Plagiarism or cheating is not tolerated. Any instance of this will result in a grade of zero for that assignment. Here is the link to the UNM Academic Dishonesty Policy: <https://policy.unm.edu/regents-policies/section-4/4-8.html>.

The policy states (Subject to Change Without Notice):

Each student is expected to maintain the highest standards of honesty and integrity in academic and professional matters. The University reserves the right to take disciplinary action, up to and including dismissal, against any student who is found guilty of academic dishonesty or who otherwise fails to meet the expected standards. Any student judged to have engaged in academic dishonesty in coursework may receive a reduced or failing grade for the work in question and/or for the course.

Academic Dishonesty is defined as:

<https://pathfinder.unm.edu/campus-policies/academic-dishonesty.html>

Academic dishonesty includes, but is not limited to, dishonesty in quizzes, tests, or assignments; claiming credit for work not done or done by others; hindering the academic work of other students; misrepresenting academic or professional qualifications within or without the University; and nondisclosure or misrepresentation in filling out applications or other University records.

Cheating students will be disciplined according to University guidelines. Students should get acquainted with their rights and responsibilities as explained in the Student Code of Conduct <https://grad.unm.edu/aire/academic-integrity.html>

UNM Valencia Title IX Representative

Title IX (9) Statement:

In an effort to meet obligations under Title IX, UNM faculty, Teaching Assistants, and Graduate Assistants are considered “responsible employees” by the Department of Education (see pg. 15 - <http://www2.ed.gov/about/offices/list/ocr/docs/qa-201404-title-ix.pdf>).

<https://ceeo.unm.edu/programs/title-ix/index.html>

This designation requires that any report of gender discrimination which includes sexual harassment, sexual misconduct and sexual violence made to a faculty member, TA, or GA must be reported to the Title IX Coordinator at the Office of Equal Opportunity (oeo.unm.edu). For more information on the campus policy regarding sexual misconduct, see: <https://policy.unm.edu/university-policies/2000/2740.html>

Important Links

Disabilities Policy: Office of Equal Access:

Contact the Office of Equal Access at (505)-925-8560 to schedule an appointment.

<https://valencia.unm.edu/students/advisement/equal-access-faqs.html>

The Center for Academic Learning:

The Learning Center is open Monday – Friday with evening hours Monday – Thursday To schedule an appointment or for additional information call (505)-925-8907

<https://valencia.unm.edu/campus-resources/learning-commons/index.html>

UNM Valencia Registrar’s Office:

Contact Registration Office by calling (505)-925-8580 <http://valencia.unm.edu>

UNM Deadlines & Academic Calendar:

UNM Deadlines: <https://registrar.unm.edu/semester-deadline-dates/index.html>*And....*

Academic Calendar: <https://hr.unm.edu/calendars>

Topics

Topics	In detail
1. Numbers and Strings:	<ul style="list-style-type: none">- Data types: Integers, floats, and strings.- Type conversions.- String manipulation methods.- String formatting.
2. Input and Output:	<ul style="list-style-type: none">- Reading and writing files.- Standard input and output (stdin, stdout).- Error handling and exception handling.
3. Arithmetic:	<ul style="list-style-type: none">- Advanced mathematical operations.- Working with complex numbers.- Numeric libraries like NumPy for scientific computing.
4. Decisions:	<ul style="list-style-type: none">- Nested if statements.- Ternary (conditional) operators.- Switch/case statements (not natively available in Python but can be implemented using dictionaries or if-elif chains).
5. Loops:	<ul style="list-style-type: none">- While loop- For loop- Nested loops.- Loop control statements (break, continue).- List comprehensions for concise iteration.
6. Functions:	<ul style="list-style-type: none">- Advanced function concepts like lambda functions.- Variable scope and global/local variables.- Recursion (calling functions within themselves).
7. Lists:	<ul style="list-style-type: none">- List comprehensions.- List methods (append, extend, pop, etc.).- Slicing and indexing.- Multi-dimensional lists and matrices.- Iterating through lists.
8. Sets and Dictionaries:	<ul style="list-style-type: none">- Dictionaries operations- Set operations (union, intersection, difference, etc.).- Frozen sets (immutable sets).- Set comprehensions.
9. Strings (Advanced):	<ul style="list-style-type: none">- Regular expressions for pattern matching.- String formatting with f-strings.- Working with Unicode characters and encoding/decoding.

The topics listed above cover the foundational aspects of Python programming. Each of these subtopics delves deeper into the corresponding fundamental concepts in Python programming. Depending on your specific goals and projects, you may want to explore one or more of these subtopics to gain a more comprehensive understanding of Python.

Schedule Spring 2026

First day of semester: Jan 19th & Final Exams: May 11th to 15th

Holidays: Martin Luther King Day Jan 19th / & Spring break March 15th-22nd

Week-Day	Schedule subject to change if necessary
W1-Module01	(Monday Class No Topic)
W1-Module01	Unit 01. Introduction and installation
W2-Module02	Unit 01. Computer program and the components of a computer (Part 1)
W2-Module02	Unit 01. Computer program and the components of a computer (Part 2)
W3-Module03	Unit 01. Python programming and Pseudocode for simple algorithms
W3-Module03	Unit 02. Variables and types
W4-Module04	Unit 02. Arithmetic expressions, operators and operands
W4-Module04	Unit 02. Strings and Escape Sequences
W5-Module05	Unit 02. Input and Output
W5-Module05	Unit 03. If Statement
W6-Module06	Unit 03. Comparisons of numbers and string
W6-Module06	Unit 03. The control flow of a program
W7-Module07	Unit 03. Boolean data type
W7-Module07	Unit 04. Execution in a loop
W8-Module08	Unit 04. While loops
W8-Module08	Unit 04. For loops
W9-	Spring Break No Topic
W9-	Spring Break No Topic
W10-Module09	Unit 04. Carry out complex tasks
W10-Module09	Unit 05. Concepts of functions, parameters, and arguments
W11-Module10	Unit 05. Returning a value from a function
W11-Module10	Unit 05. Principle of stepwise refinement
W12-Module11	Unit 05. Local variable and global variable
W12-Module11	Unit 05. Importing a toolkit
W13-Module12	Unit 05. Recursive function
W13-Module12	Unit 06. Lists for collecting values
W14-Module13	Unit 06. Built-in operations for lists
W14-Module13	Unit 06. Common list algorithms
W15-Module14	Unit 06. Tables
W15-Module14	Unit 07. Python sets and Built-in operations for sets
W16-Module15	Unit 07. Python dictionaries
W16-Module15	Unit 07. Review

Due Date Final Exam: 11th May, Monday

Note: Be aware that there are assignments due every few days.

Note: Please find the due dates for PAs, CAs, and labs on ZyBook.