

# Syllabus / Course Outline Template

<b>Course Name: – Programming 1</b>		
<b>Course Code: COMP102</b>	<b>Course Type: Major</b>	<b>Course Credits: 4(3+1)</b>
<b>Class Timings: TR 9:30AM-10:45AM</b> <b>Lab Timings: W 14:00 - 16:50</b>	<b>Section: B</b>	<b>Student Meeting Hours/ Office Hours: TR 11am-1pm</b>
<b>Instructor Name: Umber Nisar</b>		
<b>Instructor Contact Details</b> Email: <a href="mailto:umbearnisar@fccollege.edu.pk">umbearnisar@fccollege.edu.pk</a> Office Hours (face to face and/ or online): MWF 10AM-12PM Guidelines for contacting instructor: Please email.		
<b>Lab Engineer Name and Contact Details:</b> Name: _____ Email: _____ Other: _____ Office Hours: _____ Guidelines for contacting LE: Email		
<b>TA Name and Contact Details:</b> Name: _____ Email: _____ Other: _____ Office Hours: _____ Guidelines for contacting TA/s: Email		
<b>Course Description:</b> Pre-requisites if any: No Mode of Instruction (Asynchronous/Synchronous): Both		
<b>Main Mode of Instruction: Google classroom, Moodle</b> <b>Technology Requirements:</b> Active email id should be registered on empower, active moodle accounts. <b>Technology Etiquettes:</b> Attendance of live sessions with fc email id. Allow 24 hours for replying to e-mails. <b>Considerations for Students with Limited Internet/Technology Access:</b> Course content will be uploaded on moodle or google classroom.		
<b>Course Objectives or <a href="#">Student Learning Outcomes (SLOs)</a></b> This course covers basic skills of programming, using Python Language, including elementary data types (numeric types, strings, lists, dictionaries and files), control flow, functions, and objects.		

## Course Content, Learning Material & Activities Schedule

Week no	Contents	Activities
1	<p>Lecture 1: Course introduction, Python introduction, arithmetic operators and their precedence.</p> <p>Lecture 2: Computer memory, syntax and semantic errors, assignments, expression, value, primitive expressions, evaluation of expressions, python objects concept, variables, constants, data types.</p> <p>Lab 0: Practice python mathematical expressions, variables, assignment statements</p>	
2	<p>Lecture 3: input, output, strings, string operations and methods, string concatenation, string slicing</p> <p>Lab 1: Worked on obtaining user data and working with strings</p>	Lab submission
3	<p>Lecture 4: Functions, functions abstraction, writing good functions, environments, frames</p> <p>Lab 2: Practiced Functions</p>	Lab submission, Assignment 1 submission, Quiz 1
4	<p>Lecture 5: if, elseif, else, nested ifs, relational operators, Boolean operators, Boolean variables, discussion of solutions of previous assessments.</p> <p>Lab 3: Working with Conditions</p>	Lab submission
5	<p>Lecture 6: event controlled loops, for loop, for vs while loop, range function, nested loops</p> <p>Lab 4: Working with Loops</p>	Lab submission, Assignment 2 submission, Quiz 2
6	<p>Lecture 7: Nested Loops, Common loop algorithms, analyzing strings (revision)</p> <p>Lab 5: Working with Nested Loops and Common Loop Algorithms</p>	Lab submission
7	<p>Lecture 8: Local and Global variables and their scopes.</p> <p>Lab 6: Working with variable scope and environment diagrams</p>	Lab submission, Assignment 3 submission, Quiz 3
8	Revision and Mid	
9	<p>Lecture 9: Lists (basic properties, accessing list elements, difference between lists and strings, traversing a list, list references, creating a list, slicing a list, adding elements to a list, difference between append and extend, searching an element in the list, removing items from a list)</p> <p>Lab 7: Working with lists.</p>	Lab submission
10	<p>Lecture 10: Dictionaries (creating dictionaries, accessing dictionary values, adding and modifying items, removing items, traversing a dictionary)</p> <p>Lab 8: Working with dictionaries.</p>	Lab submission, Quiz 4, Assignment 4 submission
11	<p>Lab 9: File Handling</p> <p>Lecture 11: Recursive Functions</p>	Lab submission

12	<b>Lab 10: Working with recursive functions</b> <b>Recursive Functions Practice</b> <b>Lab 11: Working with recursive functions</b>	<b>Lab submission,</b> <b>Assignment 5</b> <b>submission, quiz 5</b>
13	<b>Lecture 12: Tuple, Lambda Operator/Functions</b> <b>Lab 12: Working with Tuple, Lambda Operator/Functions</b>	<b>Lab submission</b>
14	<b>Lecture 13: Lambda Operator/Functions, Map Reduce, Filter</b> <b>Lab 13: Lambda Operator/Functions, Map Reduce, Filter</b>	<b>Lab submission,</b> <b>Quiz 6, Assignment 6</b> <b>submission</b>
15	<b>Revision</b>	

### Textbooks, Materials, Supplies, and other Resources

Python Programming by John Zelle 2009  
Python Crash Course by Eric Matthes 2016  
Python For Everyone By Horstmann  
Dive into Python by Mark Pilgrim  
Composing Programs, <http://composingprograms.com/>

### Course Assessment:

Assignments/Project	20 %
Labs	15 %
Quizzes	15 %
Mid	20 %
Final	30 %
<b>Total</b>	<b>100.00%</b>

### NOTE:

- All assignments are due before 11:59 p.m. on the due date. Students can be called to appear for viva at random as and when needed to determine their knowledge gained
- There will be NO retake for the quiz, assignments, labs unless previous accommodations have been made with the course instructor.
- Students are advised to attend all lectures but 85% attendance is compulsory. It is entirely the students' responsibility to recover any information or announcements presented in lectures from which they were absent.
- All work that you submit in this course must be your own.
- Unauthorized group efforts are considered academic dishonesty.
- You may discuss labs and assignments in a general way with others, but you may not consult anyone else's written work. You are guilty of academic dishonesty if:

- You examine another's solution to an assignment/Quiz/Project/exam
- You allow another student to examine your solution to an assignment/Quiz/Project/ Lab Work or any exam
- You fail to take reasonable care to prevent another student from examining your solution and that student does examine your solution.

In case of unauthorized group efforts, academic dishonesty/fraud, cheating and plagiarism following policy is applicable (All cases of breach of Academic Integrity will be reported to Vice Rectors office/AIC)

This course has ZERO TOLERANCE POLICY on any academic Integrity breach

- For Mid, Final, Assignments, Quizzes.

Cheating or violation of academic integrity in any exam/project will cause F grade in course

### Grading Legend

Below is the grading legend of FCCU (published in all catalogues and available on the FCCU website) as approved by the Academic Council.

Grade	Point Value	Numerical Value	Meaning
A	4.00	93-100	Superior
A-	3.70	90-92	
B+	3.30	87-89	Good
B	3.00	83-86	
B-	2.70	80-82	
C+	2.30	77-79	Satisfactory
C	2.00	73-76	
C-	1.70	70-72	
D+	1.30	67-69	Passing
D	1.00	60-66	
F	0.00	59 or below	Failing