

MODESTO CITY SCHOOLS COURSE OUTLINE

Course Title	Foundations of Programming OLL S1	Foundations of Programming OLL S2
Course Number	OLL06431	OLL06432
Recommended Grade	<input type="checkbox"/> 7 <input type="checkbox"/> 8 <input checked="" type="checkbox"/> 9 <input checked="" type="checkbox"/> 10 <input checked="" type="checkbox"/> 11 <input checked="" type="checkbox"/> 12	
Duration	<input type="checkbox"/> Quarter <input checked="" type="checkbox"/> Semester	
Credit	<input type="checkbox"/> 2.5 <input checked="" type="checkbox"/> 5 <input type="checkbox"/> 10	
Repeatable for Credit	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Required for Graduation	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Meets Graduation Requirement	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
CALPADS Course Number	8131	
CALPADS Course Name	Introduction to Systems Programming	
Meets UC/CSU Requirements	<input type="checkbox"/> Yes <input type="checkbox"/> No If yes, which area? <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E <input type="checkbox"/> F <input type="checkbox"/> G	
CTE Course	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
CTE Course Level	<input checked="" type="checkbox"/> Introduction <input type="checkbox"/> Concentrator <input type="checkbox"/> Capstone	
Part of a Course Pathway	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, which pathway? Systems Programming	
Credential Requirements		
Replaces	N/A	
Recommended Prerequisites	N/A	
Aligned to Standards Date		
Content Delivery Method	<input type="checkbox"/> Instructor Led <input checked="" type="checkbox"/> Online Provider Modesto Virtual Academy	
Other Information		
Board Approval Date		
Implementation Date	Fall 2020	

Course Description:

Required Text(s): (Title, Publisher, Year):

Supplementary Materials(s):



Course Name: Foundations of Programming v18

Course Credit: 1.0

Course Estimated Completion Time: 2 segments / 32-36 weeks

Course Description: Foundations of Programming will teach students the fundamentals of programming using the computer language Python. The course provides students with the concepts, techniques, and processes associated with computer programming and software development. Students will also explore the many programming career opportunities available in this high-demand field.

Prerequisites: Digital Information Technology

Honors Lessons: No

Course Profile (Includes Honors, if applicable)

Type of Assessment	Quantity	Location(s)
Teacher-graded	13	1.03, 1.05, 2.02, 2.04, 3.02, 3.04, 4.02, 4.04, 5.02, 5.04, 6.01, & 6.03
Auto-graded	14	1.02, 1.04, 2.01, 2.03, 3.01, 3.03, 4.01, 4.03, 5.01, 5.03
Partial Auto-graded	4	1.06, 3.06, 5.05, & 6.02
Discussion-Based (DBA)	4	2.05, 3.05, 4.05, & 6.04
Collaboration	2	
Project-based	2	2.06, 4.06
Total Assessments	31	

Types of Assessments (Includes Honors, if applicable)

Type of Assessment	Available	Type of Assessment	Available
Multiple Choice	Yes	Essay	No
Worksheets	No	Collaborative	Yes
Web 2.0	Yes	Short Response	Yes
Project - Based	Yes	Labs	No
Self - Check	No	DBAs	Yes

Scope and Sequence

Segment 1

Module 1: Introduction to Programming

- Introduction to Python
- Printing Strings
- Processing Strings Values
- String Input

Module 2: Computing Numerical Data

- Processing Numerical Information
- Getting Numeric Information
- The Math Module
- The Software Development Life Cycle

Module 3: Loops and Functions

- Turtle Graphics
- for Loops
- while Loops
- Creating Functions

Segment 2

Module 4: Logic in Programming

- Decisions
- More Decisions
- The Logic of AND, OR, and NOT
- Lists

Module 5: Codes and Objects

- Number Systems
- Decoding ASCII
- Object Oriented Programming
- Procedural Programming

Module 6: Testing and Security

- Software Testing
- Security
- Planning for a Programming Career