Exposure Computer Science, 2021 Edition for Computer Science 1 (Regular CS1 and CS1-Honors)

Table of Contents: Chapters I – XVIII

1	Introduction to Computer Science	
0 " "	Introduction to Computer Science	- ·
Section#		Page#
1.1	Learning the Exposure Way	1.02
1.2	Exposure Equation	1.04
1.3	Getting Started	1.07
1.4	How Do Computers Work?	1.08
1.5	Communicating with Morse Code	1.09
1.6	Storing Data Electronically with 1s and 0s	1.11
1.7	Memory and Secondary Storage	1.14
1.8	Hardware and Software	1.17
1.9	What Is Programming?	1.19
1.10	Networking	1.24
II	Installing Python and jGRASP	
2.1	Desktops, Laptops, iPads and Chromebooks	2.02
2.2	Basic Terminology and Computer Practices	2.03
2.3	Installing the Necessary Software for this Class	2.08
	and the same of th	
III	Introduction to Python Coding	
3.1	Introduction	3.02
3.2	Using jGRASP for Python	3.03
3.3	Text Output With print	3.14
3.4	Program Comments	3.23
3.5	Syntax Errors	3.28
3.6	Syntax Errors	3.35
3.7	The Responsible Use of Computers	3.43
0	The responsible see of semparate in the first in the firs	0.10

IV	Simple Data Types	
4.1	Introduction	4.02
4.2	Arithmetic Operators	4.02
4.3	Numeric Data Types	4.13
4.4	Non-Numeric Data Types	4.24
4.5	Shortcuts	4.36
4.6	Swapping Variable Values	4.43
4.7	Documenting Your Programs	4.48
4.8	More Compile Errors	4.52
4.9	Other Types of Errors	4.56
4.10	Output Programs, Slides, Exercises & Quizzes	4.61
V	Introduction to Turtle Graphics	
•		
5.1	Introduction	5.02
5.2	Importing Libraries and Turtle Graphics Setup	5.02
5.3	Drawing by Moving and Turning the Turtle	5.06
5.4	Drawing Thick or Solid Images	5.13
5.5	Adding Color	5.17
5.6	Lifting the Pen	5.20
5.7	Clearing the Window	5.25
		0.20
VI	More Python Libraries	
6.1	Introduction	6.02
6.2	Library Components	6.02
6.3	math Library Functions	6.04
6.4	Introduction to Graphics without the Turtle	6.24
6.5	Drawing Simple Shapes	6.30
6.6	Drawing Polygons	6.44
6.7	Fill Procedures and Colors	6.50
6.8	Graphics Library Reference Information	6.67
6.9	Displaying Graphics Text	6.68
6.10	Review: Functions vs. Procedures	6.77

VII	Keyboard Input and Selection Control Structures	
7.1	Keyboard Input	7.02
7.2	Introduction to Control Structures	7.12
7.3	Types of Control Structures	7.13
7.4	Relational Operators	7.18
7.5	One-Way Selection	7.20
7.6	Two-Way Selection	7.24
7.7	Multi-Way Selection	7.28
7.8	Nested Selection	7.37
7.9	Combining Selection with Graphics	7.42
7.10	Formatting Numerical Output	7.45
VIII	Repetition Control Structures and Random Number	ers
8.1	Introduction	8.02
8.2	Fixed Repetition	8.03
8.3	Conditional Repetition	8.14
8.4	Nested Control Structures	8.19
8.5	Using Repetition with Turtle Graphics	8.33
8.6	Using Repetition with Traditional Graphics	8.36
8.7	Creating Custom Colors	8.44
8.8	Creating Random Numbers	8.51
8.9	Using Random Numbers with Graphics	8.57
IX	Modular Programming	
9.1	Introduction	9.02
9.2	What is Modular Programming?	9.03
9.3	Creating Simple Procedures	9.04
9.4	Graphics Programs with Procedures	9.13
9.5	Creating Your Own Libraries	9.31
9.6	Creating a Big Graphics Program Step-By-Step	9.43
9.7	Procedures with a Single Argument & Parameter	9.53
9.8	Procedures with Multiple Arguments & Parameters	9.58
9.9	Functions with a Single Argument & Parameter	9.66
9.10	Functions with Multiple Arguments & Parameters	9.70
9.11	Creating Subroutines from Other Subroutines	9.75

X	Advanced Subroutines (Honors Only)	
10.1 10.2 10.3 10.4 10.5 10.6 10.7	Introduction	10.02 10.03 10.09 10.29 10.37 10.46 10.51
XI	Boolean Logic	
11.1 11.2 11.3 11.4 11.5 11.6 11.7 11.8 11.9	Introduction	11.02 11.03 11.04 11.06 11.11 11.17 11.23 11.28 11.35
XII	Bitwise Operations and Number Systems (Honors	Only)
12.1 12.2 12.3 12.4 12.5 12.6	Introduction	12.02 12.02 12.09 12.24 12.30 12.34
XIII	The Array Data Structure	
13.1 13.2 13.3 13.4 13.5 13.6	Introduction to Data Structures	13.02 13.07 13.26 13.49 13.41 13.53

XIV	String Processing	
14.1 14.2 14.3 14.4 14.5	Introduction	14.02 14.04 14.15 14.20 14.42
XV	Advanced Collections and Concepts (Honors Only)	
15.1 15.2 15.3 15.4 15.5 15.6 15.7	Introduction	15.02 15.03 15.17 15.28 15.52 15.55 15.65
XVI	Algorithms and More Loops (Honors Only)	
16.1 16.2 16.3 16.4 16.5 16.6 16.7 16.8 16.9	More Loops	16.02 16.09 16.15 16.18 16.19 16.37 16.51 16.57 16.62
XVII	Sequential Text Files	
17.1 17.2 17.3 17.4 17.5 17.6 17.7 17.8	Introduction	17.02 17.04 17.07 17.22 17.29 17.33 17.35 17.37

XVIII	More Graphics: Events and Computer Animation	
18.1 18.2 18.3 18.4 18.5 18.6 18.7	Introduction	18.02 18.02 18.19 18.22 18.30 18.45 18.76