Programming Fundamentals - A Modular Structured Approach using C++
By: Kenneth Leroy Busbee

Ch	Seq	Title	Gaddis 6th Sec	Gaddis 6th Pgs	Gaddis 5th Sec	Gaddis 5th Pgs	Forouzan 2nd Sec	Forouzan 2nd Pgs
1	0	**Foundation Topics**						
1	0	**Chapter 1 - Introduction to Programming**						
1	1	Systems Development Life Cycle	N/A	N/A	N/A	N/A	1-8	12-13
1	2	Bloodshed Dev-C++ 5 Compiler/IDE	N/A	N/A	N/A	N/A	N/A	N/A
1	3	Modularization and C++ Program Layout	6.1 & 2.1 & 2.4	303-304 27-31 36-37	6.1 & 2.1 & 2.4	313-314 29-33 39-40	4-1 & 2-2 & 3-6	118-120 27-32 98-101
2	0	**Chapter 2 - Program Planning & Design**						
2	1	Program Design	1.6	17-21	1.6	18-22	1-8	13-17
2	2	Pseudocode	1.6	19	1.6	20	1-8	15-16
2	3	Test Data	1.6 & 5.14	21 & 284-286	1.6 & 5.14	21 & 295-297	1-8	17-19
3	0	**Chapter 3 - Data & Operators**						
3	1	Data Types in C++	N/A	N/A	N/A	N/A	2-4	33-34
3	2	Identifier Names	2.6	41-43	2.6	45-46	2-3 & 2-10	32-33 & 66-67
3	3	Constants and Variables	2.5	37-41	2.5	40-44	2-5 to 2-7	38-45
3	4	Data Manipulation	3.2	81-88	3.2	85-93	3-1 to 3-4	75-94
3	5	Assignment Operator	2.13	59-60	2.13	63-64	3-1	79-80
3	6	Arithmetic Operators	2.15	60-63	2.15	65-68	3-1	77-79
3	7	Data Type Conversions	3.3 & 3.4	89-94	3.3 & 3.4	93-98	3-5	95-98
4	0	**Chapter 4 - Often Used Data Types**						
4	1	Integer Data Type	2.7	43-48	2.7	47-51	2-4	34-36
4	2	Floating-Point Data Type	2.10	53-56	2.10	57-61	2-4	36-37
4	3	String Data Type	2.8	48-52	2.8	53-55	2-6	43
4	4	Arithmetic Assignment Operators	3.7	102-105	3.7	107-111	3-1	80-82
4	5	Lvalue and Rvalue	2.13	59-60	2.13	63-64	9-10	434-436
4	6	Integer Division and Modulus	2.15	61-62	2.15	66	3-1	77-79
5	0	**Chapter 5 - Integrated Development Environment**						
5	1	Integrated Development Environment	1.3 &1.6	10-12 & 17-21	1.3 &1.6	6-12 & 18-22	1-6	10-11
5	2	Standard Input and Output	2.2 & 3.1	31-35 & 75-81	2.2 & 3.1	33-37 & 79-85	2-8 & 7-1 to 7-2	45-59 299-302
5	3	Compiler Directives	2.3	35-36	2.3	37-39	App: G	907-920
6	0	Modular Programming						
6	0	**Chapter 6 - Program Control Functions**						
6	1	Pseudocode Examples for Functions	N/A	N/A	N/A	N/A	N/A	N/A

Ch	Seq	Title	Gaddis 6th Sec	Gaddis 6th Pgs	Gaddis 5th Sec	Gaddis 5th Pgs	Forouzan 2nd Sec	Forouzan 2nd Pgs
6	2	Hierarchy or Structure Chart	1.6 & 6.17	18-19 &365	1.6 & 6.17	19-20 & 377	4-1 & 4-8	119-120 159-166
6	3	Program Control Functions	6.2 & 6.3	304-314	6.2 & 6.3	314-324	4-2 & 4-3	120-146
6	4	Void Data Type	6.2	305	6.2	315	2-4	34
6	5	Documentation and Making Source Code Readable	2.16 & 2.17	63-66	2.16 & 2.17	68-71	2-2 & 2-10 & 3-8	31-32 & 65 & 111-112
7	0	**Chapter 7 - Specific Task Functions**						
7	1	Specific Task Functions	6.4 & 6.5 & 6.7	314-322 323-329	6.4 & 6.5 & 6.7	324-332 334-338	4-2 & 4-3 & 4-8	120-146 162-164
7	2	Global vs Local Data Storage	2.14 & 6.10 & 6.11	60 & 334-342	2.14 & 6.10 & 6.11	64-65 343-353	2-10 & 4-6	68 & 154-157
7	3	Using a Header File for User Defined Specific Task Functions	N/A	N/A	N/A	N/A	N/A	N/A
8	0	**Chapter 8 - Standard Libraries**						
8	1	Standard Libraries	3.11	126-130	3.11	133-137	4-5 & 5-4 & App: F	147-154 205-211 899-906
9	0	**Chapter 9 - Character Data, Sizeof, Typedef, Sequence**						
9	1	Character Data Type	2.8	48-52	2.8	52-56	2-4	35-36
9	2	Sizeof Operator	2.12	57-58	2.12	62-63	3-1	86
9	3	Typedef - An Alias	8.7	501	8.7	506	11-11	574-575
9	4	Sequence Operator	N/A	N/A	N/A	N/A	6-5	244-245
10	0	Structured Programming						
10	0	**Chapter 10 - Introduction to Structured Programming**						
10	1	Structured Programming	5.10	276-277	5.9	284-285	5-2 & 5-3 & 6-1 to 6-4	181 & 196 & 226-232
10	2	Pseudocode Examples for Control Structures	N/A	N/A	N/A	N/A	N/A	N/A
10	3	Flowcharting	App: O	CD	App: O	CD	App: C	866-877
11	0	**Chapter 11 - Two Way Selection**						
11	1	If Then Else	4.2 & 4.3	164-177	4.2 & 4.3	173-186	5-2	181-185 188-189 191-196
11	2	Boolean Data Type	2.11	57	2.11	61	2-4 & 5-1	37-38 & 174-181
11	3	Relational Operators	4.1	159-164	4.1	167-172	5-1	179-181
11	4	Compound Statement	4.2	169	4.2	177	3-6	100

Ch	Seq	Title	Gaddis 6th		Gaddis 5th		Forouzan 2nd	
			Sec	Pgs	Sec	Pgs	Sec	Pgs
12	0	**Chapter 12 - Multiway Selection**						
12	1	Nested If Then Else	4.4 to 4.6	177-189	4.4 to 4.6	186-198	5-2	186-188
12	2	Logical Operators	4.7	189-197	4.7	198-205	5-1	175-179
12	3	Case Control Structure	4.12	211-220	4.13	223-232	5-2 & 5-3	186-188 196-205
12	4	Branching Control Structures	5.12 & 5.13	279-283	5.11 & 5.12	288-291	6-7	257-260
12	5	Practice 12: Multiway Selection	N/A	N/A	N/A	N/A	N/A	N/A
13	0	**Chapter 13 - Test After Loops**						
13	1	Do While Loop	5.5	258-262	5.8	274-284	6-4 & 6-5	230-232 241-244
13	2	Flag Concept	4.2	172-173	4.2	180-181	N/A	N/A
13	3	Assignment vs Equality within C++	4.2	170	4.2	178	N/A	N/A
13	4	Repeat Until Loop	N/A	N/A	N/A	N/A	N/A	N/A
14	0	**Chapter 14 - Test Before Loops**						
14	1	Increment and Decrement Operators	5.1	243-248	5.1	255-260	3-1	82-86
14	2	While Loop	5.2	248-252	5.2	260-264	6-4 & 6-5	230-232 232-236
15	0	**Chapter 15 - Counting Loops**						
15	1	For Loop	5.4 & 5.6	256-258 262-269	5.3 & 5.8	264-266 274-284	6-4 & 6-5	230-232 236-240
15	2	Circular Nature of the Integer Data Type Family	N/A	N/A	N/A	N/A	N/A	N/A
15	3	Formatting Output	3.8	105-115	3.8	111-121	7-4	307-309
15	4	Nested For Loops	5.11	277-279	5.10	285-287	N/A	N/A
16	0	**Chapter 16 - String Class, Unary Positive and Negative**						
16	1	String Class within C++	2.9 & 3.13 & 4.10	52-53 138-140 203-207	2.9 & 3.13 & 4.11	56-57 146-147 215-219	14-1 to 14--5	678-695
16	2	Unary Positive and Negative Operators	2.15	61	2.15	65	3-1	86
17	0	**Intermediate Topics**						
17	0	**Chapter 17 - Conditional Operator and Recursion**						
17	1	Conditional Operator	4.11	208-211	4.12	219-223	5-2	189-190
17	2	Recursion vs Iteration	14.1 & 14.2	869-878	14.1 & 14.2	889-899	6-9	265-269
18	0	**Chapter 18 - Introduction to Arrays**						
18	1	Array Data Type	8.1 & 8.4	471-473 482-486	8.1 & 8.4	477-479 487-493	8-1 to 8-2	344-356
18	2	Array Index Operator	8.2	473-475	8.2	479-481	8-2	348-356
18	3	Displaying Array Members	8.3	475-477	8.3	481-483	8-2	352-353

			Gaddis 6th		Gaddis 5th		Forouzan 2nd	
Ch	Seq	Title	Sec	Pgs	Sec	Pgs	Sec	Pgs
19	**0**	**Chapter 19 - File I/O and Array Functions**						
19	1	File Input and Output	3.12	131-138	3.12	138-145	7-1 to 7-8	298-334
19	2	Arrays and Functions	8.8	502-507	8.8	507-512	8-3	356-359
19	3	Loading an Array from a File	5.9 & 8.3	273-276 477-478	8.3	483-484	N/A	N/A
19	4	Math Statistics with Arrays	8.5 & 8.8	490-493 507-510	8.5 & 8.8	493-498 512-516	N/A	N/A
20	**0**	**Chapter 20 - More Array Functions**						
20	1	Finding a Specific Member of an Array	9.1 & 8.8	559-562 507-510	9.1 & 8.8	567-570 512-516	8-6	376-379
20	2	Sorting an Array	9.3	569-573	9.3	581-585	8-5	369-372
21	**0**	**Chapter 21 - More on Typedef**						
21	1	Versatile Code with Typedef	8.7	501-502	8.7	506	11-11	574-575
22	**0**	**Advanced Topics**						
22	**0**	**Chapter 22 - Pointers**						
22	1	Address Operator	10.1	597-599	10.1	607-609	4-3 & 9-1	141-143 414-415
22	2	Parameter Passing by Reference	6.13	346-352	6.13	357-365	4-3	140-143
22	3	Pointer Data Type	10.1 & 10.2	597-602	10.1 & 10.2	607-612	9-1 to 9-5	412-425
22	4	Indirection Operator	10.2	599-602	10.2	609-612	9-3	417-418
23	**0**	**Chapter 23 - More Arrays & Compiler Directives**						
23	1	Multidimensional Arrays	8.9 & 8.10	511-522	8.9 & 8.10	516-528	8-7 & 8-8	382-394
23	2	Conditional Compilation	N/A	N/A	N/A	N/A	App: G-3	916-919
24	**0**	**Chapter 24 - OOP & HPC**						
24	1	Object Oriented Programming	1.7	21-22	1.7	22-23	4-6 & 10-0	156-157 488
24	2	Understanding High Performance Computing	N/A	N/A	N/A	N/A	N/A	N/A
26	**0**	**Appendix**						
26	1	Abbreviated Precedence Chart for C++ Operators	App: B	1101	App: B	1125	Inside Front Cover	N/A
26	2	C++ Reserved Keywords	2.6	42	2.6	45	App: B	865
26	3	The ASCII Character Set	App: A	1097-1099	App: A	1121-1123	App: A	860-864