**The C Pre-processor**

* #define
* Macros
* Conditional Compilation
* #Ifdef
* #Ifndef

**More on Functions**

* The getline Function
* The strcmp Function
* The check Function
* The atoi Function
* The average Function
* Summary

**Strings**

* Aggregate Operations
* String Functions (strlen, strcpy)
* The Pointer Notation \*p++

**Pointers (Part 2)**

* Dynamic Storage Allocation - malloc
* Functions Returning a Pointer
* Initialization of Pointers
* Gets - a Function Returning a Pointer
* An Array of Character Pointers
* Two Dimensional Arrays vs. Array of Pointers
* Command Line Arguments
* Pointers to Pointers
* Practice with Pointers
* Function Pointers

**Structures**

* Fundamental Concepts
* Describing a Structure
* Creating Structures
* Operations on Structures
* Functions Returning Structures
* Passing Structures to Functions
* Pointers to Structures
* Array of Structures
* Functions Returning a Pointer to a Structure

**Structure Related Items**

* Type def - New Name for an Existing Type
* Bit Fields
* unions
* Non-Homogeneous Arrays
* Enumerations

**File I/O**

* System Calls vs. Library Calls
* Opening Disk Files
* fopen
* I/O Library Functions
* Copying a File
* Character Input vs. Line Input
* scanf
* printf
* fclose
* Servicing Errors - errno.h
* feof

**Information About Files**

* The stat Function
* File Existence
* Telling Time - time and ctime
* Telling Time – localtime

**I/O With Structures**

* A Database Application
* The menu Function
* The fwrite Function
* The create\_db Function
* The fread Function
* The print\_db Function
* fseek
* The retrieve\_db Function
* fflush and ftell

**Useful Library Functions**

* strstr
* strchr, strrchr
* system
* strtok
* strspn, strcspn
* Math Functions
* Character Testing Functions
* exit and atexit
* signal
* memcpy and memset
* qsort
* Binary Search - Bsearch