**Semester: Spring 2019**

**Section: D01B (MW 8:30 – 10:45am)**

EGR 125

Introduction to Engineering Methods

Instructor: Paul Gordy

# Course Schedule (Tentative)

The following course schedule may change due to the progression of the course. The course schedule may change at the discretion of the instructor; however, students will be notified in writing (email) when any changes/additions are made to the schedule. (Note: ***MPL – MyProgrammingLab***) ***Lab assignment dates may vary without prior notice***.

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| --- | --- | --- | --- | --- |
| Date | | Lecture Topic | Reading | Assignments Due |
| Jan | M,14 | Introduction to Computers, Programs, & C++ | Ch 1 |  |
|  | W,16 | Lab #1; Input, Variables, Assignment, Constants | Ch 2.1-7 | Lab #1? |
|  | M,21 | Martin Luther King, Jr. Day (college closed) |  | MPL Warmup  Ch 1 - MPL |
|  | W,23 | Data Types, Precedence, Augmented Assignment | Ch 2.8-11 |  |
|  | M,28 | Increment/Decrement, Type Conversion, Lab #2 | Ch 2.12-13 | Lab #2?  Ch 2 - MPL |
|  | W,30 | bool Data Type, if, if else, nested if | Ch 3.2-5 | Ch 2 - HW |
| Feb | M,4 | Logical Operators, switch, conditional expressions  Pass out and discuss Project #1 | Ch 3.10,13,14 | Ch 3 - MPL |
|  | W,6 | Math Functions, Char Data Type | Ch 4.2-3 |  |
|  | M,11 | String Type, Output Formatting; Lab #3 | Ch 4.8, 4.10 | Ch 3 - HW  Lab #3?  Ch 4 – MPL |
|  | W,13 | Loops, while, do-while | Ch 5.2-3 | Ch 4 HW |
|  | M,18 | Loops, for, nested for, Lab #4 | Ch 5.4-6 | Lab #4? |
|  | W,20 | **Test #1 (Chapters 1-4)** |  |  |
|  | M,25 | Forever Loops, Lab #4 (Submitting Projects via Bb) | Ch 5.7-9 | **Project #1**  Ch. 5 –MPL |
|  | W,27 | Functions, Prototype, Call, Definition, Pass by Value  Pass out and discuss Project #2 | Ch 6.1-5 | Ch 5 - HW |
| Mar | M,4 | Functions, Pass by Reference Lab #5 | Ch 6.6-9 | Lab #5? |
|  | W,6 | Functions, variable scope, overloading, Default Value, | Ch 6.11-12 | Ch 6 - MPL |
|  |  | ***Spring Break – No classes March 10-17*** |  |  |
|  | M,18 | One-Dimensional Arrays, Arrays and Functions, Sorting | Ch 7.1-10 | Ch 6 - HW |
|  | W,20 | Two-Dimensional Arrays, Multi-Dimensional Arrays, Lab #6? | Ch 8.1-3, 8.8 | Ch 7 - MPL |
|  | M,25 | **Test #2 (Chapters 5-6)** |  |  |
|  | W,27 | Review Test #2. Ch 8 example using matrices. |  | **Project #2** |
| Apr | M,1 | Vector Class, dynamic array allocation, vector class functions | Ch 12.6 | Ch 7 - HW |
|  | W,3 | File Input/Output, Write to File, Read from File,  fstream, ifstream, ofstream. Fstream functions.  Discuss Project #3 | Ch 13.1-2 | Ch 8 - MPL  Ch 12 - MPL |
|  | M,8 | File Input/Output, formatting, getline, Formatting files for Excel. | Ch 13.3-4, 13.6 | Ch 8 & 12 - HW |
|  | W,10 | C++ Strings Class. String functions. | Ch. 10.1-2 | Ch 13 - MPL |
|  | M,15 | C++ Strings Class. Strings and data files. Searching files using string functions. | Ch. 10.1-2 | Ch 13 - HW |
|  | W,17 | Introduction to Objects & Classes.  Creating and using classes. Public vs private. | Ch 9.1-2 | Ch 10 - MPL  **Project #3** |
|  | M,22 | Constructors; Arrays and classes. Discuss Project #4. | Ch 9.4 | Ch 10 - HW |
|  | W,24 | Class Definition, Class Implementation files | Ch 9.6 |  |
|  | M,29 | **Test #3 (Chapters 7-8, 10, 12-13)** |  | Ch 9 - MPL |
| May | W,1 | Introduction to Pointers, Pointers and Arrays | Ch 11.1-8 | Ch 9 - HW |
|  | M,6 | Pointers and Dynamic Memory Allocation | Ch 11.9-10 |  |
|  | W,8 | No lecture. Project #4 due. Last day to submit late assignments or projects. |  | Ch 11 - MPL  Ch 11 HW  **Project #4** |