

# REVIEW FOR FINAL

CMPT 110 Fall, 2018



## Duration: 2 HOURS

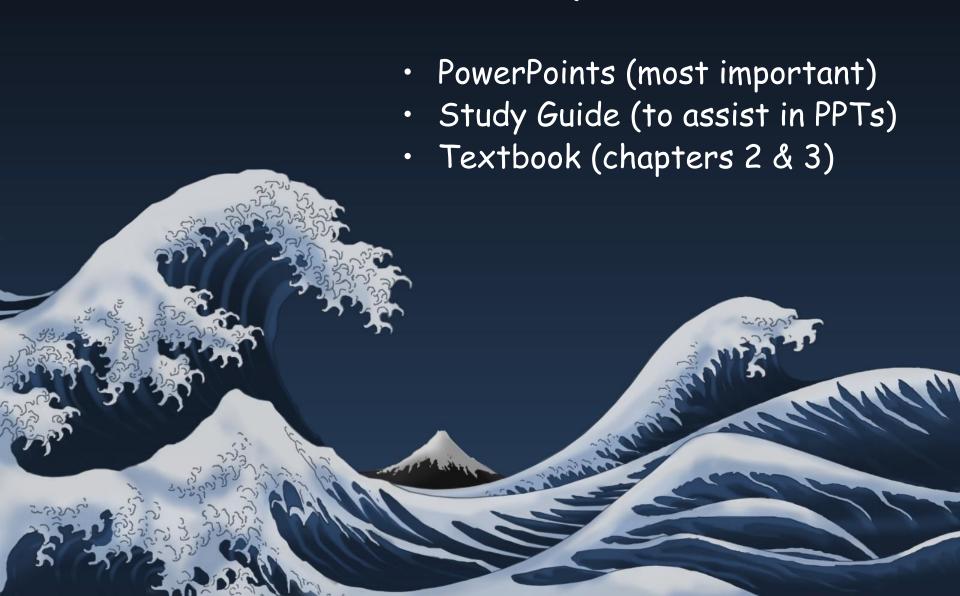
Tuesday, December 5<sup>th</sup>, 2018 in SWH 10041 at 15:30 hrs.

# Comprehensive

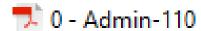


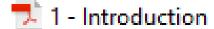


# Hierarchical Study Guide









🗾 2 - Algorithms



🔁 4 - Object Oriented Introduction

🗾 5 - Programming in Visual Basic

🔁 6 - VB

🗾 7 - Events

🗾 8 - Data Types and Operators

🚺 10.2 - Representation of Numbers

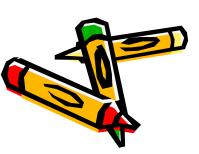
📬 12.1 - Control Structures

📜 12.2 - Decision Structures in VB

🗾 12.3 - Loop Structures in VB

艿 14 - Lists, Tables and Arrays in VB.Net

TREVIEW FOR MIDTERM

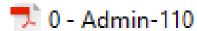


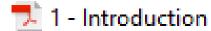




Some material is not

in the study guide







🏃 2 - Algorithms

3R - The High-Speed Electronic Digital C



4 - Object Oriented Introduction



🛂 5 - Programming in Visual Basic



6 - VB



🏃 7 - Events



🧏 8 - Data Types and Operators



10.2 - Representation of Numbers



12.1 - Control Structures



12.2 - Decision Structures in VB



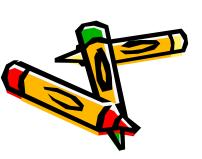
🏃 12.3 - Loop Structures in VB



🏃 14 - Lists, Tables and Arrays in VB.Net



REVIEW FOR MIDTERM



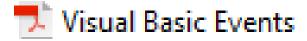


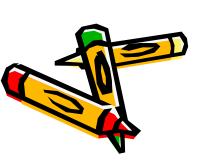
# \*PPTs\*

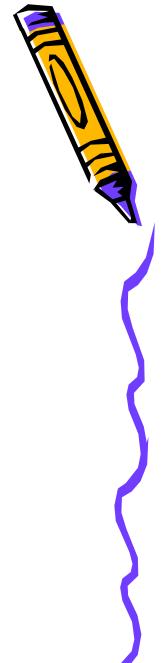
And there were a few PDFs...





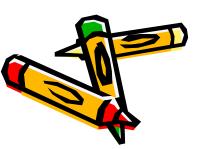


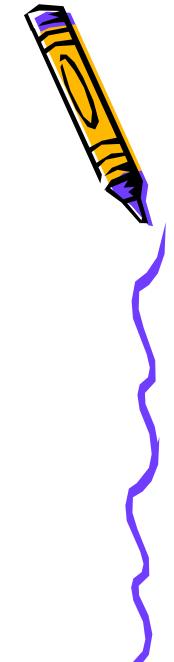




# Study Guide

- 🔁 CMPT 110 Study Guide
- Unit 1
- Unit 2
- 📆 Unit 3
- 🔁 Unit 4
- 📬 Unit 5
- 📆 Unit 6
- 📆 Unit 7
- 📆 Unit 8
- Unit 9
- 📬 Unit 10
- 📬 Unit 11





#### cmpt-110 Archive By Thread

60 messages: Starting Mon Sep 18 2017 - 13:10:12 PDT, Ending Fri Nov 24 2017 - 10:21:48 PST sort by: [ author ] [ date ] [ subject ] [ attachment ]

Make sure to look at the email archive.

Here is the contents of the archive from last year

- Human Perception PPT Steven Pearce (Fri Nov 24 2017 10:21:06 PST)
- ASP.NET PPT Steven Pearce (Wed Nov 22 2017 11:44:35 PST)
- FYI Steven Pearce (Wed Nov 22 2017 10:58:00 PST)
- Files and Graphic PPTs Steven Pearce (Wed Nov 22 2017 10:44:28 PST)
- HW4 Steven Pearce (Thu Nov 16 2017 10:00:23 PST)
- Final Homework Steven Pearce (Fri Nov 10 2017 13:05:44 PST)
- HW3 submission instructions Atiyeh Hoseini (Fri Nov 10 2017 12:30:42 PST)
- File Access Video Steven Pearce (Fri Nov 10 2017 06:56:51 PST)
- Array PPT Steven Pearce (Wed Nov 08 2017 09:01:48 PST)
- MT Answer Key Steven Pearce (Fri Nov 03 2017 10:29:55 PDT)
- TA OFFICE HOURS Steven Pearce (Thu Nov 02 2017 08:05:10 PDT)
- Decision and Loop PPTs Steven Pearce (Fri Oct 27 2017 15:11:50 PDT)
- HW3 Steven Pearce (Fri Oct 27 2017 09:01:52 PDT)
- Midterm grading Ativeh Hoseini (Sun Oct 22 2017 19:47:16 PDT)
- Revised OOP PPT Steven Pearce (Fri Oct 20 2017 12:08:21 PDT)
- Object Oriented Dot Notation Steven Pearce (Thu Oct 19 2017 12:21:48 PDT)
- VB Tutorial Steven Pearce (Wed Oct 18 2017 18:07:28 PDT)
- PPTs 8 9 10 and 11 Steven Pearce (Wed Oct 18 2017 12:28:52 PDT)
- Midterm office hour Atiyeh Hoseini (Wed Oct 18 2017 02:47:51 PDT)
- About the Updated Assignment Steven Pearce (Mon Oct 16 2017 12:35:25 PDT)
- CHANGES TO ASSIGNMENT #2 Steven Pearce (Mon Oct 16 2017 11:50:53 PDT)
- HW1 re-checked Ativeh Hoseini (Sat Oct 14 2017 22:07:53 PDT)
- HW1 Grades Steven Pearce (Sat Oct 14 2017 13:58:59 PDT)
- About assignment 1 Atiyeh Hoseini (Sat Oct 14 2017 12:08:35 PDT)
- HW1 grades Ativeh Hoseini (Fri Oct 13 2017 23:17:55 PDT)
- Assignment #2 Addendum Steven Pearce (Fri Oct 13 2017 10:35:13 PDT)
- MIDTERM REVIEW PPT Steven Pearce (Wed Oct 11 2017 10:40:54 PDT)
- Big Picture PPT and Mock Test with Answers Steven Pearce (Wed Oct 11 2017 10:39:10 PDT)
- Assignment #2 Steven Pearce (Tue Oct 10 2017 10:03:41 PDT)
- The Focus Event in VB Steven Pearce (Fri Oct 06 2017 08:06:17 PDT)
- Fwd: Note taker Announcement for CMPT 110 Student with a Disability 1177 Steven Pearce (Thu Oct 05 2017 15:18:51 PDT)
- Final Revision of PPT 7 Steven Pearce (Thu Oct 05 2017 09:59:14 PDT)
- Some instructions regarding the assignments Atiyeh Hoseini (Sat Sep 30 2017 09:11:45 PDT)
- Assignment Due Time/Date Steven Pearce (Fri Sep 29 2017 17:06:10 PDT)
- GREAT NEWS FROM THE PUBLISHER Steven Pearce (Thu Sep 28 2017 14:15:07 PDT)
- REVISED PPT 7 (Data Types and Operators) and VB Cheat Sheet (again) Steven Pearce (Thu Sep 28 2017 13:19:34 PDT)
- HW1 Steven Pearce (Thu Sep 28 2017 12:02:22 PDT)
- Visual Studio Steven Pearce (Thu Sep 28 2017 06:48:15 PDT)
  - Re: Visual Studio Steven Pearce (Thu Sep 28 2017 07:09:23 PDT)
- IMPORTANT ANNOUNCEMENT Steven Pearce (Wed Sep 27 2017 16:21:06 PDT)
- Events and Data Types PPTs Steven Pearce (Wed Sep 27 2017 14:25:06 PDT)
- TA E-Office Hours Steven Pearce (Wed Sep 27 2017 12:16:14 PDT)
- VB Syntax PDF Steven Pearce (Wed Sep 27 2017 09:14:44 PDT)
- MIDTERM DATE Steven Pearce (Mon Sep 25 2017 16:07:47 PDT)
- Submission Instructions for HW1 Steven Pearce (Mon Sep 25 2017 10:40:20 PDT)
- Example of a VB.NET Program Steven Pearce (Mon Sep 25 2017 08:43:45 PDT)



### INSTRUCTIONS

- Calculators are not permitted.
- This exam is closed book.
- 3. Clearly print your name and student ID number on this examination (above).
- This exam contains multiple choice questions.

### NOTES REGARDING MULTIPLE CHOICE QUESTIONS:

- There are five possible choices per question.
- There is one best choice for full credit (+1).
- The remaining four choices are worthless.
- 5. The values of all non-multiple choice questions are stated explicitly in **bold**.
- 6. There are 90 points in total.
- 7. There are 8 pages including this cover sheet.
- You have two hours.
- Dictionaries are NOT allowed.



Variable Declaration

### Cheat-Sheets

```
Const trialDays As Integer = 30 'Constant
Dim isInvoiced As Boolean - True 'Boolean
Dim keystroke As Char '16 bit Unicode character
Dim count As Integer = 0 'Signed 32-bit integer
Dim invoiceId As Long = 0 'Signed 64-bit integer
Dim total As Double = 0 'Double precision float
Dim tax As Single = 0 'Single precision float
Dim firstName As String - String. Empty 'String
Dim today As DateTime - DateTime. Now 'Current Date
Dim saleDate As DateTime - New _
DateTime(2004, 1, 23, 13, 48, 39)
       '(year, month, day, hours, minutes, seconds)
Dim items(100) As Integer 'Array (See ArrayList)
Enum OrderStatus As Integer
 NewOrder - 1
  Picked
  Shipped
End Enum
```

#### Procedures/Properties

```
//Access Modifiers: public, friend,
//private, protected, protected friend
Private Function Markup(ByVal total _
                       As Double) As Double
  Return total * _markupPercent
End Function
Friend Property InvoiceId() As Integer
     Return _invoiceId
  End Get
  Set(ByVal Value As Integer)
     invoiceId - Value
  End Set
End Property
```

#### Loops

```
'While Loop
While i < 10
   1 += 1
End While
'For Loop
For i As Integer = 0 To 9
  If (isFound) Then _
     Exit For 'Exit loop
Next
'For each loop
Dim dt As DataTable
For Each
dr As DataRow In dt.Rows
Console.WriteLine(
  dr(0).ToString())
'Do Loop
  i +- 1
Loop Until i > 9
```

#### Parameter Definitions

```
Value, Reference, Dynamic
Private Sub Calc( _
ByVal i As Integer, _
 ByRef j As Integer, _
ByVal ar() As Integer)
End Sub
```

#### Branchina

```
'If/Else statement
If (i > 0 \text{ AndAlso } j <> 5) OrElse k = 1 Then
Else If (i < 0) Then
End If
Select Case i 'Case statement
   Case Is < 2
      Return "Less than two"
   Case 3, 5
      Return "Three or five"
   Case Else 'Default
      Return "Other"
End Select
j= CInt(IIf(i > 0, 1, 0)) 'Immediate If
```

#### Error Handling

```
i = 10 / 0
  " "Catch" the error
Catch ex As Exception
  Dim s As String - "Error: " + vbCrLf
  + "Target: " + ex.TargetSite.ToString _
+ vbCrLf + "Error: " _
  + ex.Message.ToString + vbCrLf
   + "Trace: " + ex.StackTrace.ToString
  MsgBox(s, MsgBoxStyle.Critical, _
         "Error")
Finally 'Always do this
 inputFile.Close()
End Try
```

#### Operators

```
Computational
   Negate/Subtract
   Multiplication
   Division Float
   Division Integer
mod Modulus
```

+ Addition

not Logical NOT

#### Logical

```
< Less than
   Greater than
<- Less than or equal
>= Greater than or
   egual
   Equality
<> Inequality
And Logical AND
Or Logical OR
AndAlso Short Circuit
OrElse Short Circuit
```

#### Assignment

Assignment

#### Compound assignment operators

```
+- Addition
-- Subtraction
*- Multiplication
/= Division
```

#### GAC Location

C:\WINDOWS\assembly\GAC

# KNOW VISUAL BASIC BASICS!



