Syllabus: COP1000
Principles of Computer Programming

Course Description

This course introduces the principles of computer programming using Microsoft's Visual Basic 2012, 2013 or 2015. In this course we will cover the process of designing computer applications, learn the rules for creating computer instructions, and how to manage those instructions efficiently.

Visual Basic programming is highly recommended for those who seek degrees in Computer Science, Math, Science, Engineering, Accounting, Finance, Network Communications, or any computer related degree program.

Goals of this course

Learn the syntax and programming concepts of Visual Basic 2012/2013/2015.
Improve critical and higher order thinking skills as we work through the process of problem solving and solution development for completing computer applications.
Analyze, discuss, and develop the path to professional and financial success.

General Information

Schedule: Tuesday evening from 6:30 to 9:15; August 25th – December 8th.
Location: Room J-103
Instructor: Taylor
Textbook: Starting Out With Visual Basic 2012 (6th Edition) by Tony Gaddis & Kip Irvine.

Important Websites

Class web site	Sakai Access
http://www.cop1000.com	https://dl.seminolestate.edu/portal

DreamSpark Premium

Take advantage of this resource. Microsoft is offering numerous applications free.
http://e5.onthehub.com/WebStore/Welcome.aspx?ws=d0187ba4-d29b-e011-969d-0030487d8897&vsro=8

NOTE: You will receive a login ID and password to gain access to MSDN AA as soon as add/drop has closed.

Required Software

Visual Studio Ultimate, Premier, Professional, or Community – not the Express version
(Located on MSDN AA, DreamSpark.com, or http://visualstudio.com)
SQL Server 2012 Developer or SQL Express 2012 (2012 or later)

NOTE: The textbook is based Visual Studio 2012 and SQL Server Express 2012.

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Other software you'll need…

For PC users; Microsoft Office, Libre Office, Open Office, or NeoOffice for Mac users.

Recommended Software (on DreamSpark)

Windows 7, 8, 8.1, or 10
Microsoft SQL Server 2012-2016 Developer
Microsoft Expression Studio 4 Ultimate

Other Recommended software not on DreamSpark

Filezilla	http://filezilla-project.org/download.php
Virtual Clone	http://www.slysoft.com/en/virtual-clonedrive.html
Paint.Net	http://www.getpaint.net/download.html
GIMP	http://www.gimp.org
Pixie	http://www.nattyware.com/pixie.html
Sizer	http://www.brianapps.net/sizer.html
Deep Burner	http://deepburner.com/?r=download

All programs in this list are free. I recommend you download, install, and become familiar with them. Your will need either Paint.NET or GIMP but probably not both.

➡ NOTE: PC or Mac?

You are welcome to use either a PC or Mac for this course however Mac users should be aware that there can be inherent problems in the operation of PC programs and files on a Mac. Some Mac students have taken this course without any problems while others have experienced significant difficulties, gotten behind, and felt compelled to drop the course. It seems to be a function of the software and/or process used to make the translation and the user's familiarity with computers in general.

Someone at Microsoft recommended VMWare Fusion (http://www.vmware.com/products/fusion/) to improve the compatibility between the Mac and the PC. Historically, students have used a variety of solutions and workarounds to diminish or eliminate any incompatibilities.

All work submitted for this course is graded on a PC running Windows 8.1 and Visual Studio 2013 Ultimate. Work that does not operate correctly in this environment cannot be graded.

Whether you're using a Mac or a PC please let me know if you're having problems before you get behind. The sooner I know, the more time we have to react.

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Assignments

Week	Class Date	Chapter to Read **Before** Class	Due Date	Quiz #	Points	Programming Challenges	Points	Roll Call	Total
						Assignment Schedule			
						Spring 2015: January 12 - May 5			
1	8/25		8/31			Sakai Intro		10	10
2	9/1	1 & 2	9/7	1 & 2	50	Software installation *		10	60
3	9/8	3	9/14	3	50	2:6+	100	10	160
4	9/15	4	9/21	4	50	3:10	100	10	160
5	9/22	5	9/28			4:+	100	10	110
6	9/29	No Class	10/5	5	60	EC +	100		160
7	10/6	6	10/12	6	60	5+	100	20	180
8	10/13	7	10/19	7	60	6:6+	110	20	190
9	10/20	Calculator	10/26			7:5	120	20	140
10	10/27	No Class	11/2			EC +	100		100
11	11/3	8	11/9	8	60	Calculator +	120	30	210
12	11/10	9	11/16	9	70	8+	130	30	230
13	11/17	11	11/23	11	90	9:11	140	30	260
14	11/24	11	11/30	10	90	11:4+	150	40	280
15	12/1	RCP	12/7	12	90	RCP+	160	40	290
16	12/8	Web Teams	12/8			Team Projects +	350	50	400
Total					**730**		**1880**	**330**	**2940**

*   Download and install Visual Studio 2012, 2013, or 2015 (See the instructions in Appendix A).
+   Read the additional instructions in Sakai before starting this project.

Team Project Competition:

The team projects are a lot of fun and cover multiple facets of experience.
The top teams will earn extra credit for each member that participates.

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Guidelines to success
- Start your assignments early. They will always take longer than you think.
- Read the chapter in the book and work the examples. The examples are short and easy and you can't learn the material without them.
- Work through the Tutorials before you attempt the Programming Challenge. The step by step tutorial is designed to illustrate what you need to know to complete the Programming Challenge.
- Take advantage of online material (instructor's web site and author's online companion site).
- Read the instructions carefully to insure you are getting all of the information for assignments.
- For Programming Challenges - analyze the problem, design a plan, and complete a planning document. **A planning document is worth 11% of a project grade.**
- Turn your work in prior to the deadline. **No work is accepted late**.
- Check the Announcements page of the class web site every day for new or changing information.

The Tutorial exercises are very very important. They are the accumulation of code for the chapter's programming examples. They're the model of what you need to know to complete the Programming Challenges. Typing it in helps you focus on and comprehend the programming concepts and mechanics for that chapter. Once entered, the program should be debugged to make sure the program runs and there are no typos. More importantly, you should make sure you understand the exercise and if not start posting questions in the Forum on Sakai.

➜**How to name and submit assignments**
There is a Programming Challenge at the end of each chapter. See the Assignments Schedule for Due Dates. Planning documents must be included as part of the Programming Challenges (not the tutorials). There are three types of documents that can be used to satisfy the requirement for a planning document:
- Flowchart
- Diagram with pseudo code (see pages 43-45 and the diagram on page 113)
- TO&E chart (spreadsheet)

You may use Microsoft Word to create all of the planning documents or you may use Excel to create a TO&E chart. You may also submit them as PDFs.

It is very important that all projects be named and submitted correctly. It is also important that you enter the correct name when you first start the project because Visual Studio will not allow you to change the file names using Windows Explorer. **Your projects will not run if you attempt to rename them**. Projects that are not named correctly cannot be graded.

There are three and only three pieces of information in project titles: LastName, Chapter Number, and Programming Challenge Number.

General Format: LastnameChapter-Challenge (one word in Pascal case)
Examples: Thompson2-6
**   Wayneright10-8**
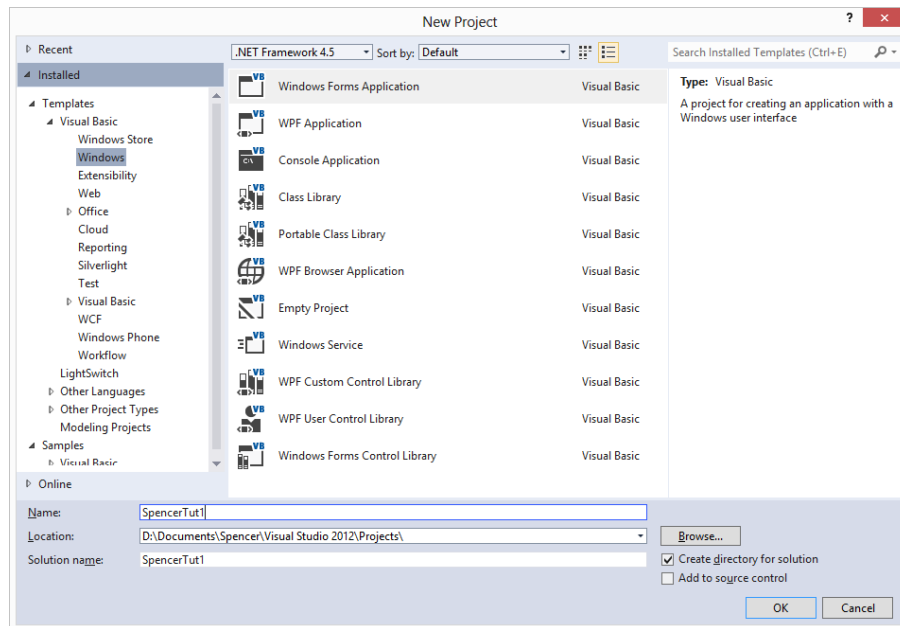**   Smith11-6**
Not: Jones+Chapter7+8   Adams-6-11   Anderson_2_76

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How to start, zip, and submit projects.

1. Start a new project in Visual Basic.
2. Use the Windows Forms Application template (webforms for Chapter 11).
3. Fill in the name such as: SpencerTut1.
4. I recommend using the default Location for now.
5. Make sure you check the box that says, "Create directory for solution".
6. Select OK.

There are several directories and files created for you when you start a new project. In this example the top level directory is SpencerTut1; the name we gave the project. Just under the top level directory are files and another directory of the same name. This is sometimes confusing to new developers. When projects are submitted **you must start at the topmost directory to include all of the directories and files**. There is a video on our class website, "How to upload projects", on the "How to…" page.
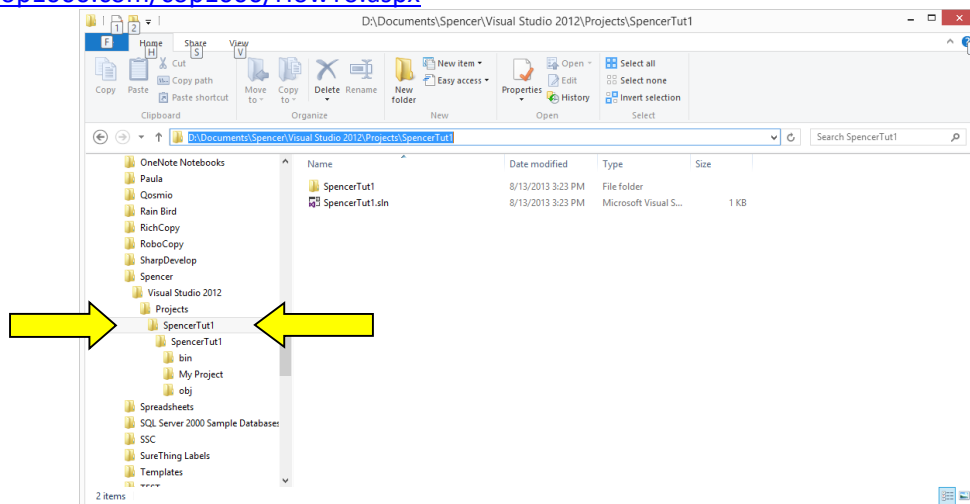
http://cop1000.com/cop1000/HowTo.aspx

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When you're ready to submit your project right-click the **topmost** directory, select "Send to…", select "Compressed (zipped) folder", and hit Enter to accept the default name. The zip file that is produced is what you should submit in Sakai.

NOTE: Only use zip files. Do not use rar or zipx. Assignments will only be accepted in a zip format.

➔**Which Programming Challenges?**
The Programming Challenges at the end of each chapter are programs for you to write. There are several in each chapter and they are based on the content of that particular chapter. These are small projects that you get to design and develop yourself. The programming challenges for each chapter that is not posted in the Syllabus will be posted on the Announcements page of the class website.

All work must be turned in on schedule, there can be no exceptions.

Grading Scale

Grades are based on a 10% incremental differential so:

Grade	Point Range	
A =	90%	100%
B =	80%	89%
C =	70%	79%
D =	60%	69%
F =	<60%	

Note: All grades are also calculated on the standard bell curve and compared to the raw grades to the left. Students always receive the higher grade between the raw score and the curve.

Attendance

Roll will be taken at the beginning of each class. Those who are present **when roll is taken** will receive the number of points shown in the Assignment table. Those who arrive after roll is taken will be marked as present but will not receive any points for attendance. Those who leave during the break will forfeit half of the roll call points for that night.

Anyone who exceeds 15% absenteeism cannot pass the course (the catalog states 10%). All grades are reported at the end of the semester based on attendance, assignments, quizzes, and participation.

I do not withdraw anyone from the course. If you wish to withdraw from the course you must do so by the withdrawal deadline posted on the school's website at:
http://www.seminolestate.edu/catalog/studentinfo/general/academic-calendars/fall-2014

E-mail

If you have questions about VB or the class, please post them in the Sakai Forum so that all may benefit from the discussion; **not in a private message or e-mail**.

If you wish to reach me for anything other than VB or course content, please use Sakai's Message feature. You do not need to inform me that you are going to miss or be late for class.

Please do not try to contact me using campus e-mail. I do not use it. I only use Sakai Messages.

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I absolutely hate having to discuss this next topic but for some reason it is always a problem and even though it's in the syllabus and I remind everyone throughout the semester, I have yet to miss a semester that I didn't have to drop at least two students for cheating. This is a **ZERO TOLERANCE POLICY**. **Anyone caught cheating in this class will receive an "F" for the course**.

Plagiarism/Cheating (Instructor's Policy)

Plagiarism: the process of copying another person's idea or written work and claiming it as your own.
In school or at work, plagiarism is the act of a lazy person with no integrity. I use three electronic instruments (programs and websites) to test for plagiarism and in spite of this warning, someone is caught every semester. Please don't let that happen in this class. Do not give anyone else a copy of your work. If that occurs, both/all participants will fail the course. Do not copy programs or subroutines from the Internet; those who do will fail the course. Do not cheat in any way; those who do will fail the course. Do not provide source code to current students after you have completed this course. I can change grades for five years and I will drop an existing grade to an "F" for plagiarism. Do not ask the instructor to change the grade if you were awarded an "F" for the course due to plagiarism.

You may appeal.

Academic Integrity (from the catalog)

As members of the Seminole Community College community, students are expected to be honest in all of their academic coursework and activities. Academic dishonesty, such as cheating of any kind on examinations, course assignments or projects, plagiarism, misrepresentation and the unauthorized possession of examinations or other course-related materials, is prohibited.

Plagiarism is unacceptable to the college community. Academic work that is submitted by students is assumed to be the result of their own thought, research or self-expression. When students borrow ideas, wording or organization from another source, they are expected to acknowledge that fact in an appropriate manner. Plagiarism is the deliberate use and appropriation of another's work without identifying the source and trying to pass-off such work as the student's own. Any student who fails to give full credit for ideas or materials taken from another has plagiarized.

Students who share their work for the purpose of cheating on class assignments or tests are subject to the same penalties as the student who commits the act of cheating.

When cheating or plagiarism has occurred, instructors may take academic action that ranges from denial of credit for the assignment or a grade of "F" on a specific assignment, examination or project, to the assignment of a grade of "F" for the course. Students may also be subject to further sanctions imposed by the judicial officer, such as disciplinary probation, suspension or dismissal from the College. Students may also be subject to further sanctions imposed by a judicial officer, such as disciplinary probation, suspension or dismissal from the College.

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Appendix A: How to download Visual Studio 2012 from DreamSpark

How to download Visual Studio 2012

1. Login to the DreamSpark. **NOTE**: You will receive a login ID and password to gain access to DreamSpark as soon as add/drop has closed.
2. In the Developer Tools pane select Microsoft Visual Studio 2012.
3. Select Microsoft Visual Studio Ultimate 2012.
4. Select "Microsoft Visual Studio 2012 Ultimate 32-bit (English) – DreamSpark" then "Add to Cart".
5. Right below the "Your Cart" pane select "Check Out".
6. Scroll to the bottom of the licensing information page and select "I Accept".
7. Scroll to the bottom of the Order page and select "Proceed With Order".
8. On the receipt page you may select to have a receipt sent to your e-mail address.
9. Select "Start Download".
10. On the "Get Your Software in 4 Easy Steps" page select the button, "Download SDM". I recommend you save it to a directory of your choosing, open that directory, and click to run the SDM_EN.msi file. That will allow you to determine where you want to install the files.
11. Select the "Download SDX" button and save it to the same directory.
12. Double-click the SDX file to run it.
13. On the "Download Your Software" page select the green link titled, "Change Location" and select the directory where you saved your SDM and SDX files.
14. Select "Start Download".
15. An ISO file will be downloaded to your computer.
16. Upon completing the download, and while still on the "Download Your Software" page, select the green link that says, "View your order" to get your Product Key. Copy it to a file and save it with the downloaded ISO file. (Some programs do not require a Product Key.)
17. An ISO file is similar to a Zip file but it's for an entire CD, not just a few files. There are a lot of programs that will allow you to install software directly from an ISO file, I recommend Virtual Clone from Slysoft.
18. If you don't want to install the software from the ISO file you will have to burn it to a CD or DVD using another program, I recommend Deep Burner Portable.
19. Upon burning the files to a CD or DVD, reinsert the disc into the drive. The program should begin to install. If it does not, use File Explorer to locate the setup program on the disc and double-click on it to start the installation.
20. If you are unable to download the software from DreamSpark Premium, try downloading it from DreamSpark.com. Use your Seminole State e-mail address to create an account. You will only be able to download Visual Studio Professional 2012 here.
21. If you cannot download Visual Studio 2012 from either DreamSpark, download Visual Studio Express 2012 from http://www.microsoft.com/visualstudio/eng/downloads#d-2012-express.

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