

# CIS 240 Introduction to Programming

## Welcome

Welcome to Introduction to Programming

## Course Information

Prerequisite: Solid understanding of the basic concepts of database design and exposure to SQL, as presented in CIS 241, are strongly recommended.

Credits: 5

Description: Elementary programming concepts are introduced using Visual Basic for Applications. Variables, sequence, selection, iteration control structures, testing and debugging are covered. Procedures, events, and controls are explored.

Optional on-site instructional assistance (tutorials) will be available for this class at the Whidbey Island campus. This is not obligatory for either the student or the instructor. Students are encouraged to form online study groups that *may* be the basis for optional tutorials, dependent upon schedules, room availability and levels of participation. Either the instructor or a group of students (at least 3) may initiate a tutorial.

## Instructor Information

<b>Name:</b>	Don Fotheringham
<b>Office Location:</b>	Whidbey Island Campus - Hayes Hall 104
<b>Phone and Email:</b>	360-679-5314 <a href="mailto:don.fotheringham@skagit.edu">don.fotheringham@skagit.edu</a>
<b>Office Hours:</b>	<a href="http://faculty.skagit.edu/news3.asp_Q_pagenumber_E_2370">http://faculty.skagit.edu/news3.asp_Q_pagenumber_E_2370</a>

## Materials

**Text:** Title: Mastering VBA for Office 2013  
Author: Richard Mansfield  
Publisher: Wiley  
ISBN: 978-1-118-69512-8

**This text will be used as a reference book, finding (using Index and Table of Contents) and reading the topics as scheduled on Canvas. This text will also be used for succeeding classes (242 and 243).**

**Hardware:** Flash (thumb) drive or comparable storage device

**Software:** Microsoft Office (Version 2016\* or 2013 or 2010)

**\*The text is written for 2013 so anticipate differences but they should be minor.**

Skagit Valley College provides licensing of Microsoft Office Software to all students.

Information for this program is found at

[http://www.mysvc.skagit.edu/images/MySVC\\_Office\\_Guide.pdf](http://www.mysvc.skagit.edu/images/MySVC_Office_Guide.pdf). Realize that anytime you are installing or upgrading software, there is a chance that it may corrupt the current operating system, and may require the operating system and/or other programs to be reinstalled. This could result in a loss of data. ***Students must assume all responsibility for possible losses.***

Assistance in completion of labs on personal machines will be limited since the instructor will not have access.

## Course Content

- Software development cycle
- Built-in elementary data types
- Sequence, selection and iteration control structures
- Event-driven programming
- Built-in and user-defined event, sub, and function procedures
- Forms, textbox, label, and button controls
- Test and debug applications

## Course Objectives

After completing this course, the successful student will be able to:

- Given program specifications, utilize critical thinking skills to apply the analysis, design, and implementations phases of the software development cycle to create event-driven programs that meet the specifications.
- Be able to read and write code containing the various sequence, selection and iteration control structures.
- Be able to read and write code containing the elementary built-in data types (Numbers, Strings, Booleans, etc.)
- Be able to read and write programs containing both built-in and user-defined event, sub, and function procedures employing appropriate parameter-passing techniques.
- Use critical thinking skills and be able to test and debug an application.
- Students may utilize teamwork strategies to develop their programs.
- Students will apply their programming skills toward solving problems for a diversity of end-user audiences.

## General Education Outcomes

- Identify and express concepts, terms, and facts related to a specific discipline.
- Analyze issues and develop questions within a discipline.
- Identify, interpret, and evaluate pertinent data and previous experience to reach conclusions.
- Apply successful organizational strategies of planning, goal setting, prioritizing, resolving conflict, and managing time to specific goals and/or projects.
- Interpret information and reasoning expressed mathematically (for example in spreadsheets, diagrams, charts, formulas, etc.).
- Communicate mathematical information effectively.
- Demonstrate an understanding of fundamental scientific concepts.
- Use technology appropriate to the context and task to effectively retrieve and manage information, solve problems, and facilitate communication.

## Skills Designation

This class has a **quantitative** skills designation.

**Learning Outcome:** 8.3 Interpret information and reasoning expressed mathematically (for example in spreadsheets, diagrams, charts, formulas, etc.).

**Assessment:** Lab assignments, Tests

**Assessment criteria:** Students are required to analyze, read and write code that uses logic and mathematical expressions to solve a variety of problems.

## Communication: Email and Canvas

Because electronic mail and Canvas are vital tools of communication, students must form the habit of checking both frequently.

### Email

As an SVC student, you have a college email account. **You must use this email address for all college business.**

Students can expect email responses from the instructor during regular weekday work hours (Monday to Friday, 9 am to 5 pm).

Given the increasing volume of email, the message deserves particular attention:

- include the class number (e.g. 146) or name (e.g. Excel)
- make the subject line pertinent
- be clear and concise
- include original threads where pertinent
- attach a file when necessary

Pay attention to the content of the message:

#### poor content:

“I read Chapter 2 of the text and am having trouble understanding it – can you help?”

#### good content:

“On page 65, there is an example regarding ... I do not understand, can you give me another?”

### E-Communication Policy

Clear and effective written communication is crucial to the success of any enterprise; this is acutely so in a learning environment where there is increasing reliance on e-communication.

In addition to the rules of email etiquette to be found at: <https://www.skagit.edu/academics/e-learning/netiquette/>, all e-communication must be **professional** in **vocabulary** and **tone**. Skagit Valley College provides a workplace (which includes e-communication) free from discrimination and harassment of any form. Confirmed violations of this policy will lead to corrective discipline.

If an infraction occurs, the offender may receive a reminder of this policy or a copy of the communication may be forwarded to: [ecomm-abuse@skagit.edu](mailto:ecomm-abuse@skagit.edu).

### Best Practice

Form the habit of asking yourself:

1. Could my communication possibly be interpreted as insulting, disrespectful, sarcastic, discriminating, mocking or rude?
2. How would I feel if the communication were directed to me?

### Canvas

Not all features of Canvas will be utilized in this class. Students should have a clear understanding of the pertinent sections and take full advantage of the many benefits.

The only mandatory forum is Introductions (in the Orientation Unit). Other forums are made available for **students to interact with one another**. This simulates an ‘in place’ work group experience. Just as in a work group, I will be happy to contribute but I will enter a forum **only** if I am specifically invited, via email, to do so. You will find forums for each unit. Students are responsible for downloading course documents and taking part in discussions with classmates.

## Assignment Submission Policy

Unless otherwise directed, solutions to lab assignments will be submitted as attachments using college email.

Individual files making up an assignment are named according to the following convention:

Five parts:

1. 3 digit course number
2. 3 initials of student's name
3. 2 digit assignment number
4. a decimal
5. 3 letter application extension

Example for assignment 2 in CIS101 submitted by John Anthony Doe using Microsoft Word:

**101JAD02.DOC**

Before submission, all files (even if there is just one) making up the assignment must be zipped into a file named according to the following convention:

Five parts:

1. 3 digit course number
2. 3 initials of student's name
3. 2 digit assignment number
4. a decimal
5. .zip extension

Example for assignment 3 in CIS101 submitted by John Anthony Doe:

**101JAD03.zip**

### Email protocol:

The subject line of the message:

Five parts:

1. 3 digit course number
2. 3 initials of student's name
3. 2 digit assignment number
4. space
5. Please Grade

Example of the email subject line for assignment 2 in CIS101 submitted by John Anthony Doe:

**101JAD02 Please Grade**

**Do not include messages in assignment submissions;** send a separate email.

Points will be deducted if an assignment is submitted incorrectly.

## Assignments

All assignment quizzes and/or tests where applicable are completed online through Canvas where a schedule is displayed. All unit due dates (except the last) are **strongly recommended**, not compulsory. It is also strongly recommended that you use a computer with a broadband internet connection rather than dial-up!

If you are a student with **documented** disabilities you must ensure that the instructor has been provided the appropriate documentation after which you may exceed the times allotted.

**The instructions for all assignments are found in Canvas.**

You may challenge any online test or quiz. Simply submit an email and include the quiz number, question number(s) and your reason for the challenge. At the end of the course, these will be considered on their merit for your final grade.

The last unit of the class must be completed by **11:45 pm on Wednesday of the last week of the quarter.** Given the time restraints for submitting grades, **there are absolutely no exceptions.**

## Class Overview – Print this page and review frequently.

The course is divided into sections within which you will find items in the form of assignments and assessments. Items will become available in sequence as they are completed according to the conditions that apply. The following is an overview of the class content:

### Orientation

1. Download and study the Syllabus.
2. Read the Honor Code.
3. Take the Syllabus Quiz.
4. Introduce yourself.

### Unit 1

1. Read about VBA Syntax, Variables, Data Types, Events.
2. Work through and complete Tutorial A.
3. Complete Lab 1.
4. Take Lab Quiz 1.

### Unit 2

1. Read about Message Boxes, Decision Structures, Functions.
2. Work through and complete Tutorial B.
3. Complete Lab 2.
4. Take Lab Quiz 2.
5. Take Practice Test 1
6. Take Test 1.

### Unit 3

1. Read about Input Boxes, Loops, Debugging.
2. Work through and complete Tutorial C.
3. Complete Lab 3.
4. Take Lab Quiz 3.
5. Take Practice Test 2
6. Take Test 2.

### Unit 4

1. Read about Intrinsic (built in) Functions (String, Date Time, etc.).
2. Work through and complete Tutorial D.
3. Complete Lab 4.
4. Take Lab Quiz 4.
5. Take Practice Test 3
6. Take Test 3.

### Unit 5

1. Read about Sub Procedures and Function Procedures.
2. Work through and complete Tutorial E.
3. Complete Lab 5.
4. Take Lab Quiz 5.
5. Take Practice Test 4
6. Take Test 4.

### Unit 6

1. Read about Modules and Arrays.
2. Work through and complete Tutorial F.
3. Complete Lab 6.
4. Take Lab Quiz 6.
5. Take Practice Test 5
6. Take Test 5.

### Unit 7

1. Complete Final Exam.

## Evaluation

Your grade will be based on:

**6 Tutorials** 15%

**6 Labs (each of which includes a Lab Quiz)** 55%

**5 Tests** 20%

**1 Final Exam** 10%

In Canvas you will download a grade tracking spreadsheet that will enable you to know your current grade at all times and enter hypothetical scores based on anticipated performance. The grade total in Canvas is **not** reliable.

## Grading Scale

90	-	100	=	A
80	-	89	=	B
70	-	79	=	C
60	-	69	=	D
0	-	59	=	F

Pass/Fail grading is not an option.

## Class Components

The primary features of this class are:

### Readings

As directed in each unit.

### Tutorials

This class has 6 tutorials.

Your email submission will have the appropriate attached tutorial (zipped file(s)). e.g. The solution to Tutorial A will be named 240XXX\_TutA.accdb - zipped into a file named 240XXX\_TutA.zip.

The tutorials will serve as a preparation for the labs. Each tutorial **must** be successfully completed before moving forward to the respective lab. There will be topics covered in tutorials that are perhaps not in the reference text - **you are responsible for those topics**. Tests also reflect the content of the tutorials.

If you do not complete the tutorial successfully, you will not complete the lab successfully. **Do not submit the tutorial until it is completely correct else you will receive a score of zero.** The grade book value for each tutorial is 10. **Your score will be either 10 or 0.**

Read the tutorial outline – you may attempt a solution on your own. Work through the tutorial creating/checking your solution as you go. Get assistance on tutorial topics you do not understand before attempting the lab.

### Labs

Labs require lots of pondering and re-working so be sure to allow enough time.

Your email submission will have the appropriate attached zipped file (containing database(s)).

e.g. The solution to Lab 01 will be named as indicated in the lab assignment and zipped into a file named 240XXX01.zip (where XXX are your initials).

### Lab Quizzes

Lab quizzes are taken after you have submitted your zipped file for the respective lab. You may take each Lab Quiz **just once**. The number of questions for each lab quiz and the duration for each may vary. In each Lab Quiz you will answer T/F questions pertaining to the respective lab. Unless you hear otherwise, your score for the lab quiz will be your score for the lab. **You must answer the lab quiz according to what your lab submission indicates. Failure to do so may result in a score of zero for the assignment.**

**Therefore, have your lab solutions available before you begin.**

### Practice Tests

Before proceeding to each test, **you must score 80 % on a practice test** (not a part of your grade) which contains similar questions to the Test. You have unlimited attempts.

### Tests

**Tests may be taken only once. Tests are accumulative - you are responsible for content from previous tests. Read** the code and determine what the caption will display. **Do not type the code into the Visual Basic Editor.** Paper and pencil will prove useful. It is strongly recommended you attempt these tests when you are rested and free from distractions.

There are 5 tests. After each you will see your answers and your score.

Test 1 pertains to **If and Select Case (Decision)** structures

Test 2 pertains to **Repetition (Loop)** structures

Test 3 pertains to **Intrinsic (built-in) Functions**

Test 4 pertains to **Sub and Function** procedures

Test 5 pertains to **Arrays**

### Final Exam

Equal number of questions from each: Decision, Loop, Function, Procedure and Array.

## **Academic Conduct**

### **Academic Honor Code**

All students of Skagit Valley College are responsible for knowing and adhering to the Academic Honor Code of this institution found at <http://www.mysvc.skagit.edu/honorcode>. Violations of this code include: cheating, plagiarism, aid of academic dishonesty, fabrication, lying, bribery, and threatening behavior. All incidents of academic misconduct are reported to the student conduct officer. Students found to be in violation of the Academic Honor Code are subject to academic consequences up to and including failure of the course. Students may also be subject to college disciplinary sanctions up to and including expulsion from the College.”

### **Code of Student Conduct**

<http://www.mysvc.skagit.edu/conduct>

### **Student Complaint Policy**

<http://www.mysvc.skagit.edu/complaint>

## **College Policy**

The Board of Trustees of Skagit Valley College provides a workplace free from discrimination and harassment of any form. This applies to students and employees of the college anywhere on campus. Confirmed violations of this policy will lead to corrective discipline.