

# Computer Programming for Engineers, VB.NET Section

COP2271

**Class Periods and Location:** M 7-8 periods, FLG 230

**Academic Term:** Spring 2017

## **Instructor:**

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Office Hours: Mondays and Wednesdays from 10am to 11am or by appointment, Weil 302B

## **Teaching Assistants:**

To be announced, please contact through the Canvas website

## **Course Description**

Computer programming and the use of computers to solve engineering and mathematical problems. Emphasis will be placed on applying problem solving skills. This course is specifically directed towards those students who are pursuing technical careers in fields employing a reasonably high degree of mathematics (2 credits).

## **Course Pre-Requisite**

MAC2312 (Analytic Geometry and Calculus II)

## **Course Objectives**

Provide VB .NET language skills. Provide engineering problem solving skills using structured and object oriented programming. Provide experience in project development and meeting requirements.

## **Materials and Supply Fees**

none

## **Professional Component (ABET):**

This is a course with design content. Throughout the semester, students will complete assignments during class to meet specific design criteria. They will also have to solve several real-world problems during exams to practice their programming abilities.

## **Relation to Program Outcomes (ABET):**

Outcome	Coverage*
a. Apply knowledge	Medium
B1. Conduct experiments	
B2. Statistical design of experiments	
c. Design	Medium
d. Function on teams	
e. Solve problems	Medium
f. Professional and ethical responsibility	
g. Communicate	
H1. Economic impact	
H2. Global, societal, and environmental impact	
i. Lifelong learning	
j. Contemporary issues	Low
k. Techniques, skills, and tools for degree program	High

\*Coverage is given as high, medium, or low. An empty box indicates that this outcome is not part of the course.

## **Required Textbooks and Software**

No textbook is required. Lectures will be provided to students through videos posted on Canvas and in-class presentations. The development software required for this course is Microsoft Visual Studio .NET 2015, downloadable for free from Microsoft DreamSpark for Academic Institutions.

## **Course Schedule**

<b>Week</b>	<b>Topic</b>
1	Introduction
2	VB .NET Programming Basics
3	Decision Making (Branching Instructions)
4	Decision Making
5	Loops
6	<b>Exam-1 &amp; Loops</b>
7	Procedures
8	Basic Data Structures & <b>Exam-2</b>
9	Object Classes
10	----- Spring Break -----
11	Object Classes
12	Object Classes & <b>Exam-3</b>
13	File Processing
14	File Processing & Multi-Form Applications
15	Multi-Form Applications
16	Multi-Form Applications & <b>Exam-4</b>

## **Attendance Policy, Class Expectations, and Make-Up Policy**

Attendance is not required; however, it is strongly recommended. It will be to your benefit to attend all lectures. Students will be responsible for all material covered in class.

Lectures are there to facilitate efficient learning, not chatting with friends, surfing the net, reading the Alligator, or sleeping. You should be focused on the course material and the in-class exercises assigned, not on activities that do not involve course work. Those who behave inappropriately will be asked to leave. If you cannot follow the lecture anymore, you can leave the class quietly; I will not be offended. **Please, remember to turn off your cell phone as soon as you enter the classroom.**

Students needing a make-up exam due to schedule conflicts must notify the instructor at least one week before the day the exam is scheduled for. You will need to present evidence of the conflict to the instructor.

Excused absences require appropriate documentation.

## **Evaluation of Grades**

Your grade will be based on four exams, each of which will be worth 25% of your final grade. The exams will be comprehensive, covering all the topics discussed up to that point. I will give you ample time (around 2 hours); in return, I will ask you to develop complete programming solutions on your laptop.

In each exam, I include a few challenging tasks, which only the best students will be able to answer. These are the questions that will serve to distinguish the A students.

All exams must be submitted via E-learning unless specified otherwise. Assignment deadlines are rigid. **If you do not submit before the deadline or submit the wrong file, you will receive a zero.** Only the instructor has the authority to grant late submissions.

Grade disputes must be made to the instructor within one week after grades are posted. Any grade dispute after the specified period will not be considered. The following describes the procedure:

- (1) Within one week after your grade has been posted, e-mail the instructor requesting a grade breakdown,
- (2) Compare your solution to the solution posted on the web-site using the detailed grade breakdown you receive,
- (3) If you still have questions about your grade, to resolve the issue either go to the instructor's office hours or request an appointment.

## **Grading Policy**

There may or may not be a curve applied on your grade at the end of the semester. This depends on the overall performance of the class throughout the semester. Please keep in mind that this is a challenging and time consuming class, and the percentage of As has historically been around 20%. You have to study hard and perform well in every class activity in order to deserve an A. Also, keep in mind that **this is a required course for ISE students. This means that you must earn, at a minimum, a C in order to satisfy the requirement.**

Grade	Range
<b>A</b>	[93, 100]
<b>A-</b>	[90, 93)
<b>B+</b>	[87, 90)
<b>B</b>	[83, 87)
<b>B-</b>	[80, 83)
<b>C+</b>	[77, 80)
<b>C</b>	[73, 77)
<b>C-</b>	[70, 73)
<b>D+</b>	[65, 70)
<b>D</b>	[60, 65)
<b>D-</b>	[55, 60)

More information on UF grading policy may be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

## **Students Requiring Accommodations**

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, <https://www.dso.ufl.edu/drc>) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

## **Course Evaluation**

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu/evals>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

## **University Honesty Policy**

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (<https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

## **Campus Resources:**

### **Health and Wellness**

#### **U Matter, We Care:**

If you or a friend is in distress, please contact [umatter@ufl.edu](mailto:umatter@ufl.edu) or 352 392-1575 so that a team member can reach out to the student.

**Counseling and Wellness Center:** <http://www.counseling.ufl.edu/cwc>, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

#### **Sexual Assault Recovery Services (SARS)**

Student Health Care Center, 392-1161.

**University Police Department** at 392-1111 (or 9-1-1 for emergencies), or <http://www.police.ufl.edu/>.

### **Academic Resources**

**E-learning technical support**, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu.  
<https://lss.at.ufl.edu/help.shtml>.

**Career Resource Center**, Reitz Union, 392-1601. Career assistance and counseling. <https://www.crc.ufl.edu/>.

**Library Support**, <http://cms.uflib.ufl.edu/ask>. Various ways to receive assistance with respect to using the libraries or finding resources.

**Teaching Center**, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.  
<https://teachingcenter.ufl.edu/>.

**Writing Studio, 302 Tigert Hall**, 846-1138. Help brainstorming, formatting, and writing papers.  
<https://writing.ufl.edu/writing-studio/>.

**Student Complaints Campus:** [https://www.dso.ufl.edu/documents/UF\\_Complaints\\_policy.pdf](https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf).

**On-Line Students Complaints:** <http://www.distance.ufl.edu/student-complaint-process>.