COP 2271 – Computer Programming For Engineers, VB.NET Section

1. Catalog 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).

2. Prerequisites

MAC2312 (Analytic Geometry and Calculus II)

3. 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.

4. Contribution of course to meeting the professional component

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 the exams to practice their programming abilities.

5. Relationship of course to program outcomes

This course contributes to the program outcomes by teaching students to: Apply knowledge of mathematics, science and engineering; Design a system, component, or process to meet desired needs; Identify, formulate and solve engineering problems; Understand contemporary engineering issues; Use the techniques, skills, and modern engineering tools necessary for engineering practice; Integrate systems using appropriate analytical, computational and experimental practices.

6. Instructor

   a. Office Location: 415 Weil Hall
   b. Telephone: 392 1464 ext. 2014
   c. Email address: kirli@ise.ufl.edu
   d. Web site: E-learning (lss.at.ufl.edu)
   e. Office Hours: TR 11:00am-noon

7. Undergraduate Assistants

a. Office Location: 202 Weil Hall
b. Office Hours: TBA in E-learning.

8. Meeting Times and Location

MW 5-6 periods, WEIM 1064

9. Material and Supply Fee

$ 2.00

10. Textbook and Software Required

No textbook is required. Lectures will be provided to students through videos and in-class presentations. The development software required for this course is Microsoft Visual Studio .NET 2014 (Professional version), downloadable for free from Microsoft DreamSpark for Academic Institutions.

11. Computer Requirement

All students must have a laptop computer in order to sign up for the course. The laptop computer is necessary for in-class exercises, and exams.

12. Attendance and Expectations

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.**

13. Grading Policy

Your grade will be based on four in-class exams.

Exam 1	25%
Exam 2	25%
Exam 3	25%
Exam 4	25%

14. Grading Scale

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 difficult and time consuming class, and the percentage of As has historically been 10% - 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
A	[93, 100]
A-	[90, 93)
B+	[87, 90)
B	[83, 87)
B-	[80, 83)
C+	[77, 80)
C	[73, 77)
C-	[70, 73)
D+	[65, 70)
D	[60,65)
D-	[55, 60)

15. Make-up Exam Policy

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.

16. Exams

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 (1 hour and 45 minutes); 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 10 days after the grades are posted. Any grade dispute after the specified period will not be considered.

17. Course Outline

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

Tentative Exam Dates:

Exam-1	February 9
Exam-2	February 25
Exam-3	March 25
Exam-4	April 20

18. Honesty Policy

All students admitted to the University of Florida have signed a statement of academic honesty committing themselves to be honest in all academic work and understanding that failure to comply with this commitment will result in disciplinary action. This statement is a reminder to uphold your

obligation as a UF student and to be honest in all work submitted and exams taken in this course and all others.

19. Accommodation for Students with Disabilities

Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation.

20. UF Counseling Services

Resources are available on-campus for students having personal problems or lacking clear career and academic goals. The resources include:

- University Counseling Center, 301 Peabody Hall, 392-1575, Personal and Career Counseling
- SHCC Mental Health, Student Health Care Center, 391-1171, Personal and Counseling
- Center for Sexual Assault/Abuse Recovery and Education (CARE), Student Health Care Center, 392-1161, sexual assault counseling
- Career Resource Center, Reitz Union, 392-1601, career development assistance and counseling

21. Software Use

All faculty, staff and student of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.