CSIT 105-01 - Foundations of Computer Science - CRN 17194

Fall 2022 Syllabus - ver 0.1

Section: 01 - CRN 17194   **MW**

> Monday 1:00 pm-3:20 pm West 309
> Wednesday 1:00 pm-3:20 pm West 309

Course Modality: in the classroom

The class will be conducted as a regular class with Lecture and Lab time in the classroom. Canvas is the official source for: Syllabus, Class Schedule, Slides, Demos, Homework/Lab/Project Assignments, Quiz/Exam Information

Syllabus Versions

- Version 0.1 - 8/30/2022 - first release
- Version 0.0 - 8/25/2022 - draft

Book Information

> ***Required:*** Starting Out with Java: Early Objects, 6th edition, Tony Gaddis, ISBN-13: 9780134462011 [cover picture has peapods with peas]

Note: This class does NOT use myprogramming lab which is a different resource and is more expensive ~$42.40

[See canvas for information on 5th edition resources]

Instructor

Name: Stephen T. Brower   **Office:** West Building W324
Work # (908) 526-1200 x8259 *   **preferred email:** stephen.brower@raritanval.edu

Fall 2022 Office Hours in the Office (8/31 - 12/12):

- Monday / Wednesday 3:30 - 5:30
- and by appointment

Course Overview:

 (Prerequisite: Math 113 – Precalculus II or Math 114H – Precalculus Honors) This is the first course in Computer Science for transfer students. The programming language Java will be taught in conjunction with problem solving methods, algorithm development, and

object-oriented design. Topics include data types, control structures, classes, objects, methods, file processing, recursion, and introduction to data structures.
[General Education Elective] This course assumes no prior programming experience

Course Learning Outcomes:

At the conclusion of the course, students will be able to:
1. Describe concepts of object-oriented programming such as encapsulation, inheritance, and polymorphism.
2. Solve problems involving decisions and repetition.
3. Develop algorithms that may be used in coding programs.
4. Apply algorithms such as the sequential sort and search in solving problems.
5. Design classes using appropriate instance data and methods.
6. Design programs using traditional structured as well as object oriented methods.
7. Code programs using the correct syntax of the programming language.
8. Identify the General Ethical Principles of the Association of Computer Machinery (ACM) code of Ethics and Professional Conduct.
9. Understand where testing fits in the software development process.
10. Test programs adequately with appropriate input data.
11. Distinguish among programming errors (syntax, logic, run-time)

Course Management, Structure and Pace

This course meets for approximately five hours a week for 14 weeks. Students should plan on putting in at least two hours of study time for every hour spent in class for lecture. Additionally, students should plan study time of another half hour for every hour spent in the lab. Students who are successful in this class typically spend approximately seven hours *outside of class* each week working on the subject. This includes reviewing class notes, reading and studying the textbooks, doing homework and reviewing demo Java code.

Attending all lectures is essential for success in this course because this reinforces and explains the material presented in the textbook. Additional programming techniques, which may not be found in the book, will be demonstrated in class and during project/lab time.

Grade Determinants

Item	Percent
Homework (~12)	15%
Programming Labs (~13)	15%
Programming Projects (~4)	20%
Quizzes (10/4 and 11/8)	10%
Exam 1 (10/18)	10%
Exam 2 (11/22)	15%
Final Exam (12/20)	15%

Grades

Grade	% Range
A	89.5-100+
B+	86.5-89.4
B	79.5-86.4
C+	76.5-79.4
C	69.5-76.4
D	59.5-69.4
F	0.0-59.4

Software/Computer Requirements:

Although there is lab time incorporated into the class to work on "labs", there may not be enough time to work on the "projects" during class time. You *may* need access to a computer with Java outside of class.

If you own a computer you can download the Java JDK and Netbeans which will replicate the setup that we have on campus. There will be links from the Course Homepage in Canvas with some information.

If you do not own a computer, you can use the Open Lab in the West Building which is open 5 or 6 days a week. See the hours posted outside the Open Lab

Laptops in the classroom:

You are allowed to use your own laptops in the classroom. Wireless devices should be able to connect to "RVCC-Student" by providing your G# and password. (see: https://commons.raritanval.edu/admin/mis/tshome/TSGuide/Pages/Network.aspx)

Which Email to use and Email Response Time

If you have a question or have an issue submitting an assignment in Canvas, the preferred (fastest) way to contact the instructor is via his preferred email: stephen.brower@raritanval.edu

Over the last several semesters, I found the email system embedded in Canvas frustrating, and the Canvas alerts are not always punctual.
So please email me at: stephen.brower@raritanval.edu

The goal is to respond in less than 24 hours. Please don't expect a response after 10 pm.

Occasionally there are known exceptions such around Thanksgiving where a response may take a little longer. If the instructor knows ahead of time there will be a period of unavailability longer than 24 hours, that will be communicated to the class.

Class Routine:

The class has 3 segments: Java Lecture, Lab Lecture, and Lab

Java Lecture - Lecture on programming in Java from the Java book

Each class we will take the next step in learning how to program. Some classes will cover parts of 2 chapters. There are some Computer Science topics the instructor will cover that are not in the book. So pay attention! The instructor will integrate programming demos into the lecture and the demos will be available at the end of the lecture.

The caution here is that the knowledge is cumulative. So if you skip a Java lecture in one class, the lecture in the following class will be more difficult.

You should attempt to "skim" the chapter(s) covered prior to class.

Lab Lecture - Brief lecture on how to tackle the lab that follows

The intent of the Lab Lecture is to refresh your memory on some key items from Java or programming in general and then provide "hints" on how to do the lab. Some Lab lectures may be as long as 15 minutes. Some may be only 15 seconds.

Lab - Hands on lab time

Lab will be for individual work using the computer for programming in Java. Labs must be completed during lab time.

The time set aside for the programming In-Class Labs is enough time for a novice programmer to finish the In-Class Lab. Novice programmers may need to find time outside of class to work on "Projects".

Some classes the Lab assignments may have multiple parts. The Lab assignments get progressively harder and/or longer as the semester progresses.

Whether you are a novice or not, if you finish the lab early, you should look ahead on the Class Schedule to work on the next computer project, do the next homework that is due, or explore some of the features of Java that are in the book but skipped by the instructor.

Homework:

See Canvas for homework details.

Homework will be a subset of the Review Questions and Exercises, Find the Error, Algorithm Workbench, and Short Answer questions.

Note: The author's website for the prior edition (the 5th edition) has answers to the odd numbered Short Answer questions from that edition

Homework must be submitted electronically via Canvas as a document saved as a .docx or as a .rtf file

Note: All but 2 homework assignments will be due on Wednesdays

See below for the Late Policy(don't be late) and the Cheating Policy (don't cheat)

Programming Labs (In-Class Labs):

See Canvas for Programming Lab details. Most Programming Labs are not posted until the day of class. Some labs are not posted until after class.

The idea behind Programming Labs is that they are designed to be done in the classroom in a 2-3 hour window of time. Programming Labs reinforce the material covered in class.

Programming Labs are designed for a novice programmer to complete in the time allotted.

Programming Labs are due by the end of class (3:20) and are considered late if submitted after the end of class.

The .java file(s) for the Programming Labs (or a .zip that contains the .java files) must be submitted via Canvas. All Programming Labs will be on Wednesdays

A word of caution: Programming Labs get progressively harder as the semester progresses and part of that is because the material is cumulative. So Programming Labs in late November will take longer than those in September.

See below for the Late Policy(don't be late) and the Cheating Policy (don't cheat)

Programming Lab Compiling Policy

After you have written 4 Programming Labs, the expectation is that your Java code will compile. For all of the Programming Labs after Programming Lab 4, if the code submitted does not compile, or if the instructor's tester used to test the classes submitted does not compile, the assignment is a 0.

The only edits that will be made to get the program to compile is to remove the -# that Canvas adds to the file name when there are additional submissions and the package statement

Projects:

See Canvas for Project details. Details are usually posted 2-3 Lab times ahead of the due date.

The idea behind the Projects is they demonstrate your mastery of the material. Projects are more complex than labs and are expected to take longer.

You may not have enough time in class to complete the projects so you either need to replicate the development environment at home/work or use the open lab on the second floor of the West Building which is open 6 days a week.

The .java file(s) for the projects (or a .zip that contains the .java files) must be submitted via Canvas

Projects are due via Canvas by midnight of date due.

See below for the Late Policy(don't be late) and the Cheating Policy (don't cheat)

Project Compiling Policy

The expectation is that your Java code submitted for Projects will compile. For all of the Projects, if the code submitted does not compile, or if the instructor's tester used to test the classes submitted does not compile, the assignment is a 0.

The only edits that will be made to get the program to compile is to remove the -# that Canvas adds to the file name when there are additional submissions and the package statement

Exams/Quizzes:

See Canvas for Quiz/Exam Information. Details are usually posted 1 week ahead of the quiz/exam day.

Note the Class Schedule for the timing of the Quizzes/Exams. If you are late for a quiz/exam you will only have the time until the scheduled end of the quiz/exam.

If you know ahead of time that you will miss an exam, please make arrangements with the instructor.

The format of the quizzes/exams will be different (multiple choice, hand write a program, write a program on the computer). The format/content will be reviewed a week prior to the quiz/exam

See below for the Cheating Policy (don't cheat)

Cheating Policy (Don't Cheat!):

You must work alone on the Projects, In-Class Labs, and Homework. Working with someone is considered cheating. Taking a file that someone else created is considered cheating. Having your neighbor work on your computer is considered cheating. Collaborating on logic is cheating. Cheating is not allowed.

For the Programming Labs, asking the instructor for hints is not considered cheating. It is ok to email a Java file to the instructor to ask for assistance. But, don't expect a response after 10:15 pm on any night.

Cheating is also not allowed on Quizzes and Exams. If you have a question during a quiz/exam ask the instructor.

All parties involved in cheating (including the one who shares) will be dealt with according to the school's policy on cheating. The penalty can range from 0 on the assignment to F for the course.

NOTE: you have permission to use the instructor's demo .java files, in whole or in part, for your programming labs and programming projects (just cite that in a comment in the code) and you have permission to use the code the instructor writes on the whiteboard (just cite that in a comment in the code) and you have permission to use the code in the book, in while or in part (just cite that in a comment in the code).

Late Policy

Don't submit work late!

According to the RVCC Catalog, students are not to be penalized for 1 week of absences. To accommodate this, at the end of the semester the lowest homework and the lowest programming lab will be dropped.

"Life Happens"

According to the RVCC Catalog, students are not to be penalized for 1 week of absences. To accommodate this, at the end of the semester the lowest homework, the lowest programming lab and the lowest Data Structures lab will be dropped. That handles "life happens".

Extra Credit:

Some labs/projects/quizzes/exams have extra credit built into them. ***Other than that no extra credit will be given.***

So if you choose to do no homework all semester and then in November you ask for extra credit, the answer is no.

Additional Policies:

Classroom Behavior

Cell Phones:
For the "lectures" please silence cell phones. It is understood that there may be times when emergency calls occur or the "pick me up at the airport" call needs to happen. For those calls please step into the hallway to take the call. During lab time, you can turn the sounds back on the cell phones.

Talking:

For the "lectures" please don't talk. It is understood that you may need to turn to a neighbor for the occasional question like "what slide is he on?" or "which file is that?" or "what page # did he say?" and that's fine. It is the full conversations that are distracting not only to the instructor but to the class as a whole.

For the Lab Time you can talk all you want, but "indoor voices" please.

Language:

The instructor will try his darn-doodliest to not swear during class time but an occasional expletive may slip out. Please try your darn-doodliest not to swear but don't fear reprisals if an occasional expletive slips out.

Proper Use of Computers:

Lecture: the instructor is easily distracted by typing and would prefer that computers are not used during the lecture, except for opening and view demo Java files. Pointing and laughing at the monitors is very distracting. ***Printing during lecture is extremely distracting and very upsetting.*** If class members repeatedly distract the instructor, then all computers and laptops must be closed down for the rest of the semester.

Lab: During lab time everyone should be working on the labs/projects in Java. None of the labs/projects require social media sites like Facebook.

Bathroom Breaks:

Lecture: Depending on the length of the lecture there may be a break partway through, and usually it will be announced at the start. If you need to leave for a break just quietly get up and leave.

Lab: take all the breaks you need.

Student Handbook

You are responsible for all policies stated in the Student Handbook, including Academic Integrity Policy and Code of Student Conduct.

See: https://commons.raritanval.edu/studentserv/conduct/pages/Policies_and_Documents.aspx

See "Syllabus Part II" for some official school policies

Class Attendance:

See "Syllabus Part II" for official policy.

Note: sometimes attendance is taken based on what graded items were not returned. If you come in late and see that graded items were returned, please wait for a break or Lab Time to get your graded items

Withdrawal Procedure

See school's webpage for Fall 2022 Withdrawal and Refund Schedule and Refund Info (see: https://commons.raritanval.edu/admin/finance/Documents/Fall%202022%20WithdrawalRefund%20Schedule%20and%20Enrollment_Payment%20Calendar.pdf)

(see: https://commons.raritanval.edu/admin/finance/Pages/refund_info.aspx)

Class Schedule

Please see the Class Schedule for topics. See Canvas for assignment details.

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