

EGC251 C/C++ Programming (3 credits*) Fall 2020 Semester

<http://www.engr.newpaltz.edu/~bai/EGC251/EGC251.html>

1. Maintaining Public Health

To protect the health of everyone in this class, the Division of Engineering Programs, and the New Paltz campus, students are required to do the following:

- complete the daily health screening from a phone or computer each morning;
- wear a mask or face covering over their nose and mouth before entering the building; and
- Stay 6 feet apart from everyone else in the hallway and the classroom.

Compliance

If you arrive and you have not completed the daily screening, you will be asked to complete it outside of the room. If you arrive without a mask or face covering, some faculty/staff may be able to supply you with one; however, you may be required to return to your residence to get one, or go to a designated location on campus to get a mask or face covering.

There are no exemptions or waivers of this policy. If you refuse to wear a mask or face covering, you will not be able to enter the classroom and participate in the class. You will be responsible to make up any missed work including graded material. Refusal to wear a mask or face covering will be reported to the Student Conduct Office based on the Student Conduct Code's 'Non-Compliance with Official Requests' (which includes public health policy).

Remember that the theme of the semester is “We, not Me”.

If we each do our part to care about the college community of which we are a part, we will have a productive experience.

Missed Work

Please note that with any temporary illness, if you miss class because you are diagnosed with COVID-19, suspect that you have COVID-19, or are required to quarantine because you may have come into contact with someone who is infected with COVID-19, students must make arrangements to make up coursework.

”Protect New Paltz: A Pledge to Stop the Spread of COVID-19”

For more information about The Pledge and expectations, visit the link below.

<http://www.newpaltz.edu/media/corona-virus/Protect.NP.pledge.pdf>

2. Course Information

Course Number: EGC251
Course Title: C / C++ Programming
No. of Credits: 3
Time on Task: 135 hours

Regardless of the delivery method or the particular learning activities employed, the amount of learning time in any college course should meet the requirements of Commissioner's Regulation Section 50.1 (o), a total of 45 hours for one semester credit.
-NYS Department of Education

Course Designation: Undergraduate
Course Type: Lecture
Meeting Times: M 2:00 PM - 4:45 PM (Online Synchronous)
Course Website: <http://www.engr.newpaltz.edu/~bai/EGC251/EGC251.html>

Pre-requisites: Students must successfully earn a grade of "C-" or better in all of the following (or equivalent) prior to taking this course

- EGG 101 Introduction to Engineering

Catalog Description

A course in computer programming using high level programming languages (C/C++) as a tool to solve engineering problems. Topics include programming structure, decisions, repetition, arrays, functions, data files, addresses and pointers and object-oriented design.

Reading Materials

"EGC251: C/C++ Programming," online textbook by ZyBooks. Every student is required to subscribe within the first week. The book will be used partially to assign homework.

1. Sign in or create an account at learn.zybooks.com
2. Enter zyBook code: **NEWPALTZEGC251IzadiFall2020**
3. Subscribe.

A subscription is **\$58**. Students may begin subscribing on Aug 06, 2020 and the cutoff to subscribe is Dec 07, 2020. Subscriptions will last until Jan 07, 2021.

References:

- ♦ *The C Programming Language*, Brian Kernighan and Dennis Ritchie, , 2nd edition, Prentice Hall Software Series, ISBN 0-13-110362-8.

2. Instructor Information

Dr. Baback Izadi

Associate Professor of Electrical and Computer Engineering

213 Resnick Engineering Hall

bai@engr.newpaltz.edu

(845) 257-3823

<http://www.engr.newpaltz.edu/~bai>

Office Hours

- Monday and Thursday 12:30 PM – 2:00 PM
- Wednesday 1:00 PM – 2:00 PM

I will hold regular office hours using WebEx link to help with your issues and concerns. Please reserve a 10 minutes time slot using <https://calendly.com/izadibaback>. Subsequently, on the scheduled time, you should use the Office Hour tab on the course website (<http://www.engr.newpaltz.edu/~bai/hours.htm>). There are two separate links, one for Monday and Thursday, and the other for Wednesday.

3. Learning Outcomes

Student Outcomes (SO)

Student outcomes represent the desired knowledge and skills that Engineering students must have acquired by the time of graduation. All of our Engineering Programs have adopted ABET Criterion 3 as guiding student outcomes, as specified below.

By the time of graduation, Engineering students must have demonstrated an ability to:

1. identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. communicate effectively with a range of audiences
4. recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. acquire and apply new knowledge as needed, using appropriate learning strategies.

Student Learning Outcomes (SLO)

Upon successful completion of this course students will have demonstrated an ability to:

- I. Students will learn to demonstrate their ability to analyze, synthesize, and design networks of combinatorial digital logic elements, and digital clocked sequential circuits.

Contributions

SO	SLO	Level
1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics	I	Medium

4. Course Contents and Procedure

The course is in hybrid format. Before attending each lecture, **you are required** to watch the assigned lecture videos in Blackboard. During the lecture, which will be conducted via Blackboard Ultra, we will go over the Zybook chapter. At the end of the lecture, you start working on the assigned project.

- Course contents is organized into LinkedIn Learning lecture videos. They will become available in a timely manner in Blackboard under Lectures. Click on the link and it will take you to the LinkedIn Learning site. You must watch the assigned videos for the day before the lecture day and attempt the assigned exercises.
- We will begin the lecture by answering questions about the lecture video. Then, we will go over the Zybook chapter.
- You will need to do the assigned Zybook assignments by the due date. At the due date Zybook.com will record your score and send it to me. No time extension can be provided.
- At the end of each lecture, you will be assigned a project which will be due before the next lecture. The code for the project needs to be submitted via the Blackboard Project Assignments. Your code must compile and run to be graded.
- Exams will be submitted via Blackboard. You will need to login with a live camera on you and your exam paper while taking the test.
- I will hold regular office hours using WebEx link to help with your issues and concerns. Please reserve a 10 minutes time slot using <https://calendly.com/izadibaback>. Subsequently, on the scheduled time, you should use the Office Hour tab on the course website <http://www.engr.newpaltz.edu/~bai/hours.htm>). There are two separate links, one for Monday and Thursday, and the other for Wednesday.
- Test and final solutions need to be submitted to Blackboard Test link in a single PDF. One option is using CamScanner (<https://www.camscanner.com/disclaimer/educator>)



Division of Engineering Programs

Course Content: <http://www.engr.newpaltz.edu/~bai/EGC251/EGC251.html>

Lecture Date	Lecture Note in Course Website	Lecture Video on <i>Blackboard</i>	Textbook
8/24/2020	Intro	Module 1	Chapter 1
8/31/2020	Variables and assignments	Module 2	Chapter 2
9/7/2020	Branches, Conditional Statements	Module 3	Chapter 3
9/14/2020	Loops	Module 4	Chapter 4
9/21/2020	Arrays	Module 5	Chapter 5
9/28/2020	User Functions	Module 6	Chapter 6
10/5/2020	Test 1		
10/12/2020	Structs	Module 7	Chapter 7
10/19/2020	Pointers	Module 8	Chapter 8
10/26/2020	Streams	Module 9	Chapter 9
11/2/2020	Recursion	Module 10	Chapter 10
11/9/2020	User-Defined Functions	Module 11	Chapter 11
11/16/2020	Objects	Module 12	Chapter 12
11/23/2020	Review		
12/07/2020	Final Exam		2:45 PM – 4:45 PM

5. Grading

Assessments and Weights

ZyBook Homework	50 Points
Projects	200 Points
Mid-Term	100 Points
Final	100 Points
Total	450 Points

Grading Schema

Total Point	Final Grade
405 - 450	A
396 - 404	A-
383 - 395	B+
369 – 382	B
360 - 368	B-
351 - 459	C+
338 - 350	C
324 - 337	C-
Below 323	F

Project Rubric

Students should use this grading rubric as a guide on how to increase your personal grades.

	Category	20%	40%	60%	80%	100%
20%	Coding Structure	Needs Practice	Shows Promise	Intermediate Skill	Highly Proficient	Mastered Skill
20%	Output Professionalism	Needs Practice	Shows Promise	Intermediate Skill	Highly Proficient	Mastered Skill
20%	Code Techniques C/C++	Needs Practice	Shows Promise	Intermediate Skill	Highly Proficient	Mastered Skill
20%	Debugging	Needs Practice	Shows Promise	Intermediate Skill	Highly Proficient	Mastered Skill
20%	Code Execution	Needs Practice	Shows Promise	Intermediate Skill	Highly Proficient	Mastered Skill

6. Rules and General Comments:

Please note the date and time of the test and the final and ensure you do not schedule any event that would cause a conflict. Each examination and its format will be confirmed one week prior. If a conflict is unavoidable, you must bring it to the instructor's attention as soon as possible. Once you begin an exam, no makeup or other score adjustments will be permitted.

- ◆ Weekly homework Zybook assignments will be posted on the Zybook site and noted on the course website. The due date is one week from the distribution date (unless otherwise specified). No late homework set is accepted except under extreme non-academic condition and with the prior approval of the instructor.
- ◆ Weekly Projects are assigned during the class and are due at the beginning of the next class.
- ◆ I strongly advise against missing any classes. If you miss a class, it is your responsibility to obtain assignments and other information given on that day. Attendance will be taken during the first 10 minutes. After that you are considered absent. Two missing classes are allowed. You would lose 2% of your grade if you miss a third class and 5% after the fourth absence.
- ◆ All your coursework (homework, project, and exams) is expected to be your own – See **Academic integrity policy statement** below.
- ◆ Please seek help before serious difficulties in your understanding of course material arise. In particular, it is much better to get your questions answered before an exam than after! There are multiple resources for help and tutoring. In addition to using my office hours, you may reach out to tutoring sessions provided by Eta Kappa Nu, Electrical and Computer Engineering Honor Society. In addition, you may utilize the resources of Center for Students Success: <http://hawksites.newpaltz.edu/css/about-us/>
- ◆ Please make sure you save your graded homework, test, and report. I may ask for them in case of any grading discrepancy.

7. Noteworthy Dates

Check the campus [Academic Calendar](#) to learn about important dates like:

- Semester Add/Drop Period start and end
- Campus Withdrawal Period start and end
- Holiday Observances
- Deadlines for Graduation Applications, Leaves of Absence, Study Abroad, etc.
- Pre-registration period for next semester
- Registration Moratoriums
- SEI Availability start and end

8. Campus Policies

ACADEMIC INTEGRITY POLICY

Students are expected to maintain the highest standards of honesty in their college work. Cheating, forgery, and plagiarism are serious violations of academic integrity. Students found guilty of any violation of academic integrity are subject to disciplinary action, up to and including expulsion.

Ignorance of the academic integrity policies does not constitute a defense. It is the student's responsibility to understand and to adhere to this policy.

CAMPUS EMERGENCIES & DELAYS POLICY

Classes will be cancelled or delayed only under extreme circumstances, such as severely inclement weather or other emergency situations. Students, faculty and staff have the ability to have emergency notifications sent to their cell phone.

REASONABLE ACCOMMODATIONS

Students needing classroom and/or testing accommodations related to a disability should contact the Disability Resource Center as close as possible to the beginning of the semester. The DRC will then provide students' instructors with an Accommodation Memo verifying the need for accommodations.

Student Union Building

Room 210

845-257-3020

Specific questions about services and accommodations may be directed to

Deanna Knapp, Assistant Director

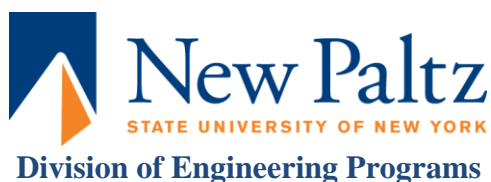
(knappd@newpaltz.edu)

Jean Vizvary, Director

vizvaryj@newpaltz.edu

ACADEMIC ASSISTANCE

The Center for Student Success (CSS) provides students with peer based academic skills coaching and advising, online tutoring, subject tutoring in historically difficult courses, and writing support across the curriculum. CSS services are intended to enhance, not supplant, other forms of collaborative learning. The Center also houses the campus-wide student success system, powered by Starfish. Please visit the csS website to learn more about the services available.



VETERAN & MILITARY SERVICES

New Paltz's Office of Veteran & Military Services (OVMS) is committed to serving the needs of veterans, service members and their dependents during their transition from military life to student life. Student veterans, service members or their dependents who need assistance while attending SUNY New Paltz may refer to OVMS's website; call 845-257-3120, -3124 or -3074; e-mail np-vms@newpaltz.edu; or stop by the Student Union, Room 100 South.

Military Obligations

In partnership with academic and professional faculty, the Office of Veteran & Military Services (OVMS) makes every effort to provide reasonable accommodations for individuals who must be absent due to military obligations. The student and faculty member must agree that the length of the absence is reasonable for the type and structure of the course and must devise a written plan detailing expectations for successful course completion. Students who actively participate in the United States Military Reserve or National Guard are highly encouraged to provide each faculty member, as well as the OVMS, a copy of their Reserve and/or National Guard schedule during the first week of class each semester.

RELIGIOUS OBSERVANCE

Students who will be taking time to observe religious holidays should communicate with faculty, coaches, etc. as soon as possible regarding absences for religious observations and be prepared to discuss plans for making up missed work. Faculty and staff will continue to respect the needs of our students and, in compliance with the New York State Education Law (Chapter 161, Section 224), honor students' requests for such rescheduling and collaborate with them to determine a path to make up missed work.

TECHNICAL SUPPORT

For technical support, including account and system related issues, go to support.newpaltz.edu to visit our knowledge base or submit a support ticket 24 hours a day. Our Service Desk is available during business hours (see support.newpaltz.edu) for live support.

Email: servicedesk@newpaltz.edu

Call: 845-257-4357

Visit: Humanities, Room 103

COMPUTER & NETWORK USE POLICY

Users of New Paltz's computer resources and network facilities are required to comply with the institutional policies outlined in the Acceptable Uses and Privacy Policy and other technology policies, available at the link provided.

ONLINE IDENTITY VERIFICATION POLICY

New Paltz's Online Identity Verification Policy is designed to verify that students enrolled in our online courses and/or programs are the ones who take the courses, complete the programs, and receive the academic credit. The complete policy is published in the Undergraduate Catalog.

TITLE IX & RELATED POLICIES

Gender discrimination, sexual harassment, sexual assault, sexual violence, stalking, and power-imbalanced sexual/romantic relationships between faculty and students are strictly prohibited within the SUNY New Paltz community. We encourage students to report, confidentially discuss, or raise questions and concerns regarding potential violations. Reports can be made to the Title IX Office, the department chair and/or the dean of your school. For information on Title IX reporting and support, visit <https://www.newpaltz.edu/titleix/>. The College's Consensual Relationship Policy can be found at HR Policies.

STUDENT EVALUATION OF INSTRUCTION

You are responsible for completing the Student Evaluation of Instruction (SEI) for this course and for all your courses with an enrollment of five (5) or more students. I value your feedback and use it to improve my teaching and planning. Please complete the form during the open period on-line.

9. Building Community in a Virtual or Online Environment

Nearly all of us — students, instructors, and staff — are adjusting to a new environment of teaching and learning with more virtual or online interactions, whether in real time (via video or phone) or asynchronously. Not being together gives us additional responsibilities. Building community in a virtual teaching and learning environment can sometimes feel isolating and challenging.

Under the current conditions we will all be relying on written communication with classmates and instructors more than has been in the past. Written communication lacks the social queues and nuances upon which we have come to rely, like body language and tone of voice. This means we all have a greater responsibility to be mindful of the words and interpretations we choose.

To create as much of a sense of community as possible and to strengthen our communication during this unprecedented time, I invite you to:

Consider

- Using intentional language to justify your thoughts. Draw on scholarly or research knowledge as appropriate, and recognize that there are many forms of knowledge.
- Making generous assumptions about where people are coming from, that is, consider exercising the presumption of goodwill.
- Communicating from your own perspective.
- Giving credit where credit is due by citing and linking to resources as appropriate.
- The readability of your written communication.
- That your readers will bring their own life experiences and knowledge to what you write and may often interpret your words as well as course ideas differently than you.

Be mindful

- That none of us knows everything. It is acceptable to say that you do not know. If you are guessing, state that you do not know but provide your thinking and share your reasoning.
- Of respecting that other people have different life experiences and opinions.
- Of sharing another person's professional or personal information.



Division of Engineering Programs

- That there are different forms of written and oral communication and multiple forms of English. These range from emoticons and JPEGs to translanguaging to formal, academic writing. If you are unsure what form your instructor is asking for, ask for clarification. Part of the work of being a college student is to learn to recognize different forms of language and the power attached to them.
- That people on the other side of the screen, phone, or written communication are whole human beings.
- Of your audience. Who will read what you have written?