Maintaining Public Health

To protect the health of everyone in this class, all students are required to wear a mask or other face covering while inside campus buildings. Your mask must adequately cover both your nose and mouth. This is in keeping with the College's fall 2021 policy of an on-campus, indoor mask requirement for everyone, including those who have been fully vaccinated. A student who comes to class without a mask will be required to obtain one before returning to class. A limited number of masks may be available at designated locations on campus. Any student who refuses to wear a mask or face covering may not enter the classroom nor participate in the class. There will be no exemptions or waivers of the 100% compliance mask policy. Continued refusal to wear a mask or face covering will be reported to the Student Conduct Office based on Student Conduct Code's "Non-Compliance with Official Requests" (which includes public health policy). Masks are for both your own and for others' safety and wellbeing – please remember our campus commitment to the "We Not Me" approach, and take this simple step to protect yourself and others.

Students with temporary illnesses must work with professors and make arrangements to make up coursework.

For more information about The Pledge and expectations, go to "**Protect New Paltz: A Pledge to Stop the Spread of COVID-19**."

New Paltz
STATE UNIVERSITY OF NEW YORK
Division of Engineering Programs

EGC220 Digital Logic Lab
(3 credits*)
Fall 2021 Semester

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1. Course Information

Course Number: EGC221
Course Title: Digital Logic Lab
No. of Credits: 1
Time on Task: 45 hours
Course Designation: Undergraduate
Teaching Modalities: Seated
Course Type: Lab
Meeting Times: W 2:00 PM - 4:50 PM WH221
Course Website: http://www.engr.newpaltz.edu/~bai/EGC221/EGC221_fall.html

Corequisites: EGC220 Digital Logic Fundamentals

Catalog Description
Experiments in both combinational and sequential logic design. Breadboarding, schematic capture, and Verilog implementation of digital circuits of varying complexity. Use of software tools such as Altera Quartus II to design FPGA based circuits.

Reading Materials
None

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) and use the following WebEx link https://newpaltz.webex.com/meet/izadib

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.

II. Students will work in teams to carry out the lab projects and make an oral presentation at the end of the semester.

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
3. an ability to communicate effectively with a range of audiences	II	Marginal

4. Course Contents and Procedure

- Teams of two students will complete each lab as a unit. You are to choose your group member and assign the group to your Blackboard.
- Team members must be active in all phases of the lab. Inactive team member can be removed at the discretion of the other team member or the instructor. Inactivity of team members should be brought to the attention of the instructor.
- Lab reports need to be submitted via Blackboard. Each team is to submit one lab report by the due date.

♦ **Attendance**: I strongly advise against missing any labs. If you miss a lab, it is your responsibility to obtain assignments and other information given on that day. You will not be penalized for the first missed lab. However, each additional missed lab will result in loss of 5% of the overall grade up to a total of 15%.

♦ Common courtesy is expected in class. Please turn off your cell phone or put it on silent mode while in class.

♦ **Last Day to Withdraw without Grade Penalty** for fall semester is October 29

Assignments will be posted on the course web site:
http://www.engr.newpaltz.edu/~bai/EGC221/EGC221_fall.html

The students should review the lab prior to the scheduled lab period and be prepared for the lab. A brief overview of the lab experiment will be given at the beginning of each new lab session. Tentative lab schedules are as follows:

Lab number	**Title**
1	Basic Logic Gate Simulation (Word) (PDF)
2	Basic Logic Gate Physical Verification (Word) (PDF)
3	Combinational Logic Circuits (Word) (PDF)
4	Combinational Logic Circuit Reduction (Word) (PDF)
5	Arithmetic Circuits Using Altera Quartus II (Word) (PDF)
6	Hierarchical Logic Design Using Altera Quartus II (Word) (PDF)
7	Arithmetic Logic Unit (ALU) Schematic Implementation (Word) (PDF)
8	Arithmetic Logic Unit (ALU) Verilog Implementation (Word) (PDF)
9	Sequential Design Using Verilog (Word) (PDF)

5. Grading

Category	Weight
Lab reports	80%
End of semester oral presentation	20%
Total	100%

Total Point	Final Grade
92% - 100%	A
89% - 91%	A-
86% - 88%	B+
82% - 85%	B
79% - 81%	B-
76% - 78%	C+
72% - 75%	C
69% - 71%	C-
Below 69%	F

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 ACCOMOODATIONS

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 expectation 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.
- 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?