Math 19, Discrete Mathematics
Section 33392, Spring 2022, 4 units

Class Meetings
This class meets Mondays & Wednesdays, 12:30 – 2:35 pm synchronously using Zoom, from Monday, January 31 through Wednesday, May 18. We will also meet in Zoom on Wednesday, May 25, from 11:50 am – 1:50 pm for the final exam. The link https://wvm-edu.zoom.us/j/92864683408 in the Canvas Calendar on each class day will take you to the Zoom class session. If you are asked for a Zoom passcode, use Math19. You are expected to be present at all the Zoom sessions. If you require some flexibility in attendance, please contact me.

Participation expectations
Perhaps one of the reasons you are taking an online course is due to your busy schedule. I get that! But as the instructor, I must abide by the College policy on participation:

“Students are expected to attend all sessions of each class. Instructors may drop students from the class if they do not attend the first class, or when accumulated unexcused hours of absence exceed ten percent of the total number of hours the class meets during the semester. Moreover, an instructor may drop from the class any student who fails to attend at least one class session during the first three weeks of instruction.”

So, what does this mean for our class?

Participation in the first week of class: One of the ways I know you are present for the first week of class is to have you “check-in” on Canvas. This could be done by submitting a post to the “Set of You” discussion forum or by submitting the agreement form (see Canvas Modules for Week 1) or by submitting the first homework assignment (due Monday, February 7). Please reach out to me if you are not able to post/submit, so that we can discuss and make other arrangements for you. Students who do not post/submit anything between January 31 and February 7 may be dropped from the class.

Ongoing participation throughout the semester: To avoid being dropped for non-attendance throughout the course, please attend Zoom sessions every Monday and Wednesday, log into our Canvas course regularly, actively take part in assigned discussion forums, and submit homework/exams when they are due.

If you don’t contribute to two consecutive assignments and you don’t communicate with me, I may drop you from the course to avoid you having a failing grade on your transcript.

When I see that you have been inactive in the class, I will reach out to you; however, if a major life event or illness occurs, or you are not taking part because you don’t understand something, please contact me as soon as possible so that we can work on a strategy together. If there is anything I can do to help you get back on track, I want to do it, so please reach out if you find that you are struggling!

Video: Use of your video camera during our Zoom class meetings is strongly encouraged so that our sense of connection and community may be enhanced. It is OK if you need to turn off your camera sometimes; I trust that you will be connected and taking part even when we cannot see you. Please be sure to upload your photo or avatar to Zoom so that we can still feel connected when your camera is off.
Information about your Instructor

- Instructor: Betty Weiss
- WVC Faculty webpage for Betty Weiss
- For more course information, please login to Canvas.

Communication Plan

- You can contact me by email or by using the Canvas Inbox and I will respond within 24 hours, often sooner. Be sure to mention your name and that you are in Math 19 (it’s not useful to say “I’m in your math class” as I teach a lot of different math classes!).
- You can leave voicemail at (408) 741–2596. State your full name and that you are in Math 19.
- If you cannot reach me and have an urgent concern, please reach out to the math department chairperson by email rebecca.hiller@wvm.edu.
- **Student hours (to meet with me one-on-one online) are Tuesdays & Thursdays 12:45-2:30 pm, or at other times by arrangement. To schedule a meeting during these times, go to the Canvas Calendar and click on the Find Appointment button. When you schedule, you will see the link to the Zoom meeting for student hours which is different from the class meeting link. To arrange a meeting at other times, email me and I will do my best to accommodate your schedule.**
- I will grade your submitted work and give you feedback in Canvas within one week after the due date, and often sooner.
- Please check Canvas at least once a week to see class announcements and discussions or set your Canvas notification preferences to receive class announcements either by email or text.

Course Information

**Catalog Description:**
This course covers fundamental topics for Computer Science, such as logic, proof techniques, sets, introduction to computer programming, basic counting rules, relations, functions and recursion, graphs and probability trees. Prerequisites: Math 001 or Math 002. Advisory: Math 3A.

**Course Objectives:**

- Solve counting problems by appropriate formulas and methods.
- Apply matrices to analyze graphs and trees.
- Use sets to solve problems in combinatorics and probability theory.
- Use mathematical induction to prove theorems.
- Use recursion to analyze algorithms and programs.
- Write proofs using symbolic logic and Boolean Algebra.
- Use finite state machines to model computer operations.
- Identify, classify and manipulate relations and functions, sequences and series, and matrices.

**Student Learning Outcomes:**

- Determine whether two expressions in either propositional or predicate logic are equivalent through the use of truth tables or rules of logical equivalence.
- Given a graph find a Hamilton or Euler path.
- Given two graphs, check to see if they are isomorphic.
**Why Take Math 19?**
Discrete Mathematics involves the study of logic, sets, algorithms, proof techniques, counting techniques, recursion, sequences, functions, relations, discrete graphs, trees, and finite state machines, among other topics. It can help prepare you for future coursework in computer science as well as for upper-division math classes that may involve mathematical proofs. A strong discrete math background is important for many careers including data analytics, computer security, software engineering, graphics, and many other STEM fields.

**Required Course Materials**
- Purchase the textbook “Discrete Mathematics and its Applications” by Kenneth Rosen, ISBN 9781259676512. You can use either the 8th or the 7th edition of the textbook. An e-book (Smart Book) is also available from the publisher. To buy the e-book, go directly to the publisher’s website rather than through the campus bookstore: https://connect.mheducation.com/paamweb/index.html#/registration/signup/b-weiss-2019. Fill out the Connect registration information and on the next page click on the BUY IT or RENT IT button.

The college Library has textbooks for many courses available to loan out for the term as well as laptops, Surface Gos, hotspots and graphing calculators. Go to the library’s Textbooks ‘n’ Technology page to find out which courses have books available for loan this term and complete the forms to check out technology.
- You will need a calculator that can do factorials, combinations, and permutations.

**Graded Coursework**
- **Homework:** You will be doing homework from the textbook and then submitting your written answers as an assignment on Canvas, as a single pdf file. The list of homework problems to complete will be posted in Canvas Modules. Due dates for homework will be on Mondays and Fridays; these dates will appear in the Canvas calendar and syllabus. The lowest two homework grades will be dropped from the Canvas gradebook. I will be grading some homework problems from each section for correctness and completeness; the graded work with comments for you will be visible in Canvas.
- **Homework corrections:** Each graded homework problem can be redone once; submit your corrections (as a new upload to the same assignment box) to make up points that you missed. These “redos” are due by the date of the exam that includes that section, but it is recommended that you turn them in before the exam, to get graded feedback and be able to study them.
- **Lateness:** Homework and redos are accepted late but you will lose 10% of the points each day.
- **Discussion forums:** We will have 7 graded Canvas Discussions. Check in early each week (by Tuesday evening) to see what that week’s discussion is about and make a first post by Wednesday. Then check back later in the week to read classmate’s posts and reply by Sunday.
- **Exams:** There will be 4 timed exams. The exam dates are February 23, March 16, April 20, and May 11. Contact me as soon as possible if you are not able to make one of these dates. If you miss one exam with a valid excuse, I will replace that exam score with your final exam score.
- **Final exam:** The cumulative final exam will be Wednesday, May 25 from 11:50 am – 1:50 pm.
• **About due dates**: Due dates are very important, both to help keep you on track to learn the material and to be fair to all students. However, if you have extenuating circumstances let me know as soon as possible. We can work together to find solutions.

**Honesty is the foundation of academic work**

Occasionally, you may feel overwhelmed by the amount of work you need to carry out. If you cheat, you may get a warning, receive no credit for the assignment, or be referred to the Vice President of Student Services for disciplinary action. You would also be devaluing your resulting degree when you enter the workforce or transfer and cannot meet the expectations that your degree requires.

Here are some examples of what you should and should not do:

What not to do

· Do not pay someone to take a test or quiz for you. Recent reports show that people who take exams for pay by students may end up "blackmailing" those students in a variety of situations. For example, if the student defaults on the agreed amount of compensation, does not buy more services, etc., these people have been known to notify the college of the misbehavior of students caught in this kind of trap.

· Do not use applications like Chegg, Course Hero or Photomath to find answers on tests or quizzes. If I suspect that your work is copied from an application, you will receive a zero on that problem and be reported to the college.

· Do not copy answers or work from another student or an answer key.

· Do not ask another student to do your work for you.

What to do

· Trust the value of your own intellect.

· Show your own achievement and abilities.

· Ask for help from me, or for more time if you need it!

**You will be asked to agree to an honor code at the beginning of the semester saying you will only turn in your own work and not share questions or answers.** It is easy to tell when you are doing so, and many students have learned this the hard way.

**Grading**

Your grade will be a weighted average of homework (15%), discussion forums (10%), exams (60%), and the final exam (15%). The grade scale will be 90–100% A, 80–89% B, 70–79% C, 60–69% D, 0-59% F. Grades will be recorded in the Canvas gradebook; check there to track your progress.

**Learning Support/Tutoring**

West Valley College’s [Success Center](#) and [Math Resource Center](#) offer FREE tutoring! Visit their websites for more information about tutoring support available to you online. To receive free tutoring through the Success Center, visit their Canvas course. For the Math Resource Center tutoring, you must add the free 0-unit course LRSV 110M, CRN 33540 through the Portal. NetTutor in Canvas is also a free online tutoring service available 24/7.
Important Dates

- Last day to ADD this class: February 13
- Last day to DROP this class without a “W” and with a refund: February 13
- Last day to DROP this class with a “W:” April 29
- FINAL EXAM for this class: Wednesday, May 25, 11:50 am – 1:50 pm.

Accommodations for a Disability
West Valley College is here to support you, and we want to make all learning experiences as accessible as possible. If you think you may run into academic barriers because of your disability (including permanent disabilities or chronic or temporary medical conditions), please let me know so we can privately discuss your options and create a plan that works for you. You may also want to register with the Disability and Educational Support Program (DESP). West Valley College’s DESP program is known for going the extra mile to support students, and they will work with you to set up reasonable accommodation for qualifying disabilities.

Disability and Educational Support (DESP) Contact Information
The DESP office is in the Student Services building. Their phone number is (408) 741-2010 (voice) or (408) 741-2658 (TTY).

Student Help and Support
West Valley College has many Student Services that are here to support your success and help you achieve your goals. College students often experience issues that may interfere with academic success such as stress, juggling responsibilities, life events, relationship concerns, sleep problems, or feelings of anxiety, hopelessness, or depression. All of us benefit from support during times of struggle – you are not alone. Helpful, effective resources are available for all students, and an important part of the college experience is learning how to ask for help. Getting help is the smart and courageous thing to do – for yourself, and for those who care about you.

- You can learn more about the broad range of confidential mental health services for students on the Health Services webpage, including tele-mental health, anonymous online screenings, training and resources such as TAOConnect and Kognito, and online/local information and resources.
- National Suicide Prevention Lifeline (800) 273-TALK (8255)
- National Crisis Text Line: text “COURAGE” to 741741

West Valley College Policies
It’s important for you to be aware of policies in the West Valley College Catalog. Below are a few key policies from the Rights and Responsibilities section you should know about.

- Attendance: Know that instructors may drop any student who does not attend the first class, who has missed any one class during the first three weeks of instruction, or who has missed more than ten percent of the total class hours for the semester.
- Registration and Drops: Understand that it is your responsibility to make sure you are registered and/or dropped from any class by the deadlines listed in the schedule of classes.
- Withdrawal from a class: Make sure you know the last day to drop with a W (put that date in your calendar!). Even if you ask an instructor to drop you, it is still your responsibility, so double-
check your enrollment status in the Portal. It’s important to know that instructors must *issue a grade* for any student still enrolled after the last day to drop.

- **Academic Dishonesty:** Understand what this means—it includes in-class cheating, out-of-class cheating, plagiarism, helping another student in cheating or plagiarism, or knowingly giving false information to college staff, faculty, administrators or other officials. You can receive a failing grade for the assignment if there is reasonable proof or documentation of academic dishonesty. Please seek help with your coursework from your instructor or a tutor instead of cheating.

**West Valley College Nondiscrimination Statement**

The District, and each individual who represents the District, shall provide access to its services, classes and programs without regard to national origin, religion, age, sex or gender, race, color, medical condition, ancestry, sexual orientation, marital status, physical or mental disability, or because he/she is perceived to have one or more of the foregoing characteristics, or based on association with a person or group with one or more of these actual or perceived characteristics.