**MATH 2225-091 Discrete Math Fall 2020 - Online**

Dr. Judith A. Vogel vogelj@stockton.edu

**Class:** W 9:55 – 11:10am (synchronous class meeting)

F 9:55 – 11:10am (optional office hour)

**Text:** Rosen – Discrete Mathematics 7th edition

**Class Format**: We will have one synchronous meeting a week that will provide a synopsis of topics from the previous week and an overview of topics for the current week. Each synchronous meeting will also host a quiz that will be taken in-class remotely. These should be taken seriously as they are worth a significant portion of your final grade. All lecture material will be pre-recorded so that you can watch them at a time which is best for your learning needs.

**ADVICE**: Here is my best advice for success in this class. KEEP UP WITH THE MATERIAL!!!

I know it is sometimes hard to sit down and focus on prerecorded videos, but if you watch them faithfully, I think you will find that they are clearer and more detailed than any in-person lecture could be. Discrete is a course where the material is eclectic and topics change dramatically throughout the semester. If you fall behind, it’s hard to catch up especially when the class has moved on to something new. If you need help developing a study plan, have coffee with me one morning, and we can come up with some ideas!

**Coffee Chats:** I’m up early every morning. (I live on a farm…so the animals have to be fed!)

If you ever want to “meet” me for coffee, just drop me an email, and we can pick a time that works for both of us. This doesn’t have to be for help. This can just be a time to connect.

**Learning Objects:**

\*Students will learn fundamental math skills relevant to discrete objects in a variety of introductory topics including Logic Systems, Set Theory, Number Theory, Matrix Theory, Sequences and Summations, Counting, and Probability.

\*Students will apply methods of proof across all course topics.

\*Students will develop and understanding of how course material relates to broader mathematical topics and other disciplines including computer science and the law.

\*Students will be given sufficient preparation for follow-up courses including *Foundations of Mathematics* and *Foundations of Computer Science.*

**Assessments:**

* Midterm 30% in-person (on campus) Oct. 23rd
* Final 30% in-person (on campus) Dec. 11th
* Quizzes 25% in-class (online) Every Wednesday
* Skill Drills 10% complete on own time 2-3 per week
* Engagement 5%  **Details of each described below**

**Midterm/Final:** There will be two exams in our class, a midterm and a final. As of right now, these exams will be held in-person on campus. If circumstances change, we will adapt these exams to online synchronous.

**(Big) Quizzes:** There will be an in-class (remote) quiz given every Wednesday. These will be significant assessments that will cumulatively count almost as much as an exam grade. These should be thought of as mini-exams…but that sounds too scary so I’m calling them Big Quizzes.

**Skill Drills:** 2-3 times a week you will be assigned a Skill Drill on material covered. This will be a short handout that addresses specific material covered in that week’s lessons. Students will be prepped for each Skill Drill during the previous class. Skill Drills will be accepted late but you will be docked 1 point for late submissions. You will also need to submit late Skill Drills prior to posted solutions.

**Homework:** For every section covered, there will be homework assigned from the textbook. You are responsible for completing this homework on a regular basis. The only way to learn mathematics is to do mathematics. You absolutely need to practice the skills learned in class. A detailed homework schedule is provided at the end of this syllabus. Homework will only be counted for completeness not correctness.

**Engagement:** Your engagement grade will be based on attendance at our Tuesday remote meetings, proof that lecture videos were watch, turned in homework assignments.

**Office Hours:** I will hold office hours remotely every Friday during class time. I will also be available remotely by appointment. I will do everything I can to help you succeed in this class. Just ask for help!

**Tutoring:** Please avail yourself of the math tutoring center in lower J-wing. The tutors are friendly, intelligent, and FREE! It’s a great place to study and get help. If you are not coming to campus, the tutoring center will have remote tutoring opportunity.

**Important Dates:**

Sept. 8: T First Day of Class

Sept 14: M Last day to withdraw with 100% refund.

Oct 27: T Preceptorial advising. No Class.

Nov 4: W Preceptorial advising. No Class.

Nov 16: M Last day to withdraw with a “W” grade.

The following grading scale is used in determining your final letter grade:

**90 – 100 A Please note that there is a**

**80 – 89 B Plus/Minus Grades are given sliding scale to my grading scale**

**65 – 79 C at the instructor’s discretion. highlighted in red.**

**60 – 64 C-**

**50 – 59 D**

**< 50 F**

**Academic Honesty:** I do not tolerate cheating of any kind. This includes unauthorized student to student help, the use of unauthorized electronic devises, the use of unauthorized material on quizzes and exams, misrepresenting work, that is not your own, as original, etc. In this new remote climate, it is tempting to cheat. Don’t do it! I will follow through on suspected cheating. Your integrity is an important part of your learning experience. **See the College guidelines on Academic Honesty.**

<http://talon.stockton.edu/eyos/page.cfm?siteID=14&pageID=62>

**Special Needs:**

Students who seek accommodations should make their request by contacting the Learning Access Program located in J-204 or by calling 609-652-4988. If you are concerned that you have a disability that will affect your learning in this class, contact Robert Ross, Carol Quinn, or Fran Bottone in the Learning Access Program (J-204;609-652-4988) to learn about your options. Additional information on the program may be obtained from: <http://intraweb.stockton.edu/eyos/page.cfm?siteID=61&pageID=5>

**Mental Health:** We are living through a challenging time. I am a professor interested in helping you succeed in our class, but I am also a mother who understands the strain and anxiety that we are all experiencing. If you need to talk or need special consideration due to the climate of the world, please reach out to me. I will do my best to help and/or direct you to someone who can help.

**Safe Space:** I try to create a classroom that is a safe space for my students, both with regards to my course and your entire academic experience. This doesn’t change in an online environment. If you are experiencing any situation that makes you feel unsafe, please contact me, and I can help direct you to the resources that can help.

**Rosen 7th edition**

**Homework to be completed following appropriate lecture**

* 1. 1,3,5,**8**,11,12, **14**,17,19, 23, 27,31,34,37abc **( Turn in: 8f,h 14c,e,f )**
  2. 1,**3**,7,15,17 **( Turn in: 3 )**

1.3 1,3,5,6,**9**,15,20,28,31,34,36 **( Turn in: 9a )**

1.4 1,3,5,6,7,**8**,9,10,11,**14**,15,17abc,21,24,27 **(Turn in: 8a,c 14 )**

1.5 **1**,3,5,9,13a-I,26,27,**33**  **( Turn in: 1, 33d )**

1.6 3,**5**,7,9,13,15,19 **( Turn in: 5 )**

1.7 1,**2**,3,5,6,7,10,11,13,14,15,16,17,**18**,19,20,21,27,29 **( Turn in: 2, 18a )**

1.8 1,3,7,**8**,9,13,**14**,38 **(Turn in: 8, 14)**

2.1 1,2,5,**7**,9,17,19, **20**,**22**,27,30,31,35,36,38,42 **( Turn in: 7, 20, 22 )**

2.2 **1**,3,5,11,15,**19**, 21, 22, 25,29,32,34,37,45,47 **( Turn in: 1,19 )**

2.3 **1**,2,4ab,5d,10,11,12,21,22,30ab,32,33a,36-40,42ab,43ab,45 **( Turn in: 1 )**

2.4 1-**4**,5abf,7,25acdef,29,30,31,**33**,35,39 **(Turn in: 4, 33a)**

2.6 1-**4**,5,7,8,10,11,14,18,19,20,27 **(Turn in: 4a)**

(class assigned operation count)

4.1 1-4,5explain,6,**7**,8,9,15,20,21,26,28,35 **(Turn in: 7)**

4.2 1-5 do for bin,oct,hex, 7,9,17(look at 16),51,52 **(Turn in: 4)**

4.3 1,3,5,14,16,17,18,**21**,25,27,28,30 **(Turn in: 21)**

5.1 3,4,**5**,11,15,18,21,31 **(Turn in: 5)**

5.2 3,4

6.1 1-9odd,15,21,25,**26**,27,29,31,33,35,37,40,46 **(Turn in: 26)**

6.2 1,3,**4**,5,9,13-16,19 **(Turn in: 4)**

6.3 1,3,5,6,7,9,10,13,**15**,18,26,27,31 **(Turn in: 15)**

7.1 1-10,12,13,21,22,25a,31,37  **(Turn in: 7)**

7.2 1-3,5, 6,28,31 **(Turn in: 2)**

**Please note the homework to be turned in is NOT necessarily representative of the “most important” concepts. Its purpose is to keep students on task and to encourage faithful completion of all the homework assignments.**