**Course Policy Statement** SA403: Graph and Network Algorithms Fall 2021

**Course Coordinator**: Asst. Prof. Rob Curry

**Instructor:** Asst. Prof. Rob Curry **Office:** CH311 **Email:** [rcurry@usna.edu](mailto:rcurry@usna.edu)

**Phone:** 3-6712 (email is better) **Class hours:** Section 1201: TR8

**Class location:** MI090

**Textbook:** None. I will provide course notes and various other resources throughout the semester.

**Office Hours:** T/Th 0910-0955 (immediately after class), 1110-1200, and 1230-1315 orby appointment. There’s a good chance I’ll evening EI that’s TBD.

**Google Classroom:** We will be using Google Classroom this semester. I will distribute class materials via Classroom, and you will turn in all your assignments using Classroom.

**Class Semester Schedule:** This class will be organized into three blocks.

--During the first six weeks, we will introduce and study foundational network algorithms. To study these algorithms we will consider a small example, work through algorithms for solving this example, and finally code the algorithm being studied. This block will culminate with the 6-week midterm exam.

--During the second six weeks, we will study various applications of network and graph algorithms. During this time, you will be able to creatively model and implement the algorithms (other possibly others) that you learned during the first six weeks. This block will end with the 12-week midterm exam

--During the remaining weeks, you will be working on your group project. This group will be more open-ended than the assignments from the second block. You will be required to write a paper detailing your work, create and make a presentation, and submit your final code.

**Practice Problems:** I will give you a list of practice problems and a practice problem schedule. You will receive these practice problems at the beginning of each week, and they will be due each Thursday by 1700. Practice problem assignments will be graded for participation. The practice problem assignments are used to allow you to practice and master your skills without the stress of being right or wrong. These assignments are to be completed individually. Each practice problem assignment will be graded out of 1 point.

**Homework:** You will have a series of homework assignments throughout the semester that will be graded for correctness. All homework assignments will be completed in **pairs**, but each of you must turn in your own submission. Since these assignments are groupwork, your submissions can be identical. You will receive the homework assignment at the beginning of each week, and they will be due the following Tuesday. Each homework assignment will be graded out of 20 points.

**Homework Resubmissions:** You can resubmit **all** homework assignments (at most once) for each grading period (6-week, 12-week, and End-of-Semester) as a pair. You can receive up to half of the points you were deducted. (For example, if you received a 14/20 for your first submission, the maximum number of points you can receive after the second submission is 17/20.) These resubmissions can be submitted individually or as the original pair. You can resubmit your homework up to one week after you receive your score from the first submission.

**Practice Problem & Homework Example Schedule:**

In Week 3, Week 2’s homework assignment will be due on Tuesday, and Week 3’s practice problems will be due on Thursday.

**Mid-term Exams:** There will be two mid-term exams, as indicated on the course schedule. We will not be having quizzes this semester. All mid-term exams will be a combination of computational and coding questions to test your knowledge and implementation of the algorithms covered in the course.

**Exam Resubmissions:** You can resubmit each of the two mid-term exams. You can receive up to half of the points you were deducted. (For example, if you received a 75/100 for your first submission, the maximum number of points you can receive after the second submission is 87.5/100.)

**Final Project:** There will be an end-of-semester final group project that will require you to piece together all of your skills obtained throughout the semester. More information to come after 6-weeks.

**Final Exam:** There will be a common final exam for all midshipmen in SA403.

Grade Criteria:

* **6-Week Grade Criteria:** 30% Exam #1, 40% Homework, 20% Practice Problems, 10% Participation
* **12-Week Grade Criteria:** 25% Exam #1, 25% Exam #2, 30% Homework, 15% Practice Problems 5% Participation
* **End of Semester Grade Criteria:** 25% Exam #1, 25% Exam #2, 35% Homework, 10% Practice Problems, 5% Participation
* **Final Course Grade:** X = 0.60 (Semester Grade), 0.1 (Final Project Score), and 0.30 (Final Exam Grade). Your final grade is A if X ≥ 93, A- if X ≥ 90, B+ if X ≥ 87, B if X ≥ 83, B- if X ≥ 80, C+ if X ≥ 77, C if X ≥ 73, C- if X ≥ 70, D+ if X ≥ 67, D if X ≥ 60, and F otherwise.

**Computers and Cell Phones:** To minimize distractions to yourself and others, please observe the following technology protocols:

* Cell phones should be silenced and put away during class.
* Computers are not allowed in class unless we are using them for class assignments. I will let you know in advance if you should bring your computer to class.
* Research shows that humans are not able to “multi-task,” so I hope to help you (and myself) to focus on a single task at a time.

**Strategies for success:**

* *Attend class with a focused intent to learn.*
* *Actively engage in class/group discussions and assignments.*
* *Seek assistance when needed, either from me or other midshipmen.*
* *Please communicate with me if you experience difficulties that may affect your academic performance.*
* *Ask lots of questions!*
* *Ask many questions!*
* *Ask tons of questions!*
* *Please alert me if you are confused or do not understand. I am not (always) able to read your mind or blank stares. I am happy and willing to take whatever time is needed for you to understand the material at hand.*
* *Be curious!*
* *Don’t be afraid to give the wrong answer in class!*
* *Engage with the material on a daily basis! Even if only for 10 minutes.*

**Academic Honesty and Collaborating:** Collaborating outside of class to understand and work through the more challenging homework problems is expected and encouraged, *per the following guidelines*.

You may:

* Sit next to a classmate, discuss the homework, and figure things out together.
* Sit next to a classmate to code, discuss the code and syntax, and help to debug each other’s code.

However, you MUST:

* Write every solution in your own words (unless the assignment is explicitly defined as groupwork).
* Type in *all of your own code*. The only exception to this rule is that I will give you starter code for the VBA projects.
* Cite all resources. For example, it is sufficient to write: “Joe from class suggested these variables” or “my roommate helped me understand this constraint” or “Professor Curry helped me with the syntax” or “I Googled this and found another way to …”.

***I will assign a grade of zero*** on any assignment for which there is evidence that it has been copied in part or entirely from another classmate or any other source.

**Testing policy:** All quizzes, tests, and the final exam are closed book with no consulting of others. The use of calculators is permitted in support of all work unless otherwise stated. *I will assign a grade of zero* on any quiz or test for which there is evidence of cheating.

**Class Ombudsperson:**

**Further guidance regarding academic honesty** is available in Policies Concerning Graded Academic Work (USNAINST 1531.53B) and Brigade Honor Program (USNAINST 1610.3J).

**Professionalism**:

I expect a high level of professionalism in class, especially behavior that is cooperative and respectful of everyone. It is often unclear how to address civilian professors in our setting; it is appropriate to call me Professor, Professor Curry, Dr. Curry, or Sir. I will call you by your preferred first name. If this is different from what is listed in MIDS, then please make this clear in class or via email.

Sleeping, arriving late, using technology inappropriately, and engaging in any other distracting or disruptive activities are unacceptable classroom behaviors. Please do not use profane or suggestive language in the classroom. Please do not belittle “dumb” questions. Class debates/discussions are helpful and productive, but personal attacks are not. *Request permission to miss class as soon as you know that this may occur.*

As midshipmen, you may have the best response/solution to a problem, but that response must be effectively communicated; therefore, I expect that each assignment (homework, quizzes, exams, projects, etc.) be neat, professional, legible, and on-time. I reserve the right to penalize unprofessional or illegible responses to any assignment. *Hint*: Make sure I can clearly read all your work. Additionally, you may not use/re-use any materials from previous offerings of this course.

**Flexibility**: We (faculty and midshipmen) all need to be a little bit flexible. Indeed, if necessary this course policy document may change during the course. If you need an extension on an assignment, I’m generally willing to give one if you ask well in advance of the deadline or if you can show me significant partial progress towards completion of the assignment. I’ll also ask you to be flexible: we may need to adjust the schedule depending on how quickly (or slowly) we move through the syllabus. I will announce any changes in class, and update the schedule on Google Classroom as needed. That being said, I will not move up homework deadlines unless the entire section is in agreement. If a homework due date is moved, it will likely be extended. Throughout the semester, please feel free to communicate with me when the Brigade is having a particularly busy or difficult week.

**Email:** I will use email to communicate other important dates, reminders, or deadlines throughout the semester. If there are any changes throughout the semester, I will make these changes to the course policy/syllabus, as well. Please make sure you are receiving important class emails via the course’s distribution list. You are responsible for all email messages sent by the instructor. If midshipmen elect to forward campus mail to an off-campus account the midshipman remains responsible for these messages regardless of whether or not they are successfully delivered. I do advise you all primarily use your usna.edu email account for corresponding with faculty. It is not uncommon for emails from unknown email accounts to be forward to a spam/junk folder.

**Title IX:** The United States Naval Academy is committed to a policy of equal opportunity for all personals and does not discriminate on the basis of race, color, religion, sex, sexual orientation, gender, pregnancy, national origin, age, disability, veteran status, genetic information, or protected activity (e.g., opposition to prohibited discrimination or participation in any complaint process, etc.) in employment, educational programs and activities, admissions, and financial aid. This includes a prohibition against sexual harassment and sexual violence as mandated by Title IX of the Educations Amendments of 1972. If you experience in such discrimination, please feel free to reach out to me, your advisor, or the midshipmen resource center. I seek to take such discrimination as serious as possible.

**This course policy is subject to change at the discretion of the instructor. If changes are made, they will be clearly communicated to the midshipmen in the section. If any portion of the course policy is unclear, please ask for clarification.**